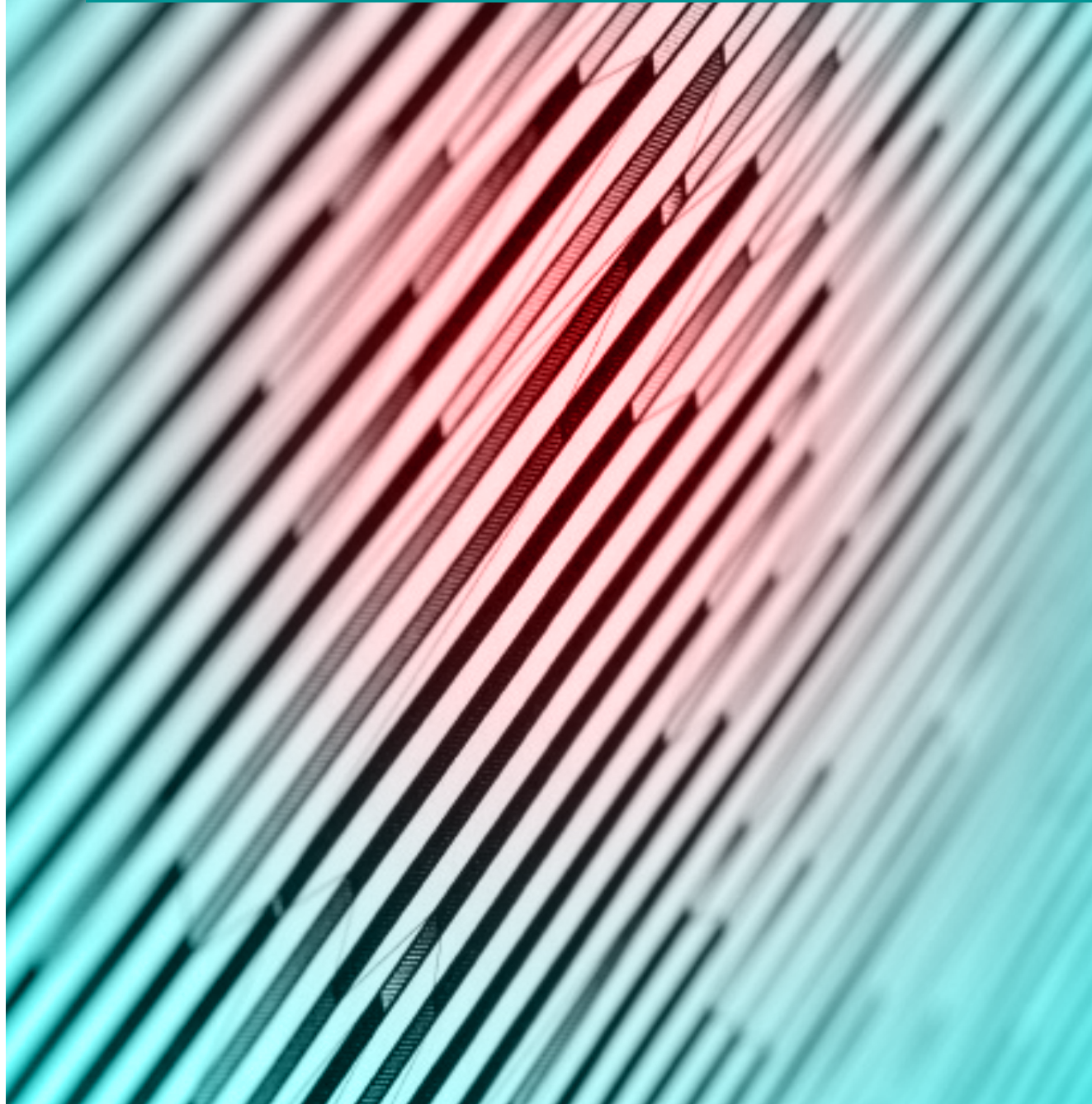


Statistics

World energy balances



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World energy balances

2019

TABLE OF CONTENTS

INTRODUCTION	v
---------------------------	---

WORLD ENERGY BALANCES: AN OVERVIEW	vii
---	-----

PART I: EXPLANATORY NOTES

1. Methodological notes.....	I.3	3. Notes on data quality	I.19
2. Units and conversions.....	I.15	4. Geographical coverage	I.23

PART II: ENERGY BALANCES AND INDICATORS BY REGION AND COUNTRY

WORLD AND REGIONAL TOTALS

World.....	II.4	Asia.....	II.10
Africa.....	II.6	Europe	II.12
Americas.....	II.8	Oceania	II.14

OTHER REGIONAL TOTALS

IEA	II.18	Non-OECD Total.....	II.36
IEA and Accession/Association countries	II.21	Non-OECD Americas.....	II.38
OECD Total.....	II.24	Non-OECD Asia (excluding China).....	II.40
OECD Americas.....	II.27	China (P.R. of China and Hong Kong, China)	II.42
OECD Asia Oceania.....	II.30	Non-OECD Europe and Eurasia	II.44
OECD Europe.....	II.33	Middle East.....	II.46

OECD COUNTRIES

Australia	II.50	Korea	II.104
Austria	II.53	Latvia	II.107
Belgium	II.56	Lithuania	II.110
Canada	II.59	Luxembourg	II.113
Chile	II.62	Mexico.....	II.116
Czech Republic.....	II.65	Netherlands.....	II.119
Denmark	II.68	New Zealand.....	II.122
Estonia	II.71	Norway	II.125
Finland.....	II.74	Poland.....	II.128
France	II.77	Portugal	II.131
Germany	II.80	Slovak Republic	II.134
Greece	II.83	Slovenia	II.137
Hungary	II.86	Spain.....	II.140
Iceland.....	II.89	Sweden	II.143
Ireland.....	II.92	Switzerland.....	II.146
Israel	II.95	Turkey	II.149
Italy.....	II.98	United Kingdom.....	II.152
Japan.....	II.101	United States.....	II.155

ASSOCIATION COUNTRIES

Brazil	II.160	Morocco	II.172
China, People's Republic of.....	II.163	Singapore.....	II.175
India.....	II.166	South Africa	II.178
Indonesia	II.169	Thailand.....	II.181

OTHER NON-OECD COUNTRIES

Albania	II.186	Bangladesh	II.200
Algeria.....	II.188	Belarus.....	II.202
Angola	II.190	Benin.....	II.204
Argentina	II.192	Bolivia	II.206
Armenia	II.194	Bosnia and Herzegovina	II.208
Azerbaijan.....	II.196	Botswana	II.210
Bahrain	II.198	Brunei Darussalam	II.212

Bulgaria	II.214	Montenegro	II.300
Cambodia	II.216	Mozambique	II.302
Cameroon	II.218	Myanmar	II.304
Colombia	II.220	Namibia	II.306
Congo	II.222	Nepal	II.308
Costa Rica	II.224	Nicaragua	II.310
Côte d'Ivoire	II.226	Niger	II.312
Croatia	II.228	Nigeria	II.314
Cuba	II.230	North Macedonia, Republic of	II.316
Curaçao	II.232	Oman	II.318
Cyprus	II.234	Pakistan	II.320
Democratic People's Republic of Korea	II.236	Panama	II.322
Democratic Republic of the Congo	II.238	Paraguay	II.324
Dominican Republic	II.240	Peru	II.326
Ecuador	II.242	Philippines	II.328
Egypt	II.244	Qatar	II.330
El Salvador	II.246	Romania	II.332
Eritrea	II.248	Russian Federation	II.334
Ethiopia	II.250	Saudi Arabia	II.336
Gabon	II.252	Senegal	II.338
Georgia	II.254	Serbia	II.340
Ghana	II.256	South Sudan	II.342
Gibraltar	II.258	Sri Lanka	II.344
Guatemala	II.260	Sudan	II.346
Haiti	II.262	Suriname	II.348
Honduras	II.264	Syrian Arab Republic	II.350
Hong Kong, China	II.266	Chinese Taipei	II.352
Iran, Islamic Republic of	II.268	Tajikistan	II.354
Iraq	II.270	Tanzania	II.356
Jamaica	II.272	Togo	II.358
Jordan	II.274	Trinidad and Tobago	II.360
Kazakhstan	II.276	Tunisia	II.362
Kenya	II.278	Turkmenistan	II.364
Kosovo	II.280	Ukraine	II.366
Kuwait	II.282	United Arab Emirates	II.368
Kyrgyzstan	II.284	Uruguay	II.370
Lebanon	II.286	Uzbekistan	II.372
Libya	II.288	Venezuela	II.374
Malaysia	II.290	Viet Nam	II.376
Malta	II.292	Yemen	II.378
Mauritius	II.294	Zambia	II.380
Moldova	II.296	Zimbabwe	II.382
Mongolia	II.298		
NET CALORIFIC VALUES			II.385
COUNTRY NOTES AND SOURCES			II.405

PART III: SUMMARY TIME SERIES

Production	III.2	Gross domestic product (GDP)	III.125
Net imports	III.32	Population	III.131
Primary energy supply	III.47	Energy production/TPES	III.134
Electricity generation	III.62	TPES/GDP	III.137
Final consumption	III.86	TPES/population	III.143
Industry consumption	III.101	Electricity consumption/GDP	III.146
Transport consumption	III.116	Electricity consumption/population	III.149

ANNEX: ADDITIONAL BALANCES

Equatorial Guinea	A.6	Mali	A.12
Greenland	A.8	Palestinian Authority	A.14
Lao People's Democratic Republic	A.10	Uganda	A.16

INTRODUCTION

World Energy Balances presents comprehensive energy balances for all the world's largest energy producing and consuming countries. It contains statistics on production, trade and consumption in a common unit for each source of energy for all OECD countries, the seven IEA Association countries, and over 100 other key energy producing and consuming countries, and main geographical regions, including the World. Non-OECD countries cover developing countries in Africa, Latin America and Asia, Central and Eastern European countries, and Eurasia. The consistency and complementarity of OECD and non-OECD countries' data ensure an accurate picture of the global energy situation.

Complementing the data in physical units of the sister publication *World Energy Statistics*, this book includes graphs and detailed data by country for all energy sources – coal, gas, oil, electricity, renewables and waste - expressed in balance format, for the year 2017. Alongside this, there are summary time series on production, trade, final consumption by sector, as well as key energy and economic indicators. It also presents provisional 2018 supply data for OECD countries, and initial 2018 estimates for non-OECD countries production and trade of natural gas, primary coal and oil.

In this release, energy balances and energy indicators are displayed for the world and the main geographic regions, then for OECD countries, Association countries, and finally for the other non-OECD countries.

The energy balance is a presentation of the basic supply and demand data for all fuels in a manner which shows them together but separately and expressed in a common energy unit. This allows for the easy comparison of the contribution each fuel makes to the economy and their interrelationships through the conversion of one fuel into another.

This volume has been prepared in close collaboration with other international organisations, including Eurostat, the Economic Commission for Europe of the United Nations (UNECE), the Organización Latinoamericana de Energía (OLADE), the African Energy Commission (AFREC), the Asia Pacific Energy Research Centre (APEREC), the United Nations Statistics Division (UNSD), and the Forestry Department of the Food and Agriculture Organisation of the United Nations (FAO).

While every effort is made to ensure the accuracy of the data, quality is not homogeneous throughout the publication, reflecting the availability of data. In some countries data are based on secondary sources, and where incomplete or unavailable, on estimates. In general, data are likely to be more accurate for production, trade and total consumption than for individual sectors in transformation or final consumption.

General issues of data quality, as well as country notes and sources, should always be consulted when using data. In addition, limited official data are available for 2018 from non-OECD countries, therefore estimations have been used in most cases.

Data were collected by the team in the Energy Data Centre (EDC) of the IEA Secretariat, headed by Duncan Millard until February 2019 and currently by Nick Johnstone.

Within the IEA, for OECD members, data and overviews were prepared: by Beatriz Martinez and Konstantinos Theodoropoulos with the support of Laura Mari Martinez for coal, by Aidan Kennedy for electricity, by Samantha Mead for renewables, by Angela Ortega Pastor for oil, and by Louis Chambeau and Faidon Papadimoulis for natural gas. OECD fuel data were prepared under the responsibility of Julian

Prime for coal, electricity and renewables, and under the responsibility of Erica Robin for oil and natural gas. OECD energy balances data and overviews were prepared by Rémi Gigoux, Francesco Mattion and Faidon Papadimoulis under the responsibility of Roberta Quadrelli. Non-OECD countries statistics and overviews were prepared by Nicolas Coënt, Laila El-Ashmawy, Musa Erdogan, Markus Fager-Pintilä, Julia Guyon, Byungho Jung, Nikolaos Kordevas and Claire Morel, with the support of António Carvalho, under the responsibility of Céline Rouquette.

Roberta Quadrelli and Céline Rouquette have the overall responsibility for this report. The publication and its statistics were produced by Musa Erdogan,

Julia Guyon and Faidon Papadimoulis. Desktop publishing was carried out by Sharon Burghgraeve.

We would like to thank our numerous contacts worldwide in national administrations and in public and private companies for their helpful co-operation.

Complete supply and consumption data from 1971 to 2017 and selected estimates for 2018 are available on our online data service and on USB keys. Moreover, data can also be obtained on a pay-per-view basis. Details are available at www.iea.org/statistics.

Enquiries about data, methodology, or comments and suggestions should be addressed to stats@iea.org.

What's new?

New OECD Member: Lithuania

Lithuania became an OECD Member in July 2018. Accordingly, Lithuania appears in the list of OECD Members and is included in the OECD aggregates for data from 1990.

New Association country: South Africa

South Africa joined the IEA as an Association country in November 2018. Accordingly, South Africa is now included in the IEA and Accession/Association countries aggregate for data starting in 1971 and for the entire time series.

WORLD ENERGY BALANCES: AN OVERVIEW

Global trends

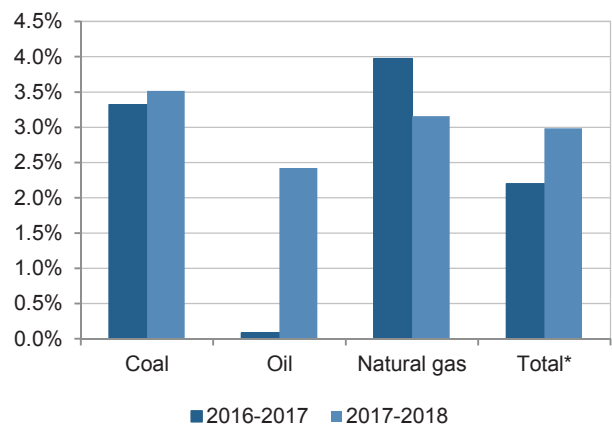
This overview provides a detailed look at energy developments based on complete supply and demand data for 2017 for more than 160 countries and regions, and where available provisional official supply or production data for 2018.

In 2017, global energy demand as measured by TPES increased significantly compared to 2016 (+1.9%) to a little less than 14 000 Mtoe. This is mainly driven by growth of demand in non-OECD countries (+2.7%), whereas energy demand rose at a slower pace in OECD countries (+0.6%). However, energy demand growth accelerated in 2018 in OECD countries (+1%), as discussed in more detail in the OECD section.

Production

For 2018, global country level production data is preliminary and restricted to fossil fuels. Based on these data, growth in the production of fossil fuels increased for the second year in a row and even accelerated (+3.0% in 2018 after 2.2% in 2017 - Figure 1). This was driven by a surge in coal production for the second year in a row after a strong decline (+3.5% in 2018 after +3.3% in 2017 and -6.0% in 2016) but also oil which grew strongly in 2018 after being flat in 2017 (+2.4% and +0.1% respectively). Natural gas production continued to grow, but at a slightly slower pace than had been the case in the previous year (+3.2% in 2018 after +4.0% in 2017). The increase in coal production was particularly strong in many regions: non-OECD Asia excluding China (+56 Mtoe, +9.3%), China (+79 Mtoe, +4.4%), and non-OECD Europe and Eurasia (+19 Mtoe, +6.0%). They more

Figure 1. Annual average change in global fossil fuels production by fuel



* In this graph total fossil fuels exclude peat and oil shale.

than compensated for the decline in non-OECD Americas (- 5 Mtoe, -7.9%), and in OECD (-17 Mtoe, -2.0%).

Oil production increased in all regions in 2018 except non-OECD Asia and non-OECD Americas, particularly in OECD (+108 Mtoe, +9.5%) and the Middle East (+20 Mtoe, +1.3%). As for natural gas, growth in OECD and Middle East (+7.1% and +3.6% respectively in 2018, +100 Mtoe combined) as well as in Africa (+2.7%, +5 Mtoe) exceeded the decline in non-OECD Asia including China (-1.4%, -5 Mtoe).

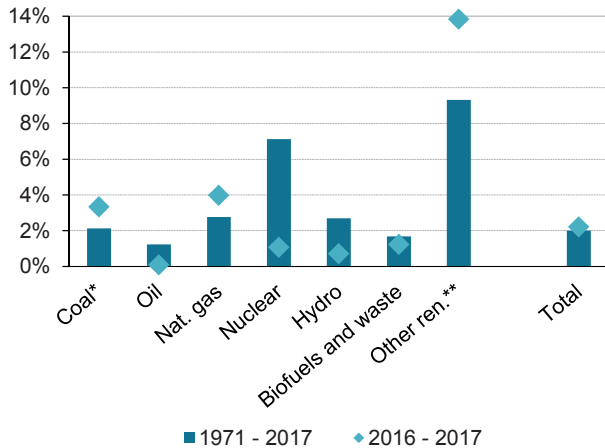
The remainder of this section looks at the detail of 2017 world production and use.

World energy production was 14 035 Mtoe in 2017 – a 2.2% increase compared to 2016 (Figure 2). This increase was driven by coal and natural gas, both increasing by more than 120 Mtoe in 2017, and

renewables other than hydro and biofuels, which grew by slightly more than 30 Mtoe. Oil production was stable (+0.1%), increasing by 3.6 Mtoe between 2016 and 2017.

Fossil fuels accounted for 81.3% of production in 2017, as was the case in 2016. Together the production of these three fossil fuels grew by 2.2% in 2017, a rate identical to all fuels growth altogether.

Figure 2. Annual average change in global energy production by fuel



* In this graph peat and oil shale are aggregated with coal.
 ** Includes geothermal, solar thermal, solar photovoltaic and wind.

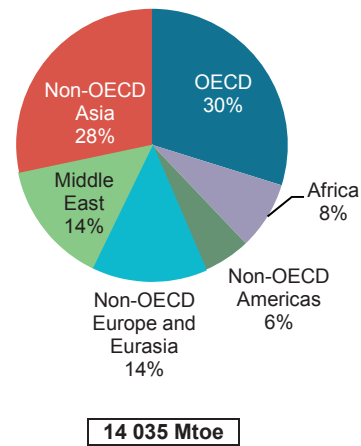
Production increased for all non-fossil sources, but for most those of coal and natural gas offset this growth. Biofuels and waste increased their production in 2017 by +1.2%, half the rate as in 2016. Their share in the world energy production decreased by 0.4 percentage points.

Hydro slightly increased in 2017 (+0.7%), providing 2.5% of global production in 2017, and setting a record with 351 Mtoe. Solar PV, wind, geothermal, solar thermal increase of production accelerated in 2017 (+34.8%, +17.7%, +7.0%, +3.4% respectively) but still accounted for less than 2% of global primary energy production together. Finally, nuclear production increased by 1.1% in 2017 compared to 2016, providing the same share of energy at global level in both years (4.9%).

At a regional level, the contribution to energy production was almost identical in 2016 and 2017. OECD was the largest energy-producing area just ahead of non-OECD Asia¹ in 2017 (Figure 3), as has been the

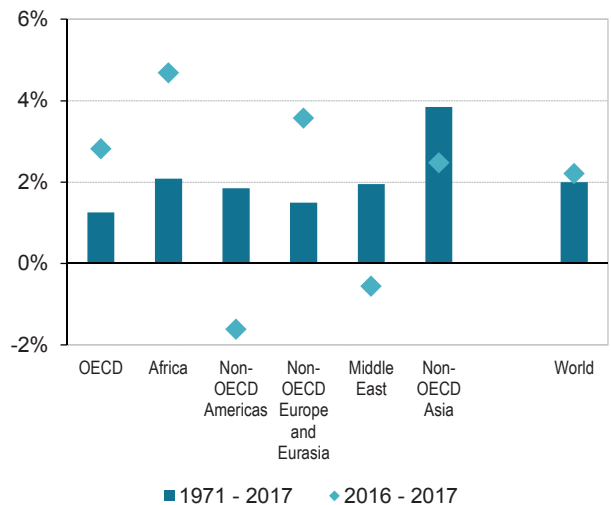
1. In this section, non-OECD Asia includes China region unless otherwise specified.

Figure 3. Total production by region 2017



case since 2010. OECD economies produced 30% of global energy, whereas non-OECD Asia accounted for 28% as in 2016. In the OECD as a whole production rose by +2.8% (Figure 4), reaching 4 181 Mtoe in 2017. With 3 971 Mtoe in 2017, non-OECD Asia increased its production of energy by 2.5%. Notwithstanding a slight decline in 2017 (-0.6%), the Middle East remained the third biggest producing region, but with a 3.6% growth, non-OECD Europe and Eurasia is catching up (respectively 2 032 Mtoe and 1 924 Mtoe in 2017).

Figure 4. Annual average change in energy production by region



In OECD the four biggest producers all increased their energy production in 2017, by 3% to 6%. With a 4% growth, the United States remained the biggest

energy producer in OECD by far, reaching 1 993 Mtoe. It is the third biggest production in history, after the records reached in 2015 and 2014, when production was above 2 000 Mtoe. In Canada, the second biggest producer in the OECD, production increased by 6% and reached a record, at 510 Mtoe (+30 Mtoe compared to 2016). In Australia, the third biggest OECD producer, production also reached a record, above 400 Mtoe for the first time. Together with Norway, the 4th energy producer of the Organisation, those countries increased their energy production in 2017 by 130 Mtoe. Energy production grew in 24 of the 36 member countries of the OECD.

In non-OECD Asia, energy production significantly increased (+2.5%), at 3 971 Mtoe in 2017, boosted by increases in the People's Republic of China (+3.8%) and Indonesia (+3.2%). In the People's Republic of China, energy production in 2017 reached almost 2 450 Mtoe, the fourth biggest production in its history (the record being set in 2015 with 2 514 Mtoe). This increase is mainly due to coal (+67 Mtoe, +3.9%), followed by solar PV, wind and tide/wave/ocean (+10.4 Mtoe, +21.2% over 2016), natural gas and nuclear. In Indonesia, the increase of energy production is mainly due to coal (+13.9 Mtoe, +5.6%) followed by geothermal (+3.6 Mtoe, +19.8%).

In 2017, the Middle East still ranked third, with 2 032 Mtoe of energy produced. Nonetheless, alongside non-OECD Americas it is one of only two regions where energy production decreased in 2017. Production of energy in the Middle East declined by 0.6%, the drop of oil production in some of the biggest producers (Saudi Arabia, UAE, Kuwait) not being compensated by the growth in others (Iran, Iraq), nor by the general regional increase of natural gas production.

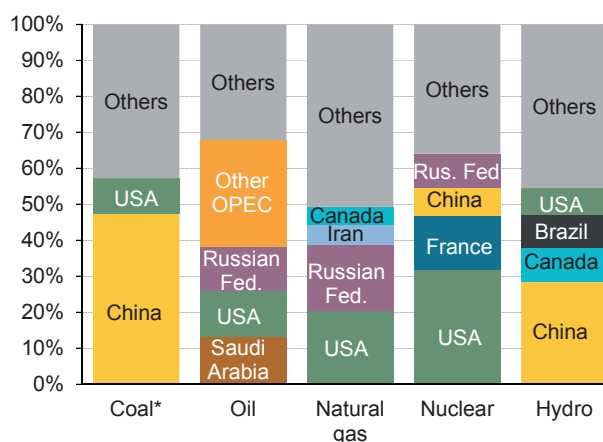
With 1 924 Mtoe, non-OECD Europe and Eurasia produced 3.6% more energy in 2017 than in 2016 and ranked 4th among the energy-producing regions.

Though still ranking 5th with 1 135 Mtoe of energy produced in 2017, Africa enjoyed the biggest growth of all (+4.7%).

In non-OECD Americas countries energy production decreased (-1.6%). The region produced 792 Mtoe of energy in 2017, its lowest level since 2010 due to simultaneous decreases in some of its biggest energy producers, Venezuela (-10.3%), Argentina (-1.9%), Colombia (-0.7%). Growth in Brazil did not offset these reductions.

The IEA family (IEA member economies, Association and Accession countries) represented 54% of the global energy production in 1971, and 58% in 2017.

Figure 5. Largest producers by fuel in 2017



* In this graph peat and oil shale are aggregated with coal.

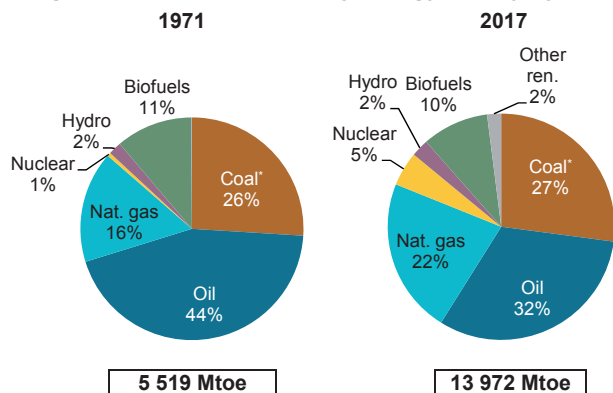
While energy production of all fuels is very concentrated with over half of production concentrated in less than five countries (and in some cases only two countries), there is great variation in the basket of countries concerned (Figure 5). China was not far from producing half of the world coal in 2017, and 29% of hydro. The United States and France combined produced almost 50% of all nuclear. Saudi Arabia, the Russian Federation and the United States contributed slightly less than 40% of the world crude oil – these last two also accounting for 40% of the world natural gas. This concentration is usually stable; the only notable change in 2017 compared to 2016 is that Canada replaced Qatar as the 4th biggest natural gas producer.

Total Primary Energy Supply (TPES)

Between 1971 and 2017, world total primary energy supply (TPES) increased by more than 2.5 times (from 5 519 Mtoe to 13 972 Mtoe) and its structure changed (Figure 6). The two most striking changes affected the relative shares of oil and gas. While still the dominant fuel in 2017, oil fell from 44% to 32% of TPES. As for natural gas, it grew from 16% to 22%. The share of coal is one percentage point higher in 2017 compared to 1971 (respectively 27% and 26%). However, it has fluctuated significantly during that period, increasing constantly between 1999 and 2011, influenced mainly by increased consumption in China. In 2011 it reached its highest level (29%), peaking at 71% of TPES in China. It has declined

since then and represented 27% of world TPES in 2017. Meanwhile nuclear grew from 0.5% to 4.9%.

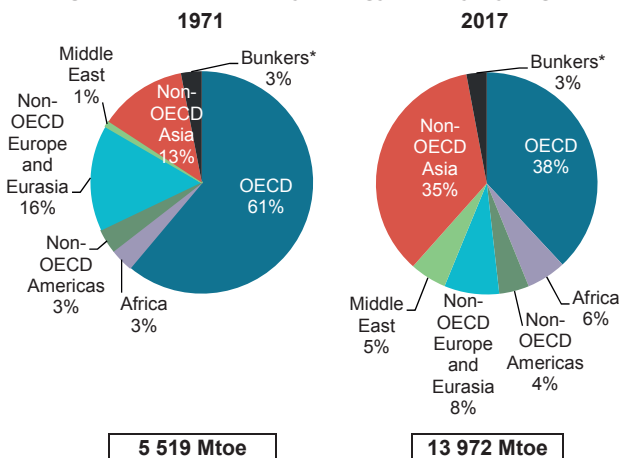
Figure 6. World total primary energy supply by fuel



* In this graph peat and oil shale are aggregated with coal.

Energy demand has evolved differently across the regions between 1971 and 2017. The OECD's share of global TPES fell from 61% in 1971 to 38% in 2017 (Figure 7). It is now almost on par with non-OECD Asia, where energy demand grew seven-fold, reaching 4 955 Mtoe in 2017, and whose share of TPES almost tripled over the period, from 13% in 1971 to 36% in 2017. Though its share of global energy demand nearly halved between 1971 and 2017 (from 15.5% to 8.0%), non-OECD Europe and Eurasia remained the third biggest energy-consuming region, with more than 1 100 Mtoe TPES. It was followed by Africa, where energy demand over the period has multiplied by more than four, reaching 812 Mtoe in 2017, Middle East and non-OECD Americas.

Figure 7. Total primary energy supply by region

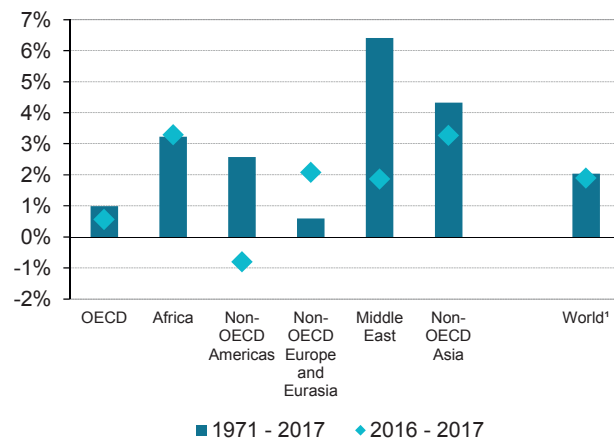


* Includes international marine and aviation bunkers.

Between 2016 and 2017, global TPES increased by 260 Mtoe (+1.9%), reaching 13 972 Mtoe. TPES

increased mostly in non-OECD Asia and Africa (+3.3% in each), non-OECD Europe and Eurasia (+2.1%) and Middle East (+1.9%). It slightly increased (+0.6%) in OECD but decreased in non-OECD Americas (Figure 8, -0.8%) for the third year in a row. The IEA family group accounted for 72.1% of TPES in 2017 and exceeded 10 000 Mtoe for the first time.

Figure 8. Annual average change in TPES by region



* World also includes international marine and aviation bunkers.

Non-OECD countries account for a continuously growing share of the world energy consumption (72% in 2017). In 2017, People's Republic of China accounted for 22% of global TPES while the United States accounted for 16% (Table 1). India and the Russian Federation ranked third and fourth respectively. Japan, the second largest OECD consuming country, was in fifth position. Together, these five countries accounted for more than half of the global TPES in 2017. The 2017 top ten countries represented 62% of global energy demand, as opposed to 56% in 1971. Seven of them (China, the United States, India, Russian Federation and previously Soviet Union, Japan, Germany and Canada) have been amongst the ten major energy consumers for the whole period.

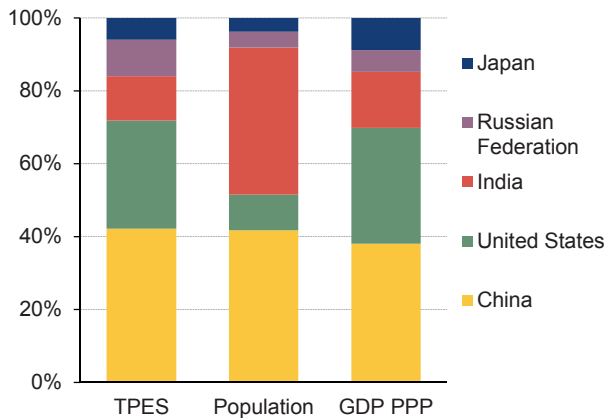
In 2017, the top five countries in terms of TPES accounted for less than half of the world GDP², and world population (48% and 44% respectively) but consumed 52% of total world energy. However, the relative shares of TPES, population and GDP of these five countries significantly varied from one to another (Figure 9).

2. In this section, GDP refers to GDP using purchasing power parities.

Table 1. TPES – top ten countries in 2017

Country	TPES (Mtoe)	Share in world TPES	
		2017	1971
People's Rep. of China	3 063	22%	7%
United States	2 155	16%	29%
India	882	6%	3%
Russian Federation	732	5%	N/A
Japan	432	3%	5%
Germany	311	2%	6%
Brazil	290	2%	1%
Canada	289	2%	0.3%
Korea	282	2%	3%
Islamic Republic of Iran	262	2%	3%
Rest of the world	5 274	38%	44%
World	13 972	100%	100%

Figure 9. Top five energy consumers: 2017 relative shares*



* Relative shares within the top five, which differ from shares in the world total.

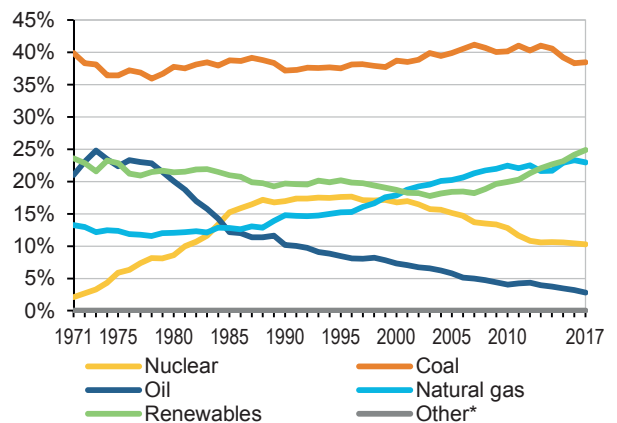
The United States consumed almost 16% of world energy, with 4.3% of the world’s population. Conversely, China and India consumed 22% and 6% of global energy respectively, but each accounted for 18% of the global population. The Russian Federation and Japan also consumed significant amounts of energy in 2016 (5.2% and 3.1% of global TPES respectively). However, energy intensities differed significantly.

To produce the same amount of wealth, as measured by GDP in PPP, the Russian Federation consumed in 2017 almost 227 Mtoe per billion US dollars, 2.5 times as much energy as Japan (the country with the lowest energy intensity of the five top energy consumers), and twice as much as India. Such comparisons reflect the importance of specific industries in each country, and not just relative efficiency in the use of energy.

Power generation from coal was still dominant by far in 2017 and its share increased again in 2017 after a three-year ebb, reaching 38.5% of the electricity produced globally (Figure 10). Renewables come second

in the electricity mix, as has been the case since 2013, and almost reached 25% of the mix in 2017. Though hydro is still dominant, its share in the power mix has decreased since the 1970s and recent growth is entirely due to the development of wind and solar PV and to a smaller extent combustible renewables. Generation from gas grew slowly to reach 15% in 1990; since then steady increases have seen it grow to 23.3% in 2016, but it decreased slightly to 23.0% in 2017. Nuclear production had steadily increased in the 1970s and 1980s, before plateauing at around 17% of electricity production and then declining continuously since the 2000s to reach approximately 10%. Power production from oil peaked at almost 25% of power production in 1973, just before the oil crisis, and has been declining since then. From being the second fuel used for electricity production after coal, it has become the fifth, just below 3% of the global electricity generation in 2017. Whilst globally the use of oil for electricity generation has fallen sharply, it still accounts for over 90% of electricity generation in a number of countries including Lebanon, Cyprus, or South Sudan. Oil and natural gas combined provided 100% of power production in countries such as Bahrain, Brunei Darussalam, Oman, Qatar and Trinidad and Tobago.

Figure 10. World electricity generation mix 1971-2017



* Other includes non-renewable waste and non-renewable heat.

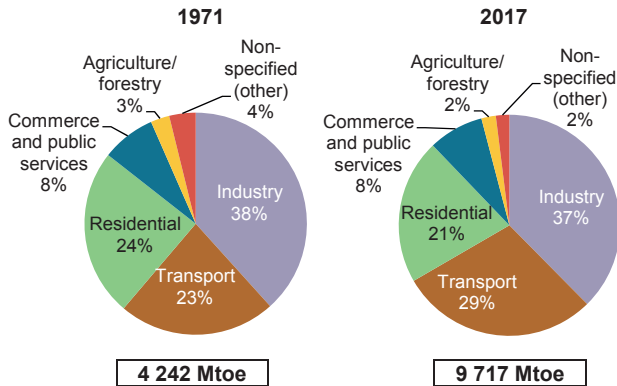
Total Final Consumption (TFC)

Between 1971 and 2017, total final consumption (TFC) was multiplied by 2.3 (Figure 11). The share of energy use of most sectors³ has been stable – for commerce and services or industry for instance. However, energy use in transport significantly increased,

3. In this section, each sector of final consumption includes non-energy use.

from 23% of TFC in 1971 to 29% in 2015-2017. Nevertheless, in 2017 industry remained the largest consuming sector, only one percentage point lower than in 1971 (37%). The residential sector ranked third in 2017 (21%).

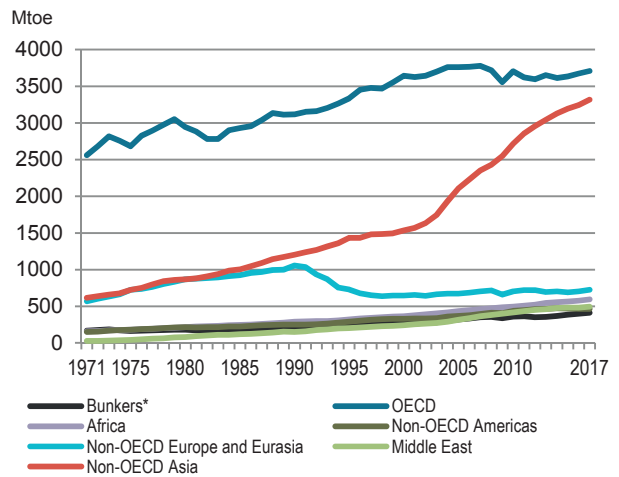
Figure 11. World total final consumption by sector



Total final consumption has soared in non-OECD Asia including China since the early 2000s to account for 34% of global TFC in 2017 and a level of 3 317 Mtoe. In the OECD the generally increasing trend came to an end with the 2008 global economic crisis, with total final consumption oscillating around a plateau of 3 600 Mtoe (38% of global TFC,

Figure 12) for a number of years. It has picked up again in 2014 and OECD TFC reached 3 711 Mtoe in 2017, its highest level since 2008.

Figure 12. World total final consumption by region



* Includes international marine and aviation bunkers.

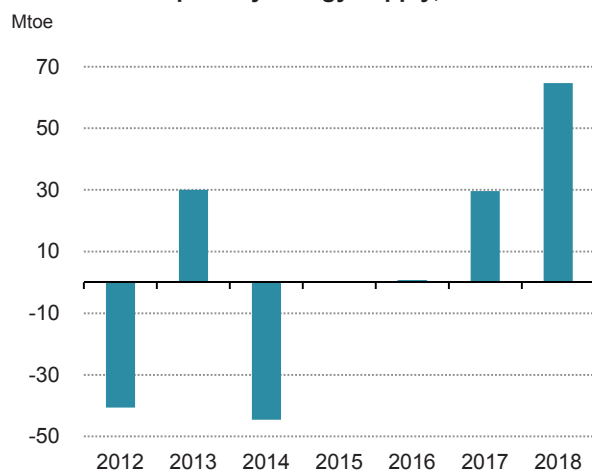
The following sections briefly describe OECD trends up to 2018 and 1971-2017 energy trends in seven different regions of the world: OECD, Africa, non-OECD Americas, non-OECD Asia, non-OECD Europe and Eurasia, and the Middle East.

OECD

Key supply and CO₂ emissions trends in 2018

After a period of decrease at the start of the decade, 2018 showed an increase in Total Primary Energy Supply (TPES) for the OECD region for the second year in a row: while 2017 had already shown a 0.6% growth, for 2018 the increase rate doubled, reaching +1.2% (Figure 13). The net increase was almost 70 Mtoe, equivalent to the energy consumption of a country like the Netherlands. It is the first time since the first decade of the 2000s that TPES increased for two consecutive years.

Figure 13: Annual change in total primary energy supply, OECD

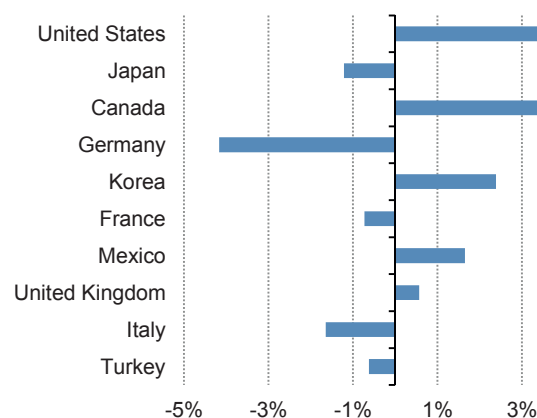


Overall, the TPES for the OECD region in 2018 was equal to 5 374 Mtoe, the highest value since 2010. At the global scale, OECD represents almost two fifths of total energy supply.

Within the general trend, the top energy-consuming countries showed different TPES patterns in 2018 (Figure 14). The United States alone grew by more than 70 Mtoe (more than 1% of OECD's TPES): natural gas represented more than two thirds of such growth, mostly driven by power generation and residential consumption; oil and renewables accounted for the remaining part. Canada increased too, by almost 4%, reaching an all-time high of 300 Mtoe; similarly Mexico, Korea, Australia and Poland.

On the other hand, several countries showed decreases in TPES: in Europe, Germany (-4%) reached its lowest level of consumption since the 1970s;

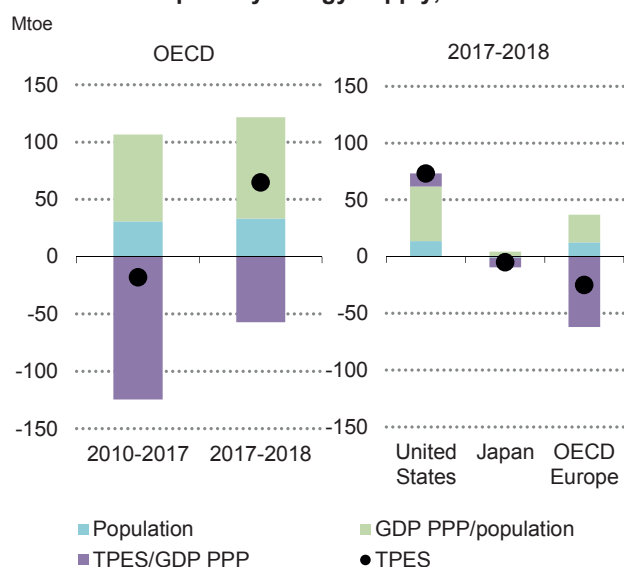
Figure 14: Change in TPES by country: 2017-2018, largest ten energy-consuming OECD countries



Belgium (-5%), Portugal (-4%), Greece, Netherlands and Sweden (-3%), Italy and Norway (-2%); Japan, France, Turkey, New Zealand showed decreases too.

Economic output has been the largest driver of the increase in energy consumption in the OECD region for 2018. In contrast with earlier years, improvements in energy efficiency have not been able to offset the growth in energy demand that took place in 2018 (Figure 15).

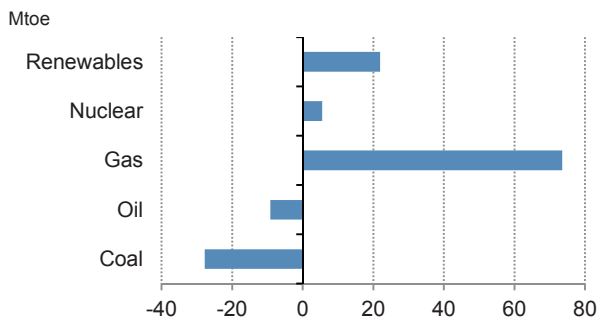
Figure 15: Drivers of the change in total primary energy supply, OECD



While trends in OECD Europe and Japan were in line with recent years, the United States in 2018 for the first time ever registered an increase in energy intensity at the same time as a 3% increase in GDP. The extreme weather conditions that affected North America during winter may have played a role in this effect.

Among the different energy sources, natural gas grew the most in the OECD, with additional 70 Mtoe (Figure 16): gas supply increased by 10% or more in the United States, Canada, Mexico and Korea; however it decreased in some other countries, partially due to a drop in electricity generation: Japan (-4%), Germany (-5%) and Italy (-3%).

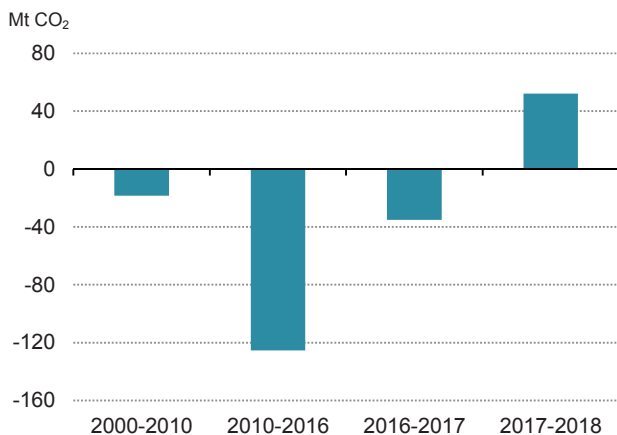
Figure 16: Total primary energy supply by source: 2018 change, OECD



The decrease in coal supply, common to almost all OECD countries, was compensated by the increase in renewable energy; the changes in power generation from these two sources reflect the changes in supply.

Despite the increase in renewable energy and fall in coal in 2018, low-carbon energy sources did not keep pace with gas growth, resulting in a 0.5% increase in energy-related carbon dioxide emissions (Figure 17). After a 1% average annual drop in the 2010-2016 period, driven by improvements in energy efficiency and penetration of renewables, in 2018 emissions started to grow again in OECD; since the Great Recession, this had only happened in 2013.

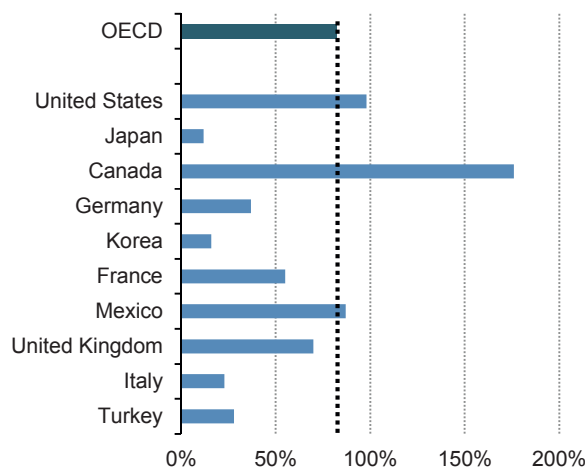
Figure 17: Annual change in CO₂ emissions for OECD



Despite the overall increase in emissions, mostly driven by the United States, Canada and Korea, several countries showed net decreases, most notably Japan, Germany and France.

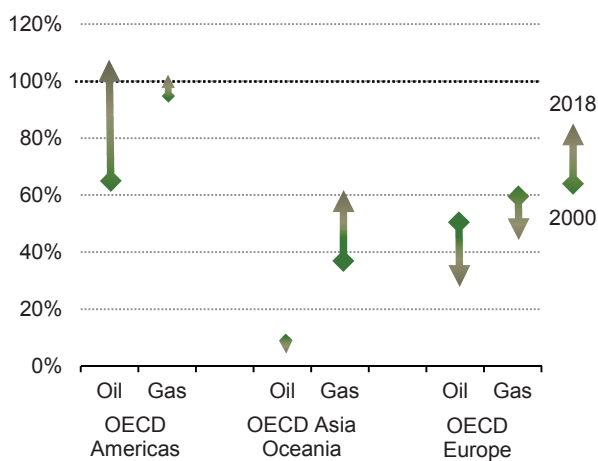
From an energy security point of view, the increase in TPES did not threaten the region as a whole: the overall energy self-sufficiency grew by 3 percentage points in 2018 reaching the value of 82% (Figure 18). The 70 Mtoe increase in energy demand was more than offset by a growth in production that touched 200 Mtoe.

Figure 18: Self sufficiency in 2018: largest ten OECD countries



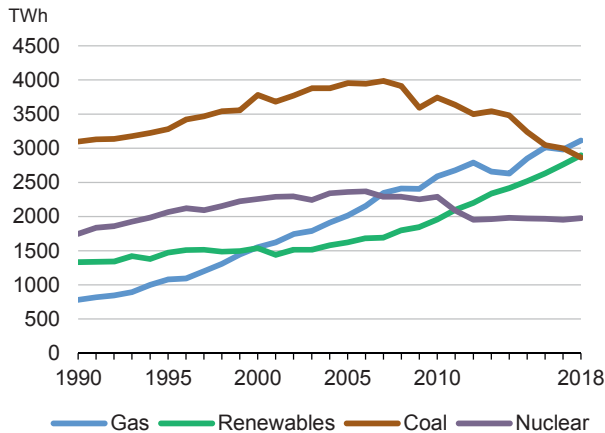
Due to annual average growth rates of oil and gas production equal to 9% and 5% in the United States since 2010, OECD Americas reached in 2018 its overall self-sufficiency; OECD Europe, Asia and Oceania instead were still far from it, both at around 60%. While Asia and Oceania saw improvements for gas thanks to the increase in Australian production - 2.5 times since 2000 - Europe decreased both oil and gas self-sufficiency, with a drop in production not compensated by the decrease in TPES (Figure 19).

Figure 19: Oil and gas self-sufficiency by region: change between 2000 and 2018



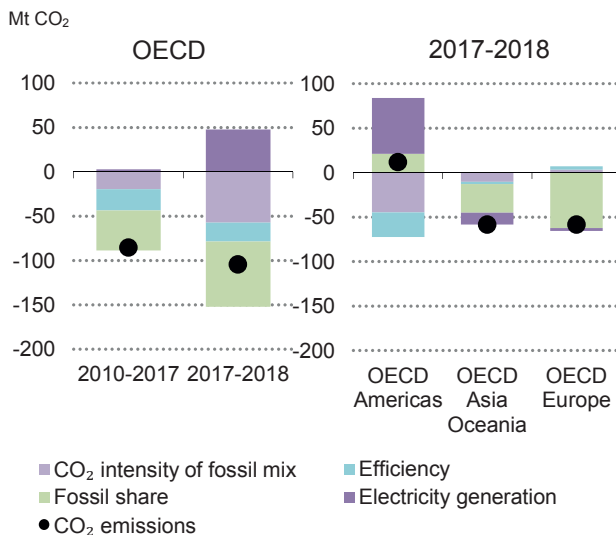
Power generation was responsible for around half of the OECD growth in natural gas supply. In 2018, gas overtook coal as the top fuel for electricity generation, with more than 3 000 TWh generated (Figure 20).

Figure 20: Electricity generation by source, OECD



After growing at an average annual rate of 5% since 2010 across all OECD regions, in 2018 renewables generation reached the same levels as coal for the first time, which dropped consistently in most OECD countries. As a result of the penetration of gas and renewable sources in place of coal, the carbon intensity of electricity generation for the OECD decreased by 6% between 2017 and 2018, with total emissions from electricity decreasing by 100 Mt CO₂.

Figure 21: Drivers of CO₂ emissions from electricity generation, OECD



While 2018 total electricity generation remained stable in Europe, Asia and Oceania, growth in the Americas was 3%, reaching pre-crisis levels. The increase in gas generation (12%), responsible for more than 80% of the total increase, outpaced renewables

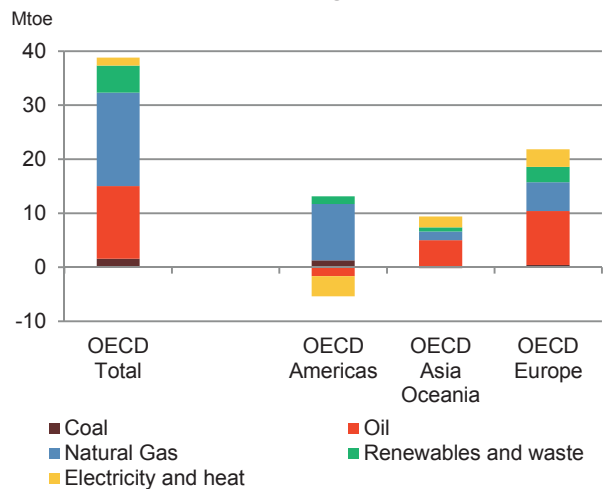
growth and caused the share of fossil fuels in electricity generation to increase.

More severe temperatures both in winter and summer contributed to the increase in overall electricity production in the United States and Canada; however, the combined effects of a lower carbon intensity of the fossil mix and a greater efficiency contained the emissions growth in OECD Americas (Figure 21).

Key demand trends in 2017

Total OECD final consumption in 2017 reached 3 711 Mtoe in 2017, with the increase of 39 Mtoe (+1.1%) the largest growth since 2013. This increase was proportionately more pronounced in Europe (+1.8%) and Asia-Oceania (+1.6%). Even though an increase occurred across all fuels, oil and gas accounted for almost 80% of the increase (Figure 22).

Figure 22: Total final consumption: 2017 change by source and region, OECD



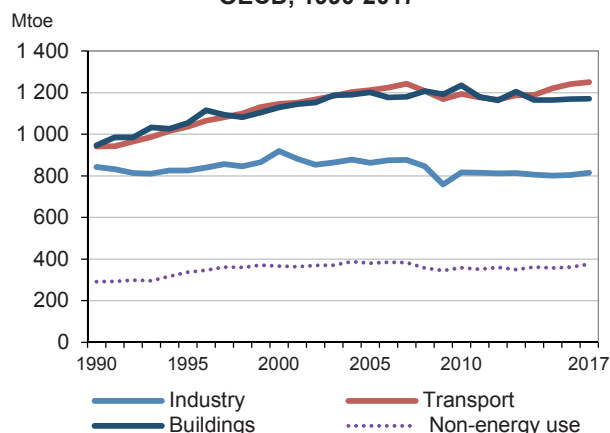
At a regional level, the growth in OECD Americas was dominated by natural gas in line with the respective increase in supply, whereas OECD Europe – which had the largest increase in absolute terms – experienced an increase across all energy sources.

At a more disaggregated level, none of the sectors decreased in 2017 with industry, transport and non-energy use of fuels contributing approximately the same shares (30%) to the growth. Conversely, the sectoral share of total final consumption (TFC) remained relatively stable compared to recent years (Figure 23).

On the one hand, the transport sector consumption reached a new record high (1 251 Mtoe), exceeding the previous one achieved pre-crisis in 2007, consolidating thus its position as the largest consuming sector

and confirming longer-term trends. On the other hand, the buildings sector (residential and services) remained almost flat (+0.1%) for a third consecutive year, with small changes (up and down) for different countries.

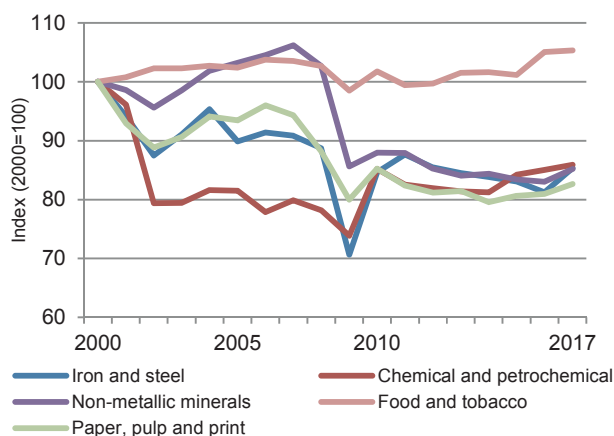
Figure 23: Final energy consumption by sector, OECD, 1990-2017



Industry consumption continued to fluctuate mildly around the same level since 2010, in the aftermath of the economic crisis.

The industrial sector has been the most stable sector in terms of final consumption, having decreased only marginally in absolute terms since 1990 (-3% 1990-2017) for OECD. This mild decrease, in conjunction with the growth in the other TFC sectors, indicates the changes taking place in the profile of the OECD economy, also reflected in the reduction of the final energy intensity (defined as TFC/GDP) by 34% for the same period.

Figure 24: Consumption of major industrial subsectors 2000-2017

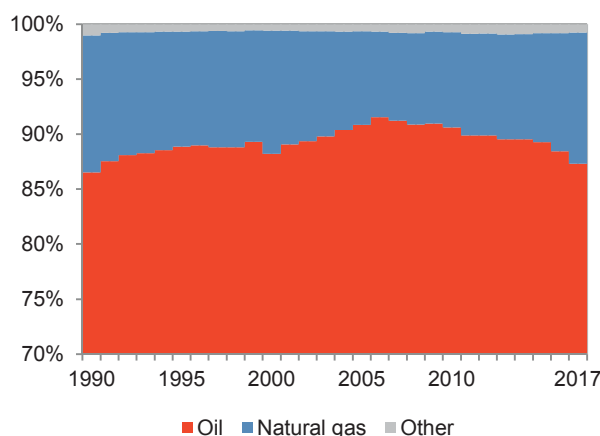


Due to structural differences in the national economies, the various industrial sub-sectors have moved differently for each country; however, at the OECD level, the

four out of the five largest sub-sectors experienced declining trends since 2000 with food and tobacco production being the only exception (Figure 24).

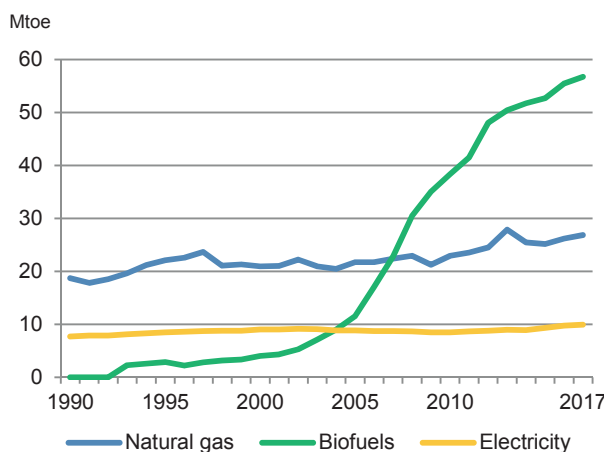
The consumption of fuels for non-energy use picked up pace in 2017 (+4%), showing the strongest increase since 2010. Natural gas non-energy use increased by 15% (driven primarily by OECD Americas), recording the highest growth since at least 2000. Nonetheless, natural gas's share just reached the levels of 1990 (Figure 25) after the decline experienced up to 2006, with the beginning of the shale revolution.

Figure 25: Fuel's share for non-energy use, 1990-2017



In transport, the largest consuming sector with over a third of the overall TFC, the consumption of oil remains dominant (93%), despite the rapid growth of biofuels after 2000. Other sources have been constantly increasing (Figure 26) faster in absolute terms than the overall consumption for transport. However this growth is not nearly fast enough to accommodate for the increased sectoral demand.

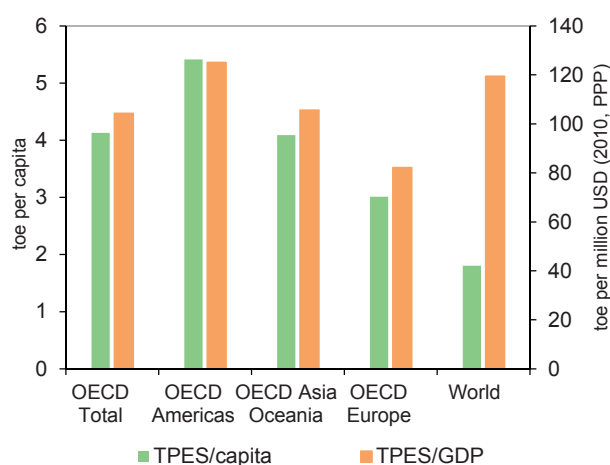
Figure 26: Consumption in transport by source, beyond oil



The OECD and IEA in the world

In terms of TPES per capita, the OECD remains the most energy-intensive region globally, by a factor of more than two (Figure 27). The 2018 figure remained stable compared to the previous year (4.1 toe per capita), after three consecutive years of modest reductions. Nevertheless, TPES per unit of GDP⁴ is much lower in the OECD relative to other regions. Moreover, TPES per GDP decreased by 2% in 2018 indicating an expansion of the economy faster than the energy supply's growth, as has historically been the case for the region at an aggregate level (-26% in TPES per GDP for 2017 compared to 2000).

Figure 27: OECD energy indicators by region 2018



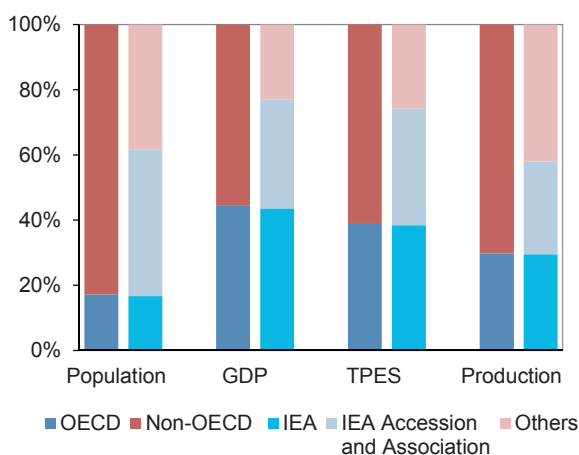
The historical intra-OECD regional differences are attributed to various structural factors, both economic (like the share of industry in the economic activity, cars per household) and geographical (like the densely

or sparsely populated areas, heating degree days). However, the decrease in energy intensity was a common feature in all the OECD regions for 2018.

In 2017, the OECD accounted for 17% of global population, 44% of GDP, 39% of TPES and 30% of energy production. Even though these shares have remained stable – or slightly declining – over the last few years, they have significantly changed since 1971, when the region⁵ accounted for 61% of the global energy supply, and 65% of GDP (Figure 28).

The shares are significantly larger when considering the full group of countries tightly connected with the IEA: IEA, Accession (Chile)⁶ and Association (Brazil, China, India, Indonesia, Morocco, Singapore, South Africa and Thailand) countries altogether accounted for around three quarters of the world GDP and TPES in 2017. More precisely, the IEA family group accounted for 62% of global population, 77% of GDP, 72% of TPES and 58% of energy production.

Figure 28: OECD and IEA in the world, 2017



4. GDP measured in PPP with 2010 as base year.

5. The regional composition is constant and based on membership at the time of preparation of the publication (July 2019).

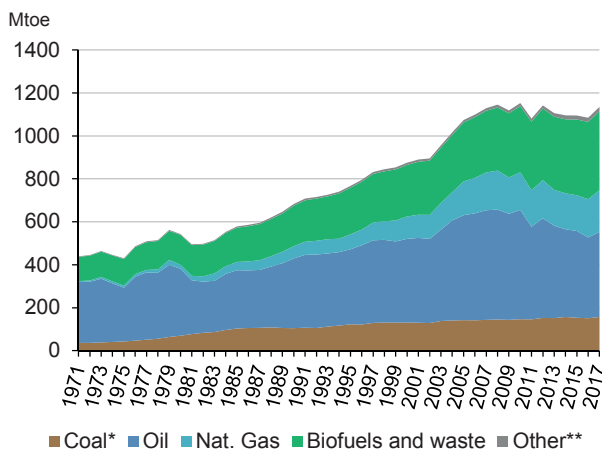
6. At the time of the preparation of the publication Lithuania was not yet formally an IEA Accession country and therefore has not been included in the relevant aggregate.

Africa

In 2017, Africa produced 8.1% of the world's energy, a similar share as in 1971 (7.8%), although African energy production almost tripled during the same period (Figure 29). African energy production is dominated by oil (35%), and biofuels and waste (32%), followed by natural gas (17%) and coal (14%). In 1971 oil was even more predominant in production (65%), far above biofuel and waste (26%); natural gas was almost negligible (0.9%).

Africa's share of global TPES increased from 3.4% in 1971 to 5.8% in 2017; and despite many African countries being dependent on imports of fossil fuels, as a region it is energy self-sufficient and a net exporter of coal, natural gas and crude oil.

Figure 29. Energy production in Africa between 1971 and 2017

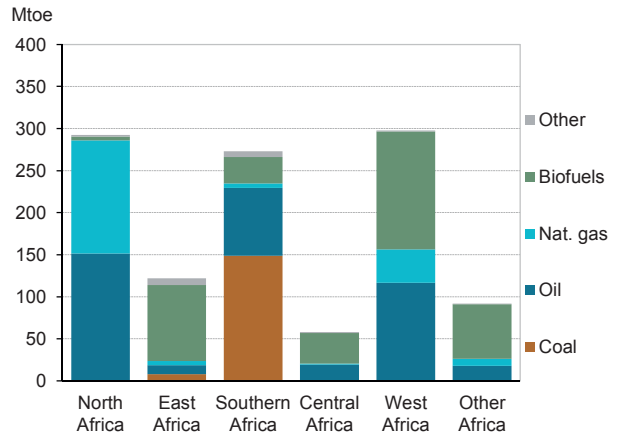


* In this graph peat and oil shale are aggregated with coal.
 ** Other includes nuclear, hydro, solar, wind, geothermal and heat from other sources.

Fossil fuels production is unevenly distributed across Africa (Figure 30). With 152 Mtoe, North Africa remained the main producer of crude oil in 2017, due to Algeria, Libya and Egypt production, although at the country level Nigeria remains the first crude oil producer in Africa, representing 24% (95 Mtoe) of the continent's production. North Africa produces mainly crude oil and natural gas: in 2017, Algeria accounted for 42% of the natural gas and 18% of the crude oil in Africa, Egypt for 22% of natural gas and 8% of crude oil and Libya for 12% of crude oil and 3.8% of natural gas. Southern Africa is characterized by a high share of coal and of crude oil; South Africa, the 4th largest coal net exporter in the world, produced 92.5% of African coal in 2017 whereas Angola was the second biggest

producer of crude oil in Africa, with 20% of the region's production. Energy production in East and Central Africa remains dominated by solid biofuels.

Figure 30. Energy production by sub-region in 2017 Africa



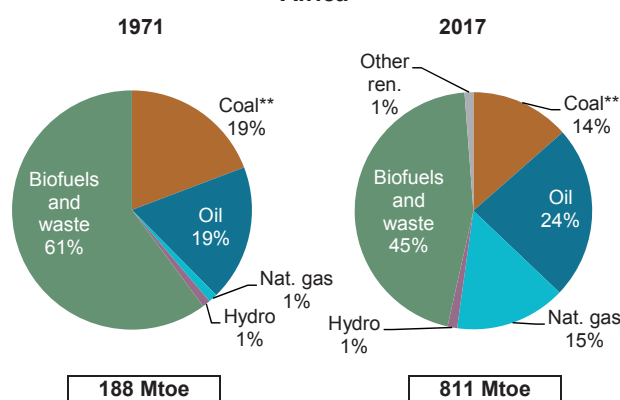
* In this graph peat and oil shale are aggregated with coal.

North Africa includes Algeria, Egypt, Libya, Morocco and Tunisia;
East Africa includes Eritrea, Ethiopia, Kenya, Mauritius, Mozambique, South Sudan, Sudan and the United Republic of Tanzania;
Southern Africa includes Angola, Botswana, Namibia, South Africa, Zambia and Zimbabwe;
Central Africa includes Cameroon, Congo and Democratic Republic of Congo;
West Africa includes Benin, Côte d'Ivoire, Gabon, Ghana, Niger, Nigeria, Senegal and Togo
Other Africa please refer to the explanatory note on geographical coverage.

In 2017, Africa's crude oil production started to grow again (+5.3%) after having declined between 2013 and 2016. This growth was led by the rise of Libyan production (+122%), reaching a level of production close to 2013 (46.4 Mtoe in 2017), and Ghana expanding exploitation of its oil and gas fields (+80%, +3.7 Mtoe). The production of oil also increased in Congo, the Democratic Republic of the Congo and Côte d'Ivoire (15.5%, 20.3% and 23.2%, respectively) but decreased in Algeria (-2.4%) and Angola (-7.7%). Africa represented 8.8% of world crude oil output and it exported 78% of this production in 2017.

The production and consumption of biofuels (mainly fuelwood) is significantly higher across Africa (45% of total TPES in 2017) than the world average (9.5% of total TPES). The presence of large forests, agro-industry, agriculture, a large rural population, and a low GDP per capita have resulted in a large use of solid biofuels for cooking. Because of the extensive use of wood and charcoal with its low efficiency, energy intensity⁷ is higher than the world average.

7. Measured by the ratio TPES/GDP.

Figure 31: Total primary energy supply* by fuel Africa

* Excluding electricity trade.

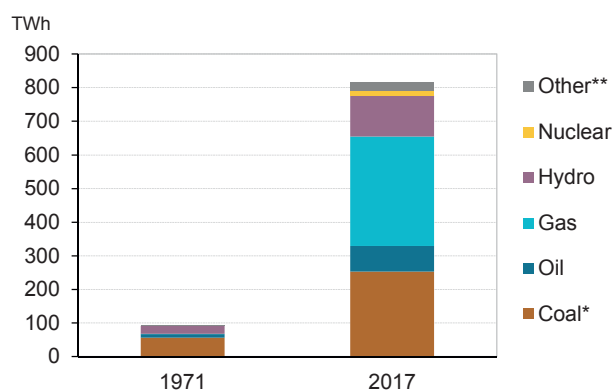
** In this graph peat and oil shale are aggregated with coal.

However, the share of biofuels and waste in TPES, dominated by solid biofuels, has decreased significantly between 1971 and 2017 (Figure 31), due to increased electrification, and particularly the recent development of power generation from natural gas. Natural gas share in TPES increased steeply from 1% in 1971 to 15% in 2017. Coal continued to represent an important share of African TPES even if it has declined over the period (14% in 2017, a 5 percentage points decline since 1971). Its share is largely due to South Africa, where coal represented in 2017 92% of the country's primary production, 74% of TPES, 90% of electricity generation and 27% of total final consumption.

In 2017, power generation in Africa was almost nine times the level in 1971 (Figure 32), whilst also seeing a significant change in the fuel mix. Power generation from natural gas was almost nil in 1971 but in 2017 provided 325 TWh of electricity, a 40% share of electricity generation in Africa (compared to 27% in OECD, 40% also in non-OECD Europe and Eurasia, and 72% in the Middle East). Its share in the power

mix reached even higher levels in gas-producing countries such as Algeria (98.7%), Nigeria (82.7%), and neighbouring importing countries like Tunisia (95.8%). In 1971, coal was the first fuel used for power generation in Africa (62%); in 2017 it ranked second after natural gas and accounted for 31% of power generation, providing 254 TWh. Hydro was the second provider of electricity in Africa in 1971 (23 TWh, 26% of the power produced in the continent) and ranked third in 2017 with 123 TWh.

Electricity production reflects the disparity in fossil fuel resources between sub-regions of Africa. In 2017, North African countries plus South Africa represented only 20% of the population but generated 74% of the electricity in Africa. Even if access rates are increasing, this remains a concern for most Sub-Saharan African countries, with national electrification rates in 2016 averaging 41.7%, compared to 50.6% for the whole continent, but only 22.3% in rural Sub-Saharan areas, and much less in some countries (1.5% in Burkina Faso, 0.7% in Chad, 1.0% in Central African Republic, Djibouti and 0.4% in the Democratic Republic of Congo, Niger or 0.2% in South Sudan)⁸.

Figure 32. Electricity generation by source, Africa

* In this graph peat and oil shale are aggregated with coal.

** Other includes non-renewable waste and non-renewable heat.

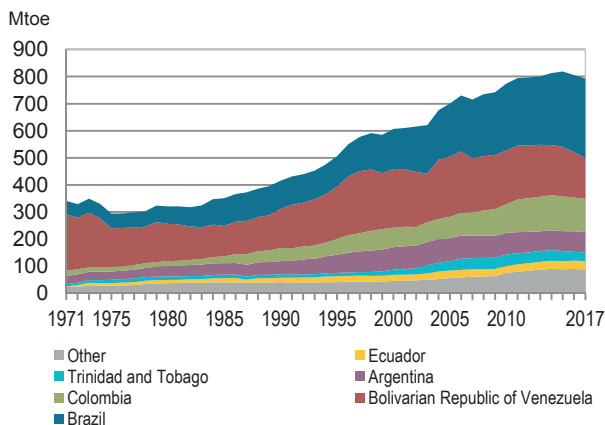
8. Electrification rate extracted from the World Energy Outlook 2018 electricity database: www.worldenergyoutlook.org/resources/

Non-OECD Americas

In 2017, non-OECD Americas' main energy producers were, in descending order, Brazil, the Bolivarian Republic of Venezuela, Colombia, Argentina, Trinidad and Tobago and Ecuador (Figure 33). Together they produced 89% of the 792 Mtoe of energy produced by the whole region. Brazil alone was responsible for 37% of the region's production in 2017. Brazil's crude oil production, 48% of the region's 2017 production, has been increasing for four years in a row. In 2017 it reached 140 Mtoe, an almost 30% growth compared to 2013. Natural gas accounted for only 7.9% of Brazil's total energy production in 2017 but increased by 13.1% compared to 2016.

Non-OECD Americas produced 13 Mtoe less in 2017 compared to 2016. This -1.6% decrease was mainly due to a production drop in Venezuela (-11.5%), Colombia (-0.7%), Argentina (-2.0%), Trinidad and Tobago (-0.2%) and Ecuador (-2.0%). In the region's top producers the only increase of energy production was in Brazil (+3.1%), and did not offset this decrease.

Figure 33. Energy production by country Non-OECD Americas

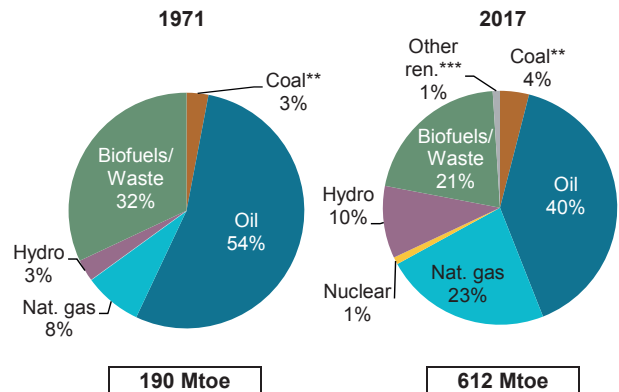


In Colombia, which accounted for 96% of the region's coal, production remained almost the same compared to 2016 with 59 Mtoe. In Venezuela, crude oil production declined for the sixth year in a row, reaching 123 Mtoe in 2017 (-12%): Brazil became the biggest crude oil producer of non-OECD Americas with 4.5% increase in 2017. The region's natural gas production was fairly stable in 2017 (-0.1%), as reflected by the two biggest producers, Argentina (-0.3%) and Trinidad and Tobago (-0.4%). The production increase in Brazil (+13%) was offset by

lower production in some of the region main providers, Venezuela (-1.9%) and Peru (-11%).

Overall the energy mix in non-OECD Americas in 2017 was similar to 2016: oil provided the biggest share of TPES in the region (40% - Figure 34), followed by natural gas (23%) and biofuels and waste (21%).

Figure 34. Total primary energy supply* by fuel, Non-OECD Americas



* Excluding electricity trade.

** In this graph peat and oil shale are aggregated with coal.

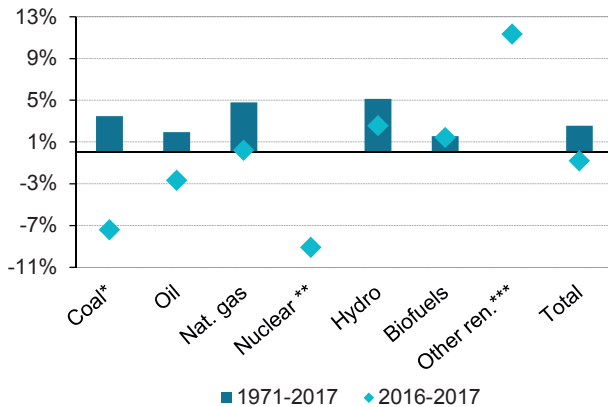
*** Includes geothermal, solar thermal, solar photovoltaic and wind.

Thirty-one per cent of non-OECD Americas TPES came from renewables, whereas this share was only 14% in the world. With a 21% share of the TPES (twice more than globally), liquid biofuels (and in particular transport biofuels in Brazil) in addition to traditional solid biofuels, are significant in non-OECD Americas. Following a steady 4.4% increase in the last four years, biofuels production increased by 1.2% in 2017. Even though hydro production decreased in the two biggest hydro producers, Brazil (-2.6%) and Paraguay (-6.4%), overall hydro production increased by 2.6% in 2017 in the wake of increased production in Colombia (+25.1%) after 4 years of droughts and increasing capacity, and Argentina (6.8%) after a dry season. Hydro accounted for 57% of total non-OECD Americas power generation, a much higher share than globally (16%).

In 2017, the energy production of other renewables (solar thermal, solar photovoltaic, wind, geothermal), increased by 11.3% compared to 2016 (Figure 35), led by a +24% production increase in Brazil, the biggest producer of other renewables in the region.

Coal accounted only for 4% of non-OECD America's TPES for 2017 and coal primary energy supply declined by 7.4% due to a 24% increase of Colombia coal exports compared to 2016.

Figure 35. Annual change in TPES by fuel, Non-OECD Americas



* In this graph peat and oil shale are aggregated with coal.
 ** No nuclear production in 1971.
 *** Includes geothermal, solar thermal, solar photovoltaic and wind. No production in 1971.

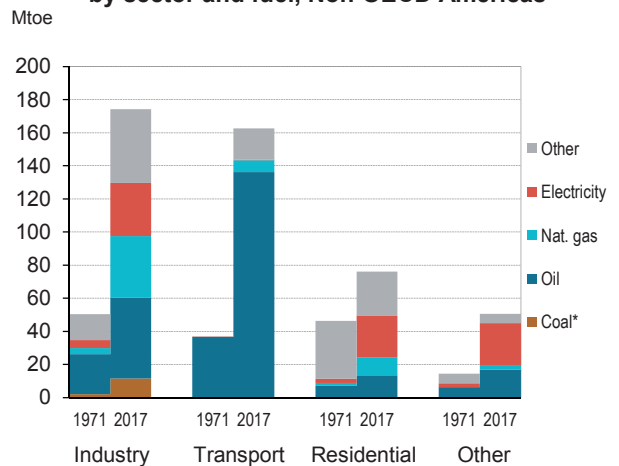
There are only two countries in non-OECD Americas with nuclear power, Brazil and Argentina, and a sharp decrease in Argentina (-25%), due to not working at full capacity throughout the year, resulted with a 9% decline overall in the region.

In 2017, industry remained the biggest energy-consuming sector (38%), followed by transport (35%), far above residential (16%). Industry increased from 50 Mtoe in 1971 to 174 Mtoe in 2017. However, it is in the transport sector that the increase of energy final consumption was the biggest: it multiplied by more

than four times since 1971 (Figure 36). Residential nearly doubled over the period, and ranked third in 2017.

In 1971, oil accounted for half of total final consumption (TFC) and it peaked at 55% in 1979 before the second oil crisis. However the increasing role of electricity and gas in the residential and the industry sectors lead to a slowly diminishing share of oil in TFC that reached 46% in 2017. The share of electricity has almost tripled during that period, reaching 18% in 2017. Natural gas consumption increased from less than 4% to 12%, mainly driven by industry (from 7% to 22%) and residential (from 4% to 14%) use.

Figure 36. Total final consumption by sector and fuel, Non-OECD Americas

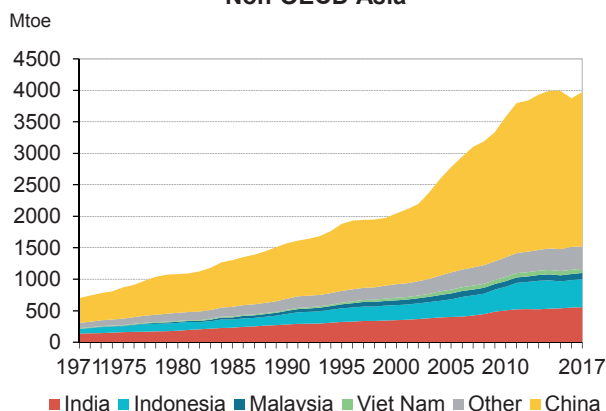


* In this graph peat and oil shale are aggregated with coal.

Non-OECD Asia

Since the early 1990s non-OECD Asia has been the second largest energy-producing region in the world behind the OECD, accounting for 28% of global production in 2017 with a production of 3 971 Mtoe. China⁹ alone provided 61.7% of energy production in the region in 2017 (Figure 37) compared to 60.9% in 2016. India and Indonesia together accounted for a quarter of the region’s production (14.0% and 11.3% respectively).

Figure 37. Energy production by country Non-OECD Asia

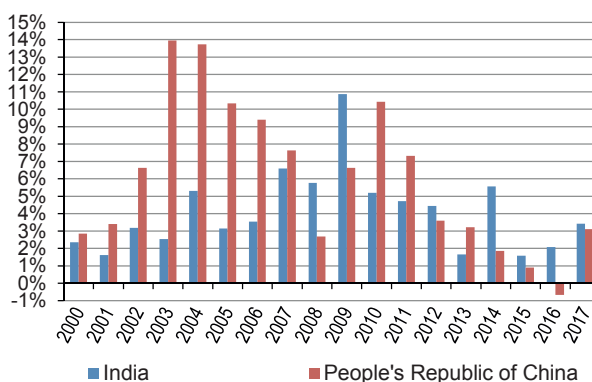


In 2017, non-OECD Asia’s total primary energy supply (TPES) continued to increase at a higher rate compared to previous years (+3.3% in 2017, after +0.7% in 2016 and +1.2% in 2015). It thus seems decoupled from the economic growth, as GDP increased by 6.3% in non-OECD Asia in 2017. This is particularly true in China, where GDP increased by 6.9% in 2017, while TPES increased by 3.1%. In India, GDP increased by 6.7% in 2017 whilst TPES by 3.4%. TPES in India has been continuously growing in the last decade, whereby growth slowed down in 2015 and 2016 to take up again in 2017. India TPES has been growing at a faster rate than China’s since 2014 (Figure 38).

In 2017, non-OECD Asia accounted for 35.5% of global TPES. However, since its production does not cover its demand, the region is a net importer. China and India are both energy dependent, with self-sufficiencies of 80% and 63%, respectively, in 2017. While China was once self-sufficient with a peak at 108% in 1985, India reached a maximum self-sufficiency rate of 96% in 1984. As for Indonesia, though it covered 184% of

9. Throughout the “Non-OECD Asia” chapter, China stands for People’s Republic of China.

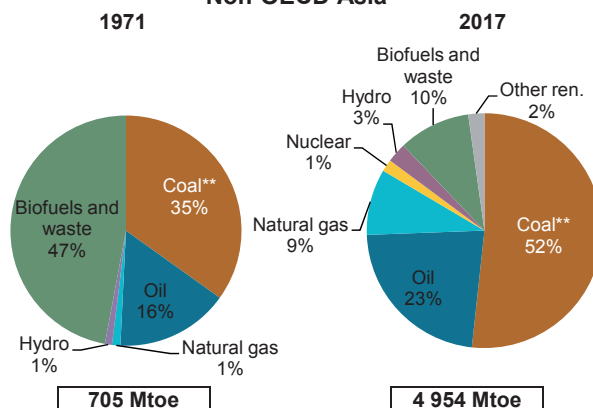
Figure 38. TPES annual change India and China



its energy needs in 2017, its self-sufficiency has been decreasing since 2013, when the country became a net importer of crude oil.

Over the decades the fuel mix of the region has changed drastically. In 2017, the share of biofuels in non-OECD Asia TPES decreased to 10% from 47% in 1971; natural gas has reached 9% of TPES, from negligible in 1971. Coal has been by far the main energy source in non-OECD Asia since 2012, supplying more than half of its energy demand in 2017 (Figure 39), compared to 27% globally. This is also the case in the main energy-consuming countries (Figure 40).

Figure 39. Total primary energy supply* by fuel Non-OECD Asia

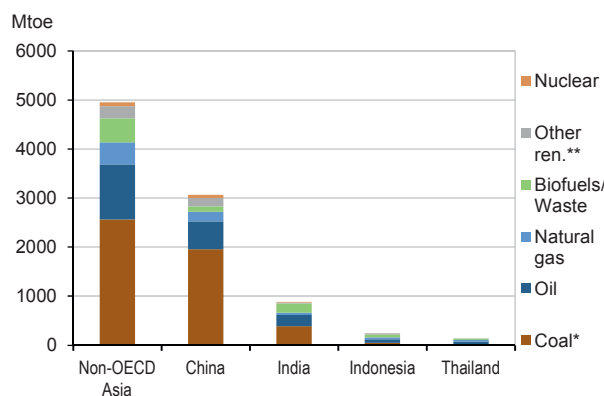


* Excluding electricity trade.

** In this graph peat and oil shale are aggregated with coal.

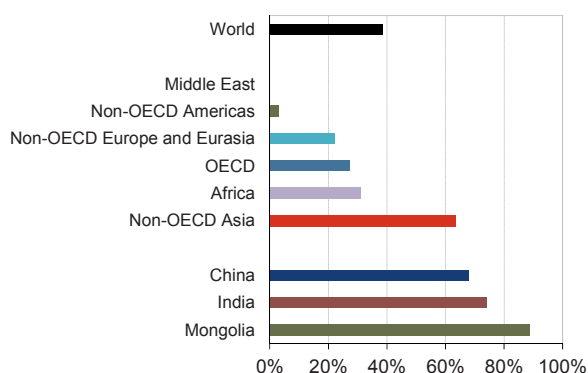
Coal’s weight is partly explained by its use in power generation: in 2017, it represented 63.6% of the regional electricity mix, versus 38.5% globally (Figure 41). Coal provided 74% of electricity in India, 68% in China and 58% in Indonesia. The country mostly relying on coal for power in the region is Mongolia (89%). In China, the power mix is gradually shifting from coal to other fuels (natural gas, nuclear, renewables).

Figure 40. TPES by fuel and by country in 2017
Non-OECD Asia



* In this graph peat and oil shale are aggregated with coal.
** Includes geothermal, hydro, solar thermal, solar photovoltaic and wind.

Figure 41. Share of coal in electricity generation in 2017

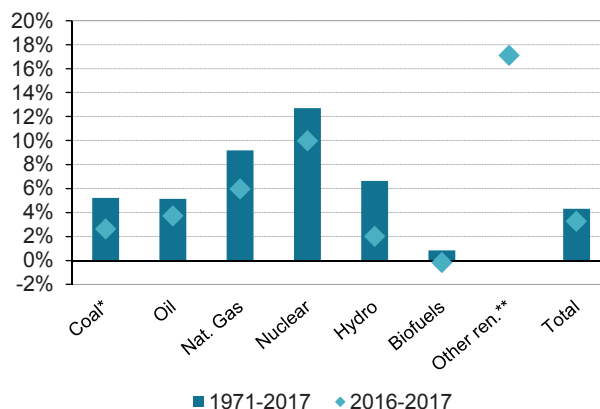


In 2017, electricity generation in non-OECD Asia increased by 5.9%, driven by China (+6.7%, around 6 600 TWh produced) and India (+5.1%, more than 1 500 TWh). Power production has grown in the region at an average annual rate of 8% since 1971.

The use of coal, oil, gas and hydro as measured by TPES increased in 2017 whilst that of biofuels decreased. However, the most significant growth came from other renewables (geothermal, solar photovoltaic, solar thermal and wind), followed by nuclear (Figure 42).

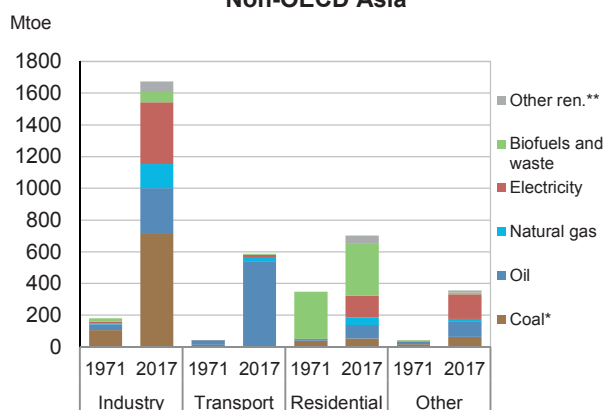
Total final consumption in non-OECD Asia has increased by more than five times over four decades and the mix has changed considerably. The share of traditional biofuels (biomass, waste) has fallen to a third of its 1971 level (53% of total energy consumption in 1971 compared to 12% in 2017). The share of oil in total final consumption has doubled (from 14.8% to 30.5%), leading oil to be the biggest fuel consumed in the region, followed by coal (25% of the total final

Figure 42. Annual growth in TPES by fuel
Non-OECD Asia



* In this graph peat and oil shale are aggregated with coal.
** Includes geothermal, solar thermal, solar photovoltaic and wind.

Figure 43. Total final consumption by sector and fuel
Non-OECD Asia



* In this graph peat and oil shale are aggregated with coal.
** Includes direct use of geothermal, solar thermal and heat.

consumption). The share of electricity rose from 3.2% to 21%. With a nine-fold increase, industry is by far the biggest energy-consuming sector in non-OECD Asia, representing 50% of the region's total final consumption in 2017 (Figure 43).

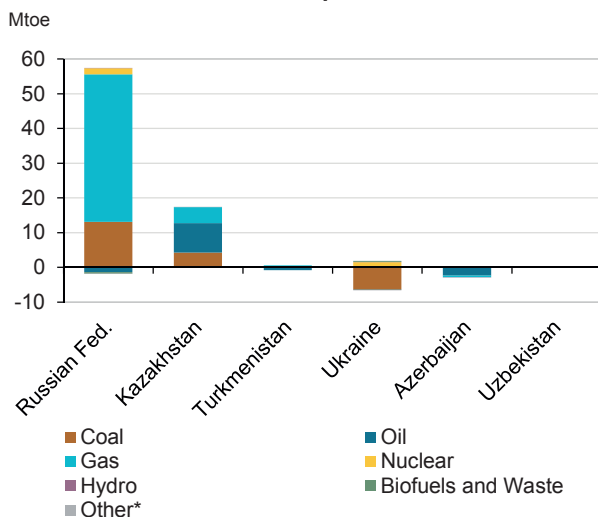
Though coal is still the main fuel consumed in industry (43% in 2017), its share in the sector is decreasing in favour of electricity (23%).

The residential sector is the second largest consumer behind industry with a share of 21% of the final consumption, directly followed by the transport sector (18%). Though traditional biomass is still the main fuel consumed in the residential sector, electricity, oil and natural gas have significantly increased. Energy consumption has multiplied 14 times in the transport sector, relying mainly on oil.

Non-OECD Europe and Eurasia

In 2017, total energy production in non-OECD Europe and Eurasia increased by 3.6% (+66 Mtoe), a higher growth rate than in OECD. This growth was largely driven by a 4.0% increase of energy production in the Russian Federation, which represented 74% of the total regional production. Production of natural gas and coal increased in the Russian Federation between 2016 and 2017 (by 43 Mtoe for the former, and by 13 Mtoe for the latter). Inversely, oil production fell by 1 Mtoe in 2017, its first annual decline since 1998. Energy production in the region was also boosted by strong growth of fossil fuels in Kazakhstan (Figure 44).

Figure 44. Top producers
Annual change in production in 2017
Non-OECD Europe and Eurasia



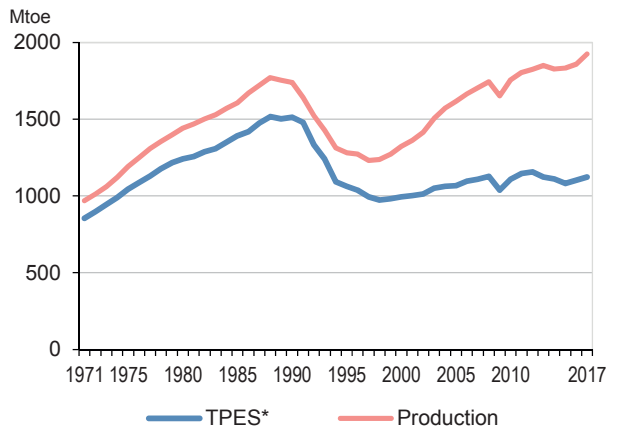
*Other includes geothermal, solar, wind and heat

Preliminary data for 2018 shows that the Russian Federation was the world's second largest producer and the first net exporter of natural gas (respectively 715 bcm and 236 bcm), the third largest producer of crude oil (554 Mt), and the sixth largest producer and third net exporter of coal (respectively 420 Mt and 182 Mt). Turkmenistan remained the sixth largest net exporter of natural gas and Kazakhstan the eighth largest net exporter of coal.

Energy production is very unevenly distributed across non-OECD Europe and Eurasia. Although the region as a whole is energy self-sufficient - its ratio hit a new high of 171% in 2017 (Figure 45), - it includes some of the most energy import-dependent countries in the

world. For instance the self-sufficiency ratio in 2017 was 3% in Malta, 6% in Cyprus and 15% in Belarus.

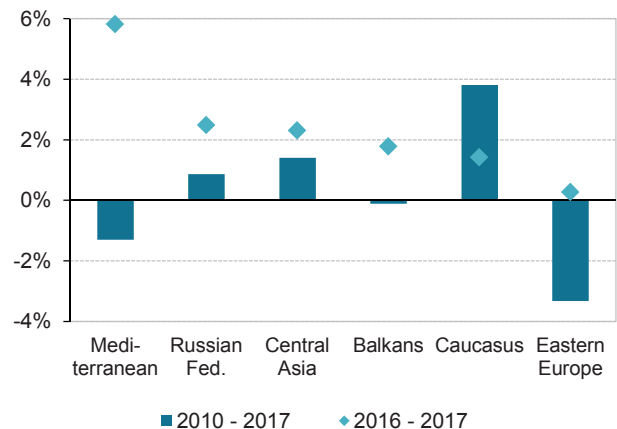
Figure 45. Energy production and supply 1971-2017
Non-OECD Europe and Eurasia



*excluding electricity trade.

In 2017, the Total Primary Energy Supply (TPES) in non-OECD Europe and Eurasia increased by 2.1% (23 Mtoe). TPES increased in all sub-regions between 2016 and 2017, inverting the 2010-2016 trends in Eastern Europe, Balkans and Mediterranean. At sub-regional level, the highest growth (5.8%) was observed in the Mediterranean (Figure 46). However, the countries in this sub-region represented less than 1% of non-OECD Europe and Eurasia energy demand.

Figure 46. Annual average change in total primary energy supply by sub-region
Non-OECD Europe and Eurasia



Balkans is Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Kosovo, Montenegro, Republic of North Macedonia, Romania and Serbia;
Caucasus is Armenia, Azerbaijan and Georgia;
Central Asia is Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan;
Mediterranean is Cyprus, Gibraltar and Malta;
Eastern Europe is Belarus, Moldova and Ukraine.

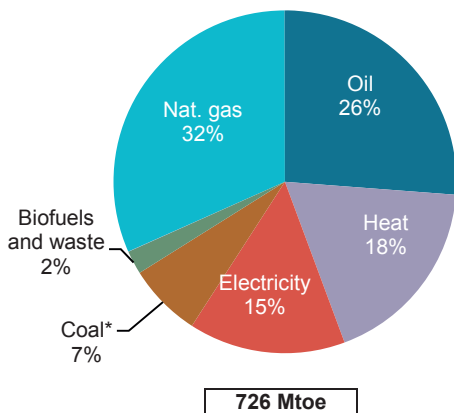
Note: Estonia, Latvia, Lithuania and Slovenia are OECD members.

The evolution of TPES is also uneven across the region. In the period 2010-2017, its annual average growth was only 0.2%. In detail, Eastern Europe reduced its TPES by 21.1% compared to 2010 levels, while the Caucasus region increased its TPES by 30%.

At the national level, TPES increased by 2.5% (18 Mtoe) in the Russian Federation between 2016 and 2017, and decreased in Ukraine (-2.4%), the second largest energy consumer in the region. Both trends are linked to changes in total final consumption (5.0% and -3.6% growth respectively). TPES significantly increased in Kazakhstan (+4.1%), the third largest consumer in the region.

In 2017, natural gas was the most commonly used fuel in the regional total final consumption (32%), followed by oil (26%), heat (18%) and electricity (15% - Figure 47). 50 Mtoe of coal were also consumed by final sectors in the region in 2017 (7% of total). Total final consumption grew by 3.4% in 2017, reaching its highest level since 1995.

Figure 47. Total final consumption by fuel, Non-OECD Europe and Eurasia, 2017



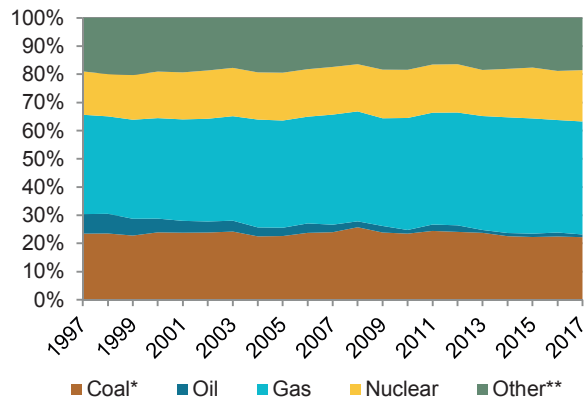
* In this graph peat and oil shale are aggregated with coal

Roughly half of the total final consumption growth between 2016 and 2017 was explained by a 6.4% growth in residential consumption. Road transport consumption in non-OECD Europe and Eurasia also reached the highest level since 1991 (93 Mtoe).

The regional electricity mix in 2017 was dominated by natural gas (40%), followed by coal (22%), and nuclear (18%). Non-OECD Europe and Eurasia was the second largest nuclear-producing region in the world, with the Russian Federation, Ukraine, Bulgaria, Romania, and Armenia producing a total of 318 TWh (12.1% of world). Renewables, largely hydropower, accounted for 19% of the regional electricity mix in 2017. Solar and wind electricity generation, though increasing (+12.3% in 2017 from 2016), accounted only for 1% of regional electricity output.

Total power generation grew by 27% in the period 1997-2017. However, the power generation mix of the region was very stable over the same period, except for the decline of oil, which is also true worldwide (Figure 48).

Figure 48. Electricity generation by source Non-OECD Europe and Eurasia, 1997-2017



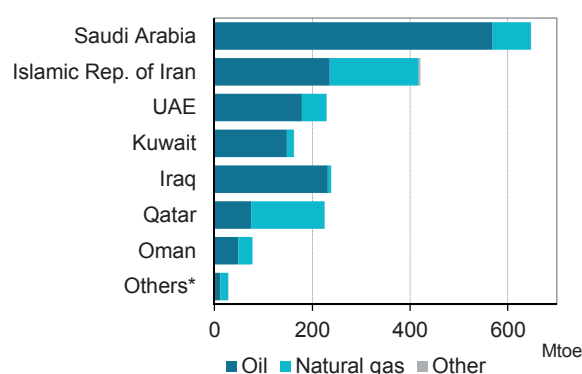
* Peat and oil shale are aggregated with coal

** Other includes hydro, biofuels and waste, geothermal, solar, wind and heat

Middle East

With energy production more than 2.8 times as large as its demand, and reaching 2,032 Mtoe in 2017 (-0.6% over 2016), the Middle East has the highest energy self-sufficiency ratio in the world. The region produced 14.5% of global energy in 2017, and more specifically 33.5% of global oil, and 16.6% of the world's gas. The Middle East's global share of natural gas production has more than doubled since 1997, when it was 7% of world natural gas production.

**Figure 49. Energy production in 2017
Middle East**



* Includes coal, nuclear, hydro, other renewables, biofuels and waste

Saudi Arabia was still by far the largest oil producer in the region with 38% and 569 Mtoe, followed by Iran and Iraq, with 16% and 15% respectively (Figure 49).

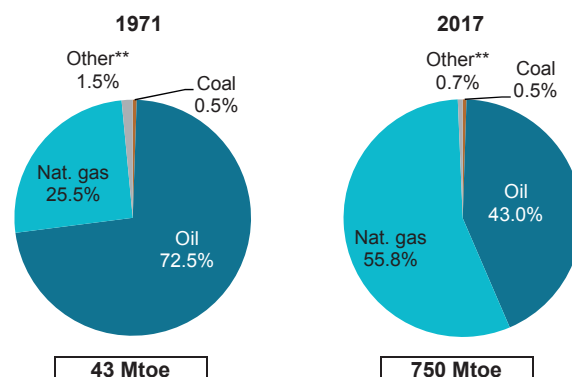
In 2017, the major growth in oil production was seen in Iran (+8.2%). At 235 Mtoe, Iran's production reached its highest level since 2007. Other notable growth in oil production was seen in Iraq (+1.9%), which reached a record in its production at 231 Mtoe. As for Yemen, its oil production increased by 6.2% in 2017 after an almost continuous decrease since 2003 from 22 Mtoe of crude oil produced that year to slightly more than 1 Mtoe in 2017. Oil production declined however in OPEC members such as Kuwait (-7.4%), Saudi Arabia (-4.6%), United Arab Emirates (-4.3%) and Qatar (-3.4%), but also in Bahrain (-2.8%) and Oman (-3.5%) leading to an overall decrease of 2.0% of oil production in the region in 2017.

Natural gas production almost continuously increased in the Middle East since the 1970s, reaching 526 Mtoe in 2017 – 34 times more than in 1971, and four times more than in 1997. With 35% of the region's natural gas production (182 Mtoe), Iran maintained its position as the Middle East's top producer in 2017,

followed by Qatar at 28%, with 150 Mtoe. Iran's natural gas production increased by 7.9% in 2017, a slightly slower growth compared to the 8.6% increase in 2016. Meanwhile natural gas production in Qatar was fairly stable (-0.4% in 2017 compared to +1.3% in 2016). The third biggest natural gas producer in the Middle East is Saudi Arabia, where production has continuously increased and reached 78 Mtoe in 2017.

TPES in the Middle East increased by 1.9% in 2017 compared to 2016 and reached 750 Mtoe. Though TPES has grown faster in several regions in 2017, Middle East is still the fastest growing region in terms of TPES over the period from 1971 to 2017 (+6.4% per year). In 2017, this supply is almost exclusively based on oil and natural gas (Figure 50). Natural gas has partially displaced oil, more than doubling its share between 1971 and 2017.

**Figure 50. Total primary energy supply* by fuel
Middle East**



* Excluding electricity trade.

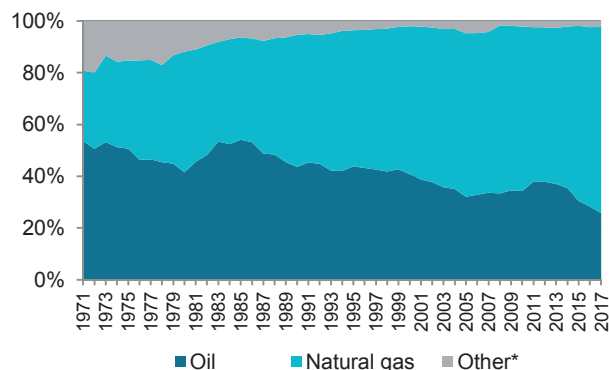
** Includes nuclear, hydro, other renewables, biofuels and waste

Key factors driving the rapid development of natural gas in the Middle East are power generation and the petrochemical sector. This is illustrated by the share of oil in electricity production continuing to shrink, starting with 54% in 1971 and reaching 26% in 2017 (Figure 51).

In contrast, the share of natural gas in electricity production continually increased, from 27% to 72% in the same period (compared with 23% at global level). In 2017, natural gas continued to provide all the electricity generated in Bahrain and Qatar, and more than 95% in the United Arab Emirates and Oman. In Iran and Jordan, natural gas's share in electricity generation reached over 80% in 2017. In Jordan, this change has come swiftly, with natural gas generating just 48% of the electricity in 2015 and 84% the following year, due in large part to the government promoting fuel switching. Except in Lebanon, where

electricity is still mainly generated from oil and a small share of hydro, natural gas represents at least a third of power generation in each country of the region.

Figure 51. Electricity generation by source Middle East



* Includes coal, nuclear, hydro, other renewables, biofuels and waste.

Over the last four decades, total final consumption expanded in all sectors, particularly industry and transport, which increased twenty fold. In 2017 oil accounted for around 95%, 25% and 15% of final consumption in transport, industry and residential,

respectively (Figure 52). Oil is responsible for almost 48% of total energy consumption in the Middle East. Also in 2017, natural gas met 63% and 46% of final consumption in industry and residential, respectively. Electricity tripled its share in final energy consumption from 5.6% in 1971 to 15.4% in 2017.

Figure 52. Total final consumption by sector and fuel Middle East



* Includes coal, other renewables, biofuels and waste
In this graph, non-energy use was classified with industry.

PART I

EXPLANATORY NOTES

ABBREVIATIONS

Btu:	British thermal unit
GWh:	gigawatt hour
kcal:	kilocalorie
kg:	kilogramme
kJ:	kilojoule
Mt:	million tonnes
m ³ :	cubic metre
t:	metric ton = tonne = 1 000 kg
TJ:	terajoule
toe:	tonne of oil equivalent = 10 ⁷ kcal
CHP:	combined heat and power
GCV:	gross calorific value
GDP:	gross domestic product
HHV:	higher heating value = GCV
LHV:	lower heating value = NCV
NCV:	net calorific value
PPP:	purchasing power parity
TPES:	total primary energy supply
AfDB:	African Development Bank
EU-28:	European Union - 28
FAO:	Food and Agriculture Organisation of the United Nations
IEA:	International Energy Agency
IPCC:	Intergovernmental Panel on Climate Change
ISIC:	International Standard Industrial Classification
OECD:	Organisation for Economic Co-Operation and Development
OLADE:	Organización Latinoamericana de Energía
UN:	United Nations
UNIPED:	International Union of Producers and Distributors of Electrical Energy
0 or 0.0	negligible
c	confidential
e	estimated
..	not available
-	nil
x	not applicable

1. METHODOLOGICAL NOTES

In this publication, Part I presents key explanations on the IEA energy balances methodologies and on the data presented in the book. Part II presents the 2017 energy balance table and graphs on key data and indicators by country and regional aggregate, with additional information on the provisional 2018 supply for OECD countries and, to the extent available, for Association countries¹; as well as country notes. Part III presents summary tables with time series, for selected data and indicators for all countries and regional aggregates at a glance.

This publication is based on the data in physical units published in the IEA *World Energy Statistics*. It follows the definitions of the *United Nations International Recommendations for Energy Statistics (IRES)*² which form the basis of the IEA energy balance methodology, briefly summarised below.

Energy balance: key concepts

Energy data are generally collected independently across different commodities. Energy statistics are the simplest format to present all the data together, assembling the individual balances of all products, each expressed in its own physical unit (e.g. TJ for natural gas, kt for coal, etc). These are called commodity balances.

However, energy products can be converted into one another through a number of transformation processes. Therefore, it is very useful to also develop one comprehensive national energy balance, to understand how products are transformed into one another, and to highlight the various relationships among them.

By presenting all the data in a common energy unit, the energy balance allows users to see the total amount of energy used and the relative contribution of each different source, for the whole economy and for each individual consumption sector; to compute the different fuel transformation efficiencies; to develop various aggregated indicators (for example consumption per capita or per unit of GDP) and to estimate CO₂ emissions from fuel combustion.

The energy balance is a natural starting point to study the evolution of the energy market, forecast energy demand, monitor impacts of energy policies and assess potential areas for action. The statistician also uses the energy balance to check data accuracy, as large statistical differences in energy units, apparent energy gains or large losses in transformation processes, or large unexplained variations in shares or in high-level indicators may all indicate underlying data problems.

The energy balance takes the form of a matrix where columns present all the different energy sources (“products”) categories and rows represent all the different “flows”, grouped in three main blocks: energy supply, transformation/energy use and final consumption.

To develop an energy balance from the set of commodity balances, the two main steps are: i) all the data are converted to a common energy unit – also allowing to compute a “total” product; and ii) some re-formatting is performed to avoid double counting when summing all products together. For example, for secondary products (e.g. motor gasoline) the production appears in the production row in commodity balances, but is reported as an output of the relevant transformation (e.g. oil refineries) in an energy balance, where the production row only refers to production of primary products (e.g. crude oil).

The methodological assumptions underlying energy balances, discussed in the next section, are particularly important to understand differences across balances derived by different national and international organisations starting from the same energy commodity data.

1. Brazil, China, India, Indonesia, Morocco, Singapore, South Africa and Thailand.

2. <https://unstats.un.org/UNSD/energy/ires/default.htm>.

IEA energy balances methodology

The unit adopted by the IEA is the tonne of oil equivalent (toe), defined as 10^7 kilocalories (41.868 gigajoules). This quantity of energy is, within a few per cent, equal to the net heat content of 1 tonne of crude oil. Conversion of the IEA energy balances to other energy units would be straightforward.

The main methodological choices underlying energy balances that can differentiate the final balances lay-out across organisations are: i) “net” versus “gross” energy content; ii) calorific values; and iii) primary energy conventions.

Net versus gross energy content

The IEA energy balances are based on a “net” energy content, which excludes the energy lost to produce water vapour during combustion. All the elements of the energy balance are expressed on the same net basis to ensure comparability. Even elements (e.g. natural gas) that in commodity balances may be already in energy units but on a different basis (e.g. “gross”) are converted (e.g. from “gross” to “net”).

The difference between the “net” and the “gross” calorific value for each fuel is the latent heat of vaporisation of the water produced during combustion of the fuel. For coal and oil, the net calorific value is about 5% less than gross, for most forms of natural and manufactured gas the difference is 9-10%, while for electricity and heat there is no difference as they are not combusted.

Calorific values

Generally, the IEA adopts country-specific, time-varying, and for some products flow-dependent, net calorific values supplied by national administrations for most products; and regional default values (in conjunction with Eurostat for the European countries) for the oil products. More detailed explanations on the IEA conversion to energy units for the different energy sources are given in Section 2, Units and conversions.

Primary energy conventions

A very important methodological choice is the definition of the “**primary energy equivalent**” for the electricity and heat produced from non-combustible sources, such as nuclear, geothermal, solar, hydro, wind. The information collected is generally the amount of electricity and heat produced, represented

in the balance as an output of transformation. Conventions are needed to compute the most appropriate corresponding primary energy, input to the transformation, both in form and in amount.

The principle adopted by the IEA is that the **primary energy form** is *the first energy form downstream in the production process for which multiple energy uses are practical*. For example, the first energy form that can be used as energy in the case of nuclear is the nuclear heat of the reactor, most of which is then transformed into electricity. The application of this principle leads to the choice of the following primary energy forms:

- **Electricity** for primary electricity (hydro, wind, tide/wave/ocean and solar photovoltaic).
- **Heat** for heat and secondary electricity (nuclear, geothermal and solar thermal).

Once the primary energy form is identified for all electricity and heat generated from non-combustible sources, the IEA adopts the **physical energy content method** to compute the corresponding primary energy equivalent amounts: the primary energy equivalent is simply the physical energy content of the corresponding primary energy form.

For primary electricity, such as hydro and solar PV, as electricity is identified as the primary energy form, the primary energy equivalent is simply the gross electricity generated in the plant.

For nuclear electricity, the primary energy equivalent is the quantity of heat generated in the reactors. In the absence of country-specific information, the IEA estimates the primary energy equivalent from the electricity generated by assuming an efficiency of 33%, derived as the average efficiency of nuclear power plants across Europe. Note that the principle of using the heat from nuclear reactors as the primary energy form for the energy statistics has an important effect on any indicators of energy supply dependence. Under the present convention, the primary nuclear heat appears as an indigenous resource. However, the majority of countries using nuclear power import their nuclear fuel, and if this fact could be taken into account, it would lead to an increase in the supply dependence on other countries.

For geothermal electricity, the primary energy equivalent is the quantity of heat and a similar back-calculation is used where the quantities of steam supplied to the plant are not measured, assuming a thermal efficiency of 10%. This figure is only approximate and reflects the fact that the steam from

geothermal sources is generally of low quality. If data for the steam input to geothermal power plants are available, they are used directly as primary energy equivalent.

Similarly, for solar thermal plants the heat supply is back-calculated assuming a 33% efficiency of conversion of heat into electricity, reflecting relatively low working temperatures, although central receiver systems can reach higher temperatures and therefore higher efficiencies.

In summary, for geothermal and solar thermal, if no country-specific information is reported, the primary energy equivalent is calculated using the following efficiencies:

- 10% for geothermal electricity;
- 50% for geothermal heat;
- 33% for solar thermal electricity;
- 100% for solar thermal heat.

An alternative to the physical energy content method is the **partial substitution method**, used in the past by the IEA. In this case, the primary energy equivalent of the electricity generated from non-combustible sources is computed as the hypothetical amount of energy necessary to generate the same amount of electricity in thermal power plants, assuming an average generation efficiency. The method was abandoned by the IEA and other organisations because it had little meaning for countries with significant hydro electricity generation, and because the actual substitution values were hard to establish, as they depended on the efficiency of the marginal electricity production. It also had unreal effects on the energy balance, as transformation losses appeared without a physical basis.

Since the two methods differ significantly in the treatment of solar, hydro, etc., the share of renewables in total energy supply varies depending on the method. To interpret shares of various energy sources in total supply, it is important to understand the conventions used to calculate the primary energy supply.

Balances tables description

The energy balances shown in Part II are presented in tabular format: columns for the various sources of energy and rows for the different origins and uses.

Note that the tables for World, regional aggregates and OECD countries are in million tonnes of oil equivalent (Mtoe), while those for non-OECD countries are

in thousand tonnes of oil equivalent (ktoe) with a few exceptions for the Association countries.

Columns

Across the top of the table from left to right, there are eleven columns with the following headings:

Column 1: *Coal* includes all coal, both primary (including hard coal and lignite) and derived fuels (including patent fuel, coke oven coke, gas coke, BKB, gas works gas, coke oven gas, blast furnace gas and other recovered gases).

As the column *coal* includes both primary and secondary fuels, values reported in this column under transformation rows (e.g. blast furnaces) refer to the sum of all transformation input and output quantities, and therefore represent transformation losses.

For presentational purposes, peat (including peat products) and oil shale are also included in this column, where applicable.

Column 2: *Crude oil* comprises crude oil, natural gas liquids, refinery feedstocks, and additives as well as other hydrocarbons (including emulsified oils, synthetic crude oil, mineral oils extracted from bituminous minerals such as oil shale, bituminous sand, etc., and oils from coal liquefaction).

Column 3: *Oil products* comprise refinery gas, ethane, LPG, aviation gasoline, motor gasoline, jet fuels, kerosene, gas/diesel oil, fuel oil, naphtha, white spirit, lubricants, bitumen, paraffin waxes, petroleum coke and other oil products.

Column 4: *Natural gas* includes natural gas (excluding natural gas liquids).

Column 5: *Nuclear* shows the primary heat equivalent of the electricity produced by a nuclear power plant with an average thermal efficiency of 33%.

Column 6: *Hydro* shows the energy content of the electricity produced in hydro power plants. Hydro output excludes output from pumped storage plants.

Column 7: *Geothermal/Solar/etc.* shows production of geothermal, solar, wind and tide/wave/ocean energy and the use of these energy forms for electricity and heat generation. Unless the actual efficiency of the geothermal process is known, the quantity of geothermal energy entering electricity generation is inferred from the electricity production at geothermal plants assuming an average thermal efficiency of 10%. Similarly, for solar thermal electricity, a default of 33% is used if the actual efficiency is not known. For solar

PV, wind and tide/wave/ocean energy, the quantities entering electricity generation are equal to the electrical energy generated. Other uses shown in this column relate to geothermal and solar thermal heat. If the heat is distributed in the transformation sector, then the default efficiencies are 50% for geothermal heat and 100% for solar thermal heat. The production is included in the transformation sector as an input and the consumption of the heat is included in the heat column. If the heat is used directly, then the consumption is shown in the geothermal/solar column directly in the sector where the heat was consumed.

Column 8: *Biofuels/Waste* comprises solid biofuels, liquid biofuels, biogases, industrial waste and municipal waste. Biofuels are defined as any plant matter used directly as fuel or converted into fuels (e.g. charcoal) or electricity and/or heat. Included here are wood, vegetal waste (including wood waste and crops used for energy production), ethanol, animal materials/wastes and sulphite lyes (also known as “black liquor”) which is an alkaline spent liquor from the digesters in the production of sulphate or soda pulp during the manufacture of paper where the energy content is derived from the lignin removed from the wood pulp and which is usually 65-70% solid in its concentrated form.

Municipal waste comprises wastes produced by residential and commercial/public services that are mainly collected by local authorities for disposal in a central location for the production of heat and/or power. Hospital waste is included in this category.

Note that for biofuels, only the amounts of biomass specifically used for energy purposes (a small part of the total) are included in the energy statistics. Therefore, the non-energy use of biomass is not taken into consideration and the quantities are null by definition.

Data under this heading are often based on incomplete information. Thus the data give only a broad impression of developments, and are not strictly comparable between countries. In some cases complete categories of vegetal fuel are omitted due to lack of information. Please refer to individual country data when consulting regional aggregates.

As the column *Biofuel/Waste* includes both primary and secondary fuels, such as wood and charcoal, values reported in this column under the other transformation row (including charcoal plants) refer to the sum of all transformation input and output quantities, and therefore represent transformation losses.

Column 9: *Electricity* shows final consumption and trade in electricity, which is accounted at the same heat value as electricity in final consumption (i.e. 1 GWh = 0.000086 Mtoe).

Column 10: *Heat* shows the disposition of heat produced for sale. The large majority of the heat included in this column results from the combustion of fuels although some small amounts are produced from electrically powered heat pumps and boilers. Any heat extracted from ambient air by heat pumps is shown as production.

Column 11: *Total* equals the total of Columns 1 to 10.

Rows

The categories on the left hand side of the table have the following functions:

Row 1: *Production* is the production of primary energy, i.e. hard coal, brown coal, peat, oil shale, crude oil, NGL, natural gas, biofuels and waste, nuclear, hydro, geothermal, solar, wind and the heat from heat pumps that is extracted from the ambient environment. Production is calculated after removal of impurities (e.g. sulphur from natural gas). Calculation of production of hydro, geothermal, etc. and nuclear electricity is explained in the section on Units and conversions.

Row 2/3: *Imports* and *exports* comprise amounts having crossed the national territorial boundaries of the country, whether or not customs clearance has taken place.

For coal: Imports and exports comprise the amount of fuels obtained from or supplied to other countries, whether or not there is an economic or customs union between the relevant countries. Coal in transit should not be included.

For oil and natural gas: Quantities of crude oil and oil products imported or exported under processing agreements (i.e. refining on account) are included. Quantities of oil in transit are excluded. Crude oil, NGL and natural gas are reported as coming from the country of origin; refinery feedstocks and oil products are reported as coming from the country of last consignment. Re-exports of oil imported for processing within bonded areas are shown as exports of product from the processing country to the final destination. Imported LNG which is exported to another country after regasification is considered both as an import and as an export of gas.

For electricity: Amounts are considered as imported or exported when they have crossed the national territorial boundaries of the country. If electricity is “wheeled” or transited through a country, the amount is shown as both an import and an export.

Row 4: *International marine bunkers* covers those quantities delivered to ships of all flags that are engaged in international navigation. The international navigation may take place at sea, on inland lakes and waterways, and in coastal waters. Consumption by ships engaged in domestic navigation is excluded. The domestic/international split is determined on the basis of port of departure and port of arrival, and not by the flag or nationality of the ship. Consumption by fishing vessels and by military forces is also excluded. See *domestic navigation* (Row 40), *fishing* (Row 46) and *non-specified “other”* (Row 47).

Row 5: *International aviation bunkers* includes deliveries of aviation fuels to aircraft for international aviation. Fuels used by airlines for their road vehicles are excluded. The domestic/international split should be determined on the basis of departure and landing locations and not by the nationality of the airline. For many countries this incorrectly excludes fuel used by domestically owned carriers for their international departures.

Note that international aviation bunkers and international marine bunkers are subtracted out of supply, based on the IRES. This differs from the treatment of international aviation bunkers in the annual oil statistics published in the Oil Information publication.

Row 6: *Stock changes* reflects the difference between opening stock levels on the first day of the year and closing levels on the last day of the year of stocks on national territory held by producers, importers, energy transformation industries and large consumers. A stock build is shown as a negative number, and a stock draw as a positive number.

Row 7: *Total primary energy supply (TPES)* is made up of *production* (Row 1) + *imports* (Row 2) - *exports* (Row 3) - *international marine bunkers* (Row 4) - *international aviation bunkers* (Row 5) ± *stock changes* (Row 6). Note, exports, bunkers and stock changes incorporate the algebraic sign directly in the number.

Row 8: *Transfers* include interproduct transfers, products transferred and recycled products (e.g. used lubricants which are reprocessed).

Row 9: *Statistical differences* are essentially the difference between supply and demand. They include

the sum of the unexplained statistical differences for individual fuels, as they appear in the basic energy statistics. They also include the statistical differences that arise because of the variety of conversion factors in the coal and oil columns. See introduction to the *World Energy Statistics* for further details.

Row 10: *Electricity plants* refers to plants which are designed to produce electricity only. If one or more units of the plant is a CHP unit (and the inputs and outputs cannot be distinguished on a unit basis) then the whole plant is designated as a CHP plant. Both main activity producer³ and autoproducer⁴ plants are included here. Columns 1 through 8 show the use of primary and secondary fuels for the production of electricity as negative entries. Heat from chemical processes used for electricity generation will appear in Column 10. Gross electricity produced (including power stations' own consumption) appears as a positive quantity in the electricity column. Transformation losses appear in the total column as a negative number.

Row 11: *Combined heat and power plants (CHP)*, refers to plants which are designed to produce both heat and electricity, sometimes referred as co-generation power stations. If possible, fuel inputs and electricity/heat outputs are on a unit basis rather than on a plant basis. However, if data are not available on a unit basis, the convention for defining a CHP plant noted above is adopted. Both main activity producer and autoproducer plants are included here. *Note that for autoproducer CHP plants, all fuel inputs to electricity production are taken into account, while only the part of fuel inputs to heat sold is shown. Fuel inputs for the production of heat consumed within the autoproducer's establishment are not included here but are included with figures for the final consumption of fuels in the appropriate consuming sector.*

Columns 1 through 8 show the use of primary and secondary fuels for the production of electricity and heat as negative entries. Total gross electricity produced appears as a positive quantity in the electricity column and heat produced appears as a positive number in the heat column. Transformation losses appear in the total column as a negative number.

3. Main activity producers generate electricity and/or heat for sale to third parties, as their primary activity. They may be privately or publicly owned. Note that the sale need not take place through the public grid.

4. Autoproducer undertakings generate electricity and/or heat, wholly or partly for their own use as an activity which supports their primary activity. They may be privately or publicly owned.

Row 12: Heat plants refers to plants (including heat pumps and electric boilers) designed to produce heat only, which is sold to a third party under the provisions of a contract. Both main activity producer and autoproducer plants are included here. Heat pumps that are operated within the residential sector where the heat is not sold are not considered a transformation process and are not included here – the electricity consumption appears as residential use.

Columns 1 through 8 show the use of primary and secondary fuels in a heating system that transmits and distributes heat from one or more energy sources to, among others, residential, industrial, and commercial consumers, for space heating, cooking, hot water and industrial processes.

Row 13: Blast furnaces contains inputs to and outputs of fuels from blast furnaces. It is often difficult to correctly account for all inputs and outputs in energy transformation industries, and to separate energy that is transformed from energy that is combusted. As a result, in certain cases the data in the total column are positive numbers, indicating a problem in the underlying energy data.

Row 14: Gas works contains the inputs to and outputs from plants manufacturing gases for distribution to the public, either directly or after blending with natural gas. The coal column will contain the output of gas works gas minus any inputs of coal and coal products into the gas works. Inputs of oil products or natural gas into the gas works will figure as negative numbers with conversion losses appearing in the total column.

Row 15: Coke/patent fuel/BKB/PB plants contains losses in transformation of coal from primary to secondary fuels and from secondary to tertiary fuels (hard coal to coke and patent fuel, lignite to BKB, peat to peat briquettes (PB), etc.).

Row 16: Oil refineries shows the use of primary energy for the manufacture of finished oil products and the corresponding output. Thus, the total reflects transformation losses. In certain cases the data in the total column are positive numbers. This can be due either to problems in the primary refinery balance, or to the fact that the IEA uses regional net calorific values for oil products.

Row 17: Petrochemical plants covers backflows returned from the petrochemical industry. Note that backflows from oil products that are used for non-energy purposes (i.e. white spirit and lubricants) are not included here, but in non-energy use.

Row 18: Liquefaction plants includes diverse liquefaction processes, such as coal liquefaction plants and gas-to-liquid plants.

Row 19: Other transformation covers non-specified transformation not shown elsewhere, such as the transformation of primary solid biofuels into charcoal.

Row 20: Energy industry own use contains the primary and secondary energy consumed by transformation industries for heating, pumping, traction and lighting purposes [ISIC⁵ 05, 06, 19 and 35, Group 091 and Classes 0892 and 0721]. These quantities are shown as negative figures. Included here are, for example, own use of energy in coal mines, own consumption in power plants (which includes net electricity consumed for pumped storage) and energy used for oil and gas extraction.

Row 21: Losses includes losses in energy distribution, transmission and transport.

Row 22: Total final consumption (TFC) is the sum of consumption by the different end-use sectors and also includes *non-energy use*. Backflows from the petrochemical industry are not included in final consumption (see Row 17, *petrochemical plants* and Row 52, *of which petrochemical feedstocks*).

Rows 23-36: Industry consumption is specified by sub-sector as listed below. Energy used for transport by industry is not included here but is reported under transport. *Non-energy use* in industry is excluded from *industry* and reported separately (see Rows 50-52).

Iron and steel industry [ISIC Group 241 and Class 2431];

Chemical and petrochemical industry [ISIC Divisions 20 and 21] excluding petrochemical feedstocks;

Non-ferrous metals basic industries [ISIC Group 242 and Class 2432];

Non-metallic minerals such as glass, ceramic, cement, etc. [ISIC Division 23];

Transport equipment [ISIC Divisions 29 and 30];

Machinery comprises fabricated metal products, machinery and equipment other than transport equipment [ISIC Divisions 25 to 28];

Mining (excluding fuels) and quarrying [ISIC Divisions 07 and 08 and Group 099];

5. International Standard Industrial Classification of All Economic Activities, Series M, No. 4 / Rev. 4, United Nations, New York, 2008.

Food and tobacco [ISIC Divisions 10 to 12];

Paper, pulp and printing [ISIC Divisions 17 and 18];

Wood and wood products (other than pulp and paper) [ISIC Division 16];

Construction [ISIC Divisions 41 to 43];

Textile and leather [ISIC Divisions 13 to 15];

Non-specified (any manufacturing industry not included above) [ISIC Divisions 22, 31 and 32].

Note: Most countries have difficulties supplying an industrial breakdown for all fuels. In these cases, the *non-specified* industry row has been used. Regional aggregates of industrial consumption should therefore be used with caution.

Rows 37-43: *Transport* includes all fuels used for transport [ISIC Divisions 49 to 51] except international marine bunkers and international aviation bunkers. It includes transport in industry and covers *domestic aviation, road, rail, pipeline transport, domestic navigation* and *non-specified transport*. Domestic aviation includes deliveries of aviation fuels to aircraft for domestic aviation – commercial, private, agriculture, etc. It includes use for purposes other than flying, e.g. bench testing of engines, but not airline use of fuel for road transport. The domestic/international split should be determined on the basis of departure and landing locations and not by the nationality of the airline. Note that this may include journeys of considerable length between two airports in a country (e.g. San Francisco to Honolulu). For many countries, the split between international aviation and domestic aviation incorrectly allocates fuel use for both domestic and international departures of domestically owned carriers to domestic air. Fuel used for ocean, coastal and inland fishing (included under *fishing*) and military consumption (included in *other non-specified*) are excluded from transport. *Non-energy use* in transport is excluded from transport and reported separately (see Row 53).

Rows 44-49: *Other* covers *residential* [ISIC Divisions 97 and 98, although this is only a small part of residential], *commercial and public services* [ISIC Divisions 33, 36-39, 45-47, 52, 53, 55, 56, 58-66, 68-75, 77-82, 84 (excluding Class 8422), 85-88, 90-96 and 99], *agriculture/forestry* [ISIC Divisions 01 and 02], *fishing* [ISIC Division 03] and *non-specified*

consumption. Non-specified includes military fuel use for all mobile and stationary consumption (e.g. ships, aircraft, road and energy used in living quarters) regardless of whether the fuel delivered is for the military of that country or for the military of another country. In many cases administrations find it impossible to distinguish energy consumption in *commercial and public services* from *residential* consumption. Some cannot distinguish consumption in *agriculture* from that in *residential*. In these cases, residential will also include consumption in *agriculture* and/or *commercial/public services*. The *other* total is, therefore, more accurate than its components.

Rows 50-54: *Non-energy use* covers those fuels that are used as raw materials in the different sectors and are not consumed as a fuel or transformed into another fuel. Non-energy use is shown separately in final consumption under the heading *non-energy use*.

Note that for biofuels, only the amounts of biomass specifically used for energy purposes (a small part of the total) are included in the energy statistics. Therefore, the non-energy use of biomass is not taken into consideration and the quantities are null by definition.

of which: chemical/petrochemical. Fuels used for chemical feedstocks and non-energy products in the petrochemical industry, which includes cracking and reforming processes for the purpose of producing ethylene, propylene, butylene, synthesis gas, aromatics, butadiene and other hydrocarbon-based raw materials in processes *such* as steam cracking, aromatics plants and steam reforming [part of ISIC Group 201].

Rows 55-57: *Electricity generated* shows the total electricity generated by installations separated into electricity plants and CHP plants. Production includes electricity from combustible fuels, nuclear, hydro (excluding pumped storage production), geothermal, etc. (see, however, the notes on Rows 10 and 11). Electricity produced by *heat* from chemical processes is shown in the *heat* column.

Rows 58-60: *Heat generated* shows the total heat generated by installations separated into CHP plants and heat plants. Heat produced by electric boilers is shown in the *electricity* column. Heat produced by heat pumps, heat from chemical processes and heat from non-specified combustible fuels is shown in *the heat* column.

Graphs description

The graphs in Part II show for each country and regional aggregate the data and indicators described below.

Figure 1: Energy production

Presents total primary energy production, *expressed* in Mtoe. The product *Hydro/other* includes hydro, geothermal, solar, wind, tide/wave/ocean and primary electricity and heat from other sources.

Figure 2: Total primary energy supply

This graph excludes electricity trade. The product *Hydro/other* includes hydro, geothermal, solar, wind, tide/wave/ocean and primary electricity and heat from other sources.

Figure 3: Energy self-sufficiency

Presents total energy production divided by TPES as a percentage.

Figure 4 (OECD and Association countries): Breakdown of sectoral total final consumption by source

This graph includes non-energy use.

The sector *Other* includes commercial and public services, agriculture/forestry, fishing and non-specified.

The product *Other* includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.

Figure 4 (non-OECD, except Association countries): Oil product demand

This graph presents the demand for oil products, expressed in millions of tons, including international marine and aviation bunkers.

FO is residual fuel oil.

Middle distillates include a range of refined petroleum products situated between the lighter fractions and heavier products: other kerosene, diesel.

Aviation fuels include kerosene-type jet fuel, gasoline-type jet fuel and aviation gasoline.

Mogas is motor gasoline, including additives and excluding biofuels.

LPG includes LPG, NGL, ethane and naphtha.

Other includes direct use of crude oil, refinery gas and other products, such as bitumen, white spirit, and lubricants.

Figure 5: Electricity generation by source

The product *Other renewables/Waste* includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste and primary electricity and heat from other sources.

Figure 6: Selected indicators

Presents indices where 1971=100 of four aggregated indicators: TPES/GDP, TPES per capita, TFC/GDP and Electricity per capita.

Notes on the graphs: peat and oil shale are aggregated with the product *coal*, when applicable; the GDP data used to calculate the indicators are at 2010 constant US dollars, converted from national currencies using purchasing power parities.

Key OECD indicators tables and global summary tables

The key indicators tables of Part II for OECD countries as well as the Association countries, and the summary tables of Part III for all countries show indicators derived from the following data.

Energy production: The key indicators tables for OECD countries of Part II present total primary energy production. The summary tables of Part III present primary energy production by different sources separately (coal, crude oil and NGL, natural gas, nuclear energy, hydro energy, geothermal energy, energy from solar, wind tide, etc., of *biofuels* and waste,) and also include a table on the secondary production of oil products, expressed in Mtoe.

Net imports: imports minus exports of total energy (Part II) and of coal, oil, natural gas, electricity, and total energy (Part III), expressed in Mtoe.

Primary energy supply: Total primary energy supply (Part II), and separate primary supply of coal, oil, natural gas, biofuels and waste, renewables, total (Part III), expressed in Mtoe.

Net oil imports: imports minus exports of oil, expressed in Mtoe (Part II).

Oil supply: primary supply of oil, expressed in Mtoe (Part II).

Electricity generation: share of coal, oil, natural gas, nuclear, hydro, renewables, other, expressed in % of total generation, as well as total electricity generation in Gwh (Part III).

Electricity consumption: domestic consumption, i.e. gross production + imports - exports - losses, expressed in TWh (Part II).

Final consumption: expressed in Mtoe, and detailed for coal, oil, natural gas, electricity, and total, including non-energy use (Part III).

Consumption in industry: consumption of coal, oil, natural gas, electricity, and total consumption of energy in the industry sector, including non-energy use, expressed in Mtoe (Part III).

Consumption in transport: consumption of oil, electricity, and total consumption of energy in the transport sector, including non-energy use, expressed in Mtoe (Part III).

Self-sufficiency: expressed as a ratio between production and primary energy supply, for total (Part III), and for total, coal, oil and natural gas (Part II).

GDP using exchanges rates: expressed in billion 2010 USD.

For **OECD countries**, the main source of these series for 1970 to 2018 is the *OECD National Accounts Statistics* database [ISSN: 2074-3947 (online)], last published in book format as *National Accounts of OECD Countries, Volume 2019 Issue1: Main Aggregates*, OECD 2019. GDP data for **Australia, France, Greece, Korea, Sweden** and the **United Kingdom** for 1960 to 1969 and **Denmark** for 1966 to 1969 as well as for **Netherlands** for 1969 were taken from the same source. GDP data for 1960 to 1969 for the other countries have been estimated using the growth rates from the series in the *OECD Economic Outlook* No 98 and other data previously published by the OECD. Growth rates from these sources were also used to estimate data for the **Czech Republic** (prior to 1990), **Hungary** (prior to 1991) and **Poland** (prior to 1990) and the **Slovak Republic** (prior to 1992). Data for **Chile** (prior to 1986) and **Estonia** (prior to 1993) are IEA Secretariat estimates based on GDP growth rates from the World Bank.

For **non-OECD countries and territories**, the main source of the GDP data is *World Development Indicators*, The World Bank, Washington D.C., 2019. GDP figures for **Democratic People's Republic of Korea, Palestinian Authority, Former Soviet Union**

(before 1990), **Gibraltar, Syrian Arab Republic, Chinese Taipei, Former Yugoslavia** (before 1990) and a few countries within the regions **Other Africa, Other non-OECD Americas** and **Other non-OECD Asia** are based on the CHELEM-CEPII online databases, Bureau van Dijk, 2019.

GDP figures for **Albania** (1971-1979), **Angola** (1971-1979), **Bahrain** (1971-1979), **Bosnia and Herzegovina** (1990-1993), **Brunei** (1971-1973), **Bulgaria** (1971-1979), **Croatia** (1990-1994), **Cyprus** (1971-1974), **Eritrea** (2012-2017), **Ethiopia** (1971-1980), **Equatorial Guinea** (1971-1979), **Jordan** (1971-1974), **Kuwait** (1971-1991), **Lao People's Democratic Republic** (1971-1983), **Lebanon** (1971-1987), **Libya** (1971-1998), **Mauritius** (1971-1975), **Moldova** (1990-1994), **Mozambique** (1971-1979), **Qatar** (1971-1999), **Romania** (1971-1989), **Serbia** (1990-1994), **Tanzania** (1971-1987), **Uganda** (1971-1981), **United Arab Emirates** (1971-1974), **Venezuela** (2015-2017), **Vietnam** (1971-1983) and **Yemen** (1971-1989), have been estimated based on the growth rates of the CHELEM-CEPII online database, Bureau van Dijk, 2019.

The GDP 2017 figure for **Greenland** is calculated based on the growth rates of the Statbank Greenland online database, Statistics Greenland, 2019.

For **Curaçao**, GDP figures are based on historical CHELEM-CEPII GDP data for Netherlands Antilles before the country's dissolution, and on Curaçao/Sint Maarten nominal GDP ratios calculated based on information received from Curaçao Central bank. For **South Sudan**, GDP figures are based on data from the International Monetary Fund.

The GDP data have been compiled for all individual countries at market prices in 2010 US dollars.

GDP using purchasing power parities: expressed in billion 2010 USD. Purchasing power parities are the rates of currency conversion that equalise the purchasing power of different currencies. A given sum of money, when converted into different currencies at the PPP rates, buys the same basket of goods and services in all countries. In other words, PPPs are the rates of currency conversion which eliminate the differences in price levels between different countries. The PPPs selected to convert the GDP from national currencies to US dollars were aggregated using the Èltetö, Köves and Szulc (EKS) Eurostat-OECD method and rebased on the United States. For a more detailed description of the methodology please see *Eurostat-OECD Methodological Manual on Purchasing*

Power Parities, 2012 edition, European Union / OECD 2012.

For OECD countries, see *GDP using exchange rates* for sources. Note that data for **Latvia** (prior to 1994) are IEA Secretariat estimates based on GDP growth rates from the World Bank.

For non-OECD countries, the main source of the GDP PPP data is *World Development Indicators*, The World Bank, Washington, D.C., 2019. However, this source is available for GDP PPP (constant 2011 US dollars scaled to the levels of 2010 using current PPP US dollars) only from 1990. Therefore, prior to 1990 GDP PPP data have been calculated based on the PPP conversion factor (GDP) to market exchange rate ratio.

GDP PPP figures for **Democratic People's Republic of Korea, Palestinian Authority, Former Soviet Union** (before 1990), **Syrian Arab Republic, Chinese Taipei, Former Yugoslavia** (before 1990) and a few countries within the regions **Other Africa, Other non-OECD Americas** and **Other non-OECD Asia** are based on the CHELEM-CEPII online databases, Bureau van Dijk, 2018. The GDP PPP data have been converted from GDP using purchasing power parity rates. These data have been scaled to the price levels of 2010.

For **Gibraltar**, GDP PPP figures are based on historical CHELEM-CEPII GDP PPP data and government of Gibraltar national accounts.

For **Curaçao**, GDP PPP figures are based on historical CHELEM-CEPII GDP data for Netherlands Antilles before its dissolving, and for 2012-2017 GDP PPP is calculated based on historical GDP PPP / GDP ratio.

For **South Sudan**, GDP PPP figures are based on International Monetary Fund data.

GDP PPP figures for **Bosnia and Herzegovina** (1990-1993), **Croatia** (1990-1994), **Cuba, Eritrea** (2012-2017), **Kuwait** (1990-1991), **Libya** (1990-1998 and 2012-2017), **Moldova** (1990-1994), **Serbia** (1990-1994), **Qatar** (1990-1999) and **Venezuela** (2015-2017) have been estimated using the ratio of GDP PPP and GDP data based on CHELEM-CEPII online database, Bureau van Dijk, 2019. These data have been scaled to the price levels of 2010.

The GDP PPP reflect the changes to power purchasing parity rates based on the 2011 International Comparison Program (ICP), published in 2014. The ICP has worked for 6 years to better estimate the value of the PPP 'basket of goods' for all countries for which the World Bank calculates GDP PPP. For many

countries, this value has significantly changed in comparison to previous ICP exercises. This leads to significant revisions to GDP PPP for many countries compared to previous publications.

Please note that the regional totals shown for OECD and other regions were calculated by summing individual countries' GDP data. This calculation yields slightly different results to the GDP totals published by OECD in its national accounts which are derived from chained-linked indices. GDP data from the World Bank have also been summed rather than using chain-linked indices.

Population: For OECD countries, the main source of these series for 1970 to 2018 when available is the OECD *National Accounts Statistics* database [ISSN: 2074-3947 (online)], last published in book format as *National Accounts of OECD Countries, Volume 2019 Issue 1: Main Aggregates*, OECD 2019. Data for 1960 to 1969 have been estimated using the growth rates from the population series published in the *OECD Factbook 2015* (online database version). Growth rates from the *OECD Factbook 2015* were also used to estimate data for **Chile** (prior to 1986), **Estonia** (prior to 1993), **Israel** (prior to 1995), the **Slovak Republic** (prior to 1990) and **Slovenia** (prior to 1995). Data for **Latvia** (prior to 1995) and **Lithuania** (prior to 1995) are IEA Secretariat estimates based on GDP growth rates from the World Bank.

For non-OECD countries, the main source of the population data is *World Development Indicators*, The World Bank, Washington D.C., 2018.

Population data for **Former Soviet Union** (before 1990), **Chinese Taipei, Former Yugoslavia** (before 1990), **Eritrea** (2012-2016), **Kuwait** (1992-1994) and for a few countries within the regions⁶ **Other Africa, Other non-OECD Americas** and **Other non-OECD Asia** are based on the CHELEM-CEPII online database, Bureau van Dijk, Paris, 2018. Population data for **Cyprus**⁶ are taken from the Eurostat online database. Population data for **Gibraltar** are taken from the government of Gibraltar *Key Indicators* publication available online.

Industrial Production Index (OECD): The main source of these series is the OECD database Main Economic Indicators, June 2019. Industrial production refers to the goods produced by establishments engaged in mining (including oil extraction), manufacturing, and production of electricity, gas and water.

6. Please refer to the section on Geographical coverage.

These are Sections B, C, D and E of ISIC Rev. 4 or NACE Rev. 2 classifications. From 1991, the industrial production index for Germany refers to unified Germany and has been linked to the series for western Germany. Data for Mexico include construction (Section F) as a separate indicator. For

OECD Total and OECD Europe, the IPI has been chain linked and data refer to all OECD countries from 1990 onwards; prior to 1990 **Chile, the Czech Republic, Estonia, Hungary, Israel, Latvia, Lithuania, Poland, the Slovak Republic, Slovenia** and **Switzerland** are not included.

2. UNITS AND CONVERSIONS

General conversion factors for energy

To:	TJ	Gcal	Mtoe	MBtu	GWh
From:	multiply by:				
terajoule (TJ)	1	2.388×10^2	2.388×10^{-5}	9.478×10^2	2.778×10^{-1}
gigacalorie (Gcal)	4.187×10^{-3}	1	1.000×10^{-7}	3.968	1.163×10^{-3}
million tonnes of oil equivalent (Mtoe)	4.187×10^4	1.000×10^7	1	3.968×10^7	1.163×10^4
million British thermal units (MBtu)	1.055×10^{-3}	2.520×10^{-1}	2.520×10^{-8}	1	2.931×10^{-4}
gigawatt hour (GWh)	3.600	8.598×10^2	8.598×10^{-5}	3.412×10^3	1

Conversion factors for mass

To:	kg	t	lt	st	lb
From:	multiply by:				
kilogramme (kg)	1	1.000×10^{-3}	9.842×10^{-4}	1.102×10^{-3}	2.205
tonne (t)	1.000×10^3	1	9.842×10^{-1}	1.102	2.205×10^3
long ton (lt)	1.016×10^3	1.016	1	1.120	2.240×10^3
short ton (st)	9.072×10^2	9.072×10^{-1}	8.929×10^{-1}	1	2.000×10^3
pound (lb)	4.536×10^{-1}	4.536×10^{-4}	4.464×10^{-4}	5.000×10^{-4}	1

Conversion factors for volume

To:	gal US	gal UK	bbl	ft ³	l	m ³
From:	multiply by:					
US gallon (gal US)	1	8.327×10^{-1}	2.381×10^{-2}	1.337×10^{-1}	3.785	3.785×10^{-3}
UK gallon (gal UK)	1.201	1	2.859×10^{-2}	1.605×10^{-1}	4.546	4.546×10^{-3}
barrel (bbl)	4.200×10^1	3.497×10^1	1	5.615	1.590×10^2	1.590×10^{-1}
cubic foot (ft ³)	7.481	6.229	1.781×10^{-1}	1	2.832×10^1	2.832×10^{-2}
litre (l)	2.642×10^{-1}	2.200×10^{-1}	6.290×10^{-3}	3.531×10^{-2}	1	1.000×10^{-3}
cubic metre (m ³)	2.642×10^2	2.200×10^2	6.290	3.531×10^1	1.000×10^3	1

Decimal prefixes

10 ¹	deca (da)	10 ⁻¹	deci (d)
10 ²	hecto (h)	10 ⁻²	centi (c)
10 ³	kilo (k)	10 ⁻³	milli (m)
10 ⁶	mega (M)	10 ⁻⁶	micro (μ)
10 ⁹	giga (G)	10 ⁻⁹	nano (n)
10 ¹²	tera (T)	10 ⁻¹²	pico (p)
10 ¹⁵	peta (P)	10 ⁻¹⁵	femto (f)
10 ¹⁸	exa (E)	10 ⁻¹⁸	atto (a)

Energy content

Coal

Coal has separate net calorific values for production, imports, exports, inputs to electricity/heat generation and coal used in coke ovens, blast furnaces and industry. For electricity/heat generation, coal inputs to each type of plant (i.e. main activity electricity plant, auto-producer electricity plant, main activity CHP plant, autoproducer CHP plant, main activity heat plant, autoproducer heat plant) are converted to energy units using average factors calculated from the annual *Electricity Questionnaire*. All other flows are converted using an average net calorific value. Country-specific net calorific values for 2015 are given in the section on Net calorific values.

Crude oil

Country-specific net calorific values (NCV) for production, imports and exports by country are used to calculate the balances. The average value is used to convert all the other flows to heat values. Country-specific net calorific values for 2015 are given in the section on Net calorific values.

Gases

World Energy Statistics expresses the following gases in terajoules, using their gross calorific value.

$$1 \text{ terajoule} = 0.00002388 \text{ Mtoe.}$$

To calculate the net heat content of a gas from its gross heat content, multiply the gross heat content by the appropriate following factor.

Gas	Ratio NCV to GCV
Natural gas	0.9
Gas works gas	0.9
Coke oven gas	0.9
Blast furnace gas	1.0
Other recovered gases	1.0

Biofuels and Waste

The heat content of primary solid biofuels, biogases, municipal waste and industrial waste, expressed in terajoules on a net calorific value basis, is presented in *World Energy Statistics*. The IEA Secretariat does not receive information on volumes and other characteristics of these fuels.

$$1 \text{ terajoule} = 0.00002388 \text{ Mtoe.}$$

Data for charcoal are converted from tonnes using the average net calorific values given in the section on Net calorific values.

Unless country-specific information has been provided, data for biogasoline are converted from tonnes using 26 800 kJ/kg. Biodiesels and other liquid biofuels are assumed to have a net calorific value of 36 700 kJ/kg unless otherwise specified.

Oil products

The IEA applies regional default conversion factors (in conjunction with Eurostat for the European countries) for the oil products, allowing country-specific values for some non-OECD countries. Regional and country-specific net calorific values are given in the section on Net calorific values.

Electricity

Figures for electricity production, trade, and final consumption are calculated using the energy content of the electricity (i.e. at a rate of 1 TWh = 0.086 Mtoe).

Hydro-electricity production (excluding pumped storage) and electricity produced by other non-thermal means (wind, tide/wave/ocean, solar PV, etc.) are accounted for similarly using 1 TWh = 0.086 Mtoe.

The primary energy equivalent of nuclear electricity is calculated from the gross generation by assuming a 33% conversion efficiency, i.e. 1 TWh = (0.086 ÷ 0.33) Mtoe.

In the case of electricity produced from geothermal heat, if the actual geothermal efficiency is not known, then the primary equivalent is calculated assuming an efficiency of 10%, so 1 TWh = (0.086 ÷ 0.1) Mtoe.

For electricity produced from solar thermal heat, the primary equivalent is calculated assuming an efficiency of 33%, so 1 TWh = (0.086 ÷ 0.33) Mtoe, unless the actual efficiency is known.

Heat

Information on heat is supplied in terajoules and 1 terajoule = 0.00002388 Mtoe.

In the case of heat produced in a geothermal plant, if the actual geothermal efficiency is not known, then the primary equivalent is calculated assuming an efficiency of 50%, so 1 TJ = $(0.00002388 \div 0.5)$ Mtoe.

For heat produced in a solar thermal plant, the primary equivalent is equal to the heat consumed, i.e. 1 TJ = 0.00002388 Mtoe.

For direct use of geothermal and solar thermal heat, all the heat consumed is accounted for in production and consumption.

Examples

The following examples indicate how to calculate the net calorific content (in Mtoe) of the quantities expressed in original units.

From original units	To Mtoe (on a NCV basis)
Coking coal production (Poland) for 2016 in thousand tonnes	divide by 41 868 and then multiply by 29.606
Natural gas in terajoules (gross)	multiply by 0.00002388 and then multiply by 0.9
Motor gasoline (Poland) in thousand tonnes	divide by 41 868 and then multiply by 44.000
Heat in terajoules (net)	multiply by 0.00002388

3. NOTES ON DATA QUALITY

Methodology

For OECD member countries, the data shown in this publication are derived from information provided in the five annual OECD questionnaires¹: “Oil”, “Natural Gas”, “Solid Fossil Fuels and Manufactured Gases”, “Renewables” and “Electricity and Heat” completed by the national administrations. For the member countries of the European Union and the Economic Commission for Europe of the United Nations (UNECE) and a few others, the data shown in this publication are mostly based on information provided by the national administrations through the same annual questionnaires. The commodity balances for all other countries are based on national energy data of heterogeneous nature, converted and adapted to fit the IEA format and methodology.

Considerable effort has been made to ensure that the data presented in this publication adhere to the IEA definitions reported in the section on Methodological notes. These definitions, based on the *United Nations International Recommendations on Energy Statistics*², are used by most of the international organisations that collect energy statistics.

Nevertheless, energy statistics at the national level are often collected using criteria and definitions which differ, sometimes considerably, from those of international organisations. This is especially true for non-OECD countries, who voluntarily submit data to the IEA. The IEA Secretariat has identified most of these differences and, where possible, adjusted the data to meet international definitions.

Recognised anomalies occurring in specific countries are presented in the section on Country notes and

sources. Country notes present the most important deviations from the IEA methodology, and are by no means a comprehensive list of anomalies by country.

Estimation

In addition to adjustments addressing differences in definitions, estimations³ are sometimes required to complete major aggregates, when key statistics are missing.

The IEA Secretariat has attempted to provide all the elements of energy balances down to the level of final consumption, for all countries and years. Providing all the elements of supply, as well as all inputs and outputs of the main transformation activities (such as oil refining and electricity generation), has often required estimations. Estimations have been generally made after consultation with national statistical offices, oil companies, electricity utilities and national energy experts.

Time series and political changes

The IEA Secretariat reviews its databases each year. In the light of new assessments, important revisions may be made to time series of individual countries during the course of this review. Therefore, some data in this publication have been substantially revised with respect to previous editions. Please always consult the section on Country notes and sources.

It is also the case that energy statistics for some countries undergo continuous changes in their coverage or

1. See link to the annual questionnaires:

www.iea.org/statistics/resources/questionnaires/

2. <https://unstats.un.org/UNSD/energy/ires/default.htm>.

3. Data may not include all informal and/or illegal trade, production or consumption of energy products, although the IEA Secretariat makes efforts to estimate these where reliable information is available.

methodology. Consequently, breaks in time series are considered to be unavoidable.

For example, energy balances for the individual countries of the Former Soviet Union and the Former Yugoslavia have been constructed since 1990 and are not available for previous years. These balances are generally based on official submissions, but estimations also have been made by the IEA Secretariat. The section on Country notes and sources describes in detail these elements country by country.

Classification of fuel uses

National statistical sources often lack adequate information on the consumption of fuels in different categories of end use. Many countries do not conduct annual surveys of consumption in the main sectors of economic activity, and published data may be based on out-of-date surveys. Therefore, sectoral disaggregation of consumption should generally be interpreted with caution.

In many countries of non-OECD Europe and Eurasia and in China, the sectoral classification of fuel consumption before the reforms of the 1990's significantly differed from that of market economies. Sectoral consumption was defined according to the economic branch of the user, rather than according to the purpose or use of the fuel. For example, consumption of gasoline in the vehicle fleet of an enterprise attached to the economic branch 'Iron and steel' was classified as consumption in the 'Iron and steel' industry itself.

Where possible, data have been adjusted to fit international classifications, for example by assuming that most gasoline is consumed in transport. However, it has not been possible to reclassify products other than gasoline and jet fuel as easily, and few other adjustments have been made to other products.

Imports and exports

For a given product, imports and exports may not sum up to zero at the world level for a number of reasons. Fuels may be classified differently (i.e. fuel oil exports may be reported as refinery feedstocks by the importing country; NGL exports may be reported as LPG by the importing country, etc.). Other possible reasons include discrepancies in conversion factors, inclusion of international bunkers in exports, timing differences, data reported on a fiscal year basis instead of calendar year for certain countries, and under-reporting of imports and exports for fiscal reasons.

Specific issues by fuel

Coal

Data on sectoral coal consumption are usually reported in metric tonnes. Net calorific values of different coal types used in different end use sectors are not always available. In the absence of specific information, the IEA Secretariat estimates end use net calorific values based on the available net calorific values for production, imports and exports.

Oil

The IEA Secretariat collects comprehensive statistics for oil supply and use, including oil for own use of refineries, oil delivered to international bunkers, and oil used as petrochemical feedstock. National statistics often do not report all these amounts.

Reported production of refined products may refer to net rather than gross refinery output; consumption of oil products may be limited to sales to domestic markets and may not include deliveries to international shipping or aircraft. Oil consumed as petrochemical feedstock in integrated refinery/petrochemical complexes is often not included in available official statistics.

Where possible, the IEA Secretariat has estimated those unreported data, in consultation with the oil industry. In the absence of any other indication, refinery fuel use is estimated to be a percentage (e.g. 5%) of refinery throughput, and where possible, split between refinery gas and fuel oil. For a description of some adjustments made to the sectoral consumption of oil products, see the above section 'Classification of fuel uses'.

Natural gas

Natural gas should be comprised mainly of methane; other gases, such as ethane and heavier hydrocarbons, should be reported under the heading of 'oil'. The IEA defines natural gas production as the marketable production, i.e. net of field losses, flaring, venting and re-injection.

However, the lack of adequate definitions makes it difficult or impossible to identify all quantities of gas at all different stages of its separation into dry gas (methane) and heavier fractions. National data for natural gas do not always explicitly show separate quantities for field losses, flaring, venting and re-injection.

Natural gas supply and demand statistics are normally reported in volumetric units and it is difficult to obtain accurate data on the calorific value. In the absence of

specific information, the IEA generally applies an average gross calorific value of 38 TJ/million m³.

Reliable consumption data for natural gas at a disaggregated level are often difficult to find. This is especially true for some of the largest natural gas consuming countries in the Middle East. Therefore, industrial use of natural gas for these countries is frequently missing from the data published here.

Electricity

The IEA classification shows ‘main activity producers’ separately from ‘autoproducers’ of electricity and heat. For non-OECD countries, data on autoproducers are not always reported. In such cases, the quantities of fuels used as input to electricity are included under the appropriate end-use sector.

When statistics of production of electricity from biofuels and waste are available, they are included in total electricity production. However, these data are not comprehensive; e.g. some generation from waste biomass in sugar refining may be unreported.

When unreported, inputs of fuels for electricity generation are estimated using information on electricity output, fuel efficiency and type of generation capacity.

Off-grid electricity generation may be still underreported due to measurement difficulties, especially for developing countries.

Heat

For heat, transition economies (countries of non-OECD Europe and Eurasia) and China used to adopt a different methodology from that adopted in market economies. They allocated the transformation of primary fuels (coal, oil and gas) by industry into heat *for consumption on site* to the transformation activity “*heat production*”, **not** to industrial consumption, as in the IEA methodology⁴. The transformation output of *Heat* was then allocated to the various end use sectors. The losses occurring in the transformation of fuels into heat in industry were not included in final consumption of industry.

Although a number of countries have switched to the practice of international organisations, this important issue reduces the possibility of cross-country comparisons for sectoral end use consumption between transition economies and market economies.

4. For autoproducer plants, the international methodology restricts the inclusion of heat in transformation processes to that sold to third parties.

Biofuels and waste

The IEA publishes data on production, domestic supply and consumption of biofuels and waste for all countries and all regions.

Data for non-OECD countries are often based on secondary sources and may be of variable quality, which makes comparisons between countries difficult. For many countries, historical data are derived from surveys which were often irregular, irreconcilable and conducted at a local rather than national level.

Where historical series were incomplete or unavailable, they were estimated using a methodology consistent with the projection framework of the IEA’s 1998 edition of *World Energy Outlook* (September 1998). First, nation-wide domestic supply per capita of biofuels and wastes was compiled or estimated for 1995. Then, per capita supply for the years 1971 to 1994 was estimated using a log/log equation with either GDP per capita or percentage of urban population as exogenous variables, depending on the region. Finally, supply of total biofuels and waste after 1996 was estimated assuming a growth rate either constant, equal to the population growth rate, or based on the 1971-1994 trend.

Those estimated time series should be treated very cautiously. The chart below provides a broad indication of the estimation methodology and of the data quality by region.

Region	Main source of data	Data quality	Exogenous variables
Africa	FAO database and AfDB	low	population growth rate
Non-OECD Americas	national and OLADE	high	none
Asia	surveys	high to low	population growth rate
Non-OECD Europe and Eurasia	questionnaires and FAO	high to medium	none
Middle East	FAO	medium to low	none

Given the importance of vegetal fuels in the energy picture of many developing countries, balances down to final consumption by end-use for individual products or product categories have been compiled for all countries.

The IEA hopes that the inclusion of these data will encourage national administrations and other agencies active in the field to enhance the level and quality of data collection and coverage for biofuels and waste. More details on the methodology used by each country may be provided on request and comments are welcome.

4. GEOGRAPHICAL COVERAGE

In this publication:

World includes OECD Total; Africa; Non-OECD Americas; Non-OECD Asia (excluding China); China (People's Republic of China and Hong Kong, China); Non-OECD Europe and Eurasia; Middle East; World aviation bunkers and World marine bunkers. It is also the sum of Africa, Americas, Asia, Europe, Oceania, World aviation bunkers and World marine bunkers.

Africa includes Algeria; Angola; Benin; Botswana; Burkina Faso; Burundi; Cabo Verde; Cameroon; Central African Republic; Chad; Comoros; the Republic of the Congo (Congo); Côte d'Ivoire; the Democratic Republic of the Congo; Djibouti; Egypt; Equatorial Guinea; Eritrea; the Kingdom of Eswatini; Ethiopia; Gabon; Gambia; Ghana; Guinea; Guinea-Bissau; Kenya; Lesotho; Liberia; Libya; Madagascar; Malawi; Mali; Mauritania; Mauritius; Morocco; Mozambique; Namibia; Niger; Nigeria; Réunion (until 2010); Rwanda; Sao Tome and Principe; Senegal; the Seychelles; Sierra Leone; Somalia; South Africa; South Sudan (from 2012); Sudan; the United Republic of Tanzania (Tanzania); Togo; Tunisia; Uganda; Zambia; Zimbabwe.

Americas includes Antigua and Barbuda; Argentina; Aruba; the Bahamas; Barbados; Belize; Bermuda; the Plurinational State of Bolivia (Bolivia); Bonaire (from 2012); the British Virgin Islands; Brazil; Canada; the Cayman Islands; Chile; Colombia; Costa Rica; Cuba; Curaçao¹; Dominica; the Dominican Republic;

1. The Netherlands Antilles was dissolved on 10 October 2010 resulting in two new 'constituent countries' (Curaçao and Sint Maarten) with the other islands joining The Netherlands as "special municipalities". However, due to lack of detailed data the IEA Secretariat's data and estimates under the "Netherlands Antilles" still refer to the whole territory of the Netherlands Antilles as it was known prior to 10 October 2010 up to the end of 2011. Data refer only to the island of Curaçao from 2012. The other islands of the former Netherlands Antilles are added to Other non-OECD Americas from 2012.

Ecuador; El Salvador; the Falkland Islands (Malvinas); Guatemala; French Guiana (until 2010); Grenada; Guadeloupe (until 2010); Guyana; Haiti; Honduras; Jamaica; Martinique (until 2010); Mexico; Montserrat; Nicaragua; Panama; Paraguay; Peru; Puerto Rico; Saba (from 2012); Saint Kitts and Nevis; Saint Lucia; Saint Pierre and Miquelon; Saint Vincent and the Grenadines; Sint Eustatius (from 2012); Sint Maarten (from 2012); Suriname; Trinidad and Tobago; the Turks and Caicos Islands; the United States; Uruguay; the Bolivarian Republic of Venezuela (Venezuela).

Asia (from 1990) includes Afghanistan; Armenia; Azerbaijan; Bahrain; Bangladesh; Bhutan; Brunei Darussalam; Cambodia; the People's Republic of China; Cyprus²; Georgia; Hong Kong, China; India; Indonesia; the Islamic Republic of Iran; Iraq; Israel³; Japan; Jordan; the Democratic People's Republic of Korea; Korea; Kazakhstan; Kuwait; Kyrgyzstan; Lao People's Democratic Republic; Lebanon; Macau, China; Malaysia; the Maldives; Mongolia; Myanmar; Nepal; Oman; Pakistan; the Philippines; Qatar; Saudi Arabia; Singapore; Sri Lanka; the Syrian Arab Republic; Tajikistan; Chinese Taipei; Thailand; Timor-Leste;

2. Note by Turkey:

The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus issue".

Note by all the European Union member states of the OECD and the European Union:

The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

3. The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Turkey; Turkmenistan; the United Arab Emirates; Uzbekistan; Viet Nam; and Yemen.

Europe (from 1990) includes Albania; Austria; Belarus; Belgium; Bosnia and Herzegovina; Bulgaria; Croatia; the Czech Republic; Denmark; Estonia; Finland; France⁴; Germany; Gibraltar; Greece; Hungary; Iceland; Ireland; Italy; Kosovo⁵; Latvia; Lithuania; Luxembourg; Malta; the Republic of Moldova (Moldova); Montenegro; the Netherlands; the Republic of North Macedonia; Norway; Poland; Portugal; Romania; the Russian Federation; Serbia⁶; the Slovak Republic; Slovenia; Spain; Sweden; Switzerland; Ukraine; the United Kingdom.

Oceania includes Australia; New Zealand; Cook Islands; Fiji; French Polynesia; Kiribati; New Caledonia; Palau; Papua New Guinea; Samoa; the Solomon Islands; Tonga; Vanuatu.

The **International Energy Agency (IEA)** includes Australia; Austria; Belgium; Canada; the Czech Republic; Denmark; Estonia⁷; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Japan; Korea; Luxembourg; Mexico; the Netherlands; New Zealand; Norway; Poland; Portugal; the Slovak Republic; Spain; Sweden; Switzerland; Turkey; the United Kingdom; the United States.

The **IEA and Accession/Association countries** includes: IEA member countries: Australia; Austria; Belgium; Canada; the Czech Republic; Denmark; Estonia⁷; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Japan; Korea; Luxembourg; Mexico; the Netherlands; New Zealand; Norway; Poland; Portugal; the Slovak Republic; Spain; Sweden; Switzerland; Turkey; the United Kingdom and the United States; Accession country: Chile; Association countries: Brazil; the People's Republic of China; India; Indonesia; Morocco; Singapore; South Africa; Thailand.

The **Organisation for Economic Co-Operation and Development (OECD)** includes Australia; Austria; Belgium; Canada; Chile; the Czech Republic; Denmark; Estonia; Finland; France; Germany;

Greece; Hungary; Iceland; Ireland; Israel; Italy; Japan; Korea; Latvia⁸; Lithuania⁹; Luxembourg; Mexico; the Netherlands; New Zealand; Norway; Poland; Portugal; the Slovak Republic; Slovenia; Spain; Sweden; Switzerland; Turkey; the United Kingdom; the United States.

OECD Americas includes Canada; Chile; Mexico; the United States.

OECD Asia Oceania includes Australia; Israel; Japan; Korea; New Zealand.

OECD Europe includes Austria; Belgium; the Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Iceland; Ireland; Italy; Latvia⁸; Lithuania⁹; Luxembourg; the Netherlands; Norway; Poland; Portugal; the Slovak Republic; Slovenia; Spain; Sweden; Switzerland; Turkey; the United Kingdom.

Estonia, Latvia, Lithuania and Slovenia are included starting in 1990. Prior to 1990, Estonia, Latvia and Lithuania are included in Former Soviet Union and Slovenia is included in Former Yugoslavia.

Within the **OECD**:

- **Australia** excludes the overseas territories;
- **Denmark** excludes Greenland and the Faroe Islands, except prior to 1990, where data on oil for Greenland were included with the Danish statistics. The administration is planning to revise the series back to 1974 to exclude these amounts;
- **France** includes Monaco and excludes the overseas collectivities: New Caledonia; French Polynesia; Saint Barthélemy; Saint Martin; Saint Pierre and Miquelon; and Wallis and Futuna. Energy¹⁰ data for the following overseas departments (DOM): Guadeloupe; French Guiana; Martinique; Mayotte; and Réunion are included for the years 2011-2017, and excluded for earlier years;
- **Germany** includes the new federal states of Germany from 1970 onwards;
- The statistical data for **Israel** are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law;

4. Data for the overseas departments are included in Europe starting with 2011, and in other regions as appropriate (America or Africa) until 2010.

5. This designation is without prejudice to positions on status, and is in line with United Nations Security Council Resolution 1244/99 and the Advisory Opinion of the International Court of Justice on Kosovo's declaration of independence.

6. Serbia includes Montenegro until 2004 and Kosovo until 1999.

7. Estonia is included starting in 1990. Prior to 1990, data for Estonia are included in Former Soviet Union.

8. Latvia is included starting in 1990. Prior to 1990, data for Latvia are included in Former Soviet Union.

9. Lithuania became an OECD Member in July 2018. Accordingly, Lithuania appears in the list of OECD Members and is included in the zone aggregates for data starting in 1990, starting with the 2019 edition.

10. GDP and population data include DOM for the whole time series.

- **Italy** includes San Marino and the Holy See;
- **Japan** includes Okinawa;
- **Netherlands** excludes Suriname, Aruba and the other former Netherlands Antilles (Bonaire, Curaçao, Saba, Saint Eustatius and Sint Maarten);
- **Portugal** includes the Azores and Madeira;
- **Spain** includes the Canary Islands;
- **Switzerland** includes Liechtenstein for oil data; data for other fuels do not include Liechtenstein;
- Shipments of coal and oil to the Channel Islands and the Isle of Man from the **United Kingdom** are not classed as exports. Supplies of coal and oil to these islands are, therefore, included as part of UK supply. Exports of natural gas to the Isle of Man are included with the exports to Ireland;
- **United States** includes the 50 states and the District of Columbia but generally excludes all territories, and all trade between the U.S. and its territories. Oil statistics include Guam, Puerto Rico¹¹ and the United States Virgin Islands; trade statistics for coal include international trade to and from Puerto Rico and the United States Virgin Islands; starting with 2017 data, inputs to and outputs from electricity and heat generation include Puerto Rico.

Non-OECD Europe and Eurasia includes Albania; Armenia; Azerbaijan; Belarus; Bosnia and Herzegovina; Bulgaria; Croatia; Cyprus²; Georgia; Gibraltar; Kazakhstan; Kosovo⁵; Kyrgyzstan; Malta; the Republic of Moldova (Moldova); Montenegro; the Republic of North Macedonia; Romania; the Russian Federation; Serbia⁶; Tajikistan; Turkmenistan; Ukraine; Uzbekistan; the Former Soviet Union; the Former Yugoslavia.

Non-OECD Asia excluding China includes Bangladesh; Brunei Darussalam; Cambodia (from 1995); India; Indonesia; the Democratic People's Republic of Korea; Malaysia; Mongolia (from 1985); Myanmar; Nepal; Pakistan; the Philippines; Singapore; Sri Lanka; Chinese Taipei; Thailand; Viet Nam; **Other non-OECD Asia**.

China includes the (People's Republic of) China; Hong Kong, China.

Non-OECD Americas includes Argentina; the Plurinational State of Bolivia (Bolivia); Brazil; Colombia; Costa Rica; Cuba; Curaçao¹; the Dominican Republic; Ecuador; El Salvador; Guatemala; Haiti; Honduras; Jamaica; Nicaragua; Panama; Paraguay; Peru; Suriname (from 2000), Trinidad and Tobago; Uruguay; the Bolivarian Republic of Venezuela (Venezuela); **Other non-OECD Americas**.

Middle East includes Bahrain; the Islamic Republic of Iran; Iraq; Jordan; Kuwait; Lebanon; Oman; Qatar; Saudi Arabia; the Syrian Arab Republic; the United Arab Emirates; Yemen.

Other Africa includes Botswana (until 1980); Burkina Faso; Burundi; Cabo Verde; Central African Republic; Chad; Comoros; Djibouti; Equatorial Guinea; the Kingdom of Eswatini; Gambia; Guinea; Guinea-Bissau; Lesotho; Liberia; Madagascar; Malawi; Mali; Mauritania; Namibia (until 1990); Niger (until 1999); Réunion (until 2010); Rwanda; Sao Tome and Principe; the Seychelles; Sierra Leone; Somalia; Uganda.

Other non-OECD Americas includes Anguilla, Antigua and Barbuda; Aruba; the Bahamas; Barbados; Belize; Bermuda; Bonaire (from 2012); the British Virgin Islands; the Cayman Islands; Dominica; the Falkland Islands (Malvinas); French Guiana (until 2010); Grenada; Guadeloupe (until 2010); Guyana; Martinique (until 2010); Montserrat; Puerto Rico (for natural gas and – up to 2016 data - electricity)¹¹; Saba (from 2012); Saint Eustatius (from 2012); Saint Kitts and Nevis; Saint Lucia; Saint Pierre and Miquelon; Saint Vincent and the Grenadines; Sint Maarten (from 2012); Suriname (until 1999); the Turks and Caicos Islands.

Other non-OECD Asia includes Afghanistan; Bhutan; Cambodia (until 1994); Cook Islands; Fiji; French Polynesia; Kiribati; Lao People's Democratic Republic; Macau, China; the Maldives; Mongolia (until 1984); New Caledonia; Palau (from 1994); Papua New Guinea; Samoa; the Solomon Islands; Timor-Leste; Tonga; Vanuatu.

The **European Union - 28 (EU-28)** (from 1990) includes Austria; Belgium; Bulgaria; Croatia; Cyprus²; the Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; the Netherlands; Poland; Portugal; Romania; the Slovak Republic; Slovenia; Spain; Sweden; the United Kingdom.

11. Natural gas and electricity data for Puerto Rico are included under Other non-OECD Americas, except for input to and output to electricity and heat generation, included under the United States starting with 2017 data.

Please note that in the interest of having comparable data, all these countries are included since 1990 despite different entry dates into the European Union.

G7 includes Canada; France; Germany; Italy; Japan; the United Kingdom; the United States.

G8 includes Canada; France; Germany; Italy; Japan; the Russian Federation; the United Kingdom; the United States.

G20 includes Argentina; Australia; Brazil; Canada; China (including Hong Kong, China); India; Indonesia; Japan; Korea; Mexico; the Russian Federation; Saudi Arabia; South Africa; Turkey; the United States; the European Union – 28.

The **Organisation of the Petroleum Exporting Countries (OPEC)** includes Algeria; Angola; Ecuador; Equatorial Guinea (starting with 1981 data); Gabon; the Islamic Republic of Iran; Iraq; Kuwait; Libya; Nigeria; Qatar; Saudi Arabia; the United Arab Emirates; the Bolivarian Republic of Venezuela (Venezuela).¹²

Please note that the following countries have not been considered:

- **Non-OECD Europe and Eurasia:** Andorra; Faroe Islands (after 1990); Liechtenstein¹³ (except for oil data); the Palestinian Authority; Svalbard; Jan Mayen Islands;
- **Africa:** British Indian Ocean Territory; French Southern and Antarctic Lands; Mayotte (until 2010); Saint Helena; Western Sahara;
- **Non-OECD Americas:** Bouvet Island; Saint Barthélemy; Greenland (after 1990); Saint Martin (French Part); South Georgia and the South Sandwich Islands;
- Antarctica;
- **Non-OECD Asia excluding China:** American Samoa; Cocos (Keeling) Islands; Christmas Island; Heard Island and McDonald Islands; Marshall Islands; Micronesia (Federated States of); Nauru; Niue; Norfolk Island; Northern Mariana Islands; Pitcairn; Tokelau; Tuvalu; United States Minor Outlying Islands; Wallis and Futuna Islands.

12. Data for Congo, that joined OPEC in June 2018, are not included in the OPEC aggregate in this edition.

13. Oil data for Liechtenstein are included under Switzerland.

PART II

ENERGY BALANCES AND INDICATORS BY REGION AND COUNTRY

WORLD AND REGIONAL TOTALS

World

Figure 1. Energy production

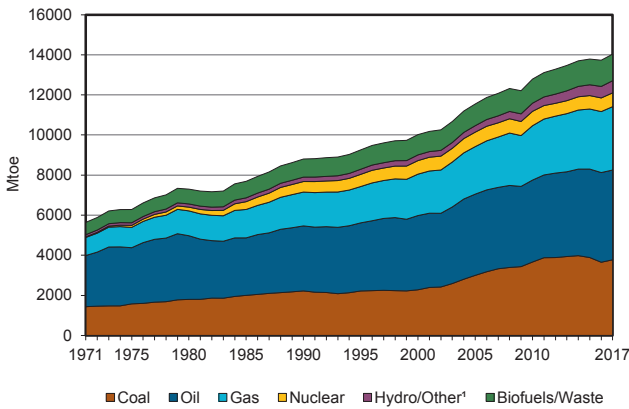


Figure 2. Total primary energy supply²

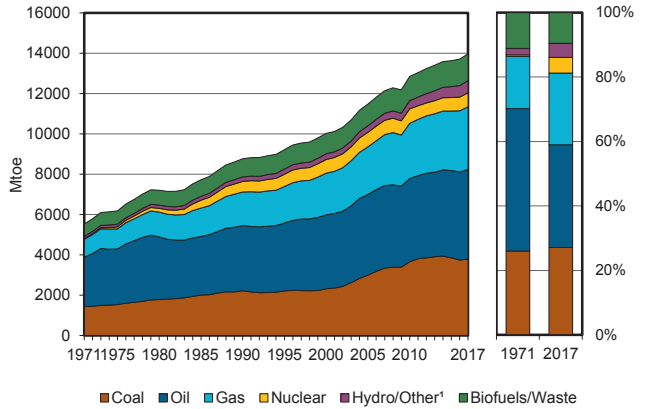


Figure 3. Energy self-sufficiency³

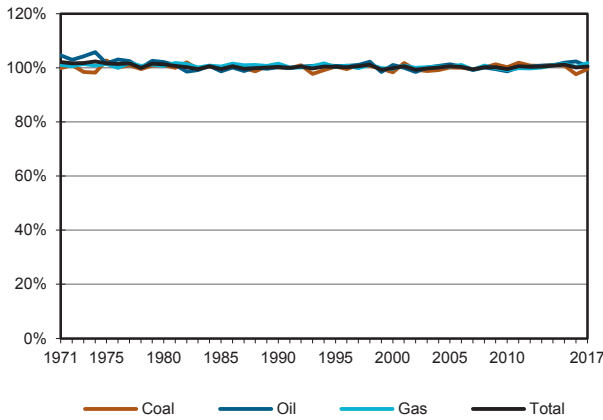


Figure 4. Oil products demand⁴

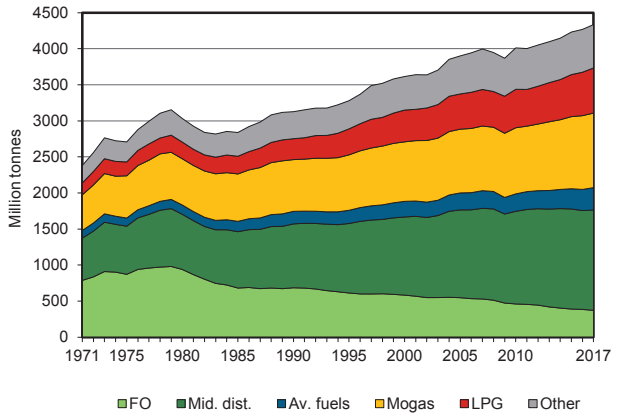


Figure 5. Electricity generation by source

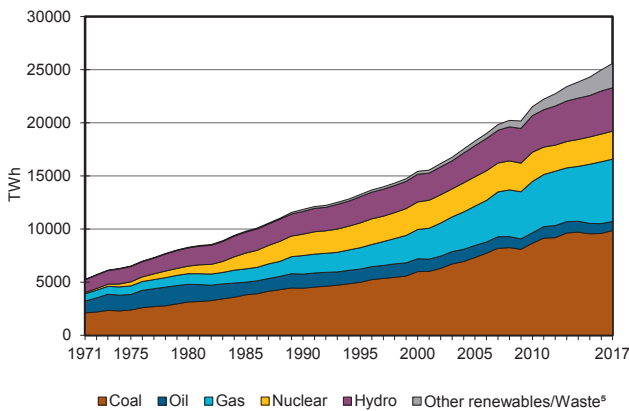
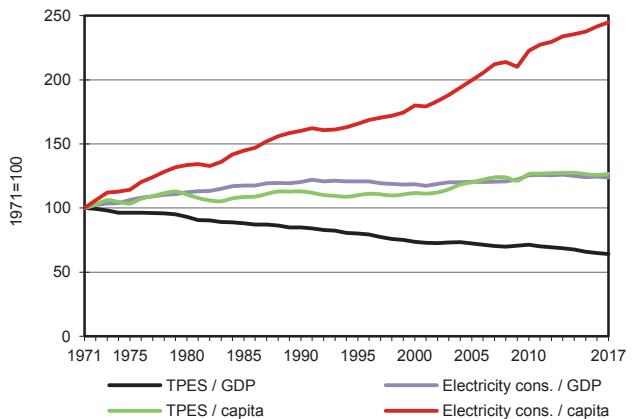


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

World

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	3773.42	4477.21	-	3162.89	687.48	351.03	256.83	1324.11	-	1.92	14034.90
Imports	825.07	2453.09	1364.75	986.14	-	-	-	26.28	62.42	0.01	5717.75
Exports	-851.61	-2381.80	-1477.49	-1029.84	-	-	-	-21.11	-62.73	-0.00	-5824.59
Stock changes	43.06	11.76	1.98	-12.39	-	-	-	-0.22	-	-	44.19
TPES	3789.93	4560.25	-110.76	3106.80	687.48	351.03	256.83	1329.06	-0.31	1.92	13972.24
Transfers	-1.23	-241.79	271.62	-	-	-	-	-	-	-	28.60
Statistical differences	-2.80	10.79	0.40	-8.85	-	-	0.01	0.32	-3.26	4.06	0.66
Electricity plants	-1708.53	-40.14	-158.92	-878.85	-681.92	-351.03	-207.40	-124.10	1857.76	-0.80	-2293.92
CHP plants	-643.30	-0.05	-16.67	-320.77	-5.57	-	-2.67	-63.62	343.97	240.12	-468.55
Heat plants	-22.07	-0.49	-9.11	-64.05	-	-	-1.47	-12.71	-0.80	101.13	-9.57
Blast furnaces	-191.72	-	-0.03	-0.03	-	-	-	-0.05	-	-	-191.82
Gas works	-12.93	-	-2.73	5.59	-	-	-	-0.51	-	-	-10.58
Coke/pat.fuel/BKB/PB plants	-90.48	-	-2.43	-0.01	-	-	-	-0.11	-	-	-93.03
Oil refineries	-	-4323.70	4239.17	-	-	-	-	-	-	-	-84.53
Petrochemical plants	-	38.62	-37.75	-	-	-	-	-	-	-	0.87
Liquefaction plants	-14.47	15.46	-	-14.65	-	-	-	-	-	-	-13.66
Other transformation	-0.26	12.20	-0.55	-14.47	-	-	-	-77.26	-	-0.70	-81.04
Energy industry own use	-79.87	-8.86	-201.60	-290.77	-	-	-0.00	-13.09	-185.90	-36.73	-816.82
Losses	-2.25	-7.74	-0.45	-17.60	-	-	-0.01	-0.17	-173.82	-19.52	-221.56
TFC	1020.04	14.56	3970.18	1502.34	-	-	45.28	1037.76	1837.64	289.49	9717.29
INDUSTRY	817.63	5.85	314.98	567.60	-	-	0.96	207.10	769.11	137.66	2820.89
Iron and steel	313.42	0.00	6.98	55.41	-	-	0.00	3.64	97.74	13.82	491.01
Chemical and petrochemical	108.46	0.04	62.67	136.65	-	-	0.00	2.14	109.84	58.21	478.01
Non-ferrous metals	25.42	-	4.56	16.59	-	-	0.00	0.06	92.30	4.90	143.83
Non-metallic minerals	217.33	0.00	39.66	52.59	-	-	0.00	9.17	50.40	2.99	372.14
Transport equipment	2.31	-	2.11	12.48	-	-	0.00	0.02	25.52	3.88	46.32
Machinery	7.88	0.00	5.50	25.82	-	-	0.00	0.15	82.68	8.76	130.79
Mining and quarrying	6.09	-	23.66	8.07	-	-	0.00	0.22	31.46	2.10	71.60
Food and tobacco	27.80	0.01	9.47	47.53	-	-	0.00	36.79	44.00	11.67	177.27
Paper pulp and printing	16.25	0.01	3.72	24.59	-	-	0.00	65.55	39.68	12.25	162.05
Wood and wood products	1.28	-	2.19	2.96	-	-	0.00	7.72	9.90	2.37	26.41
Construction	4.06	-	31.40	8.69	-	-	0.00	0.53	16.22	0.99	61.89
Textile and leather	10.10	0.01	3.41	8.54	-	-	0.00	3.14	27.36	9.64	62.20
Non-specified	77.25	5.78	119.65	167.67	-	-	0.95	77.98	142.00	6.09	597.36
TRANSPORT	0.06	0.00	2588.51	104.71	-	-	-	83.59	31.27	-	2808.15
World aviation bunkers	-	-	195.37	-	-	-	-	-	-	-	195.37
Domestic aviation	-	-	128.04	-	-	-	-	-	-	-	128.04
Road	-	-	1960.37	43.81	-	-	-	82.73	4.55	-	2091.45
Rail	0.05	-	28.84	-	-	-	-	0.50	22.12	-	51.52
Pipeline transport	-	-	0.25	60.62	-	-	-	-	2.89	-	63.75
World marine bunkers	-	-	216.87	0.06	-	-	-	0.22	-	-	217.15
Domestic navigation	0.00	-	54.48	0.07	-	-	-	0.14	-	-	54.69
Non-specified	0.01	0.00	4.29	0.15	-	-	-	0.00	1.71	-	6.17
OTHER	151.72	0.01	433.19	644.07	-	-	44.33	747.07	1037.27	151.82	3209.47
Residential	75.55	-	214.76	440.58	-	-	32.73	702.72	496.58	101.36	2064.27
Comm. and public services	33.30	-	84.66	190.31	-	-	8.14	30.42	398.73	39.01	784.56
Agriculture/forestry	16.42	0.01	107.02	9.89	-	-	2.18	10.75	55.18	3.47	204.93
Fishing	0.00	-	6.13	0.04	-	-	0.06	0.01	0.65	0.06	6.96
Non-specified	26.44	0.00	20.62	3.24	-	-	1.22	3.17	86.12	7.93	148.74
NON-ENERGY USE	50.62	8.70	633.51	185.96	-	-	-	-	-	-	878.79
in industry/transf./energy	50.33	8.70	588.30	185.96	-	-	-	-	-	-	833.29
of which: chem./petrochem.	2.96	8.62	443.96	184.97	-	-	-	-	-	-	640.50
in transport	-	-	11.02	-	-	-	-	-	-	-	11.02
in other	0.30	-	34.19	-	-	-	-	-	-	-	34.48
Electricity and Heat Output											
Electr. Generated - TWh	9863.34	127.37	714.51	5882.82	2636.03	4082.47	1700.27	595.57	-	3.86	25606.25
Electricity plants	7482.21	127.33	657.19	4583.03	2617.12	4082.47	1690.43	362.17	-	3.00	21604.96
CHP plants	2381.13	0.03	57.32	1299.80	18.91	-	9.84	233.40	-	0.86	4001.29
Heat Generated - PJ	5978.06	17.68	508.55	6175.34	26.77	-	461.89	1081.99	24.57	92.75	14367.60
CHP plants	5183.96	0.06	209.20	3953.16	26.77	-	19.54	660.52	0.55	44.52	10098.27
Heat plants	794.10	17.63	299.35	2222.18	-	-	442.35	421.48	24.02	48.23	4269.33

1. Includes peat and oil shale.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Africa

Figure 1. Energy production

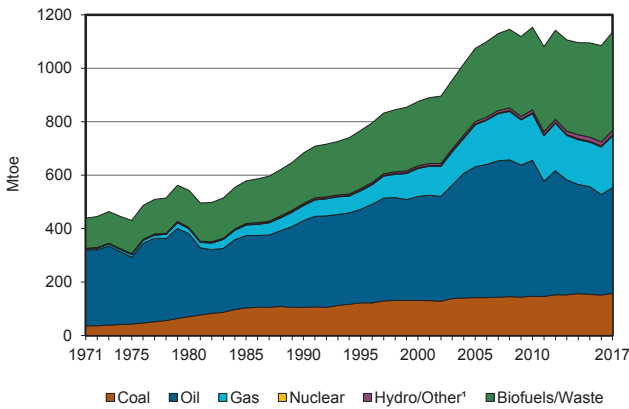


Figure 2. Total primary energy supply²

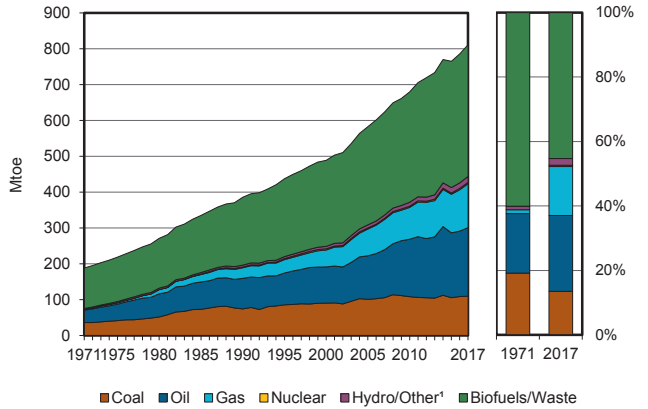


Figure 3. Energy self-sufficiency³

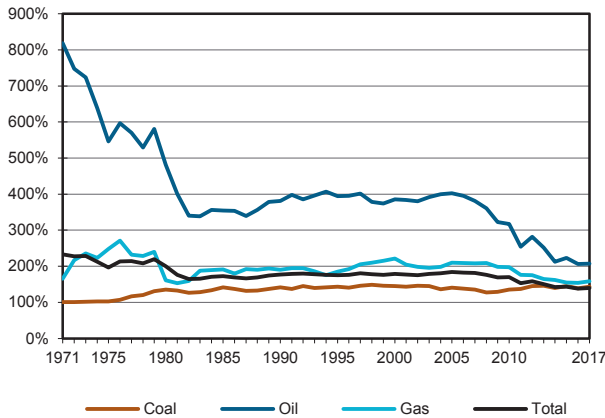


Figure 4. Oil products demand⁴

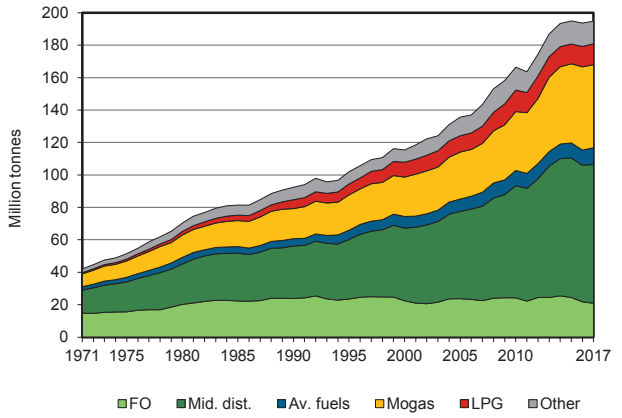


Figure 5. Electricity generation by source

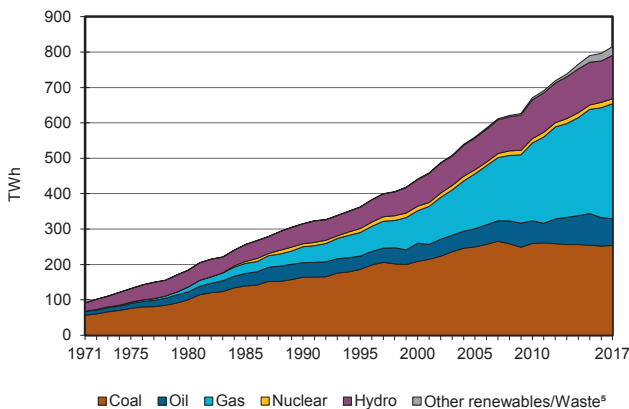
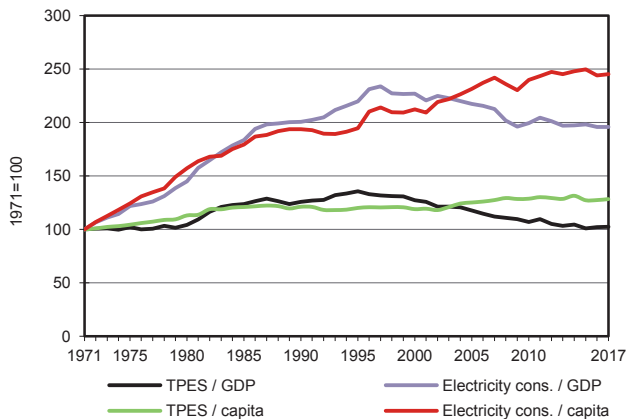


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Africa

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	157.14	395.92	-	194.01	3.70	10.54	6.09	367.79	-	0.09	1135.28
Imports	8.12	32.11	126.39	14.53	-	-	-	0.00	3.51	-	184.66
Exports	-55.60	-309.78	-39.27	-85.94	-	-	-	-0.33	-2.85	-	-493.77
Intl. marine bunkers	-	-	-4.64	-	-	-	-	-	-	-	-4.64
Intl. aviation bunkers	-	-	-8.71	-	-	-	-	-	-	-	-8.71
Stock changes	-0.09	-0.68	-0.04	-	-	-	-	-	-	-	-0.81
TPES	109.58	117.56	73.73	122.60	3.70	10.54	6.09	367.46	0.66	0.09	812.01
Transfers	-	-18.05	19.48	-	-	-	-	-	-	-	1.43
Statistical differences	-1.96	2.55	-6.36	-0.26	-	-	-	0.49	-1.36	-	-6.91
Electricity plants	-64.77	-1.16	-17.34	-63.32	-3.70	-10.54	-5.88	-0.65	70.21	-0.09	-97.24
CHP plants	-	-	-	-0.03	-	-	-	-0.30	0.06	-	-0.27
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-0.99	-	-	-	-	-	-	-	-	-	-0.99
Gas works	-1.36	-	-	-	-	-	-	-	-	-	-1.36
Coke/pat.fuel/BKB/PB plants	-0.82	-	-	-	-	-	-	-	-	-	-0.82
Oil refineries	-	-105.01	99.89	-	-	-	-	-	-	-	-5.11
Petrochemical plants	-	-	-0.01	-	-	-	-	-	-	-	-0.01
Liquefaction plants	-5.07	5.27	-	-3.04	-	-	-	-	-	-	-2.84
Other transformation	-	-	-	-	-	-	-	-57.74	-	-	-57.74
Energy industry own use	-13.17	-0.55	-3.17	-13.95	-	-	-0.00	-0.00	-4.14	-	-34.98
Losses	-0.06	-0.61	-0.13	-1.04	-	-	-	-0.03	-9.38	-	-11.26
TFC	21.38	-	166.07	40.96	-	-	0.21	309.23	56.06	-	593.92
INDUSTRY	11.50	-	18.75	16.28	-	-	-	18.30	22.90	-	87.73
Iron and steel	3.24	-	0.00	0.68	-	-	-	-	0.52	-	4.44
Chemical and petrochemical	0.12	-	0.08	1.47	-	-	-	0.01	1.26	-	2.94
Non-ferrous metals	1.14	-	0.10	0.05	-	-	-	0.00	3.20	-	4.48
Non-metallic minerals	2.22	-	2.12	2.78	-	-	-	0.13	0.90	-	8.15
Transport equipment	0.00	-	0.00	0.01	-	-	-	-	0.02	-	0.04
Machinery	0.01	-	0.00	0.02	-	-	-	-	0.06	-	0.10
Mining and quarrying	0.08	-	2.61	0.03	-	-	-	0.03	3.47	-	6.21
Food and tobacco	0.11	-	0.48	0.95	-	-	-	0.09	0.61	-	2.24
Paper pulp and printing	0.09	-	0.03	0.09	-	-	-	-	0.18	-	0.39
Wood and wood products	0.02	-	0.00	0.00	-	-	-	0.00	0.09	-	0.12
Construction	-	-	0.92	1.16	-	-	-	0.00	0.20	-	2.29
Textile and leather	0.00	-	0.07	0.09	-	-	-	0.07	0.18	-	0.40
Non-specified	4.46	-	12.33	8.95	-	-	-	17.98	12.21	-	55.93
TRANSPORT	0.01	-	115.30	1.30	-	-	-	0.03	0.51	-	117.15
Domestic aviation	-	-	2.09	-	-	-	-	-	-	-	2.09
Road	-	-	111.84	0.33	-	-	-	0.03	0.00	-	112.19
Rail	0.01	-	0.55	-	-	-	-	-	0.42	-	0.98
Pipeline transport	-	-	-	0.98	-	-	-	-	0.04	-	1.02
Domestic navigation	-	-	0.81	-	-	-	-	-	-	-	0.81
Non-specified	-	-	0.00	-	-	-	-	-	0.04	-	0.05
OTHER	8.69	-	24.35	10.72	-	-	0.21	290.90	32.65	-	367.52
Residential	5.36	-	14.50	9.57	-	-	0.05	276.69	18.83	-	325.00
Comm. and public services	2.67	-	1.64	0.44	-	-	0.00	9.71	9.98	-	24.44
Agriculture/forestry	0.53	-	5.16	0.07	-	-	-	3.12	2.04	-	10.91
Fishing	-	-	0.14	-	-	-	-	-	-	-	0.14
Non-specified	0.14	-	2.92	0.64	-	-	0.16	1.38	1.80	-	7.04
NON-ENERGY USE	1.18	-	7.68	12.66	-	-	-	-	-	-	21.52
in industry/transf./energy	1.18	-	7.55	12.66	-	-	-	-	-	-	21.39
of which: chem./petrochem.	1.18	-	0.66	12.66	-	-	-	-	-	-	14.50
in transport	-	-	0.09	-	-	-	-	-	-	-	0.09
in other	-	-	0.04	-	-	-	-	-	-	-	0.04
Electricity and Heat Output											
Electr. generated - TWh	253.60	4.53	70.71	325.44	14.19	122.56	22.85	1.80	-	1.58	817.26
Electricity plants	253.60	4.53	70.71	325.08	14.19	122.56	22.85	1.42	-	1.58	816.52
CHP plants	-	-	-	0.36	-	-	-	0.38	-	-	0.74
Heat generated - PJ	-	-	-	-	-	-	-	-	-	3.86	3.86
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	3.86	3.86

1. Includes peat.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Americas

Figure 1. Energy production

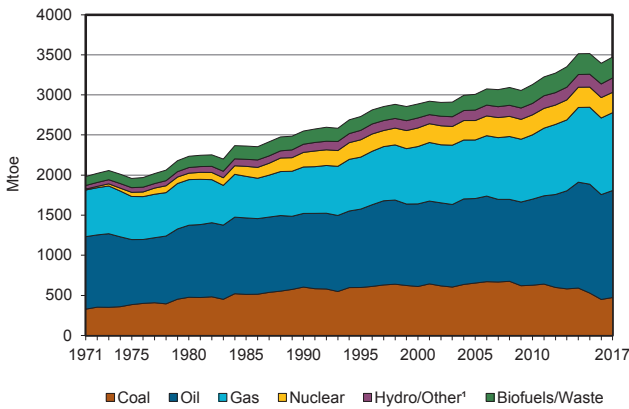


Figure 2. Total primary energy supply²

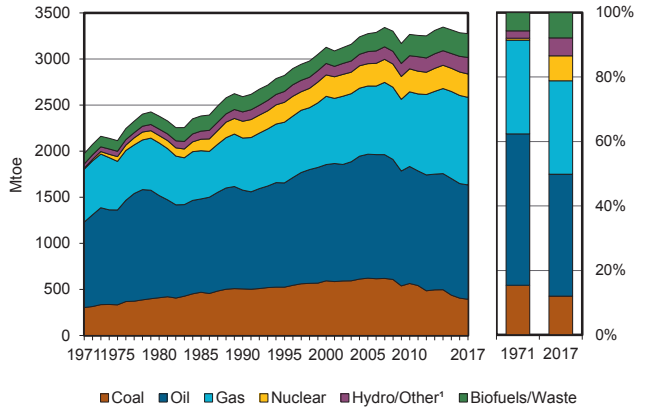


Figure 3. Energy self-sufficiency³

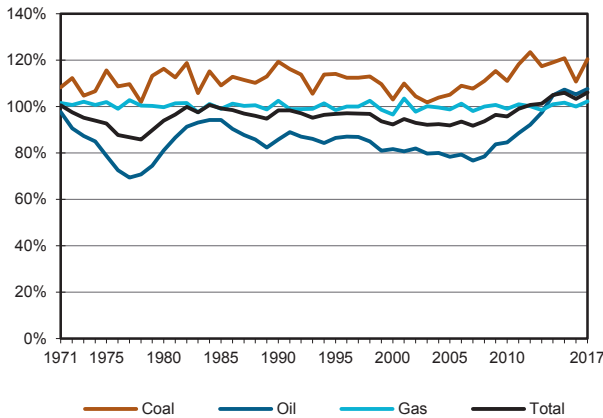


Figure 4. Oil products demand⁴

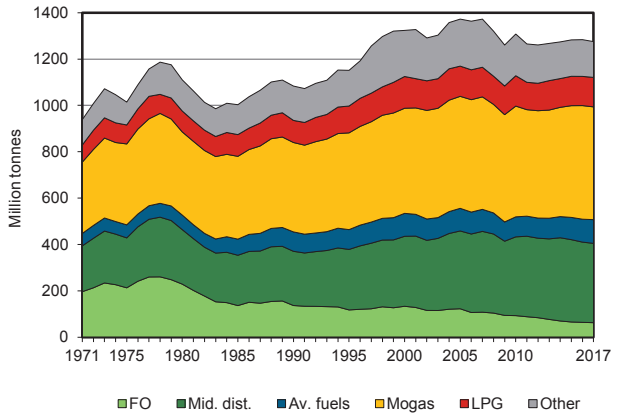


Figure 5. Electricity generation by source

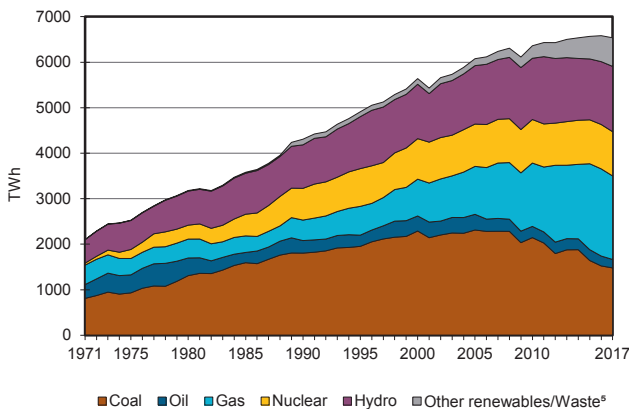
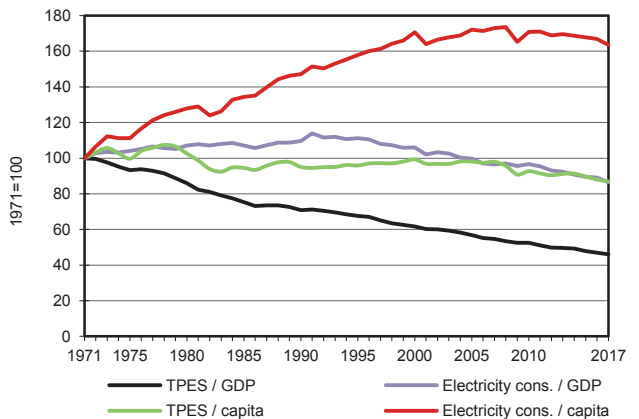


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Americas

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	472.84	1334.57	-	971.07	253.47	123.37	56.50	260.60	-	0.09	3472.52
Imports	41.58	531.68	237.92	150.74	-	-	-	4.78	11.09	-	977.78
Exports	-145.20	-520.85	-289.55	-176.99	-	-	-	-6.95	-11.44	-	-1150.98
Intl. marine bunkers	-	-	-38.03	-	-	-	-	-0.22	-	-	-38.26
Intl. aviation bunkers	-	-	-39.15	-	-	-	-	-	-	-	-39.15
Stock changes	23.57	19.05	5.02	5.01	-	-	-	-0.08	-	-	52.57
TPES	392.78	1364.45	-123.79	949.83	253.47	123.37	56.50	258.13	-0.35	0.09	3274.49
Transfers	-	-115.60	124.93	-	-	-	-	-	-	-	9.33
Statistical differences	4.61	1.60	16.36	-13.04	-	-	-	0.09	3.47	-	13.09
Electricity plants	-338.42	-2.30	-34.71	-286.04	-253.47	-123.37	-53.16	-22.01	525.81	-0.09	-587.77
CHP plants	-7.82	-	-3.57	-48.87	-	-	-	-21.61	36.27	11.22	-34.39
Heat plants	-0.00	-	-	-	-	-	-	-0.19	-	0.10	-0.09
Blast furnaces	-8.91	-	-	-	-	-	-	-0.05	-	-	-8.96
Gas works	-1.94	-	-0.79	1.29	-	-	-	-	-	-	-1.44
Coke/pat.fuel/BKB/PB plants	-2.62	-	-1.52	-	-	-	-	-	-	-	-4.14
Oil refineries	-	-1254.56	1224.19	-	-	-	-	-	-	-	-30.37
Petrochemical plants	-	4.23	-3.63	-	-	-	-	-	-	-	0.60
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	9.37	-	-9.06	-	-	-	-5.06	-	-	-4.76
Energy industry own use	-2.24	-0.47	-63.24	-125.03	-	-	-	-12.10	-39.30	-3.61	-245.99
Losses	-0.28	-0.10	-0.26	-0.82	-	-	-	-0.07	-48.02	-1.29	-50.83
TFC	35.15	6.62	1133.97	468.26	-	-	3.35	197.13	477.87	6.43	2328.78
INDUSTRY	34.19	2.18	60.69	179.58	-	-	0.01	84.36	130.65	5.14	496.82
Iron and steel	12.78	0.00	0.89	19.21	-	-	-	3.08	10.20	0.17	46.33
Chemical and petrochemical	2.08	0.00	6.85	63.19	-	-	-	0.41	18.22	3.10	93.87
Non-ferrous metals	1.18	-	2.00	4.77	-	-	0.00	0.01	11.70	0.09	19.75
Non-metallic minerals	6.95	0.00	8.87	11.14	-	-	-	2.86	5.20	0.00	35.02
Transport equipment	0.00	-	0.26	4.14	-	-	-	0.00	4.29	0.11	8.81
Machinery	0.04	0.00	0.71	7.75	-	-	-	0.01	8.26	0.08	16.86
Mining and quarrying	0.40	-	8.44	3.56	-	-	-	0.10	9.40	-	21.90
Food and tobacco	3.80	0.00	1.61	21.40	-	-	-	23.63	11.63	0.51	62.57
Paper pulp and printing	1.67	0.01	1.52	12.99	-	-	-	45.06	13.54	0.48	75.26
Wood and wood products	0.00	-	1.01	1.38	-	-	-	1.61	1.92	0.24	6.15
Construction	-	-	11.23	0.75	-	-	-	0.32	4.42	0.00	16.72
Textile and leather	0.36	0.00	0.08	1.62	-	-	-	0.08	2.22	0.14	4.50
Non-specified	4.94	2.17	17.20	27.68	-	-	0.01	7.20	29.66	0.21	89.08
TRANSPORT	-	0.00	819.88	28.67	-	-	-	59.13	2.13	-	909.82
Domestic aviation	-	-	68.90	-	-	-	-	-	-	-	68.90
Road	-	-	723.20	6.84	-	-	-	58.54	0.49	-	789.07
Rail	-	-	14.98	-	-	-	-	0.47	1.02	-	16.46
Pipeline transport	-	-	0.01	21.77	-	-	-	-	0.62	-	22.41
Domestic navigation	-	-	12.02	-	-	-	-	0.12	-	-	12.14
Non-specified	-	0.00	0.77	0.06	-	-	-	-	0.01	-	0.84
OTHER	0.64	-	93.23	220.86	-	-	3.33	53.64	345.09	1.28	718.08
Residential	0.07	-	36.26	129.67	-	-	0.61	45.45	164.19	-	376.25
Comm. and public services	0.56	-	20.23	88.08	-	-	1.79	3.32	151.34	1.26	266.59
Agriculture/forestry	0.00	-	32.98	2.36	-	-	0.00	4.76	9.02	-	49.13
Fishing	0.00	-	0.30	0.00	-	-	-	0.00	0.04	-	0.34
Non-specified	0.00	-	3.47	0.75	-	-	0.93	0.10	20.50	0.02	25.77
NON-ENERGY USE	0.32	4.43	160.17	39.15	-	-	-	-	-	-	204.07
in industry/transf./energy	0.09	4.43	149.50	39.15	-	-	-	-	-	-	193.17
of which: chem./petrochem.	-	4.43	102.58	39.15	-	-	-	-	-	-	146.15
in transport	-	-	5.13	-	-	-	-	-	-	-	5.13
in other	0.23	-	5.54	-	-	-	-	-	-	-	5.77
Electricity and Heat Output											
Electr. generated - TWh	1479.74	4.93	180.42	1835.03	972.81	1434.82	469.28	159.47	-	0.45	6536.95
Electricity plants	1440.52	4.93	162.01	1572.13	972.81	1434.82	465.56	61.93	-	0.45	6115.18
CHP plants	39.23	-	18.40	262.90	-	-	3.72	97.54	-	-	421.78
Heat generated - PJ	27.28	-	31.09	354.67	-	-	-	60.97	-	3.80	477.81
CHP plants	27.26	-	31.09	354.67	-	-	-	56.67	-	-	469.69
Heat plants	0.02	-	-	-	-	-	-	4.30	-	3.80	8.12

1. Includes peat.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Asia

Figure 1. Energy production

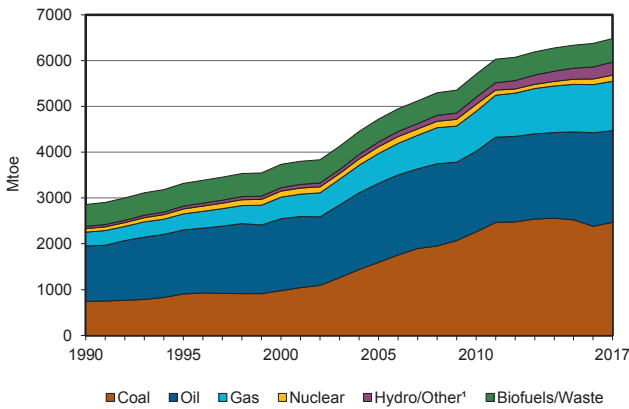


Figure 2. Total primary energy supply²

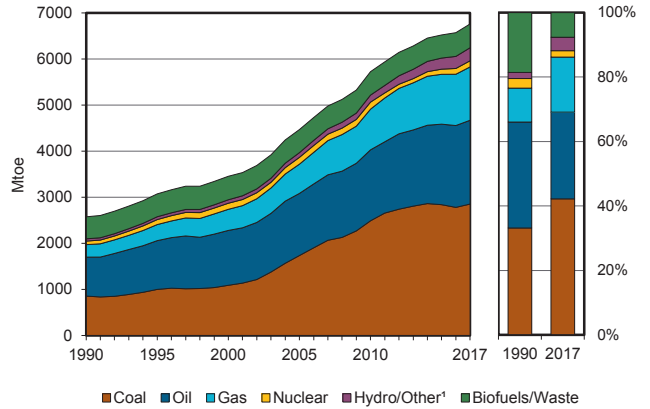


Figure 3. Energy self-sufficiency³

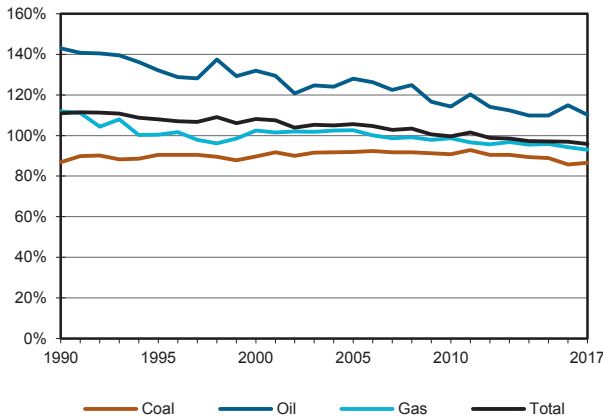


Figure 4. Oil products demand⁴

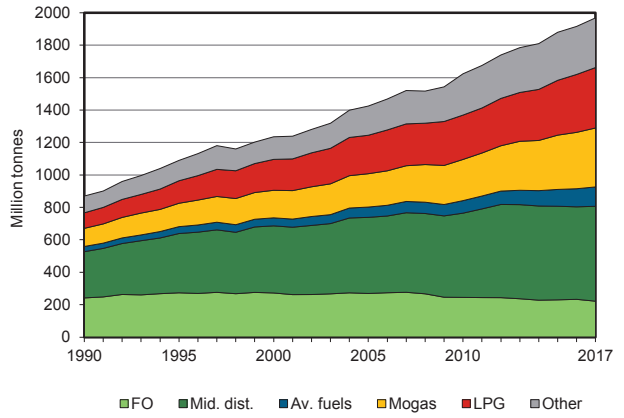


Figure 5. Electricity generation by source

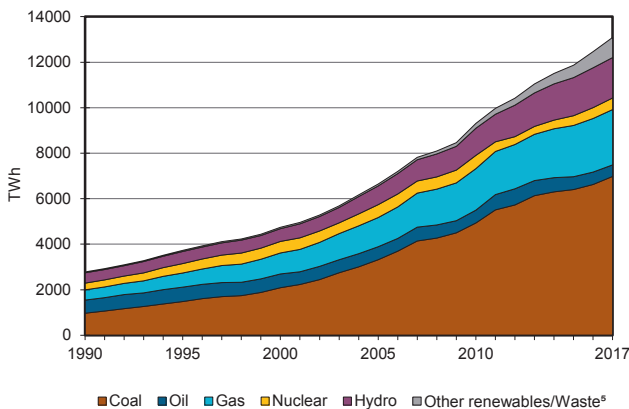
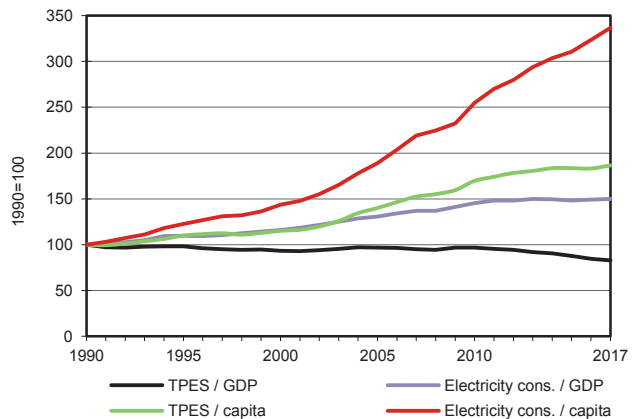


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Asia

2017

Million tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	2468.13	2003.24	-	1076.66	132.94	152.74	130.17	515.67	-	0.05	6479.60
Imports	625.28	1224.07	576.25	382.40	-	-	-	1.68	8.37	-	2818.05
Exports	-268.58	-1151.98	-615.69	-298.26	-	-	-	-0.85	-8.47	-	-2343.82
Intl. marine bunkers	-	-	-113.30	-	-	-	-	-	-	-	-113.30
Intl. aviation bunkers	-	-	-82.51	-	-	-	-	-	-	-	-82.51
Stock changes	26.59	-12.04	-9.61	-2.36	-	-	-	-0.47	-	-	2.11
TPES	2851.42	2063.28	-244.85	1158.44	132.94	152.74	130.17	516.03	-0.10	0.05	6760.13
Transfers	-1.23	-108.86	120.88	-	-	-	-	-	-	-	10.80
Statistical differences	2.29	5.31	-0.90	4.40	-	-	-0.03	-0.17	-4.35	4.03	10.57
Electricity plants	-1140.13	-36.68	-95.85	-451.66	-132.94	-152.74	-91.58	-79.61	944.69	-0.03	-1236.53
CHP plants	-517.55	-	-2.99	-53.73	-	-	-	-0.80	180.94	111.56	-282.56
Heat plants	-8.00	-	-4.35	-2.08	-	-	-0.34	-1.87	-0.09	14.58	-2.14
Blast furnaces	-151.64	-	-	-	-	-	-	-	-	-	-151.64
Gas works	-9.38	-	-1.80	3.79	-	-	-	-0.02	-	-	-7.41
Coke/pat.fuel/BKB/PB plants	-72.47	-	-0.45	-	-	-	-	-0.11	-	-	-73.03
Oil refineries	-	-1937.54	1900.67	-	-	-	-	-	-	-	-36.87
Petrochemical plants	-	18.53	-17.72	-	-	-	-	-	-	-	0.81
Liquefaction plants	-7.96	9.24	-	-11.61	-	-	-	-	-	-	-10.33
Other transformation	-	1.07	-0.55	-0.61	-	-	-	-13.79	-	-0.34	-14.22
Energy industry own use	-55.37	-7.50	-85.02	-107.26	-	-	-	-0.08	-95.67	-15.00	-365.91
Losses	-0.40	-1.11	-0.02	-7.31	-	-	-0.00	-	-84.31	-2.13	-95.30
TFC	889.57	5.74	1567.05	532.37	-	-	38.22	419.59	941.12	112.72	4506.38
INDUSTRY	715.77	3.63	185.20	237.03	-	-	0.79	71.67	475.26	70.02	1759.38
Iron and steel	258.76	-	4.99	12.84	-	-	-	0.04	68.94	5.71	351.27
Chemical and petrochemical	102.46	0.02	37.90	43.39	-	-	-	0.54	68.52	35.23	288.06
Non-ferrous metals	21.27	-	1.82	5.15	-	-	-	0.03	56.99	4.38	89.64
Non-metallic minerals	201.09	-	22.20	13.88	-	-	-	1.41	35.51	0.34	274.42
Transport equipment	1.99	-	1.25	4.92	-	-	-	0.00	15.20	1.08	24.44
Machinery	7.66	-	3.47	9.26	-	-	-	0.00	60.93	0.92	82.25
Mining and quarrying	5.26	-	7.60	1.97	-	-	-	0.00	11.93	1.14	27.91
Food and tobacco	21.86	-	4.53	7.94	-	-	0.00	9.42	18.12	4.20	66.07
Paper pulp and printing	13.41	-	1.30	3.71	-	-	-	6.51	13.37	5.38	43.69
Wood and wood products	1.19	-	0.75	0.56	-	-	-	0.15	4.85	0.24	7.74
Construction	3.99	-	13.72	0.81	-	-	-	0.03	8.33	0.39	27.28
Textile and leather	9.66	-	2.99	4.57	-	-	-	2.95	22.82	8.32	51.30
Non-specified	67.17	3.60	82.69	128.02	-	-	0.79	50.57	89.75	2.68	425.29
TRANSPORT	0.03	-	814.61	38.45	-	-	-	8.14	14.77	-	876.01
Domestic aviation	-	-	41.60	-	-	-	-	-	-	-	41.60
Road	-	-	728.29	34.55	-	-	-	8.13	3.89	-	774.85
Rail	0.02	-	7.91	-	-	-	-	0.00	10.54	-	18.48
Pipeline transport	-	-	0.03	3.90	-	-	-	-	0.12	-	4.05
Domestic navigation	0.00	-	34.54	-	-	-	-	0.01	-	-	34.55
Non-specified	0.01	-	2.24	0.01	-	-	-	-	0.23	-	2.48
OTHER	127.15	-	224.23	182.61	-	-	37.42	339.78	451.08	42.70	1404.98
Residential	58.34	-	118.64	128.22	-	-	29.62	327.26	212.31	28.82	903.20
Comm. and public services	27.86	-	41.88	51.02	-	-	5.69	10.55	137.67	5.93	280.60
Agriculture/forestry	14.70	-	48.06	2.39	-	-	1.99	0.40	37.16	0.13	104.83
Fishing	-	-	3.39	0.04	-	-	0.00	0.00	0.42	0.00	3.86
Non-specified	26.26	-	12.26	0.94	-	-	0.12	1.57	63.52	7.82	112.49
NON-ENERGY USE	46.62	2.11	343.00	74.28	-	-	-	-	-	-	466.01
in industry/transf./energy	46.61	2.11	311.37	74.28	-	-	-	-	-	-	434.38
of which: chem./petrochem.	0.95	2.04	255.37	73.38	-	-	-	-	-	-	331.74
in transport	-	-	3.78	-	-	-	-	-	-	-	3.78
in other	0.00	-	27.85	-	-	-	-	-	-	-	27.85
Electricity and Heat Output											
Electr. generated - TWh	6982.30	117.87	387.44	2432.15	510.21	1776.42	671.58	212.79	-	0.36	13091.12
Electricity plants	5071.98	117.87	378.04	2249.15	510.21	1776.42	671.58	211.14	-	0.36	10986.75
CHP plants	1910.32	-	9.40	183.01	-	-	-	1.65	-	-	2104.37
Heat generated - PJ	4232.18	-	198.16	751.68	-	-	17.26	78.35	3.60	2.19	5283.41
CHP plants	3930.57	-	49.18	672.86	-	-	-	18.34	-	2.19	4673.13
Heat plants	301.61	-	148.98	78.82	-	-	17.26	60.01	3.60	-	610.27

1. Includes peat.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Europe

Figure 1. Energy production

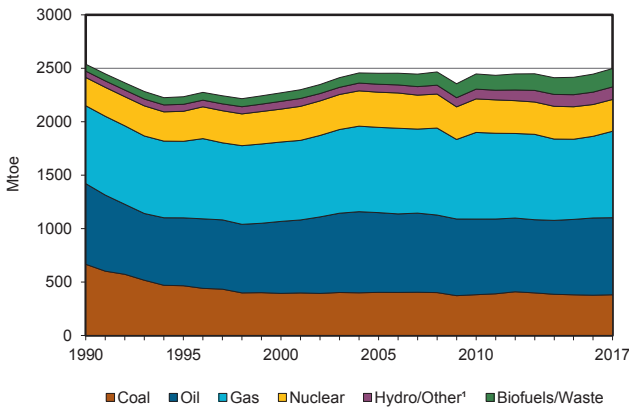


Figure 2. Total primary energy supply²

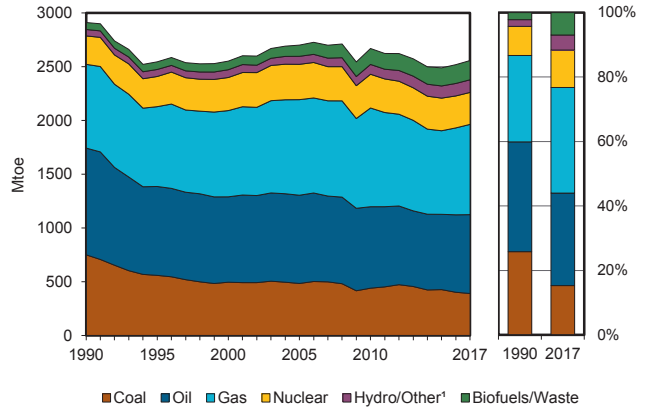


Figure 3. Energy self-sufficiency³

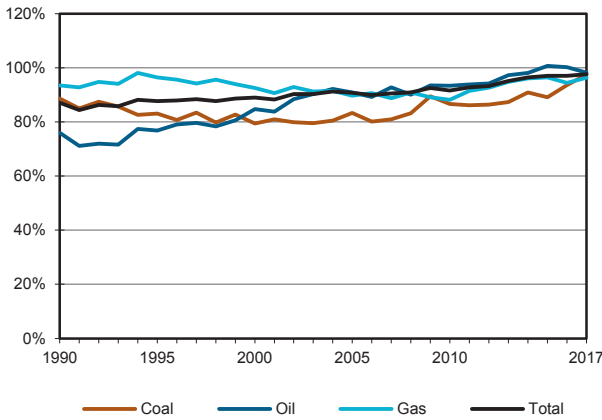


Figure 4. Oil products demand⁴

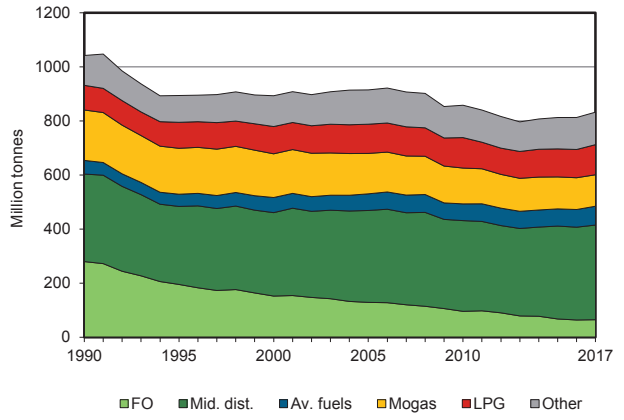


Figure 5. Electricity generation by source

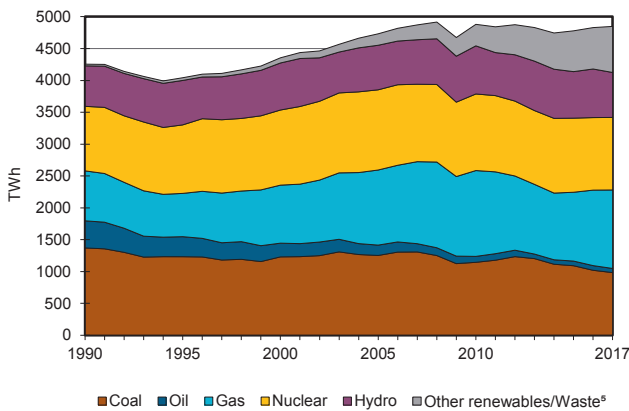
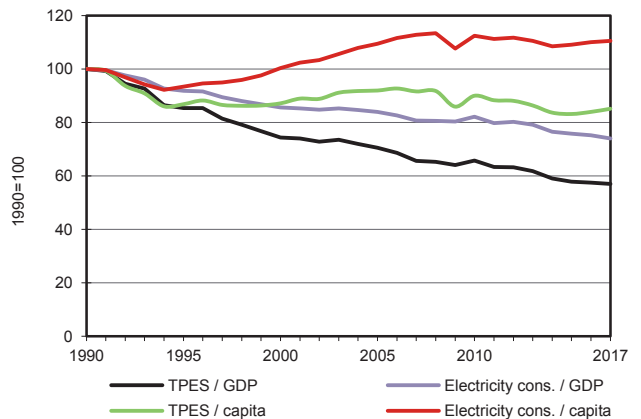


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Europe

2017

Million tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	380.56	720.69	-	808.79	297.37	60.65	56.80	171.80	-	1.68	2498.34
Imports	149.00	641.71	389.53	433.55	-	-	-	19.81	39.45	0.01	1673.06
Exports	-136.71	-382.65	-528.57	-387.58	-	-	-	-12.97	-39.98	-0.00	-1488.46
Intl. marine bunkers	-	-	-59.89	-0.06	-	-	-	-	-	-	-59.96
Intl. aviation bunkers	-	-	-59.08	-	-	-	-	-	-	-	-59.08
Stock changes	-2.45	5.41	6.16	-15.11	-	-	-	0.33	-	-	-5.67
TPES	390.39	985.15	-251.85	839.59	297.37	60.65	56.80	178.97	-0.53	1.68	2558.22
Transfers	-	2.53	0.90	-	-	-	-	-	-	-	3.43
Statistical differences	-7.61	-1.26	-10.22	-0.83	-	-	0.04	-0.09	-1.20	0.03	-21.13
Electricity plants	-126.02	-	-8.39	-67.14	-291.80	-60.65	-50.17	-21.36	291.69	-0.57	-334.41
CHP plants	-117.22	-0.05	-10.07	-215.41	-5.57	-	-2.61	-40.07	125.26	117.31	-148.43
Heat plants	-14.06	-0.49	-4.77	-61.97	-	-	-1.13	-10.66	-0.72	86.45	-7.34
Blast furnaces	-29.31	-	-0.03	-0.03	-	-	-	-	-	-	-29.37
Gas works	-0.25	-	-0.14	0.51	-	-	-	-0.50	-	-	-0.38
Coke/pat.fuel/BKB/PB plants	-14.13	-	-0.46	-0.01	-	-	-	-0.00	-	-	-14.60
Oil refineries	-	-996.08	985.29	-	-	-	-	-	-	-	-10.79
Petrochemical plants	-	15.85	-16.38	-	-	-	-	-	-	-	-0.53
Liquefaction plants	-1.44	0.95	-	-	-	-	-	-	-	-	-0.49
Other transformation	-0.26	1.77	-0.00	-4.80	-	-	-	-0.66	-	-0.36	-4.31
Energy industry own use	-8.04	-0.28	-45.81	-36.55	-	-	-0.00	-0.91	-43.74	-18.12	-153.45
Losses	-1.50	-5.91	-0.04	-8.41	-	-	-0.01	-0.07	-30.62	-16.10	-62.65
TFC	70.55	2.19	638.03	444.95	-	-	2.93	104.66	340.14	170.34	1773.79
INDUSTRY	52.89	0.02	45.52	126.43	-	-	0.04	28.66	131.95	62.50	448.01
Iron and steel	38.36	-	1.08	22.36	-	-	0.00	0.52	17.67	7.94	87.93
Chemical and petrochemical	3.65	0.02	17.73	26.48	-	-	0.00	1.09	21.46	19.87	90.30
Non-ferrous metals	0.46	-	0.37	3.88	-	-	0.00	0.02	17.24	0.43	22.38
Non-metallic minerals	6.64	0.00	6.32	23.66	-	-	0.00	4.73	8.17	2.65	52.17
Transport equipment	0.31	-	0.60	3.41	-	-	0.00	0.02	6.01	2.69	13.03
Machinery	0.16	-	1.29	8.72	-	-	0.00	0.14	13.36	7.75	31.42
Mining and quarrying	0.25	-	2.59	2.38	-	-	0.00	0.08	5.01	0.96	11.28
Food and tobacco	1.51	0.00	2.74	16.16	-	-	0.00	1.32	12.92	6.95	41.61
Paper pulp and printing	1.03	-	0.82	7.41	-	-	0.00	13.79	12.14	6.38	41.58
Wood and wood products	0.04	-	0.42	0.93	-	-	0.00	5.65	2.85	1.89	11.78
Construction	0.07	-	4.95	5.89	-	-	0.00	0.17	3.21	0.60	14.89
Textile and leather	0.07	-	0.26	2.14	-	-	0.00	0.05	2.09	1.19	5.79
Non-specified	0.33	-	6.35	3.01	-	-	0.03	1.08	9.84	3.19	23.84
TRANSPORT	0.02	-	387.46	35.85	-	-	-	15.96	13.35	-	452.65
Domestic aviation	-	-	11.90	-	-	-	-	-	-	-	11.90
Road	-	-	363.77	2.02	-	-	-	15.92	0.17	-	381.87
Rail	0.02	-	4.25	-	-	-	-	0.03	9.86	-	14.16
Pipeline transport	-	-	0.20	33.69	-	-	-	-	2.10	-	35.99
Domestic navigation	-	-	6.30	0.07	-	-	-	0.01	-	-	6.38
Non-specified	0.00	-	1.05	0.07	-	-	-	0.00	1.21	-	2.33
OTHER	15.13	0.01	86.87	224.65	-	-	2.89	60.04	194.84	107.84	692.28
Residential	11.78	-	44.79	169.42	-	-	2.07	50.63	94.93	72.54	446.15
Comm. and public services	2.17	-	19.91	49.31	-	-	0.59	6.81	92.91	31.82	203.53
Agriculture/forestry	1.14	0.01	17.95	5.01	-	-	0.17	2.47	6.58	3.34	36.67
Fishing	0.00	-	2.25	0.00	-	-	0.06	0.01	0.20	0.06	2.57
Non-specified	0.04	0.00	1.97	0.91	-	-	0.01	0.12	0.23	0.09	3.37
NON-ENERGY USE	2.51	2.16	118.18	58.01	-	-	-	-	-	-	180.85
in industry/transf./energy	2.44	2.16	115.40	58.01	-	-	-	-	-	-	178.01
of which: chem./petrochem.	0.83	2.15	83.05	57.92	-	-	-	-	-	-	143.95
in transport	-	-	2.02	-	-	-	-	-	-	-	2.02
in other	0.06	-	0.76	-	-	-	-	-	-	-	0.82
Electricity and Heat Output											
Electr. generated - TWh	983.05	0.03	65.11	1232.13	1138.81	705.40	505.61	217.43	-	1.48	4849.05
Electricity plants	554.19	-	35.73	389.92	1119.91	705.40	499.60	86.10	-	0.61	3391.45
CHP plants	428.86	0.03	29.38	842.22	18.91	-	6.01	131.33	-	0.86	1457.59
Heat generated - PJ	1718.60	17.68	279.30	5068.99	26.77	-	443.80	942.67	20.97	82.90	8601.69
CHP plants	1226.13	0.06	128.93	2925.63	26.77	-	18.71	585.50	0.55	42.33	4954.61
Heat plants	492.47	17.63	150.37	2143.36	-	-	425.09	357.17	20.42	40.57	3647.08

1. Includes peat.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Oceania

Figure 1. Energy production

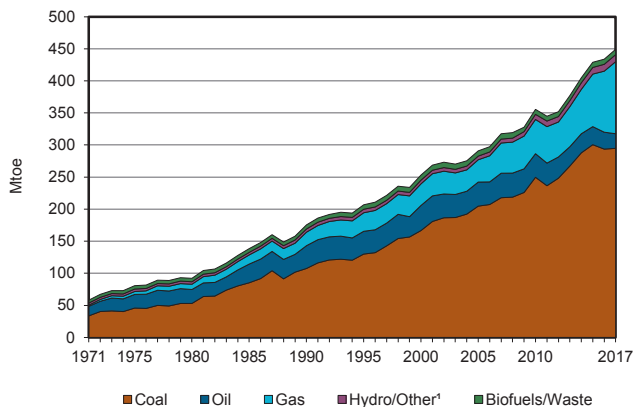


Figure 2. Total primary energy supply²

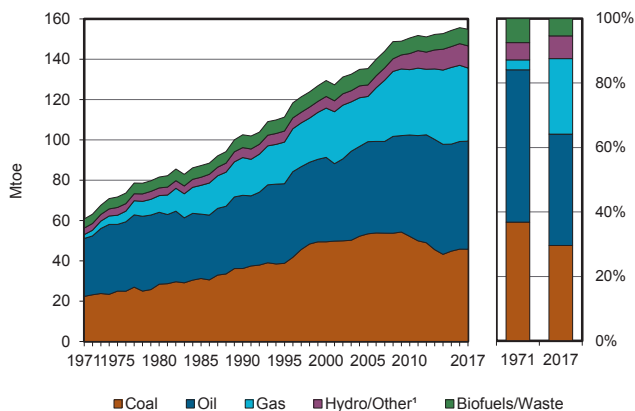


Figure 3. Energy self-sufficiency³

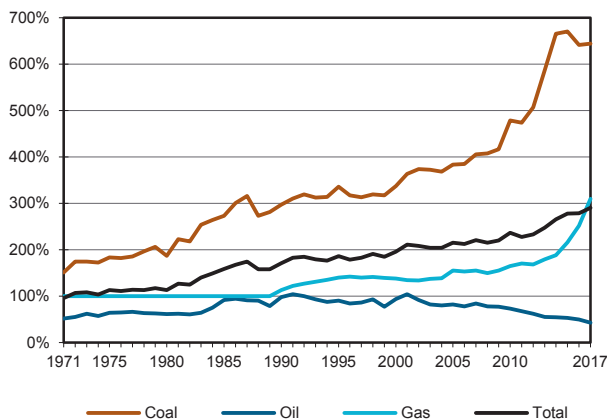


Figure 4. Oil products demand⁴

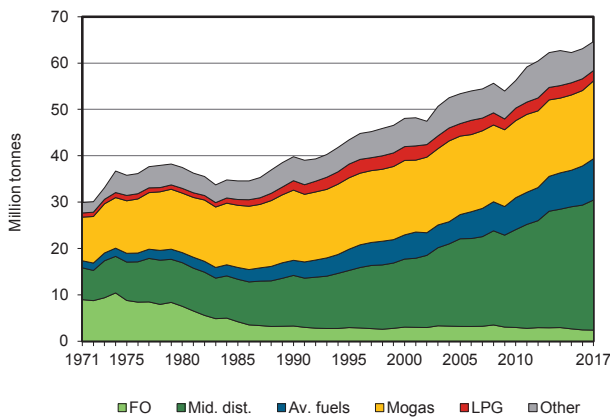


Figure 5. Electricity generation by source

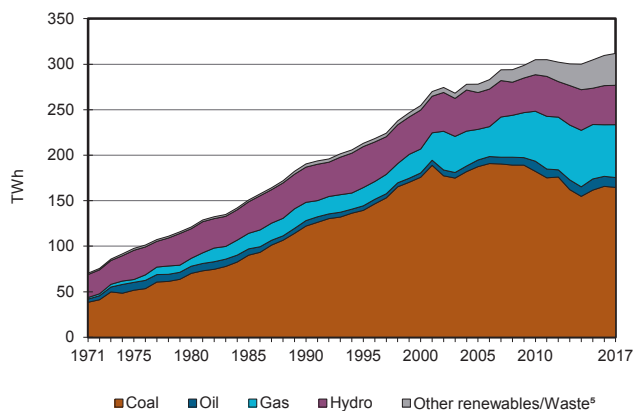
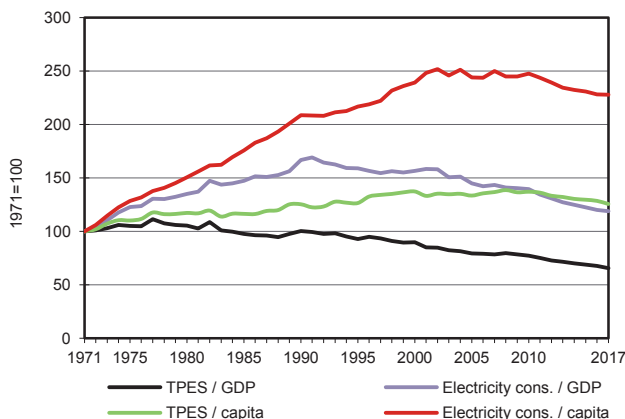


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Oceania

2017

Million tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	294.76	22.79	-	112.36	-	3.72	7.26	8.25	-	-	449.15
Imports	1.09	23.52	34.66	4.92	-	-	-	0.00	-	-	64.20
Exports	-245.52	-16.54	-4.41	-81.08	-	-	-	-0.00	-	-	-347.56
Intl. marine bunkers	-	-	-1.00	-	-	-	-	-	-	-	-1.00
Intl. aviation bunkers	-	-	-5.92	-	-	-	-	-	-	-	-5.92
Stock changes	-4.55	0.03	0.45	0.07	-	-	-	-	-	-	-4.01
TPES	45.77	29.80	23.78	36.28	-	3.72	7.26	8.25	-	-	154.86
Transfers	-	-1.81	5.43	-	-	-	-	-	-	-	3.62
Statistical differences	-0.12	2.59	1.51	0.87	-	-	-	-0.00	0.18	-	5.03
Electricity plants	-39.20	-	-2.63	-10.68	-	-3.72	-6.62	-0.47	25.37	-0.02	-37.97
CHP plants	-0.71	-	-0.04	-2.73	-	-	-0.06	-0.84	1.45	0.02	-2.91
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-0.87	-	-	-	-	-	-	-	-	-	-0.87
Gas works	0.00	-	-	-0.00	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-0.45	-	-	-0.00	-	-	-	-	-	-	-0.45
Oil refineries	-	-30.51	29.12	-	-	-	-	-	-	-	-1.39
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-0.02	-	-	-0.02
Energy industry own use	-1.04	-0.06	-4.36	-7.99	-	-	-	-	-3.04	-	-16.49
Losses	-0.00	-	-	-0.01	-	-	-	-	-1.50	-	-1.52
TFC	3.38	0.01	52.82	15.74	-	-	0.58	6.92	22.45	-	101.90
INDUSTRY	3.28	0.01	4.82	8.28	-	-	0.11	4.10	8.34	-	28.96
Iron and steel	0.28	-	0.02	0.33	-	-	-	-	0.41	-	1.04
Chemical and petrochemical	0.15	-	0.11	2.11	-	-	-	0.09	0.38	-	2.84
Non-ferrous metals	1.38	-	0.26	2.75	-	-	-	-	3.19	-	7.57
Non-metallic minerals	0.43	-	0.16	1.13	-	-	-	0.05	0.62	-	2.38
Transport equipment	-	-	-	-	-	-	-	-	0.00	-	0.00
Machinery	0.00	-	0.02	0.06	-	-	-	-	0.08	-	0.16
Mining and quarrying	0.10	-	2.43	0.13	-	-	-	0.00	1.65	-	4.30
Food and tobacco	0.52	0.00	0.11	1.09	-	-	-	2.33	0.73	-	4.78
Paper pulp and printing	0.05	-	0.05	0.39	-	-	-	0.19	0.45	-	1.13
Wood and wood products	0.02	-	0.01	0.09	-	-	-	0.31	0.19	-	0.62
Construction	-	-	0.58	0.07	-	-	-	-	0.05	-	0.71
Textile and leather	0.01	0.01	0.01	0.12	-	-	-	-	0.05	-	0.20
Non-specified	0.35	-	1.07	0.00	-	-	0.11	1.14	0.54	-	3.22
TRANSPORT	-	-	39.01	0.37	-	-	-	0.10	0.51	-	40.00
Domestic aviation	-	-	3.55	-	-	-	-	-	-	-	3.55
Road	-	-	33.27	0.08	-	-	-	0.10	-	-	33.46
Rail	-	-	1.15	-	-	-	-	-	0.28	-	1.43
Pipeline transport	-	-	0.01	0.28	-	-	-	-	0.00	-	0.28
Domestic navigation	-	-	0.80	-	-	-	-	-	-	-	0.80
Non-specified	-	-	0.23	0.01	-	-	-	-	0.23	-	0.47
OTHER	0.10	-	4.51	5.22	-	-	0.47	2.71	13.60	-	26.61
Residential	0.01	-	0.58	3.71	-	-	0.38	2.69	6.31	-	13.68
Comm. and public services	0.04	-	1.01	1.46	-	-	0.07	0.02	6.82	-	9.41
Agriculture/forestry	0.06	-	2.86	0.06	-	-	0.02	0.00	0.39	-	3.39
Fishing	-	-	0.06	-	-	-	-	-	0.00	-	0.06
Non-specified	-	-	0.01	-	-	-	-	0.00	0.07	-	0.08
NON-ENERGY USE	-	-	4.48	1.86	-	-	-	-	-	-	6.34
in industry/transf./energy	-	-	4.48	1.86	-	-	-	-	-	-	6.34
of which: chem./petrochem.	-	-	2.31	1.86	-	-	-	-	-	-	4.17
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - TWh	164.65	-	10.84	58.07	-	43.27	30.96	4.09	-	-	311.87
Electricity plants	161.92	-	10.70	46.75	-	43.27	30.84	1.58	-	-	295.06
CHP plants	2.73	-	0.14	11.32	-	-	0.12	2.50	-	-	16.81
Heat generated - PJ	-	-	-	-	-	-	0.84	-	-	-	0.84
CHP plants	-	-	-	-	-	-	0.84	-	-	-	0.84
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes peat.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

OTHER REGIONAL TOTALS

IEA

Figure 1. Energy production

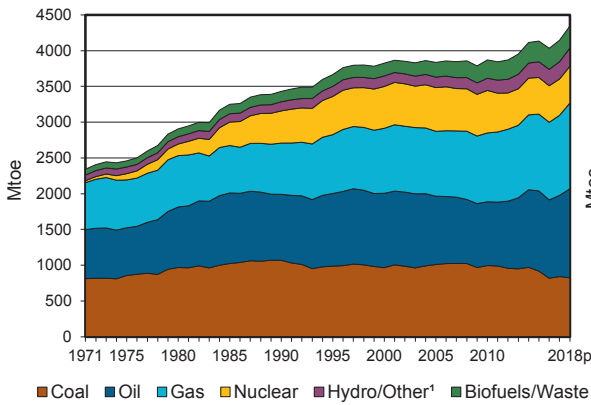


Figure 2. Total primary energy supply²

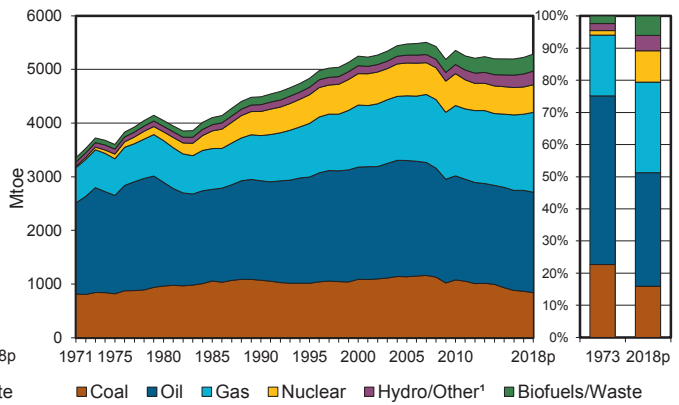


Figure 3. Energy self-sufficiency

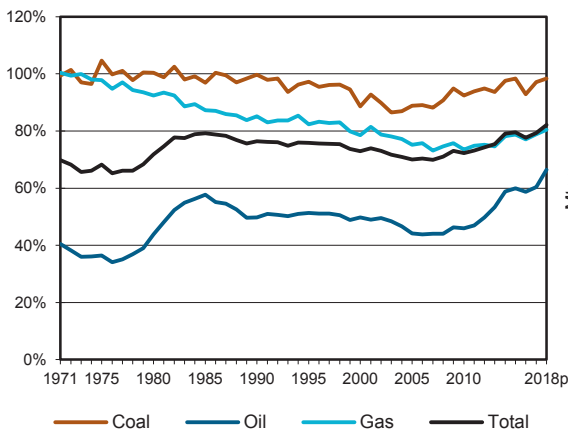


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

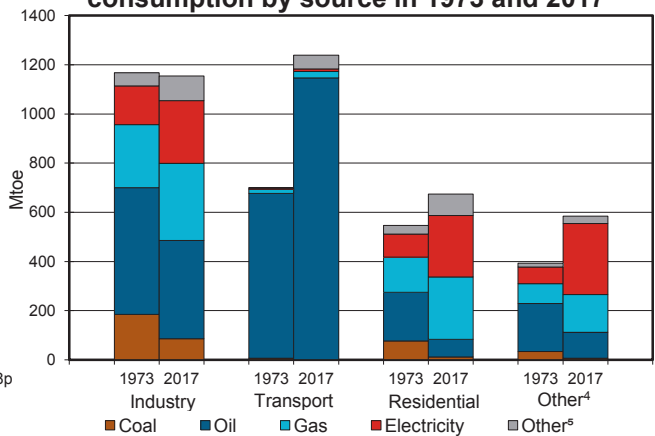


Figure 5. Electricity generation by source

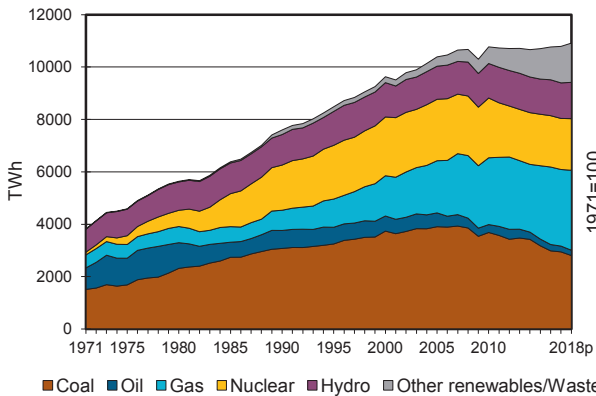
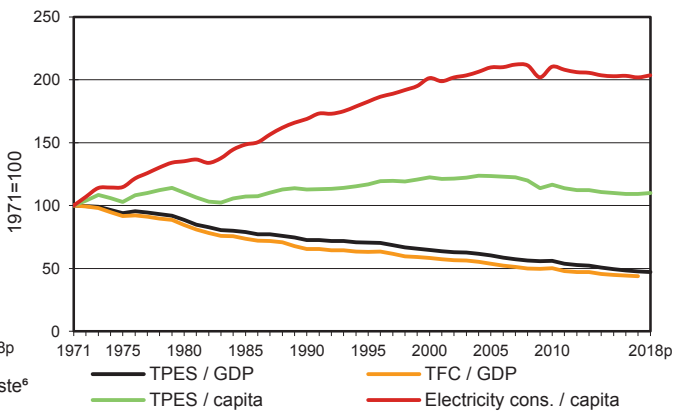


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

IEA

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./ Solar/ etc.	Biofuels/ Waste	Electricity	Heat	Total
Production	841.78	1135.07	-	1118.82	507.94	116.70	124.51	300.37	-	0.86	4146.06
Imports	353.49	1438.27	623.19	704.32	-	-	-	23.41	39.65	0.01	3182.34
Exports	-337.75	-463.80	-697.31	-407.08	-	-	-	-14.92	-40.77	-0.00	-1961.63
Intl. marine bunkers	-	-	-81.62	-0.06	-	-	-	-0.22	-	-	-81.90
Intl. aviation bunkers	-	-	-102.37	-	-	-	-	-	-	-	-102.37
Stock changes	9.01	18.05	11.00	2.56	-	-	-	0.21	-	-	40.83
TPES	866.54	2127.60	-247.10	1418.57	507.94	116.70	124.51	308.85	-1.12	0.87	5223.34
Transfers	-	-103.93	118.92	-	-	-	-	-	-	-	14.99
Statistical differences	3.76	0.55	11.69	-6.61	-	-	-0.00	-0.26	3.66	-0.45	12.34
Electricity plants	-608.18	-1.36	-38.08	-403.79	-502.89	-116.70	-114.62	-49.08	831.85	-0.39	-1003.24
CHP plants	-71.62	-	-11.28	-111.63	-5.05	-	-0.07	-45.55	95.88	55.14	-94.18
Heat plants	-3.65	-	-0.94	-8.57	-	-	-0.88	-7.41	-0.46	18.21	-3.71
Blast furnaces	-51.97	-	-0.03	-0.03	-	-	-	-	-	-	-52.02
Gas works	-2.16	-	-2.41	3.45	-	-	-	-0.50	-	-	-1.62
Coke/pat. fuel/BKB/PB plants	-10.86	-	-0.91	-0.01	-	-	-	-0.11	-	-	-11.89
Oil refineries	-	-2060.72	2020.94	-	-	-	-	-	-	-	-39.77
Petrochemical plants	-	34.22	-33.94	-	-	-	-	-	-	-	0.28
Liquefaction plants	-1.44	0.95	-	-	-	-	-	-	-	-	-0.49
Other transformation	-0.15	9.70	-0.00	-9.22	-	-	-	-0.14	-	-0.70	-0.52
Energy industry own use	-15.34	-0.13	-101.62	-131.55	-	-	-0.00	-0.94	-68.00	-8.03	-325.60
Losses	-0.91	-	-0.02	-1.83	-	-	-0.00	-0.07	-58.36	-5.92	-67.10
TFC	104.04	6.87	1715.22	748.77	-	-	8.94	204.79	803.44	58.73	3650.80
INDUSTRY	83.06	0.04	89.04	270.05	-	-	0.45	74.76	256.23	24.51	798.15
Iron and steel	35.59	-	2.45	27.03	-	-	0.00	0.06	29.30	0.66	95.10
Chemical and petrochemical	9.60	0.02	21.55	84.34	-	-	0.00	1.82	40.90	11.31	169.55
Non-ferrous metals	2.37	-	1.17	11.20	-	-	0.00	0.05	21.00	0.23	36.01
Non-metallic minerals	18.49	-	16.66	24.93	-	-	0.00	6.26	13.58	0.23	80.15
Transport equipment	0.35	-	1.08	8.16	-	-	0.00	0.02	13.22	0.68	23.51
Machinery	0.19	-	2.47	16.99	-	-	0.00	0.11	30.80	0.66	51.22
Mining and quarrying	0.40	-	8.19	3.71	-	-	0.00	0.15	9.31	0.12	21.87
Food and tobacco	5.76	0.00	3.78	36.98	-	-	0.00	5.26	22.17	1.90	75.85
Paper, pulp and printing	4.35	-	2.11	19.65	-	-	0.00	50.71	25.18	2.92	104.91
Wood and wood products	0.07	-	1.34	2.29	-	-	0.00	6.49	4.78	0.70	15.67
Construction	0.04	-	17.17	3.04	-	-	0.00	0.50	7.17	0.04	27.96
Textile and leather	0.86	0.01	0.61	4.67	-	-	0.00	0.15	5.81	0.66	12.78
Non-specified	4.99	-	10.47	27.06	-	-	0.45	3.18	33.02	4.40	83.57
TRANSPORT	0.01	-	1137.28	26.82	-	-	-	56.60	9.81	-	1230.53
Domestic aviation	-	-	79.66	-	-	-	-	-	-	-	79.66
Road	-	-	1019.60	4.26	-	-	-	55.97	0.59	-	1080.42
Rail	0.01	-	17.11	-	-	-	-	0.49	7.54	-	25.16
Pipeline transport	-	-	0.03	22.37	-	-	-	-	0.75	-	23.14
Domestic navigation	-	-	20.25	0.07	-	-	-	0.13	-	-	20.46
Non-specified	-	-	0.64	0.12	-	-	-	0.00	0.94	-	1.70
OTHER	18.09	-	170.64	408.31	-	-	8.49	73.43	537.40	34.22	1250.57
Residential	11.64	-	72.33	253.59	-	-	5.06	59.70	248.71	22.46	673.50
Comm. and public services	5.29	-	47.81	148.04	-	-	2.51	9.68	255.51	11.44	480.29
Agriculture/forestry	1.11	-	43.75	5.72	-	-	0.82	3.46	12.59	0.21	67.66
Fishing	-	-	3.65	0.04	-	-	0.05	0.01	0.47	-	4.21
Non-specified	0.04	-	3.10	0.91	-	-	0.06	0.57	20.13	0.10	24.91
NON-ENERGY USE	2.88	6.83	318.26	43.58	-	-	-	-	-	-	371.56
in industry/transf./energy	2.73	6.83	303.07	43.58	-	-	-	-	-	-	356.22
of which: chem./petrochem.	1.65	6.83	239.16	43.58	-	-	-	-	-	-	291.23
in transport	-	-	8.65	-	-	-	-	-	-	-	8.65
in other	0.14	-	6.54	-	-	-	-	-	-	-	6.68
Electricity and Heat Output											
Electr. generated - TWh	2946.03	6.82	214.15	2923.83	1948.95	1357.22	1038.25	352.98	-	1.26	10789.50
Electricity plants	2667.86	6.82	171.83	2320.95	1930.04	1357.22	1033.02	185.43	-	0.69	9673.85
CHP plants	278.18	-	42.33	602.88	18.91	-	5.23	167.55	-	0.57	1115.64
Heat generated - PJ	689.13	-	167.77	1297.51	5.15	-	59.44	831.24	8.35	48.63	3107.22
CHP plants	562.68	-	140.73	1006.21	5.15	-	9.63	584.07	0.55	20.06	2329.09
Heat plants	126.45	-	27.04	291.30	-	-	49.81	247.17	7.80	28.57	778.13

1. Includes peat and oil shale.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

IEA

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./ Solar/ etc.	Biofuels/ Waste	Electricity	Heat	Total
Production	825.74	1242.51	-	1199.07	513.57	119.08	135.07	308.01	-	0.80	4343.86
Imports	347.64	1401.37	634.18	706.60	-	-	-	24.67	39.84	0.01	3154.31
Exports	-349.06	-527.56	-693.55	-416.58	-	-	-	-16.10	-39.29	-0.01	-2042.14
Intl. marine bunkers	-	-	-81.11	-0.08	-	-	-	-0.19	-	-	-81.37
Intl. aviation bunkers	-	-	-106.59	-	-	-	-	-	-	-	-106.59
Stock changes	14.80	1.66	0.13	1.80	-	-	-	-0.11	-	-	18.27
TPES	839.12	2117.99	-246.93	1490.82	513.57	119.08	135.07	316.29	0.54	0.80	5286.34
Electricity and Heat Output											
Elec. generated - TWh	2808.06	2.60	199.16	3051.10	1970.52	1384.94	1140.19	355.70	-	1.32	10913.59
Heat generated - PJ	665.90	-	152.21	1367.84	5.70	-	59.51	810.54	7.99	45.91	3115.60

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes peat and oil shale.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	2445.8	2906.5	3431.3	3825.7	3871.1	4033.2	4146.1	4343.9
Net imports (Mtoe)	1394.1	1291.2	1228.3	1533.1	1636.4	1286.7	1220.7	1112.2
Total primary energy supply (Mtoe)	3723.3	4049.1	4491.4	5248.2	5356.4	5195.1	5223.3	5286.3
Net oil imports (Mtoe)	1370.8	1216.1	1068.1	1218.0	1222.1	945.9	900.4	814.5
Oil supply (Mtoe)	1954.2	1932.2	1853.7	2089.9	1939.0	1863.5	1880.5	1871.1
Electricity consumption (TWh) ¹	4122.4	5234.9	7081.0	9085.8	10174.3	10171.2	10164.9	10304.3
GDP (billion 2010 USD)	17735.9	21442.9	29111.8	37869.5	44282.3	49217.0	50411.3	51510.5
GDP PPP (billion 2010 USD)	16955.1	20592.6	27877.2	36594.4	43166.9	48307.5	49536.0	50658.2
Population (millions)	906.19	969.62	1050.22	1130.16	1210.96	1253.99	1260.96	1267.76
Industrial production index (2010=100)	..	..	..	..	..	..	..	-
Total self-sufficiency ²	0.66	0.72	0.76	0.73	0.72	0.78	0.79	0.82
Coal self-sufficiency ²	0.97	1.00	1.00	0.89	0.92	0.93	0.97	0.98
Oil self-sufficiency ²	0.36	0.44	0.50	0.50	0.46	0.59	0.60	0.66
Natural gas self-sufficiency ²	1.00	0.92	0.85	0.79	0.73	0.77	0.79	0.80
TPES/GDP (toe per thousand 2010 USD)	0.21	0.19	0.15	0.14	0.12	0.11	0.10	0.10
TPES/GDP PPP (toe per thousand 2010 USD)	0.22	0.20	0.16	0.14	0.12	0.11	0.11	0.10
TPES/population (toe per capita)	4.11	4.18	4.28	4.64	4.42	4.14	4.14	4.17
Net oil imports/GDP (toe per thousand 2010 USD)	0.08	0.06	0.04	0.03	0.03	0.02	0.02	0.02
Oil supply/GDP (toe per thousand 2010 USD)	0.11	0.09	0.06	0.06	0.04	0.04	0.04	0.04
Oil supply/population (toe per capita)	2.16	1.99	1.77	1.85	1.60	1.49	1.49	1.48
Share of renewables in TPES	0.05	0.05	0.06	0.06	0.08	0.10	0.10	0.10
Share of renewables in electricity generation	0.21	0.20	0.17	0.15	0.17	0.24	0.25	0.26
TFC/GDP (toe per thousand 2010 USD)	0.16	0.14	0.11	0.10	0.08	0.07	0.07	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.17	0.14	0.11	0.10	0.09	0.08	0.07	..
TFC/population (toe per capita)	3.10	3.02	2.93	3.18	3.01	2.88	2.90	..
Elect. cons./GDP (kWh per 2010 USD)	0.23	0.24	0.24	0.24	0.23	0.21	0.20	0.20
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.24	0.25	0.25	0.25	0.24	0.21	0.21	0.20
Elect. cons./population (kWh per capita)	4549	5399	6742	8039	8402	8111	8061	8128
Industry cons. ³ /industrial production (2010=100)	..	..	..	..	..	..	..	..
Industry oil cons. ³ /industrial production (2010=100)	..	..	..	..	..	..	..	..

IEA excludes Estonia prior to 1990.

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES. Coal self-sufficiency also includes peat, when applicable.

3. Includes non-energy use.

IEA and Accession/Association countries

Figure 1. Energy production

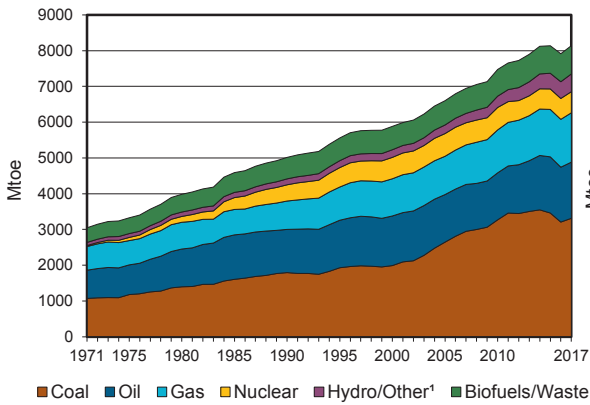


Figure 2. Total primary energy supply²

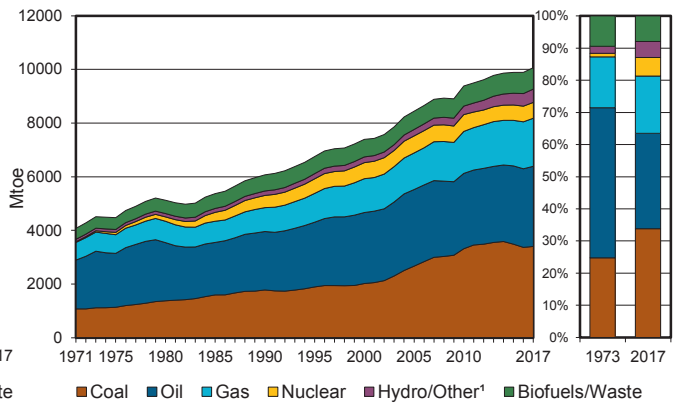


Figure 3. Energy self-sufficiency

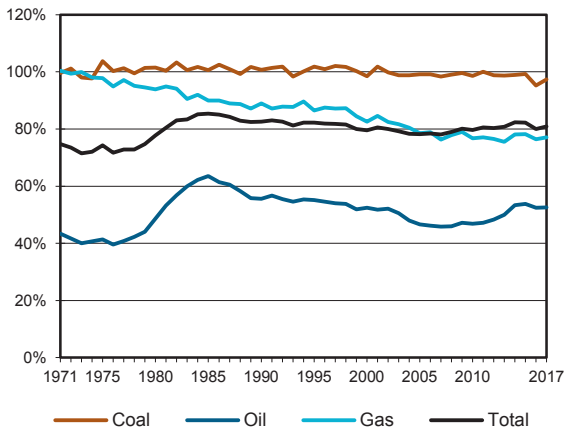


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

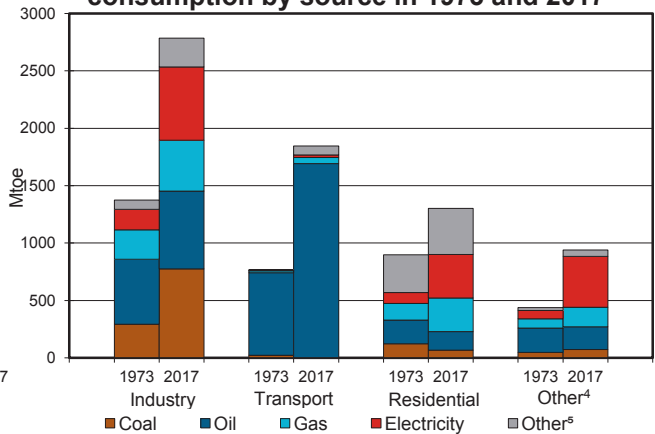


Figure 5. Electricity generation by source

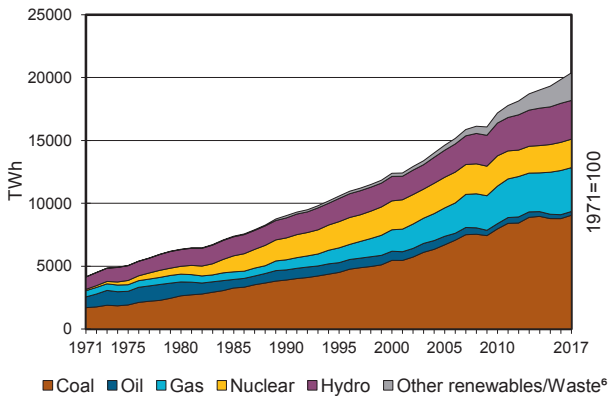
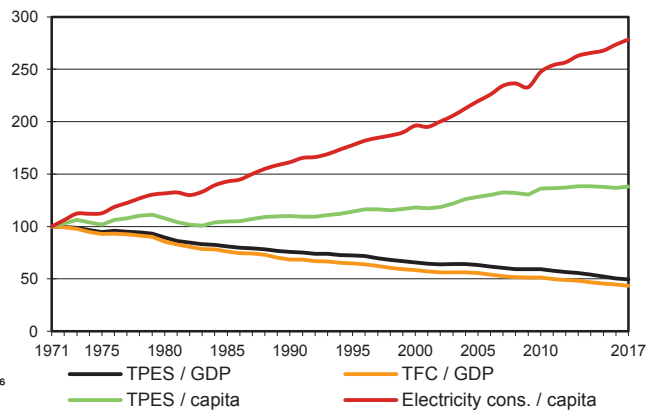


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

IEA and Accession/Association countries

2017

Million tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./ Solar/ etc.	Biofuels/ Waste	Electricity	Heat	Total
Production	3312.60	1569.98	-	1380.76	590.37	264.71	231.13	789.68	-	0.96	8140.18
Imports	669.56	2247.04	942.46	841.45	-	-	-	24.53	47.28	0.01	4772.33
Exports	-614.20	-539.01	-953.55	-433.97	-	-	-	-16.44	-44.50	-0.00	-2601.67
Intl. marine bunkers	-	-	-149.14	-0.06	-	-	-	-0.22	-	-	-149.42
Intl. aviation bunkers	-	-	-135.87	-	-	-	-	-	-	-	-135.87
Stock changes	35.28	7.07	-1.08	2.60	-	-	-	-0.56	-	-	43.31
TPES	3403.24	3285.08	-297.18	1790.78	590.37	264.71	231.13	797.00	2.78	0.96	10068.86
Transfers	-1.23	-112.08	130.18	-	-	-	-	-	-	-	16.87
Statistical differences	12.31	-7.29	16.97	-10.00	-	-	-0.00	-0.29	1.56	3.81	17.07
Electricity plants	-1583.07	-1.51	-57.40	-492.44	-585.32	-264.71	-186.04	-116.55	1489.80	-0.48	-1797.71
CHP plants	-551.06	-	-12.42	-134.72	-5.05	-	-0.07	-59.27	261.70	148.83	-352.05
Heat plants	-11.65	-	-5.01	-8.57	-	-	-0.88	-8.73	-0.46	29.83	-5.48
Blast furnaces	-174.91	-	-0.03	-0.03	-	-	-	-0.05	-	-	-175.01
Gas works	-12.89	-	-2.41	5.29	-	-	-	-0.50	-	-	-10.50
Coke/pat. fuel/BKB/PB plants	-75.55	-	-1.80	-0.01	-	-	-	-0.11	-	-	-77.48
Oil refineries	-	-3210.38	3149.25	-	-	-	-	-	-	-	-61.13
Petrochemical plants	-	37.79	-37.51	-	-	-	-	-	-	-	0.28
Liquefaction plants	-14.47	10.40	-	-2.60	-	-	-	-	-	-	-6.67
Other transformation	-0.15	11.09	-0.00	-10.94	-	-	-	-12.74	-	-0.70	-13.44
Energy industry own use	-75.64	-3.10	-159.75	-176.77	-	-	-0.00	-12.86	-145.51	-20.72	-594.36
Losses	-1.18	-0.66	-0.13	-4.78	-	-	-0.00	-0.13	-122.44	-7.07	-136.41
TFC	913.77	9.33	2722.76	955.22	-	-	44.14	585.76	1487.42	154.46	6872.85
INDUSTRY	725.06	0.71	208.05	365.26	-	-	0.94	160.00	640.16	88.43	2188.60
Iron and steel	279.06	-	5.21	33.54	-	-	0.00	3.13	83.50	5.67	410.11
Chemical and petrochemical	104.01	0.02	48.61	105.61	-	-	0.00	1.90	97.41	44.54	402.10
Non-ferrous metals	24.71	-	3.93	15.73	-	-	0.00	0.06	77.70	4.60	126.73
Non-metallic minerals	191.43	-	34.75	35.63	-	-	0.00	8.75	44.22	0.56	315.35
Transport equipment	2.27	-	1.78	11.65	-	-	0.00	0.02	23.31	1.74	40.76
Machinery	7.65	-	4.70	23.62	-	-	0.00	0.11	73.09	1.55	110.73
Mining and quarrying	5.48	-	18.15	5.49	-	-	0.00	0.15	25.87	1.00	56.15
Food and tobacco	25.66	0.00	6.89	41.67	-	-	0.00	29.12	37.12	5.81	146.27
Paper, pulp and printing	14.71	-	3.31	23.28	-	-	0.00	61.15	36.15	8.05	146.65
Wood and wood products	1.15	-	1.65	2.63	-	-	0.00	6.49	8.28	0.93	21.13
Construction	4.00	-	25.98	3.24	-	-	0.00	0.51	14.08	0.29	48.10
Textile and leather	7.41	0.01	2.88	7.89	-	-	0.00	0.21	24.95	8.58	51.93
Non-specified	57.51	0.67	50.19	55.26	-	-	0.94	48.41	94.48	5.13	312.59
TRANSPORT	0.01	-	1680.77	53.12	-	-	-	79.68	22.62	-	1836.20
Domestic aviation	-	-	115.37	-	-	-	-	-	-	-	115.37
Road	-	-	1488.27	29.08	-	-	-	79.05	4.51	-	1600.90
Rail	0.01	-	24.25	-	-	-	-	0.49	16.33	-	41.08
Pipeline transport	-	-	0.03	23.84	-	-	-	-	0.80	-	24.67
Domestic navigation	-	-	50.14	0.07	-	-	-	0.13	-	-	50.35
Non-specified	0.00	-	2.71	0.12	-	-	-	0.00	0.98	-	3.82
OTHER	139.43	-	328.20	459.23	-	-	43.20	346.08	824.64	66.03	2206.80
Residential	67.77	-	162.35	290.51	-	-	31.85	321.12	380.74	47.86	1302.20
Comm. and public services	30.56	-	69.47	161.77	-	-	7.92	17.76	322.39	13.99	623.84
Agriculture/forestry	16.26	-	84.67	6.00	-	-	2.16	6.61	43.92	0.24	159.86
Fishing	0.00	-	3.94	0.04	-	-	0.05	0.01	0.48	-	4.51
Non-specified	24.84	-	7.78	0.91	-	-	1.21	0.58	77.12	3.94	116.38
NON-ENERGY USE	49.27	8.62	505.75	77.61	-	-	-	-	-	-	641.24
in industry/transf./energy	48.97	8.62	461.43	77.61	-	-	-	-	-	-	596.63
of which: chem./petrochem.	2.84	8.62	354.83	77.61	-	-	-	-	-	-	443.90
in transport	-	-	10.56	-	-	-	-	-	-	-	10.56
in other	0.30	-	33.76	-	-	-	-	-	-	-	34.06
Electricity and Heat Output											
Electr. generated - TWh	9048.05	6.82	290.65	3487.66	2265.30	3078.55	1622.37	567.57	-	3.01	20369.96
Electricity plants	6976.88	6.82	242.82	2811.83	2246.39	3078.55	1617.13	342.95	-	2.44	17325.80
CHP plants	2071.17	-	47.84	675.83	18.91	-	5.23	224.62	-	0.57	3044.16
Heat generated - PJ	4427.24	-	312.44	1783.60	5.15	-	59.44	871.61	8.35	52.43	7520.27
CHP plants	3999.35	-	140.73	1492.30	5.15	-	9.63	584.07	0.55	20.06	6251.84
Heat plants	427.90	-	171.71	291.30	-	-	49.81	287.54	7.80	32.37	1268.43

1. Includes peat and oil shale.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

IEA and Accession/Association countries

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	3416.84	1668.33	..	1463.99	..	..	..	..	..	..	..
Imports	682.49	..	..	872.57	..	..	..	..	..	..	..
Exports	-642.16	..	..	-443.04	..	..	..	..	..	..	..
Intl. marine bunkers	..	..	..	..	..	..	..	..	..	..	..
Intl. aviation bunkers	..	..	..	..	..	..	..	..	..	..	..
Stock changes	-48.71	..	..	..	..	..	..	..	..	..	..
TPES	3408.46	..	..	1891.10	..	..	..	..	..	..	..
Electricity and Heat Output											
Elec. generated - TWh	..	..	..	..	..	..	..	..	..	..	..
Heat generated - PJ	..	..	..	..	..	..	..	..	..	..	..

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes peat and oil shale.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	3222.3	3984.1	5016.0	5883.1	7473.9	7915.1	8140.2	..
Net imports (Mtoe)	1429.7	1300.0	1228.4	1684.3	2180.0	2152.4	2170.7	..
Total primary energy supply (Mtoe)	4510.4	5126.8	6074.6	7398.5	9387.1	9894.7	10068.9	..
Net oil imports (Mtoe)	1408.5	1251.8	1124.4	1483.8	1762.9	1684.5	1696.9	..
Oil supply (Mtoe)	2107.7	2168.0	2176.2	2646.1	2806.4	2929.0	2987.9	..
Electricity consumption (TWh) ¹	4476.3	5875.7	8382.0	11549.7	16036.3	18604.4	19083.0	..
GDP (billion 2010 USD)	19190.2	23618.0	32461.5	43722.9	56268.1	65994.2	68124.2	..
GDP PPP (billion 2010 USD)	19669.6	24590.3	34438.4	48434.3	68136.5	84111.5	87460.2	..
Population (millions)	2702.33	3027.04	3521.58	3989.65	4392.34	4609.63	4645.45	..
Industrial production index (2010=100)	..	..	..	..	..	..	..	..
Total self-sufficiency ²	0.71	0.78	0.83	0.80	0.80	0.80	0.81	..
Coal self-sufficiency ²	0.98	1.02	1.01	0.98	0.99	0.95	0.97	1.00
Oil self-sufficiency ²	0.40	0.49	0.56	0.52	0.47	0.52	0.53	..
Natural gas self-sufficiency ²	1.00	0.94	0.89	0.83	0.77	0.76	0.77	0.77
TPES/GDP (toe per thousand 2010 USD)	0.24	0.22	0.19	0.17	0.17	0.15	0.15	..
TPES/GDP PPP (toe per thousand 2010 USD)	0.23	0.21	0.18	0.15	0.14	0.12	0.12	..
TPES/population (toe per capita)	1.67	1.69	1.73	1.85	2.14	2.15	2.17	..
Net oil imports/GDP (toe per thousand 2010 USD)	0.07	0.05	0.03	0.03	0.03	0.03	0.02	..
Oil supply/GDP (toe per thousand 2010 USD)	0.11	0.09	0.07	0.06	0.05	0.04	0.04	..
Oil supply/population (toe per capita)	0.78	0.72	0.62	0.66	0.64	0.64	0.64	..
Share of renewables in TPES	0.12	0.12	0.13	0.12	0.11	0.12	0.13	..
Share of renewables in electricity generation	0.22	0.21	0.19	0.17	0.19	0.25	0.25	..
TFC/GDP (toe per thousand 2010 USD)	0.18	0.16	0.13	0.12	0.11	0.10	0.10	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.18	0.16	0.12	0.11	0.09	0.08	0.08	..
TFC/population (toe per capita)	1.29	1.26	1.21	1.28	1.44	1.47	1.48	..
Elect. cons./GDP (kWh per 2010 USD)	0.23	0.25	0.26	0.26	0.29	0.28	0.28	..
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.23	0.24	0.24	0.24	0.24	0.22	0.22	..
Elect. cons./population (kWh per capita)	1657	1941	2380	2895	3651	4036	4108	..
Industry cons. ³ /industrial production (2010=100)	..	..	..	..	..	..	..	..
Industry oil cons. ³ /industrial production (2010=100)	..	..	..	..	..	..	..	..

IEA excludes Estonia prior to 1990.

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES. Coal self-sufficiency also includes peat, when applicable.

3. Includes non-energy use.

OECD Total

Figure 1. Energy production

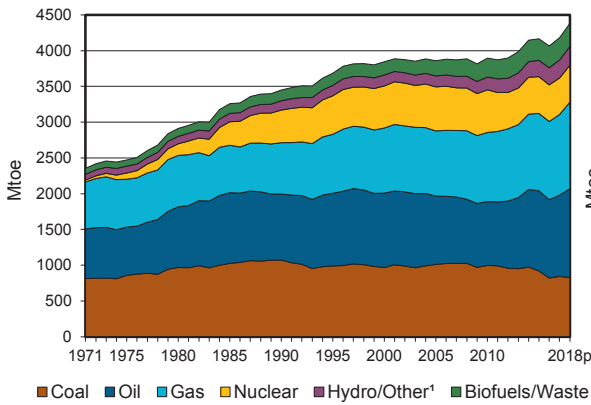


Figure 2. Total primary energy supply²

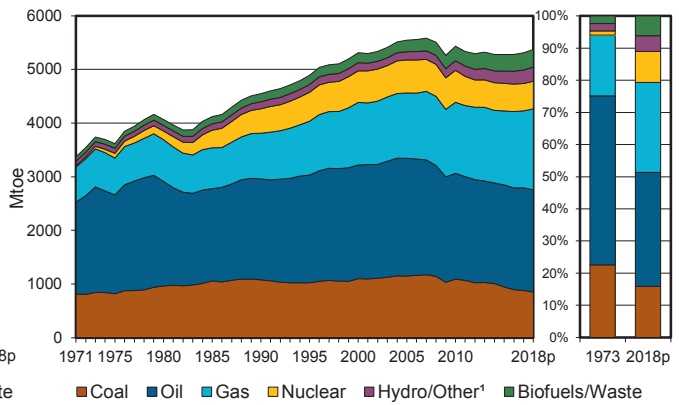


Figure 3. Energy self-sufficiency

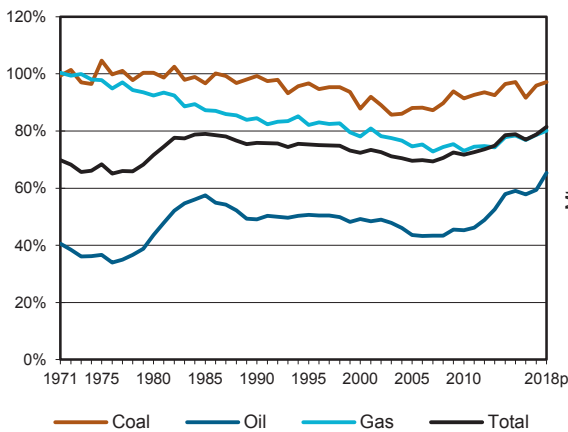


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

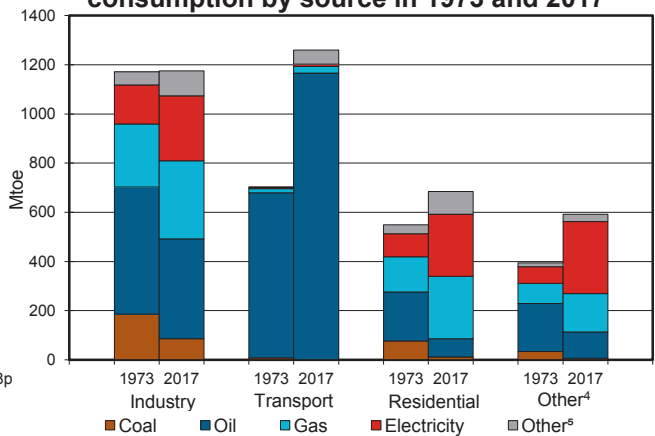


Figure 5. Electricity generation by source

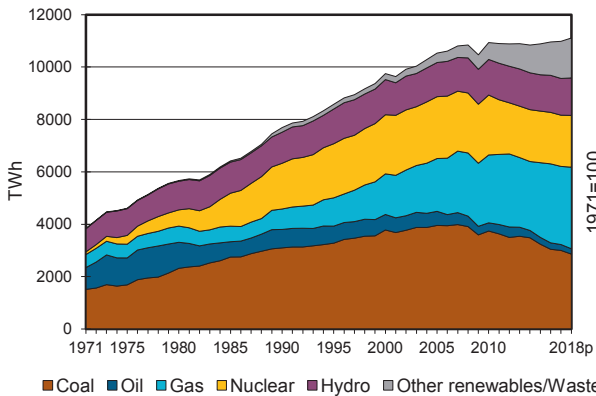
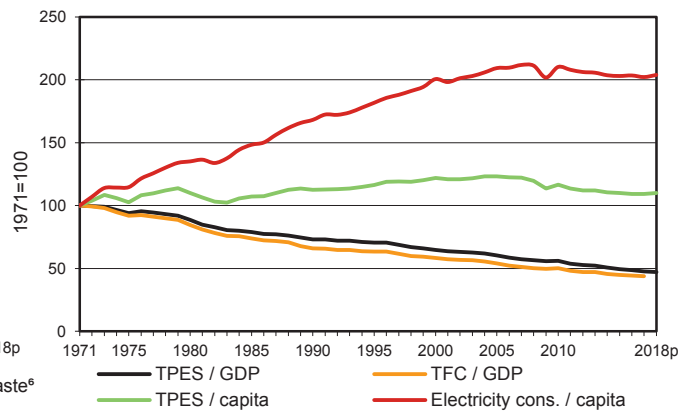


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

OECD Total

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./ Solar/ etc.	Biofuels/ Waste	Electricity	Heat	Total
Production	843.75	1135.51	-	1128.14	509.58	120.50	129.59	312.87	-	1.15	4181.07
Imports	365.78	1472.28	642.81	712.07	-	-	-	23.83	41.81	0.01	3258.59
Exports	-338.16	-463.85	-714.83	-407.49	-	-	-	-16.12	-42.72	-0.00	-1983.17
Intl. marine bunkers	-	-	-82.62	-0.06	-	-	-	-0.22	-	-	-82.91
Intl. aviation bunkers	-	-	-104.72	-	-	-	-	-	-	-	-104.72
Stock changes	8.95	17.57	10.73	2.54	-	-	-	0.36	-	-	40.16
TPES	880.32	2161.52	-248.63	1435.20	509.58	120.50	129.59	320.72	-0.92	1.15	5309.02
Transfers	-	-103.12	118.14	-	-	-	-	-	-	-	15.02
Statistical differences	3.90	-0.08	13.00	-6.70	-	-	0.04	-0.11	3.44	-0.45	13.04
Electricity plants	-620.08	-1.36	-38.79	-413.43	-504.53	-120.50	-115.98	-49.10	846.72	-0.45	-1017.51
CHP plants	-72.70	-	-11.30	-112.36	-5.05	-	-2.67	-50.88	97.65	56.20	-101.11
Heat plants	-3.66	-	-0.96	-8.95	-	-	-1.45	-8.12	-0.48	19.65	-3.97
Blast furnaces	-52.07	-	-0.03	-0.03	-	-	-	-	-	-	-52.13
Gas works	-2.15	-	-2.41	3.44	-	-	-	-0.50	-	-	-1.62
Coke/pat. fuel/BKB/PB plants	-10.86	-	-0.91	-0.01	-	-	-	-0.11	-	-	-11.89
Oil refineries	-	-2095.01	2055.15	-	-	-	-	-	-	-	-39.86
Petrochemical plants	-	34.22	-33.94	-	-	-	-	-	-	-	0.28
Liquefaction plants	-1.44	0.95	-	-	-	-	-	-	-	-	-0.49
Other transformation	-0.15	9.88	-0.00	-9.42	-	-	-	-0.28	-	-0.70	-0.67
Energy industry own use	-15.49	-0.13	-103.12	-131.72	-	-	-0.00	-0.94	-68.83	-8.08	-328.31
Losses	-0.92	-	-0.02	-1.92	-	-	-0.01	-0.08	-59.17	-6.23	-68.35
TFC	104.70	6.87	1746.19	754.10	-	-	9.51	210.60	818.41	61.08	3711.46
INDUSTRY	83.60	0.04	93.45	272.74	-	-	0.46	77.01	263.26	24.88	815.44
Iron and steel	35.76	-	2.47	27.12	-	-	0.00	0.06	29.56	0.66	95.64
Chemical and petrochemical	9.60	0.02	21.55	84.59	-	-	0.00	1.87	41.07	11.55	170.26
Non-ferrous metals	2.37	-	1.17	11.25	-	-	0.00	0.05	22.27	0.23	37.34
Non-metallic minerals	18.61	-	17.23	25.07	-	-	0.00	6.36	13.70	0.23	81.19
Transport equipment	0.35	-	1.08	8.17	-	-	0.00	0.02	13.29	0.69	23.59
Machinery	0.19	-	2.48	17.04	-	-	0.00	0.12	31.14	0.67	51.64
Mining and quarrying	0.48	-	10.38	3.89	-	-	0.00	0.15	11.71	0.12	26.73
Food and tobacco	5.86	0.00	3.82	37.12	-	-	0.00	5.28	22.48	1.92	76.48
Paper, pulp and printing	4.37	-	2.32	19.90	-	-	0.00	51.95	25.73	2.92	107.19
Wood and wood products	0.07	-	1.36	2.32	-	-	0.00	6.87	4.94	0.77	16.33
Construction	0.04	-	17.43	3.11	-	-	0.00	0.51	7.20	0.04	28.33
Textile and leather	0.86	0.01	0.61	4.70	-	-	0.00	0.15	5.86	0.66	12.86
Non-specified	5.03	-	11.55	28.47	-	-	0.46	3.62	34.32	4.41	87.86
TRANSPORT	0.01	-	1157.34	26.88	-	-	-	56.73	9.94	-	1250.90
Domestic aviation	-	-	80.21	-	-	-	-	-	-	-	80.21
Road	-	-	1038.55	4.29	-	-	-	56.10	0.64	-	1099.57
Rail	0.01	-	17.27	-	-	-	-	0.50	7.60	-	25.38
Pipeline transport	-	-	0.03	22.39	-	-	-	-	0.75	-	23.17
Domestic navigation	-	-	20.65	0.07	-	-	-	0.13	-	-	20.86
Non-specified	-	-	0.64	0.12	-	-	-	0.00	0.94	-	1.72
OTHER	18.21	-	174.46	409.68	-	-	9.05	76.86	545.21	36.20	1269.66
Residential	11.71	-	73.78	254.46	-	-	5.50	62.92	252.13	23.73	684.22
Comm. and public services	5.34	-	48.75	148.42	-	-	2.56	9.83	259.09	12.08	486.07
Agriculture/forestry	1.11	-	44.21	5.77	-	-	0.82	3.51	13.03	0.24	68.70
Fishing	0.00	-	4.05	0.04	-	-	0.06	0.01	0.49	0.04	4.69
Non-specified	0.04	-	3.67	0.99	-	-	0.11	0.59	20.47	0.11	25.98
NON-ENERGY USE	2.88	6.83	320.94	44.80	-	-	-	-	-	-	375.45
in industry/transf./energy	2.74	6.83	305.70	44.80	-	-	-	-	-	-	360.07
of which: chem./petrochem.	1.65	6.83	240.56	44.80	-	-	-	-	-	-	293.84
in transport	-	-	8.69	-	-	-	-	-	-	-	8.69
in other	0.14	-	6.55	-	-	-	-	-	-	-	6.69
Electricity and Heat Output											
Electr. generated - TWh	3002.21	6.82	217.09	2983.12	1955.24	1401.45	1054.49	360.86	-	1.75	10983.02
Electricity plants	2719.21	6.82	174.62	2377.10	1936.33	1401.45	1044.64	185.43	-	0.93	9846.53
CHP plants	283.00	-	42.48	606.01	18.91	-	9.84	175.42	-	0.82	1136.49
Heat generated - PJ	694.60	-	168.38	1326.60	5.15	-	88.60	870.49	9.18	60.39	3223.41
CHP plants	567.66	-	140.82	1020.60	5.15	-	19.54	599.14	0.55	26.27	2379.74
Heat plants	126.94	-	27.56	306.00	-	-	69.06	271.35	8.63	34.12	843.67

1. Includes peat and oil shale.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

OECD Total

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./ Solar/ etc.	Biofuels/ Waste	Electricity	Heat	Total
Production	827.61	1243.05	-	1208.77	515.08	122.93	140.67	320.68	-	1.07	4379.87
Imports	359.23	1433.51	653.74	715.03	-	-	-	25.22	42.15	0.01	3228.90
Exports	-349.26	-527.61	-709.53	-416.78	-	-	-	-17.37	-41.23	-0.01	-2061.80
Intl. marine bunkers	-	-	-82.07	-0.08	-	-	-	-0.19	-	-	-82.33
Intl. aviation bunkers	-	-	-109.32	-	-	-	-	-	-	-	-109.32
Stock changes	14.93	1.74	0.22	1.79	-	-	-	-0.32	-	-	18.37
TPES	852.51	2150.70	-246.96	1508.74	515.08	122.93	140.67	328.03	0.92	1.07	5373.69
Electricity and Heat Output											
Elec. generated - TWh	2862.70	2.60	201.05	3113.22	1976.29	1429.63	1158.67	363.43	-	1.79	11109.39
Heat generated - PJ	671.41	-	152.93	1396.38	5.70	-	91.02	849.41	8.91	57.18	3232.95

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes peat and oil shale.
2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	2457.6	2913.4	3450.4	3845.2	3896.3	4066.5	4181.1	4379.9
Net imports (Mtoe)	1401.0	1304.3	1269.2	1579.9	1691.6	1340.2	1275.4	1167.1
Total primary energy supply (Mtoe)	3740.7	4067.9	4548.8	5312.1	5434.8	5279.5	5309.0	5373.7
Net oil imports (Mtoe)	1377.4	1228.5	1096.7	1248.0	1256.8	981.0	936.4	850.1
Oil supply (Mtoe)	1967.5	1945.5	1881.5	2117.9	1971.7	1896.2	1912.9	1903.7
Electricity consumption (TWh) ¹	4140.5	5259.9	7155.6	9196.5	10330.9	10357.6	10352.2	10495.8
GDP (billion 2010 USD)	17832.9	21567.7	29322.4	38273.1	44857.1	49918.3	51132.5	52258.9
GDP PPP (billion 2010 USD)	17065.6	20734.7	28153.6	37079.6	43865.1	49158.6	50410.2	51565.9
Population (millions)	919.75	984.90	1076.67	1160.00	1243.23	1288.04	1295.37	1302.56
Industrial production index (2010=100)	..	53.1	67.8	87.6	93.0	100.3	103.3	105.6
Total self-sufficiency ²	0.66	0.72	0.76	0.72	0.72	0.77	0.79	0.82
Coal self-sufficiency ²	0.97	1.00	0.99	0.88	0.91	0.92	0.96	0.97
Oil self-sufficiency ²	0.36	0.44	0.49	0.49	0.45	0.58	0.59	0.65
Natural gas self-sufficiency ²	1.00	0.92	0.84	0.78	0.73	0.77	0.79	0.80
TPES/GDP (toe per thousand 2010 USD)	0.21	0.19	0.16	0.14	0.12	0.11	0.10	0.10
TPES/GDP PPP (toe per thousand 2010 USD)	0.22	0.20	0.16	0.14	0.12	0.11	0.11	0.10
TPES/population (toe per capita)	4.07	4.13	4.22	4.58	4.37	4.10	4.10	4.13
Net oil imports/GDP (toe per thousand 2010 USD)	0.08	0.06	0.04	0.03	0.03	0.02	0.02	0.02
Oil supply/GDP (toe per thousand 2010 USD)	0.11	0.09	0.06	0.06	0.04	0.04	0.04	0.04
Oil supply/population (toe per capita)	2.14	1.98	1.75	1.83	1.59	1.47	1.48	1.46
Share of renewables in TPES	0.05	0.05	0.06	0.06	0.08	0.10	0.10	0.11
Share of renewables in electricity generation	0.21	0.20	0.17	0.16	0.18	0.24	0.25	0.26
TFC/GDP (toe per thousand 2010 USD)	0.16	0.14	0.11	0.10	0.08	0.07	0.07	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.17	0.14	0.11	0.10	0.08	0.08	0.07	..
TFC/population (toe per capita)	3.06	2.99	2.90	3.14	2.98	2.85	2.87	..
Elect. cons./GDP (kWh per 2010 USD)	0.23	0.24	0.24	0.24	0.23	0.21	0.20	0.20
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.24	0.25	0.25	0.25	0.24	0.21	0.21	0.20
Elect. cons./population (kWh per capita)	4502	5341	6646	7928	8310	8041	7992	8058
Industry cons. ³ /industrial production (2010=100)	..	177.8	132.1	116.0	100.0	91.6	90.8	..
Industry oil cons. ³ /industrial production (2010=100)	..	202.4	131.9	112.7	100.0	85.8	84.6	..

OECD Total excludes Estonia, Latvia and Slovenia prior to 1990. Please refer to section 'Geographical coverage'.

1. Electricity consumption equals domestic supply less losses.
2. Production divided by TPES. Coal self-sufficiency also includes peat, when applicable.
3. Includes non-energy use.

OECD Americas

Figure 1. Energy production

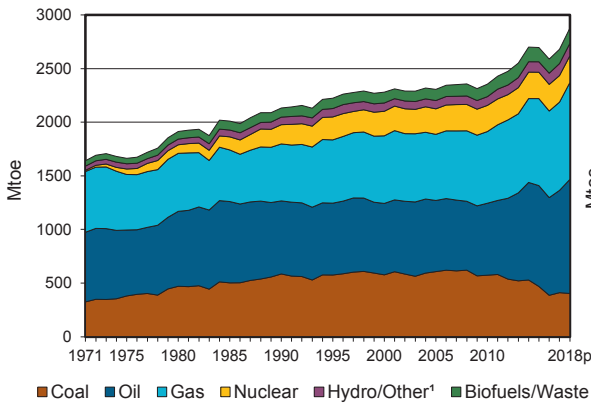


Figure 2. Total primary energy supply²

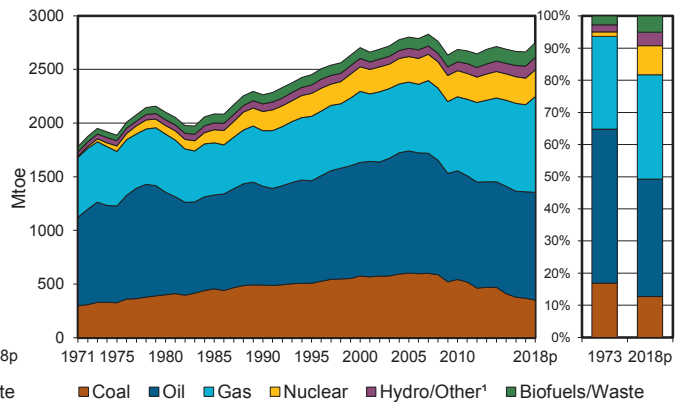


Figure 3. Energy self-sufficiency

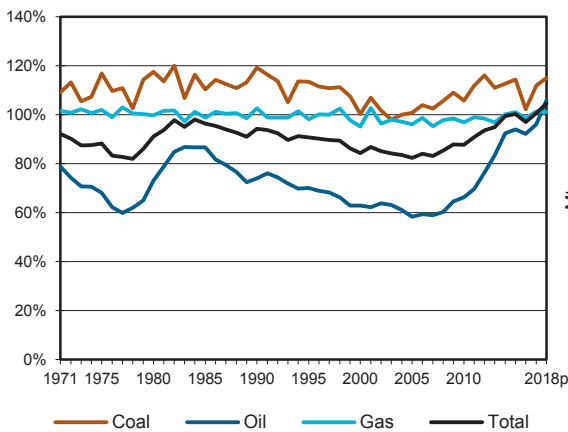


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

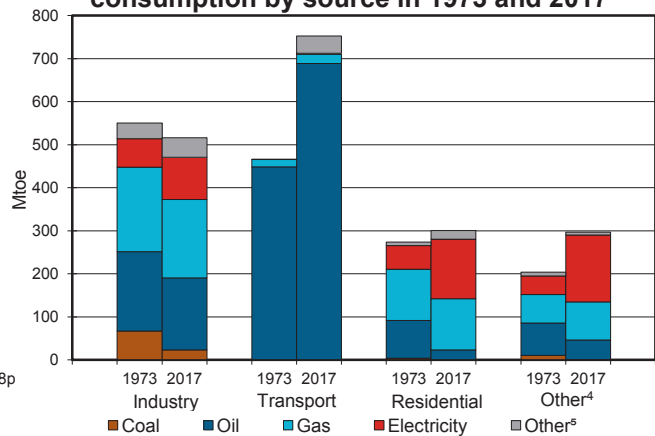


Figure 5. Electricity generation by source

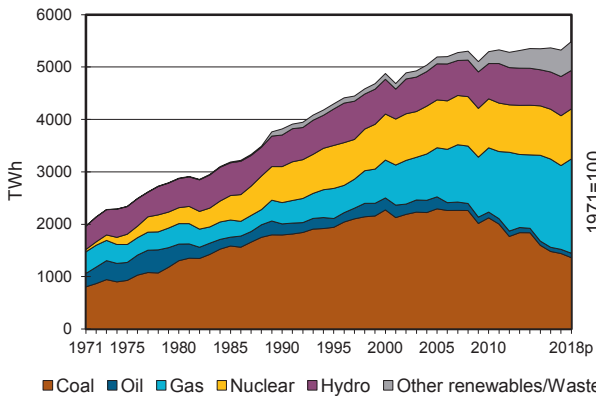
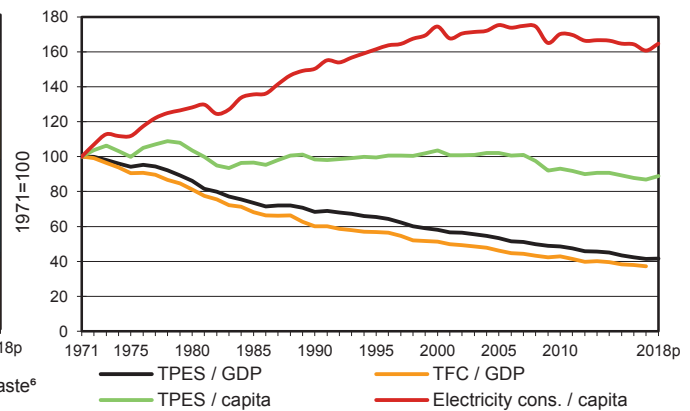


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

OECD Americas

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	411.27	953.13	-	822.71	247.75	64.33	47.56	133.32	-	-	2680.07
Imports	22.83	498.06	143.85	129.70	-	-	-	3.45	6.68	-	804.58
Exports	-76.53	-324.55	-242.00	-145.67	-	-	-	-4.65	-7.16	-	-800.56
Intl. marine bunkers	-	-	-24.49	-	-	-	-	-0.22	-	-	-24.71
Intl. aviation bunkers	-	-	-30.03	-	-	-	-	-	-	-	-30.03
Stock changes	10.21	13.35	4.67	5.01	-	-	-	0.13	-	-	33.38
TPES	367.79	1139.99	-147.99	811.74	247.75	64.33	47.56	132.03	-0.48	-	2662.73
Transfers	-	-105.31	113.38	-	-	-	-	-	-	-	8.06
Statistical differences	4.92	-0.14	16.15	-8.14	-	-	-	0.30	3.79	-	16.89
Electricity plants	-331.50	-	-15.99	-239.66	-247.75	-64.33	-45.09	-17.15	428.43	-	-533.05
CHP plants	-6.02	-	-2.43	-46.18	-	-	-	-12.19	29.31	11.22	-26.30
Heat plants	-0.00	-	-	-	-	-	-	-0.19	-	0.10	-0.09
Blast furnaces	-5.26	-	-	-	-	-	-	-	-	-	-5.26
Gas works	-1.94	-	-0.78	1.28	-	-	-	-	-	-	-1.44
Coke/pat. fuel/BKB/PB plants	-2.95	-	-	-	-	-	-	-	-	-	-2.95
Oil refineries	-	-1038.18	1011.05	-	-	-	-	-	-	-	-27.14
Petrochemical plants	-	0.05	-0.06	-	-	-	-	-	-	-	-0.00
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	8.02	-	-7.37	-	-	-	-0.12	-	-	0.52
Energy industry own use	-1.65	-	-52.42	-100.85	-	-	-	-0.13	-34.95	-3.61	-193.62
Losses	-0.01	-	-	-0.08	-	-	-	-0.01	-31.54	-1.29	-32.94
TFC	23.38	4.43	920.93	410.73	-	-	2.47	102.53	394.55	6.43	1865.43
INDUSTRY	22.73	-	34.25	153.85	-	-	0.01	39.74	98.59	5.14	354.31
Iron and steel	6.28	-	0.36	13.62	-	-	-	0.01	5.96	0.17	26.39
Chemical and petrochemical	1.86	-	2.22	59.27	-	-	-	0.31	14.60	3.10	81.36
Non-ferrous metals	0.23	-	0.17	3.82	-	-	-	0.00	8.33	0.09	12.65
Non-metallic minerals	5.41	-	5.26	8.03	-	-	-	0.45	3.59	0.00	22.75
Transport equipment	0.00	-	0.25	4.09	-	-	-	0.00	4.11	0.11	8.58
Machinery	0.04	-	0.71	7.74	-	-	-	0.01	8.19	0.08	16.77
Mining and quarrying	0.11	-	6.67	2.95	-	-	-	0.10	7.92	-	17.74
Food and tobacco	3.17	-	0.63	18.43	-	-	-	1.72	7.53	0.51	32.00
Paper, pulp and printing	1.32	-	0.83	11.77	-	-	-	34.58	11.02	0.48	60.01
Wood and wood products	-	-	1.00	1.37	-	-	-	1.49	1.84	0.24	5.93
Construction	-	-	10.82	0.75	-	-	-	0.31	4.37	0.00	16.26
Textile and leather	0.06	-	-	1.21	-	-	-	-	1.31	0.14	2.71
Non-specified	4.25	-	5.33	20.78	-	-	0.01	0.75	19.81	0.21	51.15
TRANSPORT	-	-	683.68	21.58	-	-	-	40.20	1.80	-	747.26
Domestic aviation	-	-	64.31	-	-	-	-	-	-	-	64.31
Road	-	-	594.87	1.25	-	-	-	39.61	0.49	-	636.21
Rail	-	-	13.94	-	-	-	-	0.47	0.75	-	15.16
Pipeline transport	-	-	0.01	20.27	-	-	-	-	0.57	-	20.85
Domestic navigation	-	-	10.42	-	-	-	-	0.12	-	-	10.54
Non-specified	-	-	0.13	0.05	-	-	-	-	0.00	-	0.18
OTHER	0.48	-	63.19	207.58	-	-	2.45	22.59	294.15	1.28	591.74
Residential	0.01	-	22.85	119.03	-	-	0.58	19.08	138.71	-	300.27
Comm. and public services	0.47	-	17.53	86.19	-	-	1.78	2.29	129.53	1.26	239.06
Agriculture/forestry	-	-	22.58	2.36	-	-	-	1.21	6.02	-	32.18
Fishing	0.00	-	0.23	0.00	-	-	-	0.00	0.01	-	0.24
Non-specified	-	-	-	-	-	-	0.09	0.00	19.88	0.02	19.99
NON-ENERGY USE	0.16	4.43	139.80	27.73	-	-	-	-	-	-	172.12
in industry/transf./energy	0.08	4.43	129.21	27.73	-	-	-	-	-	-	161.45
of which: chem./petrochem.	-	4.43	92.57	27.73	-	-	-	-	-	-	124.73
in transport	-	-	5.11	-	-	-	-	-	-	-	5.11
in other	0.08	-	5.49	-	-	-	-	-	-	-	5.57
Electricity and Heat Output											
Electr. generated - TWh	1441.60	-	80.12	1598.63	950.86	748.19	409.95	94.09	-	-	5323.44
Electricity plants	1412.80	-	67.23	1347.69	950.86	748.19	406.23	49.60	-	-	4982.60
CHP plants	28.79	-	12.89	250.94	-	-	3.72	44.50	-	-	340.84
Heat generated - PJ	27.28	-	31.09	354.67	-	-	-	60.97	-	-	474.01
CHP plants	27.26	-	31.09	354.67	-	-	-	56.67	-	-	469.69
Heat plants	0.02	-	-	-	-	-	-	4.30	-	-	4.31

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

OECD Americas

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	403.43	1062.85	-	902.68	249.03	63.05	53.24	141.15	-	-	2875.42
Imports	20.77	480.30	153.64	131.15	-	-	-	2.49	6.34	-	794.69
Exports	-86.85	-386.74	-247.81	-152.29	-	-	-	-5.32	-6.68	-	-885.69
Intl. marine bunkers	-	-	-24.68	-	-	-	-	-0.19	-	-	-24.87
Intl. aviation bunkers	-	-	-30.64	-	-	-	-	-	-	-	-30.64
Stock changes	13.49	-1.76	-1.10	11.13	-	-	-	-0.22	-	-	21.54
TPES	350.84	1154.65	-150.59	892.66	249.03	63.05	53.24	137.91	-0.33	-	2750.46
Electricity and Heat Output											
Elec. generated - TWh	1363.51	-	83.53	1798.99	955.74	733.33	458.43	92.87	-	-	5486.42
Heat generated - PJ	23.54	-	20.19	380.27	-	-	-	60.32	-	-	484.33

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	1707.0	1913.4	2132.5	2280.2	2354.6	2588.5	2680.1	2875.4
Net imports (Mtoe)	270.4	249.4	219.7	424.1	371.7	102.6	4.0	-91.0
Total primary energy supply (Mtoe)	1950.5	2101.4	2264.0	2703.3	2686.3	2667.4	2662.7	2750.5
Net oil imports (Mtoe)	298.1	304.3	295.0	445.0	397.3	131.7	75.4	-0.6
Oil supply (Mtoe)	934.3	955.0	920.6	1058.1	1012.2	987.7	992.0	1004.1
Electricity consumption (TWh) ¹	2087.7	2625.3	3487.5	4596.7	4960.1	5042.3	4973.9	5137.3
GDP (billion 2010 USD)	6474.7	7868.5	10734.6	15024.8	17885.7	20319.4	20779.3	21346.8
GDP PPP (billion 2010 USD)	6619.0	8115.1	11022.6	15465.7	18406.9	20959.9	21429.6	22012.7
Population (millions)	301.59	333.81	378.12	429.38	475.01	500.17	504.41	508.42
Industrial production index (2010=100)	..	..	..	..	..	..	..	-
Total self-sufficiency ²	0.88	0.91	0.94	0.84	0.88	0.97	1.01	1.05
Coal self-sufficiency ²	1.06	1.18	1.19	1.00	1.06	1.02	1.12	1.15
Oil self-sufficiency ²	0.71	0.73	0.74	0.63	0.66	0.92	0.96	1.06
Natural gas self-sufficiency ²	1.02	1.00	1.03	0.95	0.97	0.99	1.01	1.01
TPES/GDP (toe per thousand 2010 USD)	0.30	0.27	0.21	0.18	0.15	0.13	0.13	0.13
TPES/GDP PPP (toe per thousand 2010 USD)	0.29	0.26	0.21	0.17	0.15	0.13	0.12	0.12
TPES/population (toe per capita)	6.47	6.30	5.99	6.30	5.66	5.33	5.28	5.41
Net oil imports/GDP (toe per thousand 2010 USD)	0.05	0.04	0.03	0.03	0.02	0.01	0.00	-
Oil supply/GDP (toe per thousand 2010 USD)	0.14	0.12	0.09	0.07	0.06	0.05	0.05	0.05
Oil supply/population (toe per capita)	3.10	2.86	2.43	2.46	2.13	1.97	1.97	1.97
Share of renewables in TPES	0.05	0.06	0.07	0.06	0.07	0.09	0.09	0.09
Share of renewables in electricity generation	0.21	0.20	0.19	0.16	0.17	0.22	0.23	0.23
TFC/GDP (toe per thousand 2010 USD)	0.23	0.20	0.14	0.12	0.10	0.09	0.09	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.23	0.19	0.14	0.12	0.10	0.09	0.09	..
TFC/population (toe per capita)	4.95	4.61	4.10	4.32	3.88	3.71	3.70	..
Elect. cons./GDP (kWh per 2010 USD)	0.32	0.33	0.32	0.31	0.28	0.25	0.24	0.24
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.32	0.32	0.32	0.30	0.27	0.24	0.23	0.23
Elect. cons./population (kWh per capita)	6922	7865	9223	10705	10442	10081	9861	10104
Industry cons. ³ /industrial production (2010=100)	..	..	..	..	..	..	..	..
Industry oil cons. ³ /industrial production (2010=100)	..	..	..	..	..	..	..	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES. Coal self-sufficiency also includes peat, when applicable.

3. Includes non-energy use.

OECD Asia Oceania

Figure 1. Energy production

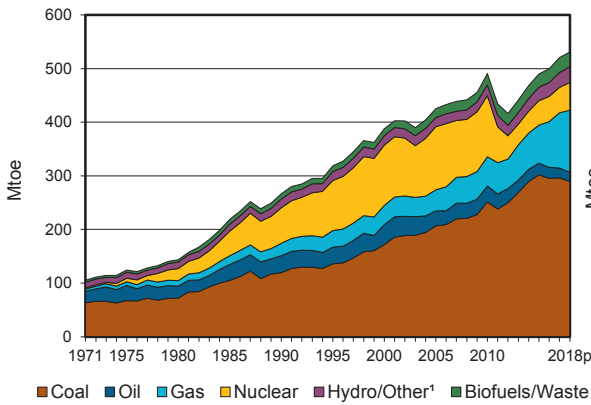


Figure 2. Total primary energy supply²

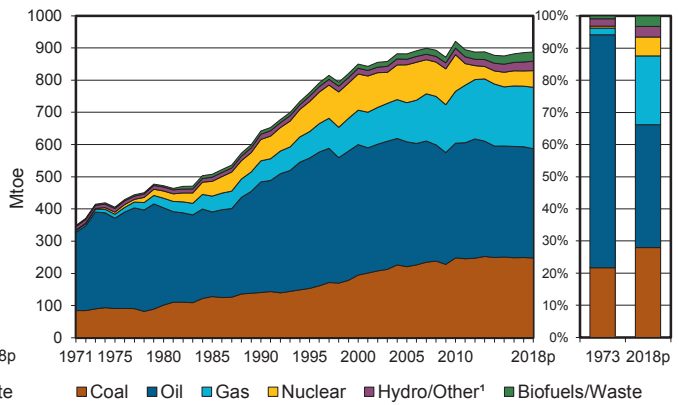


Figure 3. Energy self-sufficiency

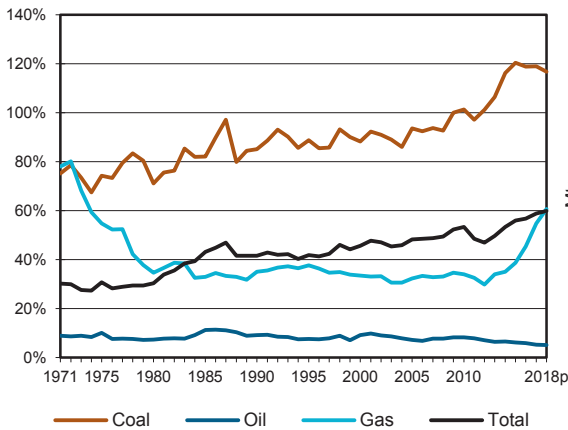


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

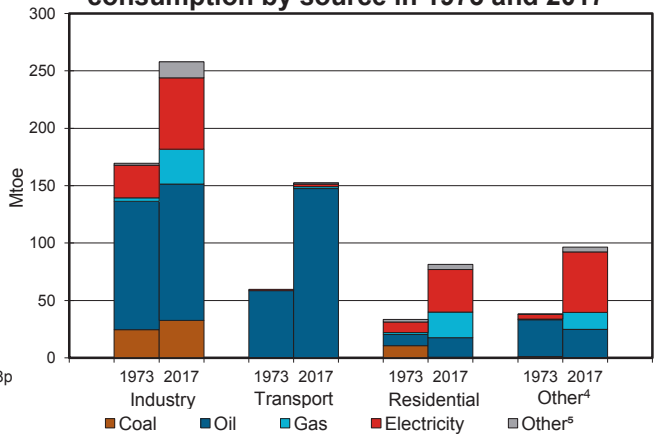


Figure 5. Electricity generation by source

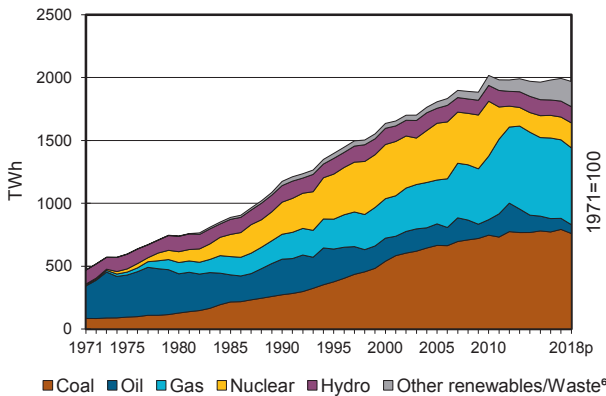
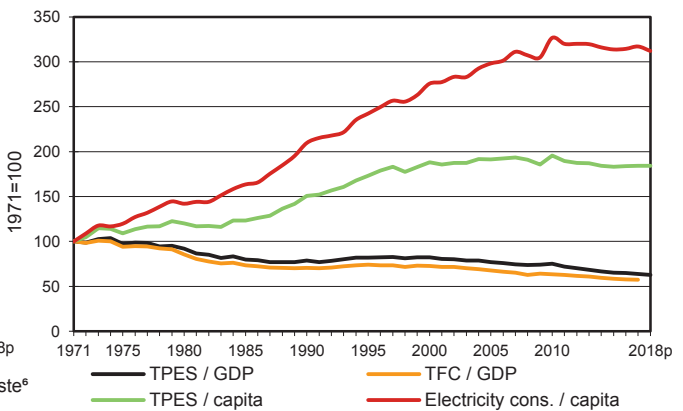


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

OECD Asia Oceania

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	296.26	18.25	-	103.15	47.25	10.91	16.73	27.88	-	0.05	520.48
Imports	203.67	348.62	116.01	147.18	-	-	-	1.20	-	-	816.67
Exports	-246.39	-12.52	-92.47	-61.49	-	-	-	-	-0.49	-	-413.36
Intl. marine bunkers	-	-	-15.53	-	-	-	-	-	-	-	-15.53
Intl. aviation bunkers	-	-	-18.91	-	-	-	-	-	-	-	-18.91
Stock changes	-4.43	0.83	-0.20	-0.53	-	-	-	0.00	-	-	-4.32
TPES	249.11	355.18	-11.10	188.30	47.25	10.91	16.73	29.08	-0.49	0.05	885.04
Transfers	-	-2.30	5.76	-	-	-	-	-	-	-	3.46
Statistical differences	0.21	1.67	1.31	0.42	-	-	-	-0.32	0.81	-0.38	3.72
Electricity plants	-169.67	-1.36	-15.67	-101.17	-47.25	-10.91	-15.12	-10.30	164.41	-0.05	-207.11
CHP plants	-6.77	-	-1.68	-10.91	-	-	-0.06	-1.40	6.99	5.11	-8.72
Heat plants	-	-	-0.22	-0.37	-	-	-	-0.55	-0.09	1.07	-0.16
Blast furnaces	-27.32	-	-	-	-	-	-	-	-	-	-27.32
Gas works	0.00	-	-1.49	1.66	-	-	-	-0.00	-	-	0.16
Coke/pat. fuel/BKB/PB plants	-5.08	-	-0.45	-0.00	-	-	-	-0.11	-	-	-5.64
Oil refineries	-	-369.41	364.18	-	-	-	-	-	-	-	-5.23
Petrochemical plants	-	16.50	-15.66	-	-	-	-	-	-	-	0.84
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	0.14	-	-0.17	-	-	-	-0.01	-	-	-0.04
Energy industry own use	-7.04	-0.13	-17.34	-8.72	-	-	-	-0.07	-10.70	-0.12	-44.11
Losses	-0.00	-	-	-0.01	-	-	-	-	-6.76	-0.07	-6.85
TFC	33.44	0.29	307.63	69.03	-	-	1.55	16.31	154.17	5.62	588.04
INDUSTRY	31.77	0.04	28.35	28.21	-	-	0.12	10.90	62.14	2.90	164.42
Iron and steel	16.89	-	1.48	4.35	-	-	-	0.04	11.23	0.01	33.98
Chemical and petrochemical	4.01	0.02	11.75	5.46	-	-	-	0.63	9.62	1.89	33.38
Non-ferrous metals	1.59	-	0.68	3.45	-	-	-	0.03	5.08	0.00	10.82
Non-metallic minerals	6.22	-	2.98	2.44	-	-	-	1.41	3.05	0.00	16.10
Transport equipment	0.06	-	0.42	1.25	-	-	-	0.00	4.63	0.01	6.38
Machinery	0.00	-	0.70	2.07	-	-	-	0.00	11.53	0.00	14.31
Mining and quarrying	0.10	-	2.66	0.24	-	-	-	0.00	2.08	-	5.08
Food and tobacco	0.54	0.00	1.34	3.69	-	-	0.00	2.46	3.99	0.12	12.14
Paper, pulp and printing	1.81	-	0.79	1.19	-	-	-	3.79	3.96	0.24	11.78
Wood and wood products	0.02	-	0.13	0.14	-	-	-	0.46	0.72	0.01	1.48
Construction	-	-	2.81	0.14	-	-	-	0.03	0.59	-	3.57
Textile and leather	0.06	0.01	0.38	0.63	-	-	-	0.13	1.40	0.40	3.01
Non-specified	0.48	-	2.24	3.16	-	-	0.12	1.91	4.26	0.23	12.39
TRANSPORT	0.00	-	146.02	1.61	-	-	-	1.05	2.26	-	150.94
Domestic aviation	-	-	8.26	-	-	-	-	-	-	-	8.26
Road	-	-	131.93	1.32	-	-	-	1.05	0.00	-	134.30
Rail	0.00	-	1.41	-	-	-	-	-	2.02	-	3.43
Pipeline transport	-	-	0.01	0.28	-	-	-	-	0.00	-	0.28
Domestic navigation	-	-	4.23	-	-	-	-	-	-	-	4.23
Non-specified	-	-	0.18	0.01	-	-	-	-	0.23	-	0.42
OTHER	0.72	-	41.23	37.12	-	-	1.43	4.36	89.77	2.72	177.35
Residential	0.51	-	17.17	22.32	-	-	1.08	1.50	36.96	1.91	81.44
Comm. and public services	0.15	-	13.56	14.66	-	-	0.28	2.21	50.11	0.81	81.80
Agriculture/forestry	0.06	-	6.40	0.06	-	-	0.05	0.07	2.01	-	8.65
Fishing	-	-	2.20	0.00	-	-	0.00	-	0.29	-	2.49
Non-specified	-	-	1.90	0.08	-	-	0.01	0.59	0.41	-	2.98
NON-ENERGY USE	0.95	0.25	92.04	2.08	-	-	-	-	-	-	95.33
in industry/transf./energy	0.95	0.25	90.11	2.08	-	-	-	-	-	-	93.40
of which: chem./petrochem.	0.95	0.25	82.89	2.08	-	-	-	-	-	-	86.18
in transport	-	-	1.49	-	-	-	-	-	-	-	1.49
in other	0.00	-	0.44	-	-	-	-	-	-	-	0.44
Electricity and Heat Output											
Electr. generated - TWh	792.46	6.82	81.05	624.40	181.34	126.89	128.14	51.92	-	0.36	1993.36
Electricity plants	772.56	6.82	75.60	571.96	181.34	126.89	128.02	48.51	-	0.36	1912.05
CHP plants	19.89	-	5.46	52.44	-	-	0.12	3.41	-	-	81.32
Heat generated - PJ	65.47	-	46.22	106.04	-	-	3.93	33.72	3.60	2.19	261.17
CHP plants	65.47	-	43.27	90.41	-	-	0.84	14.09	-	2.19	216.26
Heat plants	-	-	2.95	15.63	-	-	3.10	19.64	3.60	-	44.91

1. Includes oil shale.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

OECD Asia Oceania

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./ Solar/ etc.	Biofuels/ Waste	Electricity	Heat	Total
Production	289.36	17.33	-	115.61	51.70	11.08	18.38	27.31	-	0.05	530.82
Imports	204.18	343.55	119.54	149.56	-	-	-	1.27	-	-	818.10
Exports	-248.78	-12.39	-94.95	-72.65	-	-	-	-	-0.49	-	-429.25
Intl. marine bunkers	-	-	-15.21	-	-	-	-	-	-	-	-15.21
Intl. aviation bunkers	-	-	-19.82	-	-	-	-	-	-	-	-19.82
Stock changes	3.08	2.37	-1.20	-1.75	-	-	-	-0.00	-	-	2.51
TPES	247.84	350.87	-11.63	190.76	51.70	11.08	18.38	28.58	-0.49	0.05	887.15
Electricity and Heat Output											
Elec. generated - TWh	760.23	2.60	67.55	611.10	198.43	128.84	148.03	51.65	-	0.35	1968.79
Heat generated - PJ	64.92	-	44.22	137.40	-	-	3.90	36.11	3.60	2.15	292.31

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes oil shale.
2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	114.3	143.6	266.6	387.8	490.6	499.7	520.5	530.8
Net imports (Mtoe)	328.9	345.7	396.9	489.3	468.3	409.6	403.3	388.9
Total primary energy supply (Mtoe)	414.6	472.2	642.0	849.8	920.3	881.2	885.0	887.2
Net oil imports (Mtoe)	302.5	303.0	331.5	399.8	357.5	358.1	359.6	355.8
Oil supply (Mtoe)	300.7	302.1	343.5	405.2	356.2	345.7	344.1	339.2
Electricity consumption (TWh) ¹	536.9	704.2	1126.5	1569.8	1936.3	1899.3	1920.8	1896.0
GDP (billion 2010 USD)	3008.7	3799.3	5920.8	7299.4	8474.4	9328.3	9542.5	9684.0
GDP PPP (billion 2010 USD)	2404.3	3059.6	4853.7	6140.5	7284.5	8079.2	8270.7	8402.8
Population (millions)	162.87	177.01	191.80	203.28	211.61	215.65	216.30	216.90
Industrial production index (2010=100)	..	..	..	..	..	..	..	-
Total self-sufficiency ²	0.28	0.30	0.42	0.46	0.53	0.57	0.59	0.60
Coal self-sufficiency ²	0.74	0.71	0.85	0.88	1.01	1.19	1.19	1.17
Oil self-sufficiency ²	0.09	0.07	0.09	0.09	0.08	0.06	0.05	0.05
Natural gas self-sufficiency ²	0.68	0.35	0.35	0.34	0.34	0.45	0.55	0.61
TPES/GDP (toe per thousand 2010 USD)	0.14	0.12	0.11	0.12	0.11	0.09	0.09	0.09
TPES/GDP PPP (toe per thousand 2010 USD)	0.17	0.15	0.13	0.14	0.13	0.11	0.11	0.11
TPES/population (toe per capita)	2.55	2.67	3.35	4.18	4.35	4.09	4.09	4.09
Net oil imports/GDP (toe per thousand 2010 USD)	0.10	0.08	0.06	0.05	0.04	0.04	0.04	0.04
Oil supply/GDP (toe per thousand 2010 USD)	0.10	0.08	0.06	0.06	0.04	0.04	0.04	0.04
Oil supply/population (toe per capita)	1.85	1.71	1.79	1.99	1.68	1.60	1.59	1.56
Share of renewables in TPES	0.03	0.04	0.04	0.03	0.04	0.05	0.05	0.06
Share of renewables in electricity generation	0.17	0.17	0.12	0.09	0.09	0.12	0.13	0.15
TFC/GDP (toe per thousand 2010 USD)	0.10	0.09	0.07	0.08	0.07	0.06	0.06	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.13	0.11	0.09	0.09	0.08	0.07	0.07	..
TFC/population (toe per capita)	1.85	1.84	2.22	2.73	2.71	2.68	2.72	..
Elect. cons./GDP (kWh per 2010 USD)	0.18	0.19	0.19	0.22	0.23	0.20	0.20	0.20
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.22	0.23	0.23	0.26	0.27	0.24	0.23	0.23
Elect. cons./population (kWh per capita)	3296	3978	5873	7722	9150	8807	8881	8741
Industry cons. ³ /industrial production (2010=100)	..	..	..	..	..	..	..	..
Industry oil cons. ³ /industrial production (2010=100)	..	..	..	..	..	..	..	..

1. Electricity consumption equals domestic supply less losses.
2. Production divided by TPES. Coal self-sufficiency also includes peat, when applicable.
3. Includes non-energy use.

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Figure 1. Energy production

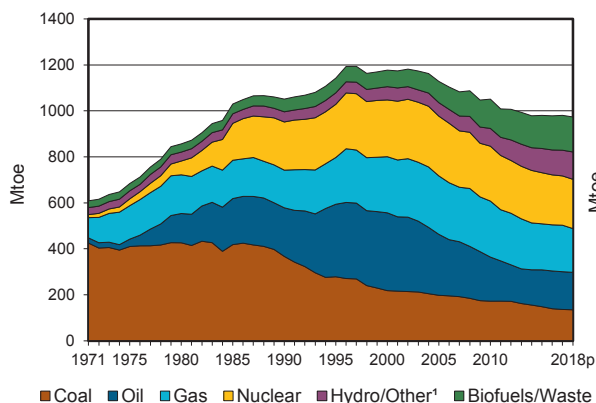


Figure 2. Total primary energy supply²

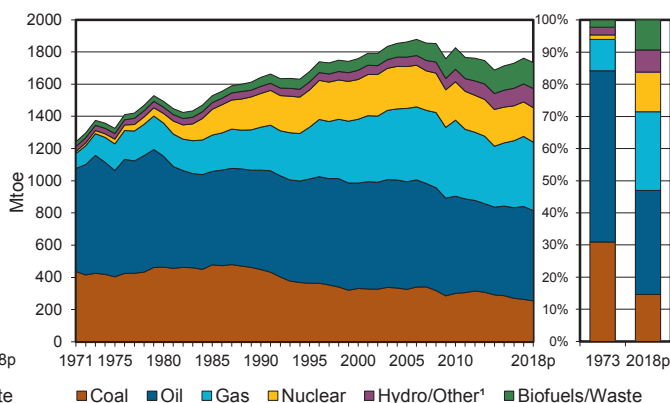


Figure 3. Energy self-sufficiency

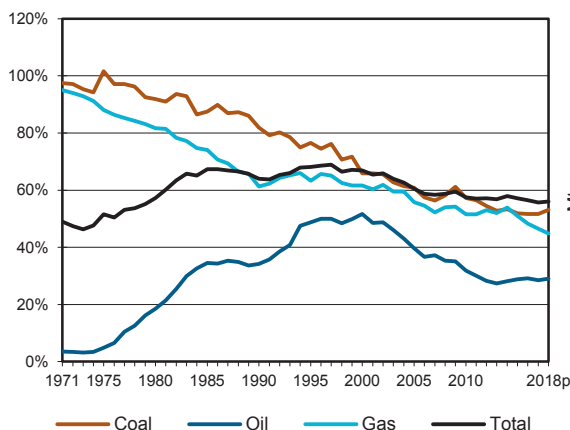


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

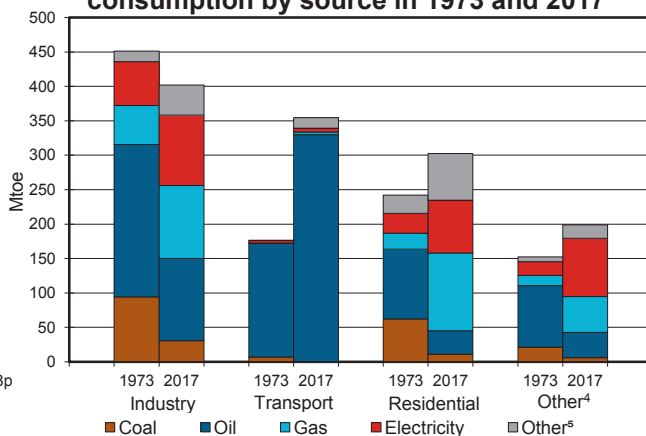


Figure 5. Electricity generation by source

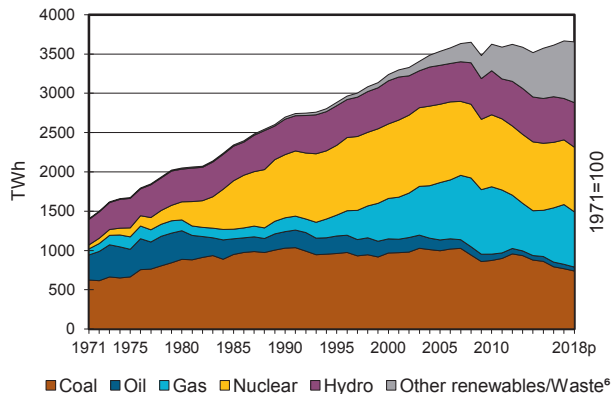
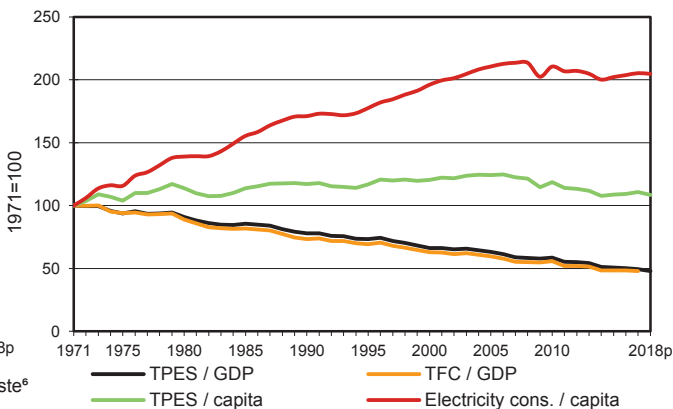


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

OECD Europe

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./ Solar/ etc.	Biofuels/ Waste	Electricity	Heat	Total
Production	136.22	164.13	-	202.28	214.57	45.26	65.29	151.67	-	1.09	980.52
Imports	139.28	625.60	382.95	435.20	-	-	-	19.18	35.12	0.01	1637.34
Exports	-15.25	-126.78	-380.36	-200.33	-	-	-	-11.46	-35.07	-0.00	-769.25
Intl. marine bunkers	-	-	-42.61	-0.06	-	-	-	-	-	-	-42.67
Intl. aviation bunkers	-	-	-55.78	-	-	-	-	-	-	-	-55.78
Stock changes	3.17	3.39	6.25	-1.94	-	-	-	0.22	-	-	11.10
TPES	263.42	666.35	-89.55	435.16	214.57	45.26	65.29	159.61	0.05	1.09	1761.25
Transfers	-	4.50	-0.99	-	-	-	-	-	-	-	3.50
Statistical differences	-1.23	-1.62	-4.47	1.02	-	-	0.04	-0.10	-1.16	-0.06	-7.58
Electricity plants	-118.90	-	-7.13	-72.60	-209.52	-45.26	-55.77	-21.65	253.89	-0.40	-277.35
CHP plants	-59.91	-	-7.19	-55.28	-5.05	-	-2.61	-37.28	61.35	39.87	-66.10
Heat plants	-3.66	-	-0.73	-8.57	-	-	-1.45	-7.38	-0.40	18.47	-3.73
Blast furnaces	-19.50	-	-0.03	-0.03	-	-	-	-	-	-	-19.55
Gas works	-0.21	-	-0.14	0.51	-	-	-	-0.50	-	-	-0.34
Coke/pat. fuel/BKB/PB plants	-2.83	-	-0.46	-0.01	-	-	-	-	-	-	-3.30
Oil refineries	-	-687.41	679.92	-	-	-	-	-	-	-	-7.49
Petrochemical plants	-	17.66	-18.22	-	-	-	-	-	-	-	-0.56
Liquefaction plants	-1.44	0.95	-	-	-	-	-	-	-	-	-0.49
Other transformation	-0.15	1.72	-0.00	-1.88	-	-	-	-0.15	-	-0.70	-1.15
Energy industry own use	-6.80	-	-33.36	-22.15	-	-	-0.00	-0.73	-23.17	-4.36	-90.58
Losses	-0.90	-	-0.02	-1.82	-	-	-0.01	-0.07	-20.86	-4.88	-28.56
TFC	47.89	2.15	517.63	274.34	-	-	5.50	91.76	269.69	49.03	1257.98
INDUSTRY	29.10	-	30.85	90.68	-	-	0.33	26.37	102.53	16.84	296.70
Iron and steel	12.60	-	0.64	9.15	-	-	0.00	0.02	12.38	0.49	35.26
Chemical and petrochemical	3.74	-	7.59	19.85	-	-	0.00	0.94	16.84	6.56	55.52
Non-ferrous metals	0.56	-	0.32	3.97	-	-	0.00	0.01	8.87	0.14	13.87
Non-metallic minerals	6.99	-	8.99	14.59	-	-	0.00	4.49	7.06	0.22	42.34
Transport equipment	0.28	-	0.40	2.82	-	-	0.00	0.02	4.55	0.57	8.64
Machinery	0.15	-	1.06	7.23	-	-	0.00	0.10	11.42	0.59	20.55
Mining and quarrying	0.27	-	1.05	0.70	-	-	0.00	0.05	1.71	0.12	3.90
Food and tobacco	2.14	-	1.85	15.01	-	-	0.00	1.10	10.96	1.29	32.34
Paper, pulp and printing	1.23	-	0.71	6.93	-	-	0.00	13.58	10.75	2.20	35.40
Wood and wood products	0.05	-	0.23	0.81	-	-	0.00	4.92	2.38	0.53	8.92
Construction	0.04	-	3.80	2.22	-	-	0.00	0.16	2.23	0.04	8.50
Textile and leather	0.75	-	0.23	2.86	-	-	0.00	0.02	3.15	0.13	7.14
Non-specified	0.31	-	3.98	4.53	-	-	0.32	0.97	10.25	3.97	24.33
TRANSPORT	0.01	-	327.65	3.69	-	-	-	15.48	5.87	-	352.70
Domestic aviation	-	-	7.63	-	-	-	-	-	-	-	7.63
Road	-	-	311.75	1.71	-	-	-	15.44	0.15	-	329.06
Rail	0.01	-	1.92	-	-	-	-	0.03	4.83	-	6.79
Pipeline transport	-	-	0.01	1.84	-	-	-	-	0.18	-	2.03
Domestic navigation	-	-	6.00	0.07	-	-	-	0.01	-	-	6.08
Non-specified	-	-	0.34	0.06	-	-	-	0.00	0.71	-	1.11
OTHER	17.00	-	70.03	164.98	-	-	5.17	49.90	161.29	32.19	500.57
Residential	11.20	-	33.75	113.11	-	-	3.83	42.35	76.46	21.82	302.51
Comm. and public services	4.71	-	17.65	47.57	-	-	0.50	5.32	79.45	10.01	165.22
Agriculture/forestry	1.05	-	15.23	3.35	-	-	0.77	2.23	5.00	0.24	27.87
Fishing	0.00	-	1.62	0.04	-	-	0.06	0.01	0.19	0.04	1.96
Non-specified	0.04	-	1.77	0.91	-	-	0.01	0.00	0.18	0.09	3.01
NON-ENERGY USE	1.77	2.15	89.10	14.99	-	-	-	-	-	-	108.00
in industry/transf./energy	1.70	2.15	86.38	14.99	-	-	-	-	-	-	105.22
of which: chem./petrochem.	0.70	2.15	65.09	14.99	-	-	-	-	-	-	82.94
in transport	-	-	2.10	-	-	-	-	-	-	-	2.10
in other	0.06	-	0.62	-	-	-	-	-	-	-	0.68
Electricity and Heat Output											
Electr. generated - TWh	768.16	-	55.92	760.09	823.04	526.36	516.40	214.85	-	1.40	3666.21
Electricity plants	533.84	-	31.79	457.46	804.13	526.36	510.39	87.33	-	0.58	2951.88
CHP plants	234.32	-	24.13	302.63	18.91	-	6.01	127.52	-	0.82	714.33
Heat generated - PJ	601.85	-	91.06	865.90	5.15	-	84.67	775.80	5.58	58.21	2488.23
CHP plants	474.92	-	66.45	575.53	5.15	-	18.71	528.38	0.55	24.09	1693.79
Heat plants	126.93	-	24.61	290.37	-	-	65.96	247.42	5.04	34.12	794.44

1. Includes peat and oil shale.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

OECD Europe

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./ Solar/ etc.	Biofuels/ Waste	Electricity	Heat	Total
Production	134.83	162.86	-	190.49	214.35	48.79	69.06	152.23	-	1.02	973.62
Imports	134.28	609.66	380.56	434.33	-	-	-	21.46	35.81	0.01	1616.10
Exports	-13.63	-128.48	-366.77	-191.84	-	-	-	-12.05	-34.07	-0.01	-746.85
Intl. marine bunkers	-	-	-42.18	-0.08	-	-	-	-	-	-	-42.26
Intl. aviation bunkers	-	-	-58.85	-	-	-	-	-	-	-	-58.85
Stock changes	-1.64	1.13	2.51	-7.58	-	-	-	-0.10	-	-	-5.68
TPES	253.83	645.17	-84.73	425.31	214.35	48.79	69.06	161.54	1.74	1.02	1736.09
Electricity and Heat Output											
Elec. generated - TWh	738.96	-	49.96	703.13	822.11	567.46	552.21	218.91	-	1.44	3654.18
Heat generated - PJ	582.95	-	88.51	878.71	5.70	-	87.12	752.98	5.31	55.03	2456.32

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes peat and oil shale.
2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	636.3	856.4	1051.3	1177.2	1051.0	978.4	980.5	973.6
Net imports (Mtoe)	801.7	709.3	652.6	666.5	851.6	828.0	868.1	869.3
Total primary energy supply (Mtoe)	1375.5	1494.3	1642.8	1759.0	1828.2	1730.9	1761.3	1736.1
Net oil imports (Mtoe)	776.8	621.2	470.2	403.3	502.1	491.2	501.4	495.0
Oil supply (Mtoe)	732.4	688.5	617.3	654.6	603.2	562.8	576.8	560.4
Electricity consumption (TWh) ¹	1515.9	1930.4	2541.6	3030.1	3434.6	3416.1	3457.5	3462.6
GDP (billion 2010 USD)	8349.6	9899.8	12667.1	15948.9	18497.1	20270.6	20810.7	21228.2
GDP PPP (billion 2010 USD)	8042.3	9560.0	12277.3	15473.4	18173.7	20119.4	20709.9	21150.4
Population (millions)	455.30	474.08	506.76	527.34	556.61	572.22	574.66	577.25
Industrial production index (2010=100)	51.6	58.3	72.2	87.4	93.4	101.7	105.8	107.4
Total self-sufficiency ²	0.46	0.57	0.64	0.67	0.57	0.57	0.56	0.56
Coal self-sufficiency ²	0.95	0.92	0.82	0.66	0.57	0.52	0.52	0.53
Oil self-sufficiency ²	0.03	0.18	0.34	0.52	0.32	0.29	0.28	0.29
Natural gas self-sufficiency ²	0.93	0.82	0.61	0.62	0.52	0.48	0.46	0.45
TPES/GDP (toe per thousand 2010 USD)	0.16	0.15	0.13	0.11	0.10	0.09	0.08	0.08
TPES/GDP PPP (toe per thousand 2010 USD)	0.17	0.16	0.13	0.11	0.10	0.09	0.09	0.08
TPES/population (toe per capita)	3.02	3.15	3.24	3.34	3.28	3.02	3.06	3.01
Net oil imports/GDP (toe per thousand 2010 USD)	0.09	0.06	0.04	0.03	0.03	0.02	0.02	0.02
Oil supply/GDP (toe per thousand 2010 USD)	0.09	0.07	0.05	0.04	0.03	0.03	0.03	0.03
Oil supply/population (toe per capita)	1.61	1.45	1.22	1.24	1.08	0.98	1.00	0.97
Share of renewables in TPES	0.05	0.05	0.06	0.07	0.11	0.14	0.14	0.15
Share of renewables in electricity generation	0.22	0.21	0.18	0.19	0.24	0.33	0.33	0.36
TFC/GDP (toe per thousand 2010 USD)	0.12	0.11	0.09	0.08	0.07	0.06	0.06	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.13	0.11	0.09	0.08	0.07	0.06	0.06	..
TFC/population (toe per capita)	2.25	2.28	2.25	2.34	2.31	2.16	2.19	..
Elect. cons./GDP (kWh per 2010 USD)	0.18	0.20	0.20	0.19	0.19	0.17	0.17	0.16
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.19	0.20	0.21	0.20	0.19	0.17	0.17	0.16
Elect. cons./population (kWh per capita)	3330	4072	5015	5746	6171	5970	6017	5999
Industry cons. ³ /industrial production (2010=100)	202.3	176.3	137.1	115.4	100.0	88.2	87.9	..
Industry oil cons. ³ /industrial production (2010=100)	303.3	230.8	140.5	120.9	100.0	79.6	79.9	..

OECD Europe excludes Estonia, Latvia, Slovenia prior to 1990. Please refer to section 'Geographical coverage'.

1. Electricity consumption equals domestic supply less losses.
2. Production divided by TPES. Coal self-sufficiency also includes peat, when applicable.
3. Includes non-energy use.

Non-OECD Total

Figure 1. Energy production

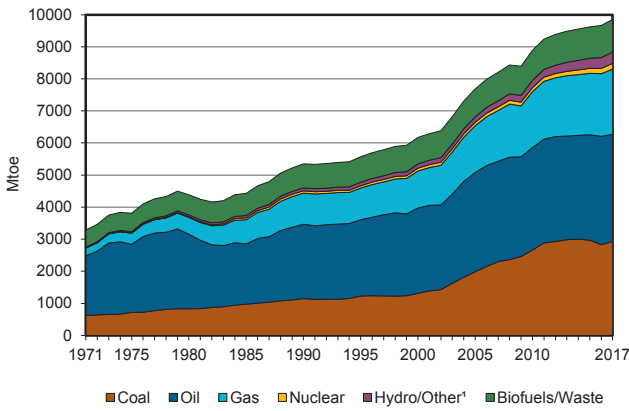


Figure 2. Total primary energy supply²

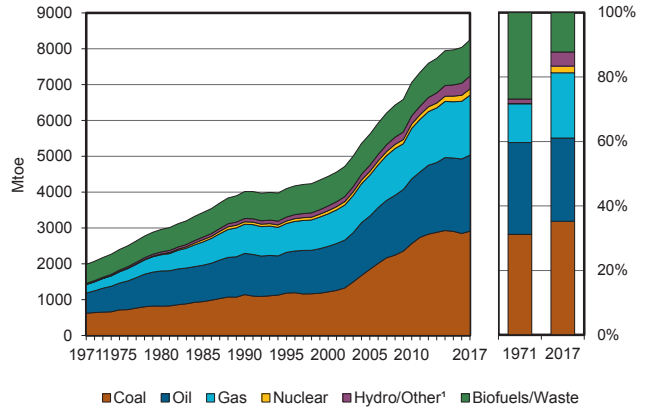


Figure 3. Energy self-sufficiency³

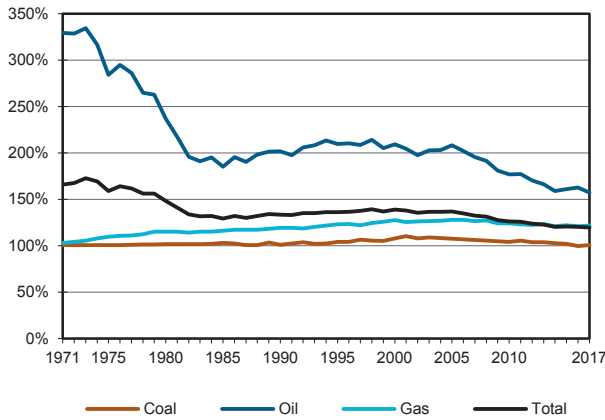


Figure 4. Oil products demand⁴

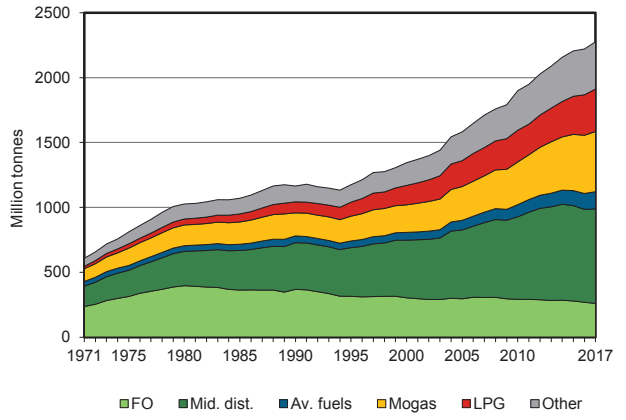


Figure 5. Electricity generation by source

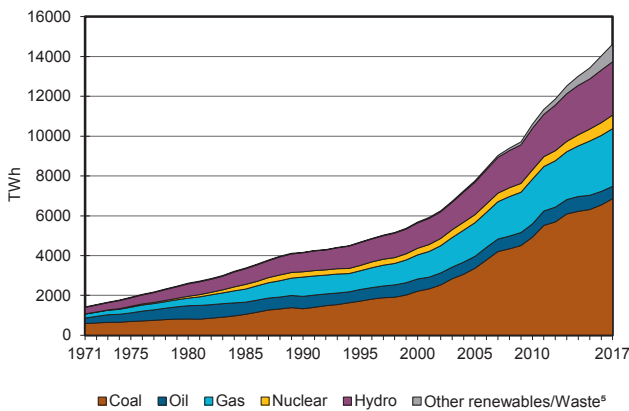
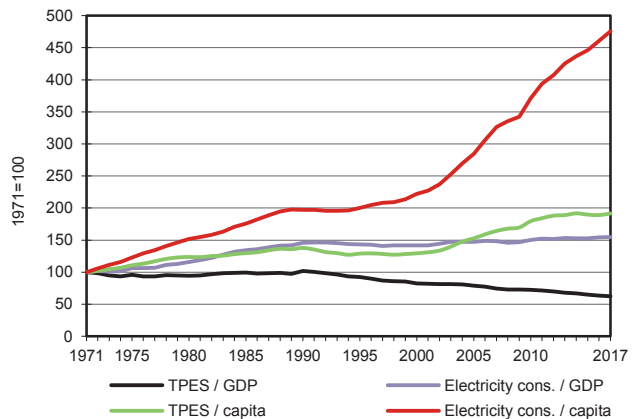


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Non-OECD Total

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	2929.67	3341.70	-	2034.76	177.90	230.53	127.24	1011.24	-	0.77	9853.82
Imports	459.29	980.80	721.94	274.07	-	-	-	2.45	20.61	-	2459.16
Exports	-513.45	-1917.96	-762.66	-622.35	-	-	-	-4.99	-20.01	-	-3841.42
Intl. marine bunkers	-	-	-134.25	-	-	-	-	-	-	-	-134.25
Intl. aviation bunkers	-	-	-90.65	-	-	-	-	-	-	-	-90.65
Stock changes	34.11	-5.81	-8.75	-14.94	-	-	-	-0.58	-	-	4.03
TPES	2909.61	2398.74	-274.37	1671.54	177.90	230.53	127.24	1008.13	0.60	0.77	8250.70
Transfers	-1.23	-138.67	153.47	-	-	-	-	-	-	-	13.58
Statistical differences	-6.71	10.87	-12.60	-2.15	-	-	-0.03	0.43	-6.69	4.51	-12.38
Electricity plants	-1088.45	-38.78	-120.13	-465.42	-177.39	-230.53	-91.42	-74.99	1011.04	-0.35	-1276.41
CHP plants	-570.60	-0.05	-5.37	-208.41	-0.52	-	-	-12.74	246.32	183.92	-367.44
Heat plants	-18.40	-0.49	-8.16	-55.10	-	-	-0.02	-4.59	-0.32	81.48	-5.60
Blast furnaces	-139.65	-	-	-	-	-	-	-0.05	-	-	-139.70
Gas works	-10.77	-	-0.32	2.14	-	-	-	-0.01	-	-	-8.96
Coke/pat.fuel/BKB/PB plants	-79.62	-	-1.52	-	-	-	-	-0.00	-	-	-81.14
Oil refineries	-	-2228.69	2184.02	-	-	-	-	-	-	-	-44.67
Petrochemical plants	-	4.40	-3.81	-	-	-	-	-	-	-	0.59
Liquefaction plants	-13.03	14.51	-	-14.65	-	-	-	-	-	-	-13.17
Other transformation	-0.11	2.33	-0.55	-5.06	-	-	-	-76.98	-	-	-80.37
Energy industry own use	-64.38	-8.73	-98.48	-159.05	-	-	-0.00	-12.16	-117.07	-28.64	-488.51
Losses	-1.33	-7.74	-0.43	-15.68	-	-	-0.00	-0.09	-114.65	-13.29	-153.21
TFC	915.33	7.69	1811.75	748.18	-	-	35.77	826.94	1019.23	228.41	5593.31
INDUSTRY	734.03	5.81	221.53	294.86	-	-	0.50	130.10	505.84	112.78	2005.45
Iron and steel	277.66	0.00	4.50	28.29	-	-	-	3.58	68.18	13.16	395.37
Chemical and petrochemical	98.86	0.02	41.11	52.07	-	-	-	0.27	68.77	46.66	307.76
Non-ferrous metals	23.05	-	3.38	5.34	-	-	0.00	0.01	70.03	4.67	106.49
Non-metallic minerals	198.71	0.00	22.44	27.52	-	-	-	2.81	36.70	2.76	290.95
Transport equipment	1.96	-	1.03	4.31	-	-	-	0.00	12.23	3.19	22.73
Machinery	7.69	0.00	3.02	8.77	-	-	0.00	0.04	51.55	8.08	79.15
Mining and quarrying	5.61	-	13.29	4.18	-	-	-	0.07	19.75	1.98	44.87
Food and tobacco	21.94	0.00	5.65	10.41	-	-	0.00	31.51	21.53	9.75	100.79
Paper pulp and printing	11.88	0.01	1.39	4.69	-	-	-	13.60	13.95	9.33	54.85
Wood and wood products	1.21	-	0.83	0.64	-	-	0.00	0.85	4.96	1.59	10.08
Construction	4.01	-	13.97	5.58	-	-	-	0.02	9.03	0.95	33.56
Textile and leather	9.23	0.00	2.80	3.84	-	-	0.00	2.99	21.50	8.98	49.34
Non-specified	72.22	5.78	108.09	139.20	-	-	0.49	74.35	107.69	1.68	509.50
TRANSPORT	0.05	0.00	1018.92	77.78	-	-	-	26.63	21.33	-	1144.72
Domestic aviation	-	-	47.84	-	-	-	-	-	-	-	47.84
Road	-	-	921.82	39.52	-	-	-	26.63	3.91	-	991.88
Rail	0.04	-	11.57	-	-	-	-	0.00	14.52	-	26.14
Pipeline transport	-	-	0.22	38.23	-	-	-	-	2.13	-	40.58
Domestic navigation	0.00	-	33.83	-	-	-	-	0.01	-	-	33.84
Non-specified	0.01	0.00	3.65	0.03	-	-	-	-	0.77	-	4.46
OTHER	133.51	0.01	258.74	234.38	-	-	35.28	670.21	492.05	115.63	1939.81
Residential	63.84	-	140.98	186.13	-	-	27.23	639.80	244.46	77.63	1380.06
Comm. and public services	27.96	-	35.91	41.89	-	-	5.58	20.59	139.63	26.93	298.49
Agriculture/forestry	15.31	0.01	62.81	4.12	-	-	1.36	7.24	42.15	3.23	136.22
Fishing	0.00	-	2.08	0.00	-	-	-	0.01	0.16	0.02	2.27
Non-specified	26.40	0.00	16.95	2.25	-	-	1.11	2.57	65.65	7.82	122.76
NON-ENERGY USE	47.74	1.87	312.57	141.16	-	-	-	-	-	-	503.34
in industry/transf./energy	47.58	1.87	282.61	141.16	-	-	-	-	-	-	473.22
of which: chem./petrochem.	1.30	1.79	203.40	140.17	-	-	-	-	-	-	346.66
in transport	-	-	2.32	-	-	-	-	-	-	-	2.32
in other	0.15	-	27.64	-	-	-	-	-	-	-	27.80
Electricity and Heat Output											
Electr. generated - TWh	6861.13	120.55	497.42	2899.71	680.79	2681.02	645.79	234.71	-	2.11	14623.23
Electricity plants	4763.00	120.52	482.58	2205.93	680.79	2681.02	645.79	176.74	-	2.06	11758.43
CHP plants	2098.13	0.03	14.84	693.78	-	-	-	57.97	-	0.05	2864.80
Heat generated - PJ	5283.45	17.68	340.17	4848.74	21.62	-	373.29	211.50	15.38	32.36	11144.19
CHP plants	4616.30	0.06	68.38	2932.55	21.62	-	-	61.38	-	18.24	7718.53
Heat plants	667.15	17.63	271.79	1916.18	-	-	373.29	150.12	15.38	14.11	3425.66

1. Includes peat.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Non-OECD Americas

Figure 1. Energy production

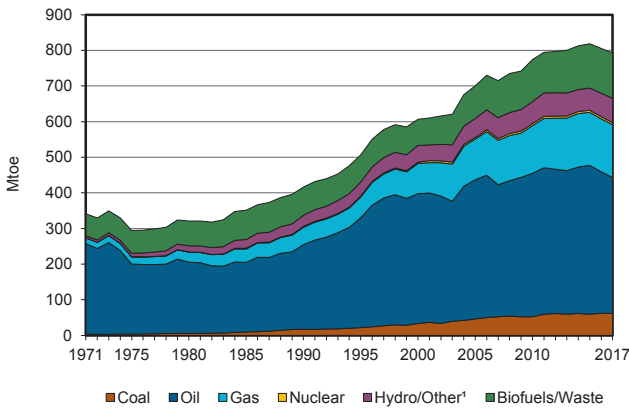


Figure 2. Total primary energy supply²

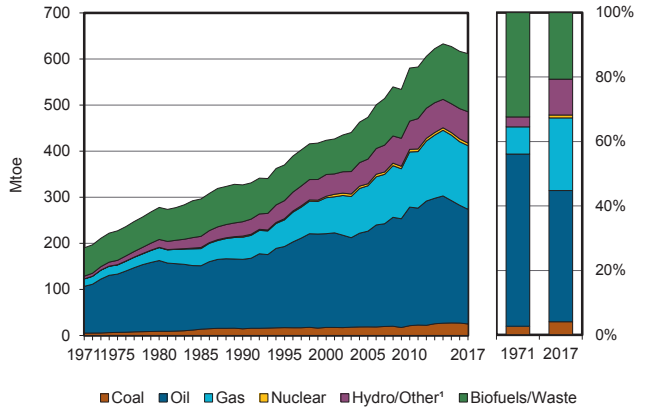


Figure 3. Energy self-sufficiency³

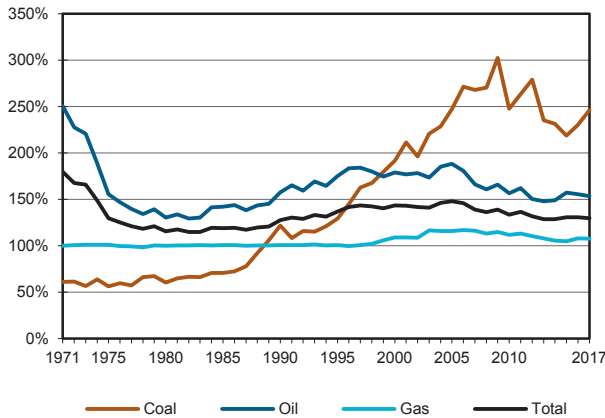


Figure 4. Oil products demand⁴

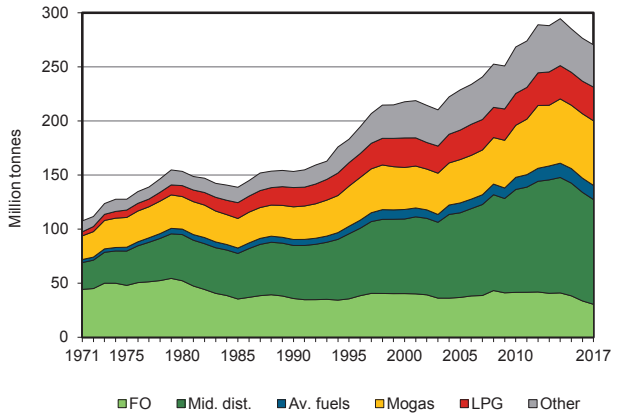


Figure 5. Electricity generation by source

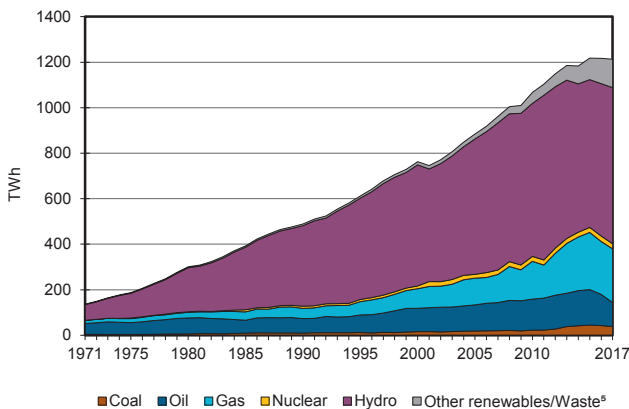
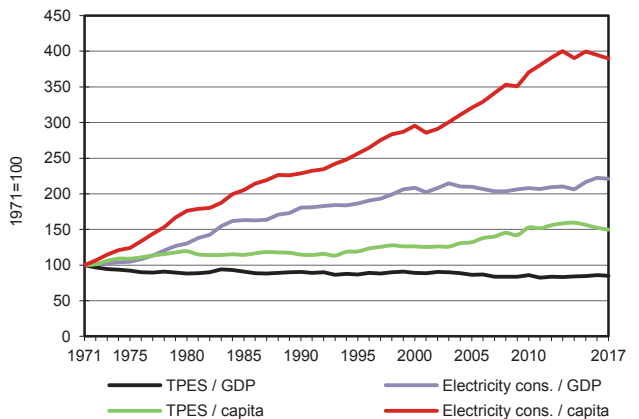


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Non-OECD Americas

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	61.57	381.45	-	148.36	5.72	59.04	8.94	127.28	-	0.09	792.45
Imports	18.74	33.61	94.07	21.04	-	-	-	1.33	4.40	-	173.21
Exports	-68.67	-196.30	-47.56	-31.31	-	-	-	-2.30	-4.27	-	-350.42
Intl. marine bunkers	-	-	-13.54	-	-	-	-	-	-	-	-13.54
Intl. aviation bunkers	-	-	-9.12	-	-	-	-	-	-	-	-9.12
Stock changes	13.36	5.70	0.34	-0.00	-	-	-	-0.21	-	-	19.19
TPES	24.99	224.46	24.19	138.09	5.72	59.04	8.94	126.10	0.13	0.09	611.76
Transfers	-	-10.29	11.55	-	-	-	-	-	-	-	1.26
Statistical differences	-0.31	1.73	0.21	-4.90	-	-	-	-0.22	-0.32	-	-3.80
Electricity plants	-6.91	-2.30	-18.72	-46.39	-5.72	-59.04	-8.07	-4.86	97.38	-0.09	-54.72
CHP plants	-1.80	-	-1.15	-2.69	-	-	-	-9.42	6.96	-	-8.09
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-3.65	-	-	-	-	-	-	-0.05	-	-	-3.70
Gas works	-	-	-0.02	0.01	-	-	-	-	-	-	-0.00
Coke/pat.fuel/BKB/PB plants	0.33	-	-1.52	-	-	-	-	-	-	-	-1.19
Oil refineries	-	-216.38	213.14	-	-	-	-	-	-	-	-3.23
Petrochemical plants	-	4.18	-3.57	-	-	-	-	-	-	-	0.60
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	1.35	-	-1.69	-	-	-	-4.94	-	-	-5.28
Energy industry own use	-0.60	-0.47	-10.82	-24.18	-	-	-	-11.96	-4.35	-	-52.37
Losses	-0.27	-0.10	-0.26	-0.74	-	-	-	-0.06	-16.47	-	-17.89
TFC	11.78	2.19	213.05	57.53	-	-	0.88	94.60	83.33	-	463.35
INDUSTRY	11.46	2.18	26.44	25.73	-	-	0.00	44.62	32.07	-	142.50
Iron and steel	6.50	0.00	0.54	5.59	-	-	-	3.07	4.24	-	19.94
Chemical and petrochemical	0.22	0.00	4.63	3.92	-	-	-	0.11	3.62	-	12.50
Non-ferrous metals	0.95	-	1.83	0.94	-	-	0.00	0.01	3.37	-	7.10
Non-metallic minerals	1.53	0.00	3.61	3.11	-	-	-	2.41	1.61	-	12.27
Transport equipment	0.00	-	0.00	0.05	-	-	-	-	0.18	-	0.23
Machinery	0.00	0.00	0.00	0.01	-	-	-	-	0.07	-	0.09
Mining and quarrying	0.29	-	1.77	0.61	-	-	-	-	1.48	-	4.16
Food and tobacco	0.63	0.00	0.98	2.97	-	-	-	21.90	4.09	-	30.57
Paper pulp and printing	0.35	0.01	0.69	1.21	-	-	-	10.47	2.51	-	15.24
Wood and wood products	0.00	-	0.01	0.01	-	-	-	0.12	0.07	-	0.22
Construction	-	-	0.41	0.00	-	-	-	0.00	0.05	-	0.46
Textile and leather	0.30	0.00	0.08	0.41	-	-	-	0.08	0.92	-	1.79
Non-specified	0.69	2.17	11.87	6.89	-	-	0.00	6.45	9.85	-	37.94
TRANSPORT	-	0.00	136.20	7.10	-	-	-	18.94	0.32	-	162.56
Domestic aviation	-	-	4.59	-	-	-	-	-	-	-	4.59
Road	-	-	128.34	5.59	-	-	-	18.94	0.00	-	152.86
Rail	-	-	1.03	-	-	-	-	-	0.27	-	1.31
Pipeline transport	-	-	-	1.50	-	-	-	-	0.05	-	1.55
Domestic navigation	-	-	1.60	-	-	-	-	-	-	-	1.60
Non-specified	-	0.00	0.64	0.01	-	-	-	-	0.00	-	0.66
OTHER	0.16	-	30.04	13.28	-	-	0.88	31.05	50.94	-	126.34
Residential	0.07	-	13.40	10.63	-	-	0.03	26.37	25.48	-	75.98
Comm. and public services	0.09	-	2.70	1.89	-	-	0.02	1.03	21.81	-	27.53
Agriculture/forestry	0.00	-	10.40	0.00	-	-	0.00	3.55	2.99	-	16.95
Fishing	-	-	0.07	0.00	-	-	-	0.00	0.02	-	0.10
Non-specified	0.00	-	3.47	0.75	-	-	0.83	0.09	0.62	-	5.77
NON-ENERGY USE	0.16	-	20.37	11.42	-	-	-	-	-	-	31.95
in industry/transf./energy	0.00	-	20.30	11.42	-	-	-	-	-	-	31.72
of which: chem./petrochem.	-	-	10.00	11.42	-	-	-	-	-	-	21.42
in transport	-	-	0.02	-	-	-	-	-	-	-	0.02
in other	0.15	-	0.05	-	-	-	-	-	-	-	0.20
Electricity and Heat Output											
Electr. generated - TWh	38.15	4.93	100.30	236.40	21.95	686.63	59.33	65.38	-	0.45	1213.51
Electricity plants	27.71	4.93	94.79	224.45	21.95	686.63	59.33	12.33	-	0.45	1132.57
CHP plants	10.43	-	5.51	11.95	-	-	-	53.04	-	-	80.94
Heat generated - PJ	-	-	-	-	-	-	-	-	-	3.80	3.80
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	3.80	3.80

1. Includes peat.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Non-OECD Asia (excluding China)

Figure 1. Energy production

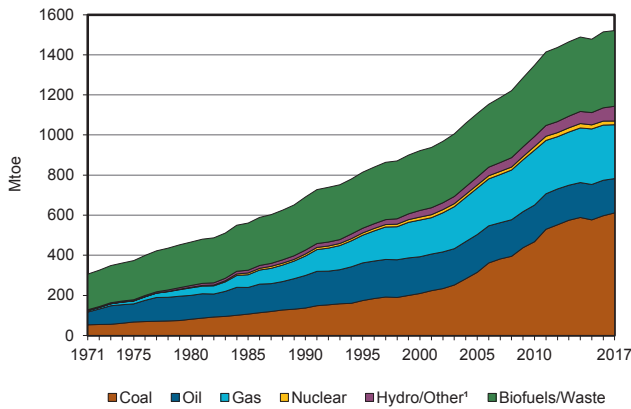


Figure 2. Total primary energy supply²

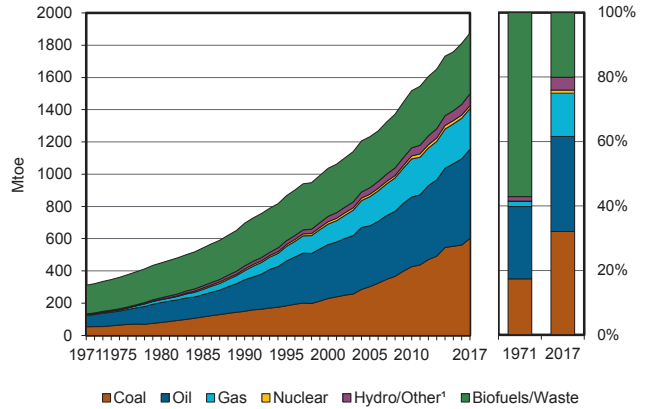


Figure 3. Energy self-sufficiency³

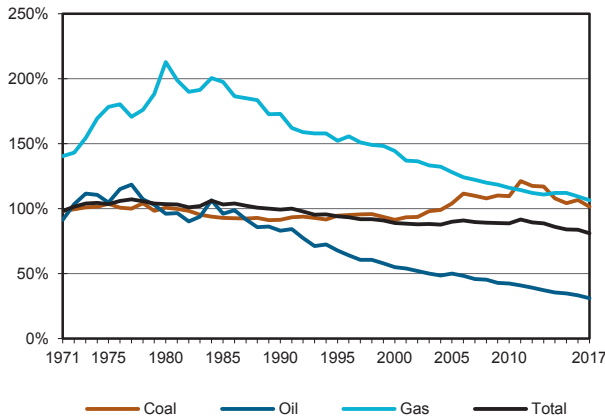


Figure 4. Oil products demand⁴

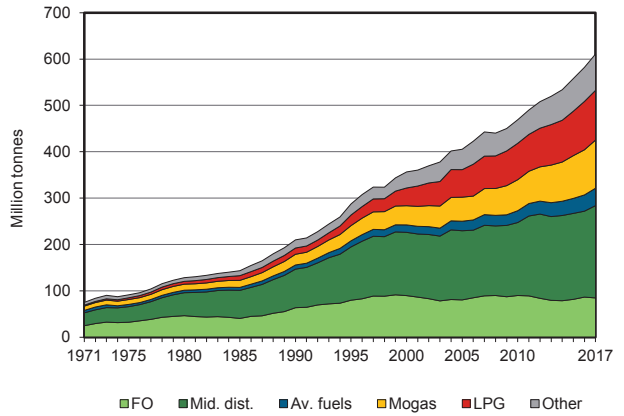


Figure 5. Electricity generation by source

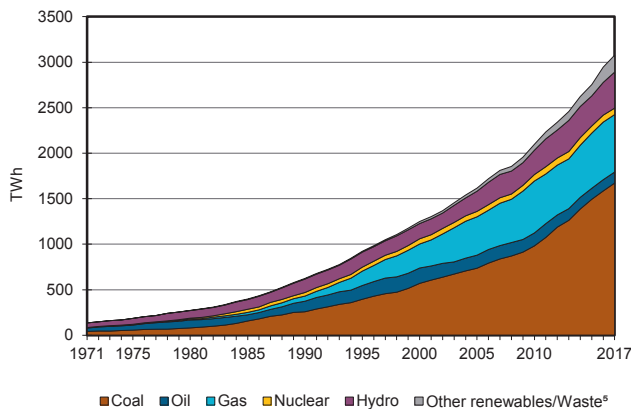
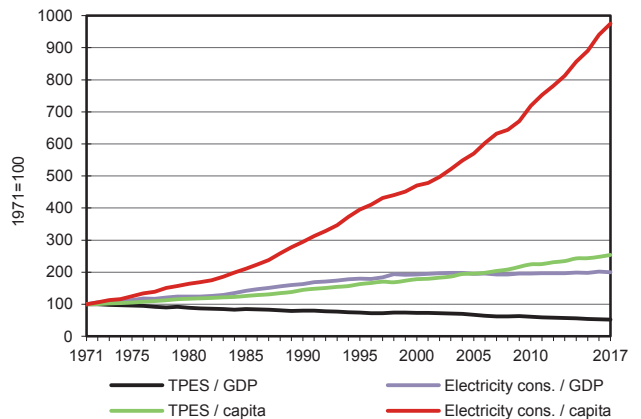


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Non-OECD Asia (excluding China)

2017

Million tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	611.33	171.10	-	268.77	18.41	34.02	39.77	377.54	-	-	1520.94
Imports	235.03	438.72	299.28	77.62	-	-	-	0.32	4.15	-	1055.12
Exports	-244.06	-50.91	-222.40	-93.79	-	-	-	-0.85	-3.10	-	-615.10
Intl. marine bunkers	-	-	-54.62	-	-	-	-	-	-	-	-54.62
Intl. aviation bunkers	-	-	-28.98	-	-	-	-	-	-	-	-28.98
Stock changes	-0.20	3.78	-2.97	-0.01	-	-	-	-0.47	-	-	0.13
TPES	602.11	562.68	-9.69	252.59	18.41	34.02	39.77	376.54	1.05	-	1877.49
Transfers	-	-3.72	4.54	-	-	-	-	-	-	-	0.82
Statistical differences	-15.51	-9.48	5.49	-0.08	-	-	-0.00	0.11	-1.72	-	-21.19
Electricity plants	-385.85	-	-29.12	-121.28	-18.41	-34.02	-38.81	-37.42	261.37	-	-403.53
CHP plants	-10.15	-	-0.71	-0.20	-	-	-	-	3.24	1.13	-6.68
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-16.99	-	-	-	-	-	-	-	-	-	-16.99
Gas works	-0.02	-	-	-	-	-	-	-	-	-	-0.02
Coke/pat.fuel/BKB/PB plants	-6.60	-	-	-	-	-	-	-	-	-	-6.60
Oil refineries	-	-547.58	541.30	-	-	-	-	-	-	-	-6.28
Petrochemical plants	-	-0.00	-	-	-	-	-	-	-	-	-0.00
Liquefaction plants	-	0.54	-	-1.14	-	-	-	-	-	-	-0.60
Other transformation	-	-	-	-0.04	-	-	-	-13.68	-	-	-13.72
Energy industry own use	-2.81	-0.41	-19.41	-16.55	-	-	-	-	-14.44	-0.06	-53.68
Losses	-0.36	-0.20	-	-2.68	-	-	-	-	-32.74	-0.05	-36.04
TFC	163.81	1.82	492.40	110.63	-	-	0.96	325.55	216.77	1.03	1312.97
INDUSTRY	147.50	-	66.13	49.43	-	-	0.05	64.83	93.06	0.25	421.25
Iron and steel	54.78	-	2.19	0.85	-	-	-	0.00	9.05	-	66.87
Chemical and petrochemical	5.33	-	10.25	6.61	-	-	-	0.00	6.70	-	28.89
Non-ferrous metals	4.45	-	0.15	0.05	-	-	-	-	1.25	-	5.90
Non-metallic minerals	46.23	-	9.31	1.33	-	-	-	0.00	3.09	-	59.96
Transport equipment	-	-	0.12	0.03	-	-	-	-	1.45	-	1.60
Machinery	0.15	-	1.27	0.50	-	-	-	0.00	8.87	-	10.79
Mining and quarrying	0.03	-	3.69	0.00	-	-	-	0.00	1.70	-	5.43
Food and tobacco	1.65	-	2.41	0.23	-	-	-	9.28	3.77	-	17.35
Paper pulp and printing	3.73	-	0.27	0.95	-	-	-	2.91	2.38	-	10.24
Wood and wood products	0.11	-	0.42	0.02	-	-	-	0.00	1.15	-	1.70
Construction	0.09	-	2.93	0.01	-	-	-	0.00	0.52	-	3.55
Textile and leather	3.04	-	2.11	0.14	-	-	-	2.82	2.36	-	10.47
Non-specified	27.92	-	31.00	38.70	-	-	0.05	49.80	50.76	0.25	198.49
TRANSPORT	0.03	-	258.10	7.80	-	-	-	4.87	1.66	-	272.46
Domestic aviation	-	-	10.47	-	-	-	-	-	-	-	10.47
Road	-	-	236.89	7.37	-	-	-	4.86	-	-	249.13
Rail	0.02	-	4.21	-	-	-	-	0.00	1.66	-	5.89
Pipeline transport	-	-	-	0.43	-	-	-	-	-	-	0.43
Domestic navigation	-	-	6.30	-	-	-	-	0.01	-	-	6.31
Non-specified	0.00	-	0.23	0.00	-	-	-	-	-	-	0.24
OTHER	15.99	-	79.36	14.10	-	-	0.91	255.85	122.05	0.78	489.05
Residential	4.87	-	42.85	11.44	-	-	0.78	246.68	60.13	0.39	367.14
Comm. and public services	4.98	-	10.70	2.46	-	-	0.09	8.06	32.17	0.35	58.82
Agriculture/forestry	0.01	-	19.33	0.19	-	-	-	0.32	19.66	0.01	39.52
Fishing	-	-	1.16	-	-	-	-	0.00	0.11	-	1.28
Non-specified	6.12	-	5.32	0.01	-	-	0.04	0.79	9.98	0.03	22.30
NON-ENERGY USE	0.30	1.82	88.80	39.29	-	-	-	-	-	-	130.21
in industry/transf./energy	0.30	1.82	88.71	39.29	-	-	-	-	-	-	130.13
of which: chem./petrochem.	-	1.79	64.98	39.29	-	-	-	-	-	-	106.07
in transport	-	-	0.08	-	-	-	-	-	-	-	0.08
in other	-	-	0.00	-	-	-	-	-	-	-	0.00
Electricity and Heat Output											
Electr. generated - TWh	1672.09	-	121.11	631.91	70.67	395.64	116.40	69.67	-	-	3077.49
Electricity plants	1636.63	-	119.66	631.11	70.67	395.64	116.40	69.67	-	-	3039.79
CHP plants	35.46	-	1.45	0.80	-	-	-	-	-	-	37.70
Heat generated - PJ	47.25	-	0.04	-	-	-	-	-	-	-	47.30
CHP plants	47.25	-	0.04	-	-	-	-	-	-	-	47.30
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes peat.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

China (P.R. of China and Hong Kong, China)

Figure 1. Energy production

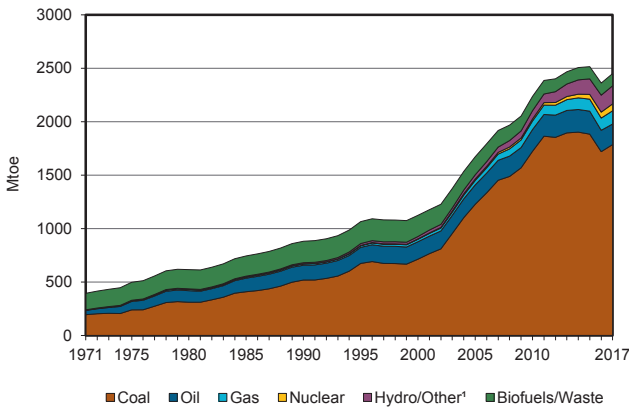


Figure 2. Total primary energy supply²

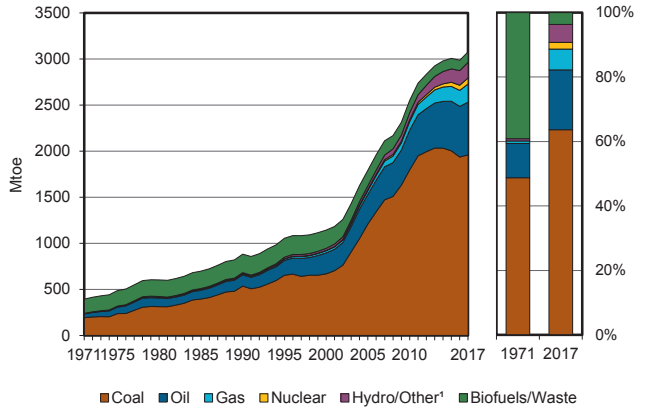


Figure 3. Energy self-sufficiency³

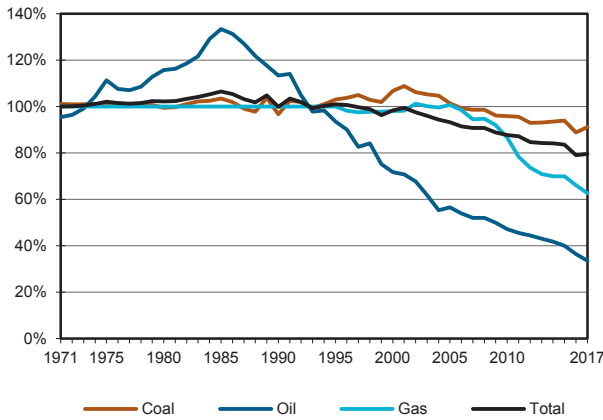


Figure 4. Oil products demand⁴

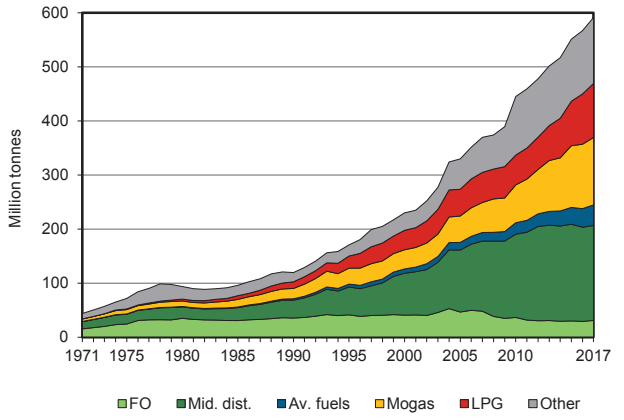


Figure 5. Electricity generation by source

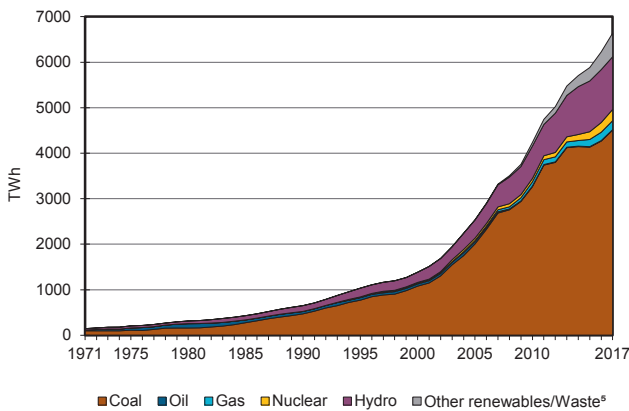
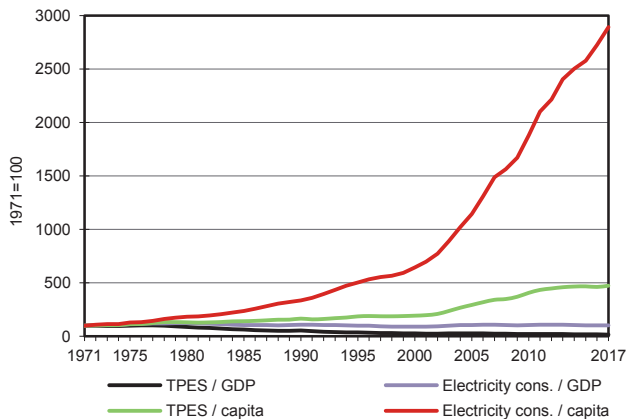


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

China (P.R. of China and Hong Kong, China)

2017

Million tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	1785.87	191.73	-	123.89	64.64	99.49	70.02	113.94	-	-	2449.58
Imports	158.35	419.46	84.74	76.98	-	-	-	0.00	1.63	-	741.17
Exports	-10.41	-4.86	-57.65	-2.96	-	-	-	-0.00	-1.79	-	-77.67
Intl. marine bunkers	-	-	-20.91	-	-	-	-	-	-	-	-20.91
Intl. aviation bunkers	-	-	-16.47	-	-	-	-	-	-	-	-16.47
Stock changes	25.96	-17.02	-7.19	-	-	-	-	-	-	-	1.76
TPES	1959.77	589.31	-17.47	197.91	64.64	99.49	70.02	113.95	-0.16	-	3077.45
Transfers	-1.23	-2.96	4.77	-	-	-	-	-	-	-	0.58
Statistical differences	17.43	-0.07	0.55	1.78	-	-	-	-0.01	-0.77	4.25	23.17
Electricity plants	-600.21	-0.14	-2.39	-21.07	-64.64	-99.49	-36.72	-31.93	412.34	-	-444.24
CHP plants	-477.64	-	-	-20.40	-	-	-	-0.03	158.53	93.69	-245.85
Heat plants	-8.00	-	-4.07	-	-	-	-	-1.32	-	11.62	-1.76
Blast furnaces	-104.71	-	-	-	-	-	-	-	-	-	-104.71
Gas works	-9.36	-	-0.30	2.13	-	-	-	-0.01	-	-	-7.55
Coke/pat.fuel/BKB/PB plants	-58.64	-	-	-	-	-	-	-	-	-	-58.64
Oil refineries	-	-586.41	571.78	-	-	-	-	-	-	-	-14.63
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-7.96	4.38	-	-	-	-	-	-	-	-	-3.58
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-44.82	-2.98	-35.50	-25.85	-	-	-	-	-62.42	-12.69	-184.26
Losses	-	-0.46	-0.01	-2.29	-	-	-	-	-27.63	-1.15	-31.54
TFC	664.63	0.67	517.37	132.21	-	-	33.30	80.65	479.89	95.73	2004.44
INDUSTRY	518.79	0.67	51.35	56.20	-	-	0.44	-	296.83	63.92	988.20
Iron and steel	182.30	-	0.81	4.72	-	-	-	-	45.24	5.01	238.08
Chemical and petrochemical	92.76	-	15.72	14.57	-	-	-	-	50.84	33.23	207.12
Non-ferrous metals	15.80	-	0.80	3.95	-	-	-	-	51.62	4.37	76.54
Non-metallic minerals	145.01	-	5.44	8.12	-	-	-	-	28.42	0.33	187.32
Transport equipment	1.92	-	0.70	3.48	-	-	-	-	9.11	1.06	16.27
Machinery	7.45	-	1.50	6.49	-	-	-	-	39.88	0.89	56.21
Mining and quarrying	4.66	-	2.49	1.18	-	-	-	-	9.18	0.88	18.40
Food and tobacco	19.33	-	0.71	3.66	-	-	-	-	10.21	3.91	37.82
Paper pulp and printing	7.69	-	0.28	1.74	-	-	-	-	7.17	5.13	22.01
Wood and wood products	1.08	-	0.20	0.33	-	-	-	-	2.96	0.23	4.78
Construction	3.87	-	7.58	0.15	-	-	-	-	6.79	0.25	18.65
Textile and leather	5.87	-	0.48	2.97	-	-	-	-	17.61	7.92	34.85
Non-specified	31.04	0.67	14.64	4.83	-	-	0.44	-	17.81	0.72	70.15
TRANSPORT	0.00	-	281.06	19.12	-	-	-	2.20	10.66	-	313.04
Domestic aviation	-	-	23.13	-	-	-	-	-	-	-	23.13
Road	-	-	228.34	18.73	-	-	-	2.20	3.87	-	253.14
Rail	-	-	3.11	-	-	-	-	-	6.79	-	9.89
Pipeline transport	-	-	0.00	0.39	-	-	-	-	-	-	0.39
Domestic navigation	-	-	24.45	-	-	-	-	-	-	-	24.45
Non-specified	0.00	-	2.03	-	-	-	-	-	-	-	2.04
OTHER	100.78	-	76.50	48.17	-	-	32.86	78.46	172.40	31.82	540.98
Residential	48.08	-	42.42	35.50	-	-	26.12	78.45	79.01	25.40	334.98
Comm. and public services	18.16	-	15.82	12.57	-	-	5.32	-	33.93	2.55	88.36
Agriculture/forestry	14.63	-	18.26	0.10	-	-	1.35	-	10.10	0.03	44.46
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	19.92	-	-	-	-	-	0.07	0.00	49.35	3.84	73.18
NON-ENERGY USE	45.05	-	108.46	8.72	-	-	-	-	-	-	162.23
in industry/transf./energy	45.05	-	79.33	8.72	-	-	-	-	-	-	133.10
of which: chem./petrochem.	-	-	65.06	8.72	-	-	-	-	-	-	73.77
in transport	-	-	1.90	-	-	-	-	-	-	-	1.90
in other	-	-	27.22	-	-	-	-	-	-	-	27.22
Electricity and Heat Output											
Electr. generated - TWh	4508.57	-	10.28	196.40	248.07	1157.09	425.85	92.92	-	-	6639.17
Electricity plants	2726.01	-	10.28	135.41	248.07	1157.09	425.85	92.82	-	-	4795.52
CHP plants	1782.56	-	-	60.99	-	-	-	0.11	-	-	1843.66
Heat generated - PJ	3738.11	-	144.68	486.09	-	-	-	40.37	-	-	4409.24
CHP plants	3436.66	-	-	486.09	-	-	-	-	-	-	3922.75
Heat plants	301.45	-	144.68	-	-	-	-	40.37	-	-	486.49

1. Includes peat.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Non-OECD Europe and Eurasia

Figure 1. Energy production

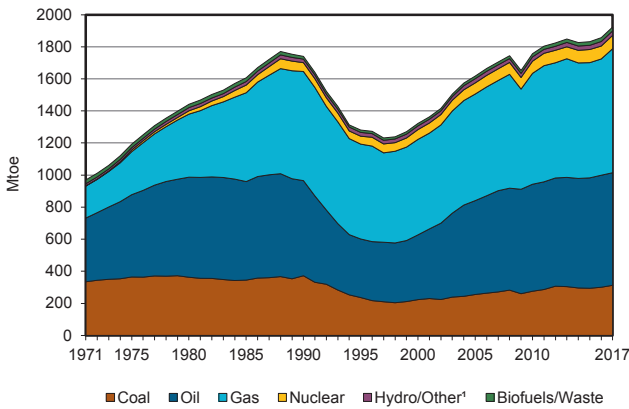


Figure 2. Total primary energy supply²

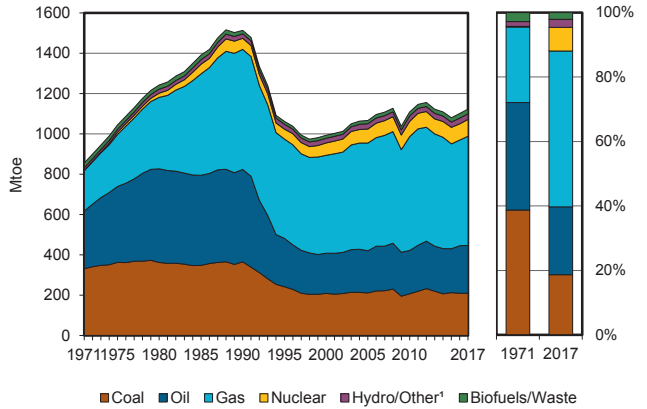


Figure 3. Energy self-sufficiency³

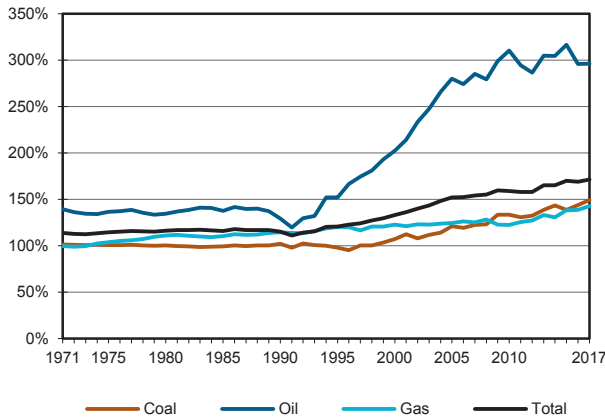


Figure 4. Oil products demand⁴

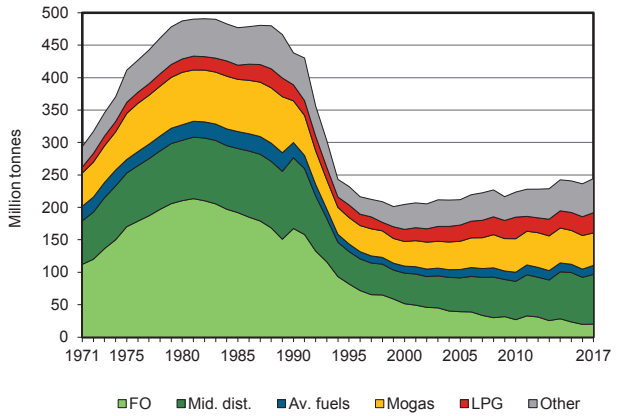


Figure 5. Electricity generation by source

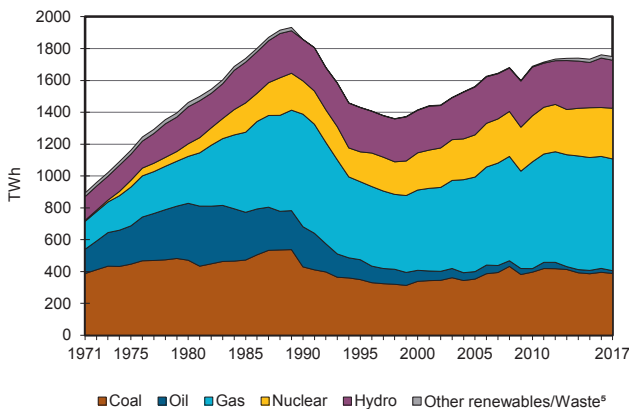
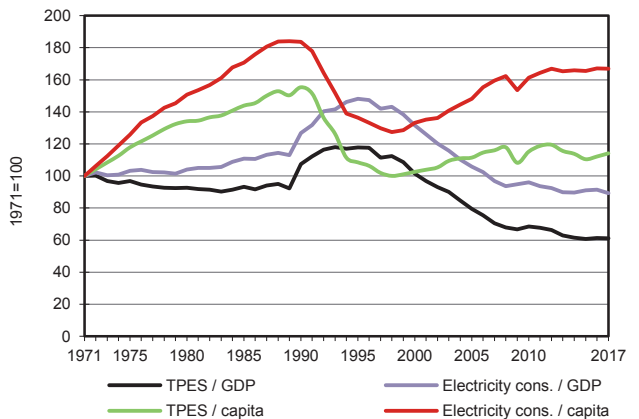


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Non-OECD Europe and Eurasia

2017

Million tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	312.75	701.85	-	773.47	83.48	25.92	1.85	23.85	-	0.59	1923.77
Imports	36.18	43.93	41.83	55.03	-	-	-	0.71	5.47	-	183.16
Exports	-134.64	-361.79	-163.28	-271.38	-	-	-	-1.51	-7.14	-	-939.74
Intl. marine bunkers	-	-	-18.58	-	-	-	-	-	-	-	-18.58
Intl. aviation bunkers	-	-	-8.48	-	-	-	-	-	-	-	-8.48
Stock changes	-4.93	1.78	-0.31	-14.94	-	-	-	0.11	-	-	-18.29
TPES	209.37	385.77	-148.82	542.18	83.48	25.92	1.85	23.15	-1.67	0.59	1121.83
Transfers	-	-1.44	1.65	-	-	-	-	-	-	-	0.21
Statistical differences	-6.77	-0.07	-7.04	-1.37	-	-	-0.00	0.01	-0.12	0.26	-15.12
Electricity plants	-30.48	-	-2.44	-20.29	-82.96	-25.92	-1.61	-0.13	72.92	-0.16	-91.07
CHP plants	-81.01	-0.05	-3.52	-185.09	-0.52	-	-	-3.00	77.53	89.10	-106.55
Heat plants	-10.40	-0.49	-4.09	-55.10	-	-	-0.02	-3.27	-0.32	69.86	-3.84
Blast furnaces	-12.83	-	-	-	-	-	-	-	-	-	-12.83
Gas works	-0.04	-	-	-	-	-	-	-	-	-	-0.04
Coke/pat.fuel/BKB/PB plants	-13.82	-	-	-	-	-	-	-0.00	-	-	-13.82
Oil refineries	-	-376.47	370.41	-	-	-	-	-	-	-	-6.06
Petrochemical plants	-	0.23	-0.22	-	-	-	-	-	-	-	0.00
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-0.11	0.54	-0.00	-3.33	-	-	-	-0.51	-	-	-3.42
Energy industry own use	-2.82	-1.18	-16.15	-38.73	-	-	-	-0.19	-25.85	-15.90	-100.82
Losses	-0.61	-6.14	-0.02	-8.77	-	-	-0.00	-0.00	-15.22	-12.09	-42.85
TFC	50.49	0.70	189.75	229.49	-	-	0.23	16.06	107.26	131.65	725.63
INDUSTRY	41.86	0.64	23.31	52.96	-	-	0.00	2.34	45.74	48.62	215.47
Iron and steel	30.67	-	0.97	14.89	-	-	-	0.50	8.81	8.15	63.99
Chemical and petrochemical	0.43	0.02	10.23	8.94	-	-	-	0.16	5.68	13.43	38.88
Non-ferrous metals	0.71	-	0.50	0.34	-	-	-	0.00	9.64	0.30	11.50
Non-metallic minerals	2.90	0.00	1.81	11.22	-	-	-	0.27	2.60	2.43	21.23
Transport equipment	0.04	-	0.21	0.73	-	-	-	0.00	1.47	2.14	4.59
Machinery	0.07	-	0.25	1.75	-	-	0.00	0.03	2.67	7.20	11.97
Mining and quarrying	0.55	-	2.73	2.30	-	-	-	0.03	3.85	1.10	10.56
Food and tobacco	0.23	0.00	1.06	2.60	-	-	0.00	0.23	2.84	5.84	12.81
Paper pulp and printing	0.02	-	0.12	0.71	-	-	-	0.21	1.71	4.20	6.97
Wood and wood products	0.00	-	0.20	0.28	-	-	0.00	0.73	0.68	1.36	3.26
Construction	0.05	-	2.13	4.26	-	-	-	0.01	1.46	0.69	8.61
Textile and leather	0.02	-	0.05	0.23	-	-	0.00	0.03	0.44	1.06	1.83
Non-specified	6.18	0.62	3.06	4.71	-	-	0.00	0.12	3.88	0.70	19.26
TRANSPORT	0.02	-	101.19	35.58	-	-	-	0.61	8.14	-	145.53
Domestic aviation	-	-	6.06	-	-	-	-	-	-	-	6.06
Road	-	-	90.88	1.01	-	-	-	0.61	0.03	-	92.53
Rail	0.01	-	2.67	-	-	-	-	0.00	5.38	-	8.06
Pipeline transport	-	-	0.19	34.56	-	-	-	-	2.05	-	36.79
Domestic navigation	0.00	-	0.66	-	-	-	-	0.00	-	-	0.66
Non-specified	0.00	-	0.73	0.02	-	-	-	-	0.68	-	1.43
OTHER	7.88	0.01	30.31	96.13	-	-	0.22	13.11	53.38	83.03	284.09
Residential	5.45	-	14.66	78.85	-	-	0.10	11.22	27.77	51.85	189.90
Comm. and public services	2.06	-	3.88	14.69	-	-	0.11	1.53	21.50	24.03	67.79
Agriculture/forestry	0.14	0.01	6.93	1.90	-	-	0.01	0.24	3.70	3.19	16.12
Fishing	0.00	-	0.71	0.00	-	-	-	0.00	0.03	0.02	0.76
Non-specified	0.22	0.00	4.14	0.69	-	-	-	0.12	0.39	3.95	9.52
NON-ENERGY USE	0.74	0.05	34.94	44.82	-	-	-	-	-	-	80.54
in industry/transf./energy	0.74	0.05	34.52	44.82	-	-	-	-	-	-	80.12
of which: chem./petrochem.	0.12	-	19.67	44.06	-	-	-	-	-	-	63.85
in transport	-	-	0.21	-	-	-	-	-	-	-	0.21
in other	0.00	-	0.22	-	-	-	-	-	-	-	0.22
Electricity and Heat Output											
Electr. generated - TWh	388.10	0.03	17.25	701.63	318.39	301.46	17.94	4.92	-	0.08	1749.81
Electricity plants	118.42	-	9.37	81.95	318.39	301.46	17.94	0.48	-	0.03	848.05
CHP plants	269.68	0.03	7.88	619.68	-	-	-	4.45	-	0.05	901.76
Heat generated - PJ	1498.09	17.68	195.45	4362.65	21.62	-	373.29	171.13	15.38	24.69	6679.99
CHP plants	1132.39	0.06	68.34	2446.47	21.62	-	-	61.38	-	18.24	3748.49
Heat plants	365.70	17.63	127.11	1916.18	-	-	373.29	109.75	15.38	6.45	2931.50

1. Includes peat.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Middle East

Figure 1. Energy production

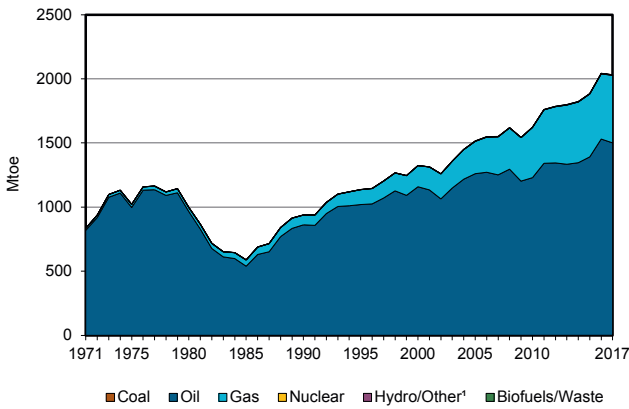


Figure 2. Total primary energy supply²

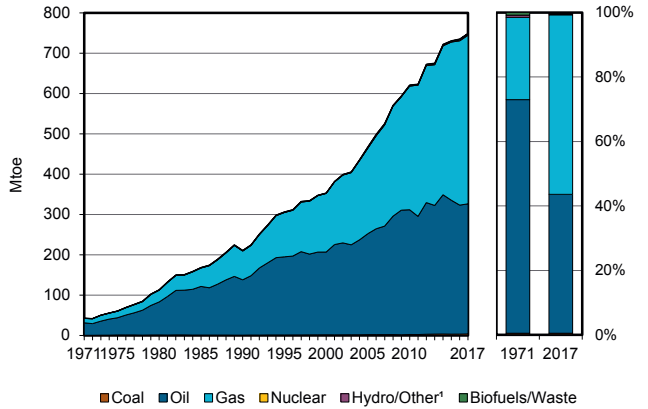


Figure 3. Energy self-sufficiency³

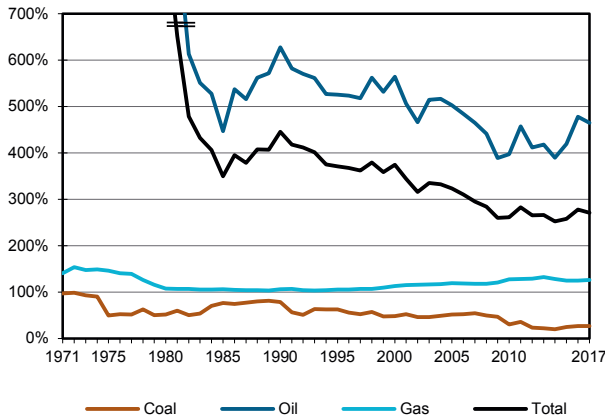


Figure 4. Oil products demand⁴

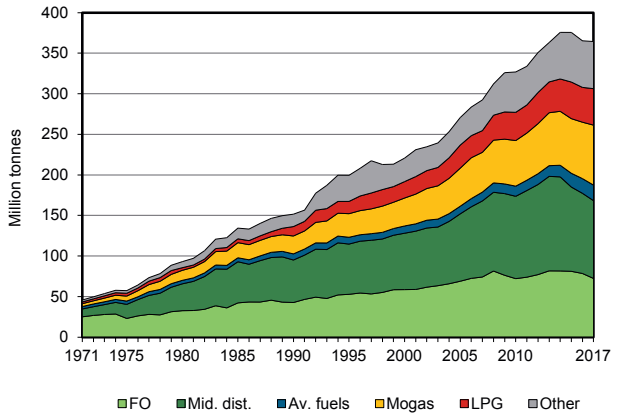


Figure 5. Electricity generation by source

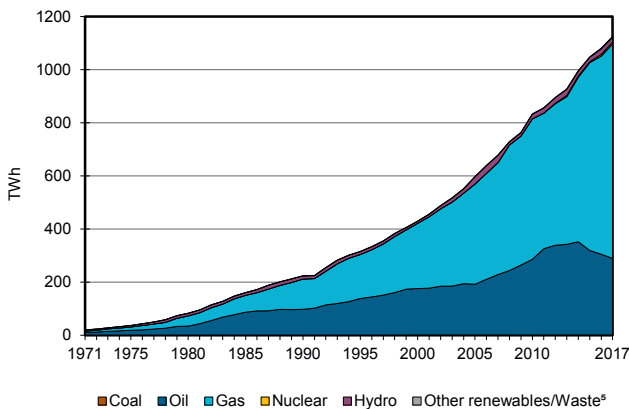
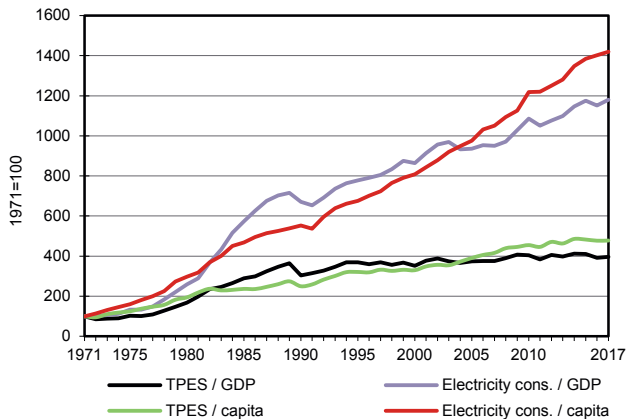


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency. Maximum scale refers to values greater than or equal to 700%.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Middle East

2017

Million tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	1.02	1499.65	-	526.26	1.96	1.52	0.56	0.83	-	-	2031.81
Imports	2.85	12.97	75.62	28.87	-	-	-	0.08	1.44	-	121.85
Exports	-0.08	-994.32	-232.50	-136.97	-	-	-	-0.00	-0.85	-	-1364.72
Intl. marine bunkers	-	-	-21.94	-	-	-	-	-	-	-	-21.94
Intl. aviation bunkers	-	-	-18.89	-	-	-	-	-	-	-	-18.89
Stock changes	-0.00	0.64	1.41	0.01	-	-	-	-	-	-	2.06
TPES	3.79	518.95	-196.31	418.17	1.96	1.52	0.56	0.92	0.59	-	750.16
Transfers	-	-102.21	111.49	-	-	-	-	-	-	-	9.28
Statistical differences	0.42	16.21	-5.45	2.68	-	-	-0.03	0.04	-2.40	-	11.47
Electricity plants	-0.23	-35.17	-50.12	-193.07	-1.96	-1.52	-0.34	-0.01	96.82	-	-185.60
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-0.49	-	-	-	-	-	-	-	-	-	-0.49
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-0.07	-	-	-	-	-	-	-	-	-	-0.07
Oil refineries	-	-396.84	387.49	-	-	-	-	-	-	-	-9.35
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	4.32	-	-10.47	-	-	-	-	-	-	-6.15
Other transformation	-	0.44	-0.55	-	-	-	-	-0.11	-	-	-0.22
Energy industry own use	-0.15	-3.15	-13.43	-39.79	-	-	-	-	-5.87	-	-62.39
Losses	-0.03	-0.22	-	-0.17	-	-	-	-	-13.22	-	-13.64
TFC	3.24	2.32	233.12	177.36	-	-	0.19	0.84	75.93	-	493.00
INDUSTRY	2.92	2.32	35.55	94.25	-	-	0.00	-	15.25	-	150.29
Iron and steel	0.17	-	-	1.56	-	-	-	-	0.31	-	2.05
Chemical and petrochemical	-	-	0.21	16.54	-	-	-	-	0.67	-	17.42
Non-ferrous metals	-	-	-	-	-	-	-	-	0.96	-	0.96
Non-metallic minerals	0.82	-	0.15	0.97	-	-	-	-	0.08	-	2.01
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	0.06	-	-	-	-	0.06	-	0.12
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	1.93	2.32	35.20	75.11	-	-	0.00	-	13.17	-	127.74
TRANSPORT	-	-	127.07	6.87	-	-	-	-	0.04	-	133.99
Domestic aviation	-	-	1.51	-	-	-	-	-	-	-	1.51
Road	-	-	125.53	6.50	-	-	-	-	-	-	132.03
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	0.03	0.37	-	-	-	-	-	-	0.40
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	0.01	-	-	-	-	-	0.04	-	0.05
OTHER	0.01	-	18.17	51.99	-	-	0.19	0.84	60.63	-	131.84
Residential	0.01	-	13.15	40.13	-	-	0.15	0.39	33.23	-	87.06
Comm. and public services	-	-	1.18	9.83	-	-	0.04	0.26	20.24	-	31.55
Agriculture/forestry	-	-	2.74	1.87	-	-	-	-	3.66	-	8.27
Fishing	-	-	-	-	-	-	-	-	0.00	-	0.00
Non-specified	-	-	1.11	0.16	-	-	-	0.19	3.51	-	4.96
NON-ENERGY USE	0.31	-	52.33	24.25	-	-	-	-	-	-	76.89
in industry/transf./energy	0.31	-	52.20	24.25	-	-	-	-	-	-	76.76
of which: chem./petrochem.	-	-	43.03	24.02	-	-	-	-	-	-	67.05
in transport	-	-	0.01	-	-	-	-	-	-	-	0.01
in other	-	-	0.11	-	-	-	-	-	-	-	0.11
Electricity and Heat Output											
Electr. generated - TWh	0.63	111.05	177.76	807.93	7.51	17.65	3.42	0.03	-	-	1125.98
Electricity plants	0.63	111.05	177.76	807.93	7.51	17.65	3.42	0.03	-	-	1125.98
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - PJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

OECD COUNTRIES

Australia

Figure 1. Energy production

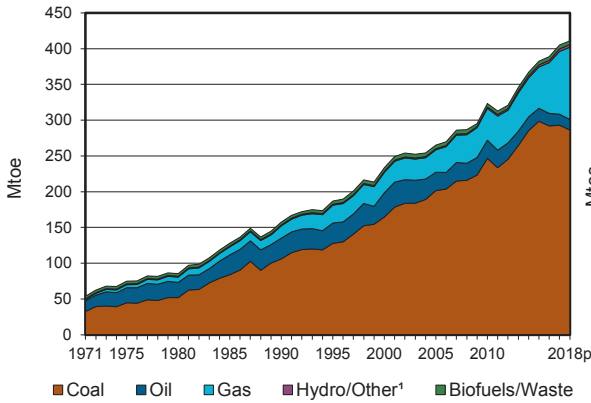


Figure 2. Total primary energy supply²

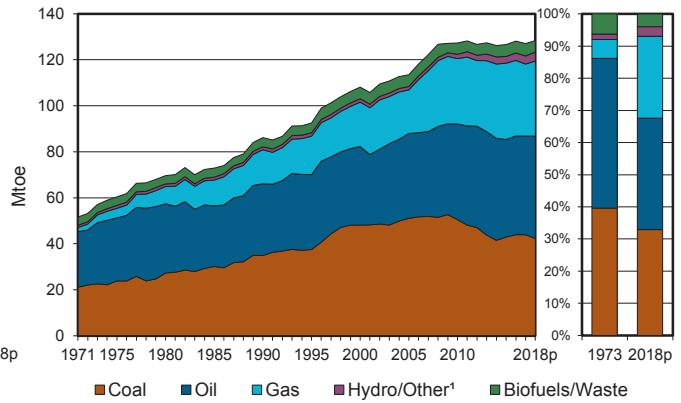


Figure 3. Energy self-sufficiency

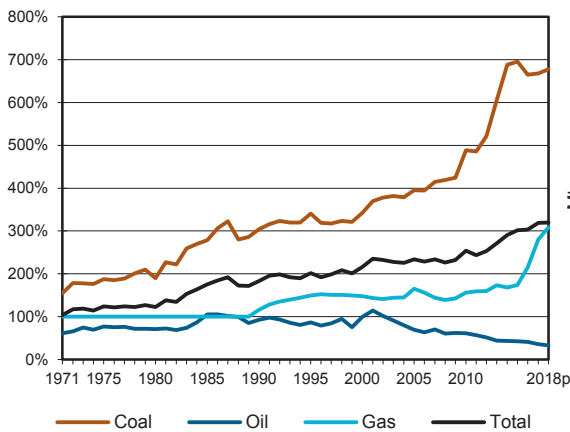


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

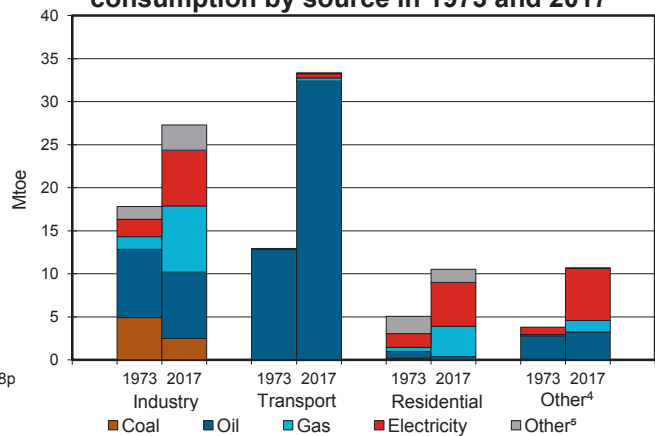


Figure 5. Electricity generation by source

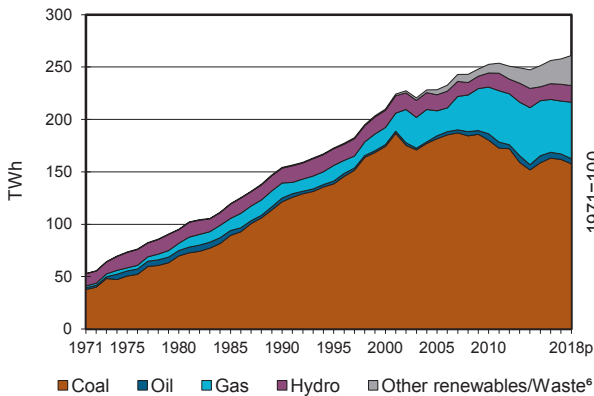
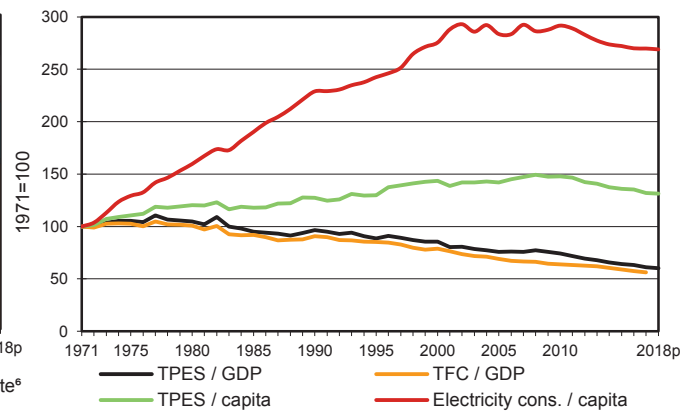


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Australia

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	293.10	15.32	-	87.82	-	1.38	2.15	5.38	-	-	405.15
Imports	0.19	16.66	28.63	4.92	-	-	-	-	-	-	50.40
Exports	-244.69	-10.75	-2.28	-61.43	-	-	-	-	-	-	-319.16
Intl. marine bunkers	-	-	-0.56	-	-	-	-	-	-	-	-0.56
Intl. aviation bunkers	-	-	-4.48	-	-	-	-	-	-	-	-4.48
Stock changes	-4.69	0.03	0.34	-	-	-	-	-	-	-	-4.32
TPES	43.91	21.25	21.65	31.31	-	1.38	2.15	5.38	-	-	127.03
Transfers	-	-0.33	3.80	-	-	-	-	-	-	-	3.47
Statistical differences	-0.14	2.52	1.33	0.82	-	-	-	0.00	-0.00	-	4.53
Electricity plants	-38.66	-	-1.18	-9.57	-	-1.38	-1.78	-0.42	20.91	-	-32.08
CHP plants	-0.52	-	-0.04	-2.44	-	-	-	-0.72	1.25	-	-2.47
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-0.69 e	-	-	-	-	-	-	-	-	-	-0.69
Gas works	0.00	-	-	-0.00	-	-	-	-	-	-	-
Coke/pat. fuel/BKB/PB plants	-0.46	-	-	-	-	-	-	-	-	-	-0.46
Oil refineries	-	-23.37	22.09	-	-	-	-	-	-	-	-1.27
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-0.92	-0.06	-4.01	-7.19	-	-	-	-	-2.85	-	-15.03
Losses	-	-	-	-	-	-	-	-	-1.20	-	-1.20
TFC	2.52	0.01	43.64	12.94	-	-	0.37	4.24	18.11	-	81.84
INDUSTRY	2.51	0.01	3.56	6.97	-	-	-	2.96	6.46	-	22.48
Iron and steel	0.24 e	-	0.02	0.28	-	-	-	-	0.29	-	0.83
Chemical and petrochemical	0.15	-	0.11	1.43	-	-	-	0.09	0.35	-	2.12
Non-ferrous metals	1.37	-	0.26	2.75	-	-	-	-	2.76	-	7.14
Non-metallic minerals	0.38	-	0.16	1.08	-	-	-	0.05	0.40	-	2.06
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	0.02	0.05	-	-	-	-	0.07	-	0.15
Mining and quarrying	0.10	-	2.37	0.13	-	-	-	0.00	1.61	-	4.21
Food and tobacco	0.18	0.00	0.11	0.72	-	-	-	2.33	0.50	-	3.83
Paper, pulp and printing	0.05	-	0.05	0.31	-	-	-	0.19	0.34	-	0.94
Wood and wood products	0.00	-	0.01	0.06	-	-	-	0.31	0.06	-	0.44
Construction	-	-	0.45	0.06	-	-	-	-	0.02	-	0.54
Textile and leather	0.01	0.01	0.01	0.11	-	-	-	-	0.04	-	0.18
Non-specified	0.02	-	0.00	0.00	-	-	-	-	0.00	-	0.03
TRANSPORT	-	-	32.38	0.37	-	-	-	0.10	0.50	-	33.35
Domestic aviation	-	-	3.10	-	-	-	-	-	-	-	3.10
Road	-	-	27.39	0.08	-	-	-	0.10	-	-	27.58
Rail	-	-	1.12	-	-	-	-	-	0.28	-	1.39
Pipeline transport	-	-	0.01	0.28	-	-	-	-	0.00	-	0.28
Domestic navigation	-	-	0.58	-	-	-	-	-	-	-	0.58
Non-specified	-	-	0.18	0.01	-	-	-	-	0.22	-	0.42
OTHER	0.01	-	3.59	4.87	-	-	0.37	1.18	11.15	-	21.18
Residential	0.00	-	0.35	3.56	-	-	0.36	1.16	5.09	-	10.54
Comm. and public services	0.01	-	0.82	1.29	-	-	0.01	0.01	5.89	-	8.03
Agriculture/forestry	-	-	2.42	0.02	-	-	-	-	0.17	-	2.61
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	4.11	0.71	-	-	-	-	-	-	4.83
in industry/transf./energy	-	-	4.11	0.71	-	-	-	-	-	-	4.83
of which: chem./petrochem.	-	-	2.31	0.71	-	-	-	-	-	-	3.02
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - TWh	161.83	-	5.27	50.46	-	16.04	20.67	3.50	-	-	257.77
Electricity plants	159.76	-	5.14	40.23	-	16.04	20.67	1.40	-	-	243.22
CHP plants	2.07	-	0.14	10.24	-	-	-	2.10	-	-	14.55
Heat generated - PJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Australia

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./ Solar/ etc.	Biofuels/ Waste	Electricity	Heat	Total
Production	286.36	14.70	-	100.90	-	1.37	2.55	5.00	-	-	410.87
Imports	0.30	19.07	29.95	4.45	-	-	-	-	-	-	53.77
Exports	-246.90	-10.70	-2.44	-72.65	-	-	-	-	-	-	-332.69
Intl. marine bunkers	-	-	-0.50	-	-	-	-	-	-	-	-0.50
Intl. aviation bunkers	-	-	-4.70	-	-	-	-	-	-	-	-4.70
Stock changes	2.50	-0.06	-0.81	-	-	-	-	-	-	-	1.63
TPES	42.27	23.00	21.50	32.69	-	1.37	2.55	5.00	-	-	128.38
Electricity and Heat Output											
Elec. generated - TWh	157.71	-	4.90	53.88	-	15.88	25.10	3.52	-	-	261.00
Heat generated - PJ	-	-	-	-	-	-	-	-	-	-	-

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	68.0	85.4	157.5	233.6	323.4	388.9	405.2	410.9
Net imports (Mtoe)	-8.4	-16.6	-64.5	-127.1	-185.9	-259.5	-268.8	-278.9
Total primary energy supply (Mtoe)	57.1	69.6	86.1	108.1	127.3	128.1	127.0	128.4
Net oil imports (Mtoe)	9.2	11.3	5.1	3.6	20.5	30.3	32.3	35.9
Oil supply (Mtoe)	26.6	30.1	31.2	34.2	41.6	42.9	42.9	44.5
Electricity consumption (TWh) ¹	56.6	86.9	145.5	195.2	236.3	240.2	244.1	247.2
GDP (billion 2010 USD)	417.3	502.4	675.5	957.7	1299.5	1530.7	1574.1	1616.3
GDP PPP (billion 2010 USD)	302.9	364.7	490.3	695.2	943.2	1111.1	1142.6	1173.2
Population (millions)	13.61	14.81	17.28	19.28	22.03	24.19	24.60	24.99
Industrial production index (2010=100)	..	44.4	59.1	75.0	89.0	101.9	103.0	106.7
Total self-sufficiency ²	1.19	1.23	1.83	2.16	2.54	3.04	3.19	3.20
Coal self-sufficiency ²	1.78	1.90	3.04	3.42 ^e	4.89	6.64	6.68	6.78
Oil self-sufficiency ²	0.75	0.71	0.93	0.99	0.61	0.41	0.36	0.33
Natural gas self-sufficiency ²	1.00	1.00	1.16	1.48	1.56	2.16	2.80	3.09
TPES/GDP (toe per thousand 2010 USD)	0.14	0.14	0.13	0.11	0.10	0.08	0.08	0.08
TPES/GDP PPP (toe per thousand 2010 USD)	0.19	0.19	0.18	0.16	0.14	0.12	0.11	0.11
TPES/population (toe per capita)	4.19	4.70	4.98	5.61	5.78	5.30	5.16	5.14
Net oil imports/GDP (toe per thousand 2010 USD)	0.02	0.02	0.01	0.00	0.02	0.02	0.02	0.02
Oil supply/GDP (toe per thousand 2010 USD)	0.06	0.06	0.05	0.04	0.03	0.03	0.03	0.03
Oil supply/population (toe per capita)	1.95	2.03	1.81	1.77	1.89	1.77	1.74	1.78
Share of renewables in TPES	0.08	0.07	0.06	0.06	0.05	0.07	0.07	0.07
Share of renewables in electricity generation	0.18	0.14	0.10	0.08	0.09	0.15	0.16	0.17
TFC/GDP (toe per thousand 2010 USD)	0.10	0.09	0.08	0.07	0.06	0.05	0.05	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.13	0.13	0.12	0.10	0.08	0.07	0.07	..
TFC/population (toe per capita)	2.91	3.16	3.28	3.61	3.48	3.37	3.33	..
Elect. cons./GDP (kWh per 2010 USD)	0.14	0.17	0.22	0.20	0.18	0.16	0.16	0.15
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.19	0.24	0.30	0.28	0.25	0.22	0.21	0.21
Elect. cons./population (kWh per capita)	4158	5869	8419	10129	10727	9929	9922	9892
Industry cons. ³ /industrial production (2010=100)	..	150.9	128.9	123.4	100.0	89.3	86.9	..
Industry oil cons. ³ /industrial production (2010=100)	..	230.6	139.3	131.4	100.0	100.1	96.5	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

Austria

Figure 1. Energy production

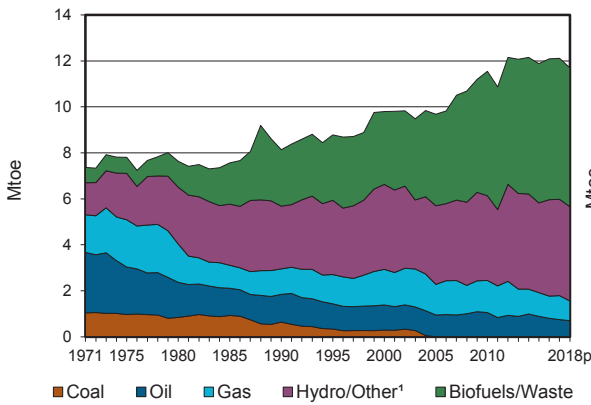


Figure 2. Total primary energy supply²

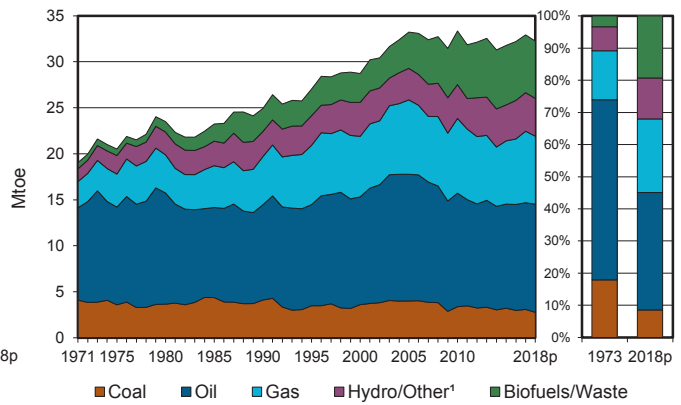


Figure 3. Energy self-sufficiency

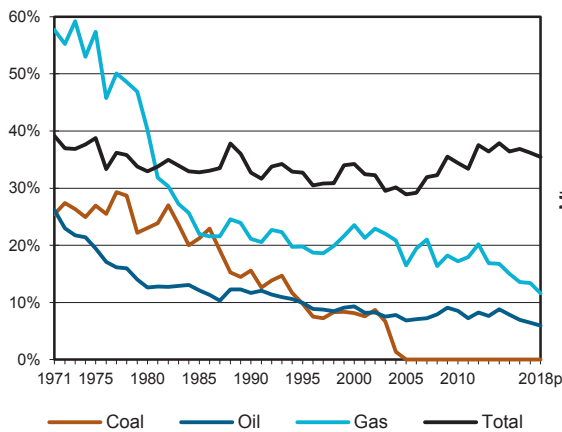


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

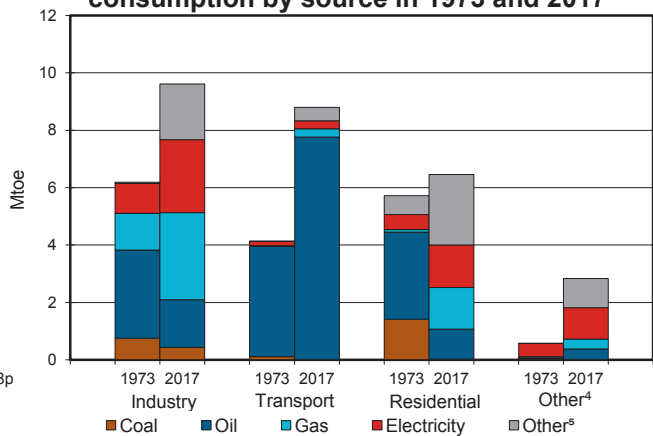


Figure 5. Electricity generation by source

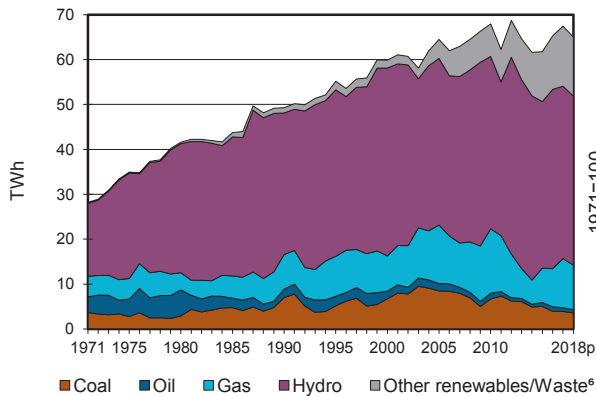
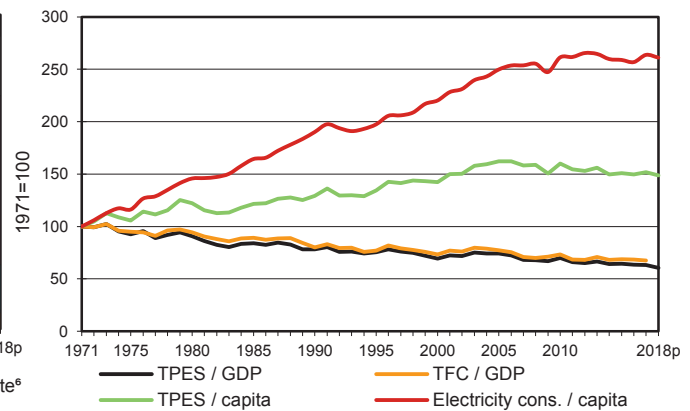


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Austria

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./ Solar/ etc.	Biofuels/ Waste	Electricity	Heat	Total
Production	-	0.75	-	1.04	-	3.30	0.89	6.13	-	0.00	12.11
Imports	3.11	7.63	6.46	11.54	-	-	-	0.79	2.52	-	32.05
Exports	-0.04	-0.01	-2.68	-4.52	-	-	-	-0.62	-1.96	-	-9.84
Intl. marine bunkers	-	-	-0.02	-	-	-	-	-	-	-	-0.02
Intl. aviation bunkers	-	-	-0.73	-	-	-	-	-	-	-	-0.73
Stock changes	0.01	0.09	0.12	-0.28	-	-	-	-0.02	-	-	-0.08
TPES	3.08	8.45	3.15	7.78	-	3.30	0.89	6.28	0.56	0.00	33.49
Transfers	-	0.33	-0.33	-	-	-	-	-	-	-	0.01
Statistical differences	-0.00	-0.00	0.00	-	-	-	-	0.00	-	-	-0.00
Electricity plants	-0.68	-	-0.00	-0.92	-	-3.30	-0.67	-0.65	4.92	-0.00	-1.30
CHP plants	-0.18	-	-0.31	-1.23	-	-	-	-0.98	0.88	1.24	-0.58
Heat plants	-	-	-0.03	-0.29	-	-	-0.03	-0.73	-	0.88	-0.19
Blast furnaces	-1.25	-	-	-	-	-	-	-	-	-	-1.25
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat. fuel/BKB/PB plants	-0.05	-	-	-	-	-	-	-	-	-	-0.05
Oil refineries	-	-8.78	8.66	-	-	-	-	-	-	-	-0.11
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-0.00	-	-	-0.00
Energy industry own use	-0.45	-	-0.29	-0.22	-	-	-	-0.04	-0.68	-	-1.68
Losses	-0.02	-	-	-0.00	-	-	-	-	-0.29	-0.32	-0.62
TFC	0.45	-	10.86	5.11	-	-	0.19	3.88	5.40	1.81	27.70
INDUSTRY	0.41	-	0.46	2.70	-	-	-	1.65	2.55	0.28	8.05
Iron and steel	0.25	-	0.00	0.41	-	-	-	0.00	0.22	0.01	0.89
Chemical and petrochemical	0.03	-	0.01	0.45	-	-	-	0.11	0.40	0.07	1.08
Non-ferrous metals	0.00	-	0.00	0.12	-	-	-	0.01	0.09	0.00	0.22
Non-metallic minerals	0.05	-	0.06	0.33	-	-	-	0.27	0.17	0.00	0.88
Transport equipment	-	-	0.00	0.05	-	-	-	0.00	0.09	0.02	0.17
Machinery	-	-	0.04	0.26	-	-	-	0.01	0.38	0.03	0.71
Mining and quarrying	0.00	-	0.01	0.06	-	-	-	0.00	0.12	0.00	0.19
Food and tobacco	0.00	-	0.05	0.33	-	-	-	0.03	0.24	0.04	0.69
Paper, pulp and printing	0.08	-	0.01	0.48	-	-	-	0.82	0.40	0.02	1.81
Wood and wood products	-	-	0.01	0.06	-	-	-	0.33	0.17	0.07	0.64
Construction	-	-	0.26	0.05	-	-	-	0.03	0.07	0.01	0.42
Textile and leather	-	-	0.00	0.04	-	-	-	0.00	0.04	0.00	0.08
Non-specified	-	-	0.00	0.06	-	-	-	0.04	0.17	0.01	0.28
TRANSPORT	0.00	-	7.75	0.29	-	-	-	0.47	0.28	-	8.78
Domestic aviation	-	-	0.03	-	-	-	-	-	-	-	0.03
Road	-	-	7.67	0.02	-	-	-	0.47	0.00	-	8.16
Rail	0.00	-	0.04	-	-	-	-	0.00	0.18	-	0.22
Pipeline transport	-	-	-	0.27	-	-	-	-	0.02	-	0.29
Domestic navigation	-	-	0.00	-	-	-	-	-	-	-	0.00
Non-specified	-	-	-	-	-	-	-	-	0.08	-	0.08
OTHER	0.02	-	1.43	1.79	-	-	0.19	1.76	2.57	1.53	9.29
Residential	0.02	-	1.05	1.45	-	-	0.14	1.54	1.49	0.78	6.46
Comm. and public services	-	-	0.16	0.32	-	-	0.05	0.05	0.99	0.74	2.31
Agriculture/forestry	0.00	-	0.23	0.02	-	-	0.00	0.16	0.10	0.01	0.52
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	0.02	-	1.23	0.33	-	-	-	-	-	-	1.58
in industry/transf./energy	0.02	-	1.21	0.33	-	-	-	-	-	-	1.56
of which: chem./petrochem.	0.02	-	0.76	0.33	-	-	-	-	-	-	1.11
in transport	-	-	0.02	-	-	-	-	-	-	-	0.02
in other	-	-	0.00	-	-	-	-	-	-	-	0.00
Electricity and Heat Output											
Electr. generated - TWh	3.92	-	0.81	10.98	-	38.37	7.84	5.51	-	0.01	67.44
Electricity plants	3.38	-	0.01	5.49	-	38.37	7.84	2.16	-	0.01	57.27
CHP plants	0.53	-	0.81	5.49	-	-	-	3.34	-	-	10.18
Heat generated - PJ	3.91	-	4.68	32.31	-	-	0.66	47.30	-	0.09	88.96
CHP plants	3.91	-	3.71	21.74	-	-	-	22.59	-	-	51.97
Heat plants	-	-	0.97	10.57	-	-	0.66	24.71	-	0.09	36.99

1. Includes peat.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Austria

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	0.70	-	0.86	-	3.24	0.86	6.04	-	0.00	11.70
Imports	2.73	8.56	6.33	10.82	-	-	-	0.92	2.41	-	31.78
Exports	-0.04	-0.02	-3.01	-4.33	-	-	-	-0.75	-1.64	-	-9.80
Intl. marine bunkers	-	-	-0.02	-	-	-	-	-	-	-	-0.02
Intl. aviation bunkers	-	-	-0.82	-	-	-	-	-	-	-	-0.82
Stock changes	0.06	-0.04	0.09	0.04	-	-	-	0.01	-	-	0.17
TPES	2.76	9.20	2.56	7.39	-	3.24	0.86	6.23	0.77	0.00	33.01
Electricity and Heat Output											
Elec. generated - TWh	3.62	-	0.72	9.91	-	37.63	7.47	5.65	-	0.01	65.01
Heat generated - PJ	3.29	-	3.17	29.32	-	-	0.67	45.57	0.01	0.11	82.13

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes peat.
2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	7.9	7.6	8.1	9.8	11.6	12.1	12.1	11.7
Net imports (Mtoe)	13.9	16.1	17.4	19.1	21.9	21.1	22.2	22.0
Total primary energy supply (Mtoe)	21.5	23.2	24.9	28.6	33.6	32.8	33.5	33.0
Net oil imports (Mtoe)	9.7	11.0	9.7	11.0	11.8	11.3	11.4	11.9
Oil supply (Mtoe)	12.1	12.1	10.4	11.7	12.3	11.5	11.6	11.8
Electricity consumption (TWh) ¹	27.5	35.4	46.9	56.7	70.2	72.1	74.5	74.2
GDP (billion 2010 USD)	171.2	208.3	260.2	336.5	391.9	422.0	432.8	444.6
GDP PPP (billion 2010 USD)	153.4	186.8	233.3	301.7	351.3	378.3	387.9	398.5
Population (millions)	7.59	7.55	7.68	8.01	8.36	8.74	8.80	8.84
Industrial production index (2010=100)	30.0	36.8	48.3	70.1	90.6	102.6	107.8	112.1
Total self-sufficiency ²	0.37	0.33	0.33	0.34	0.34	0.37	0.36	0.35
Coal self-sufficiency ²	0.26	0.23	0.16	0.08	0.00	-	-	-
Oil self-sufficiency ²	0.22	0.13	0.12	0.09	0.09	0.07	0.06	0.06
Natural gas self-sufficiency ²	0.59	0.40	0.21	0.24	0.17	0.14	0.13	0.12
TPES/GDP (toe per thousand 2010 USD)	0.13	0.11	0.10	0.09	0.09	0.08	0.08	0.07
TPES/GDP PPP (toe per thousand 2010 USD)	0.14	0.12	0.11	0.09	0.10	0.09	0.09	0.08
TPES/population (toe per capita)	2.83	3.07	3.24	3.57	4.01	3.75	3.81	3.73
Net oil imports/GDP (toe per thousand 2010 USD)	0.06	0.05	0.04	0.03	0.03	0.03	0.03	0.03
Oil supply/GDP (toe per thousand 2010 USD)	0.07	0.06	0.04	0.03	0.03	0.03	0.03	0.03
Oil supply/population (toe per capita)	1.60	1.60	1.35	1.46	1.48	1.32	1.32	1.33
Share of renewables in TPES	0.11	0.16	0.20	0.23	0.27	0.30	0.29	0.29
Share of renewables in electricity generation	0.61	0.70	0.66	0.73	0.66	0.78	0.75	0.77
TFC/GDP (toe per thousand 2010 USD)	0.10	0.09	0.08	0.07	0.07	0.07	0.06	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.11	0.10	0.09	0.08	0.08	0.07	0.07	..
TFC/population (toe per capita)	2.19	2.47	2.57	2.93	3.25	3.13	3.15	..
Elect. cons./GDP (kWh per 2010 USD)	0.16	0.17	0.18	0.17	0.18	0.17	0.17	0.17
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.18	0.19	0.20	0.19	0.20	0.19	0.19	0.19
Elect. cons./population (kWh per capita)	3621	4685	6111	7076	8398	8253	8474	8390
Industry cons. ³ /industrial production (2010=100)	202.9	169.7	136.0	105.8	100.0	91.8	87.9	..
Industry oil cons. ³ /industrial production (2010=100)	467.5	236.0	171.2	120.9	100.0	82.8	71.0	..

1. Electricity consumption equals domestic supply less losses.
2. Production divided by TPES. Coal self-sufficiency also includes peat, when applicable.
3. Includes non-energy use.

Belgium

Figure 1. Energy production

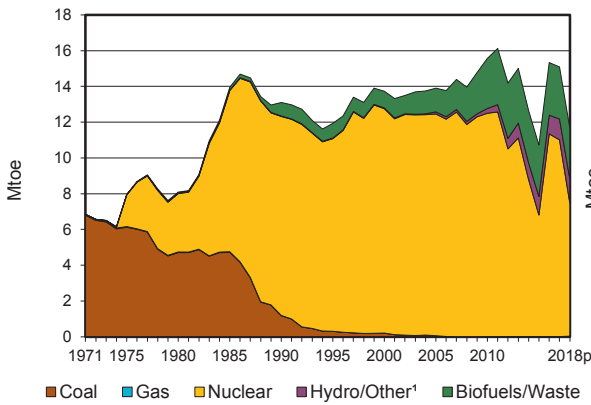


Figure 2. Total primary energy supply²

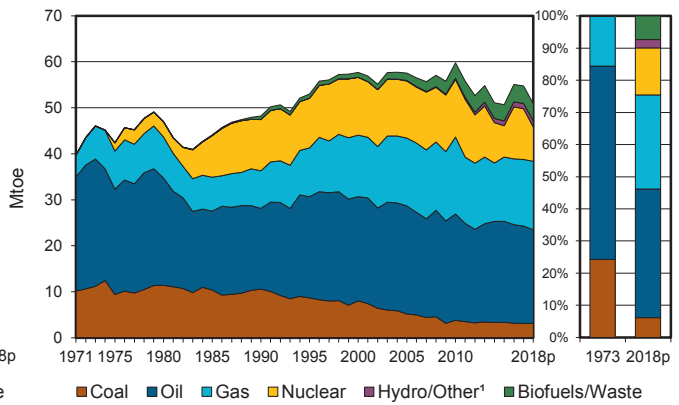


Figure 3. Energy self-sufficiency

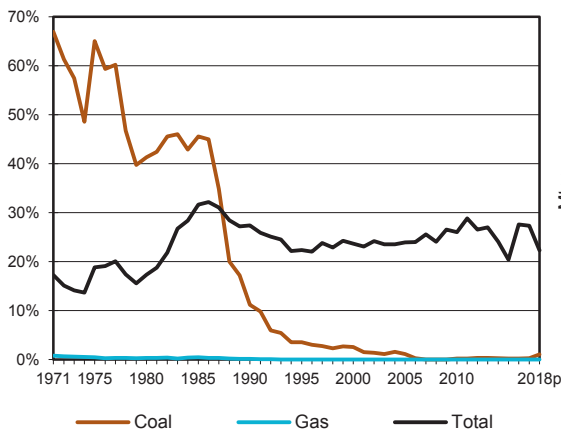


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

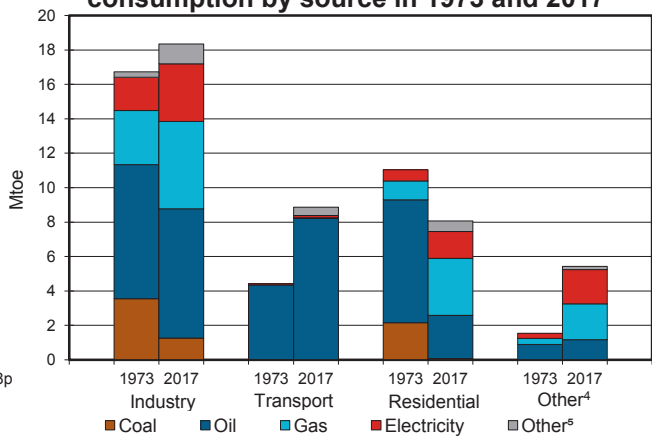


Figure 5. Electricity generation by source

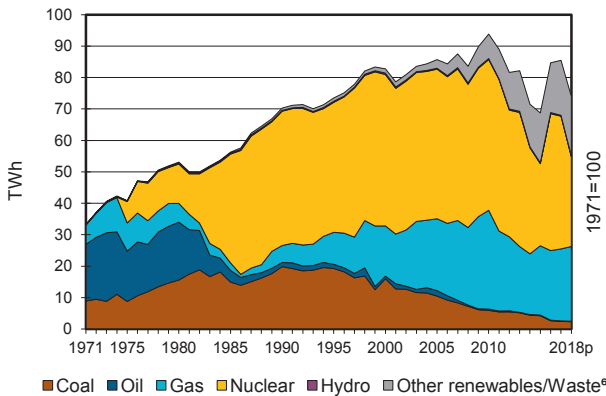
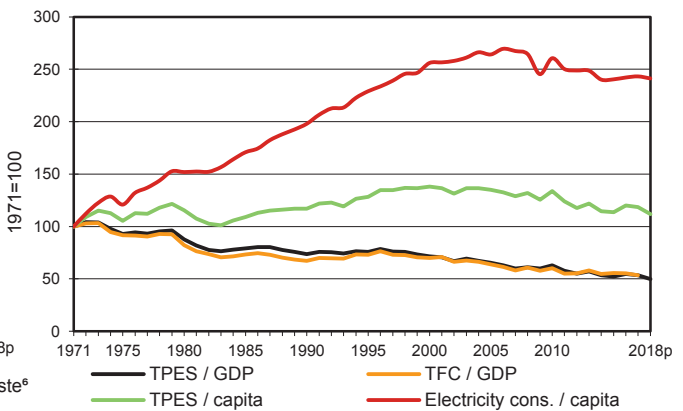


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Belgium

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	0.01	-	-	-	11.00	0.02	0.87	2.92	-	0.27	15.09
Imports	3.01	35.75	27.71	14.90	-	-	-	1.13	1.22	-	83.72
Exports	-0.07	-2.42	-31.65	-0.64	-	-	-	-0.24	-0.70	-	-35.73
Intl. marine bunkers	-	-	-7.49	-	-	-	-	-	-	-	-7.49
Intl. aviation bunkers	-	-	-1.58	-	-	-	-	-	-	-	-1.58
Stock changes	0.14	-0.03	0.89	0.23	-	-	-	-	-	-	1.24
TPES	3.09	33.31	-12.12	14.49	11.00	0.02	0.87	3.80	0.52	0.27	55.25
Transfers	-	1.10	-0.99	-	-	-	-	-	-	-	0.11
Statistical differences	-0.00	-0.03	-0.24	0.03	-	-	-0.00	-0.00	-0.02	-0.00	-0.26
Electricity plants	-0.47	-	-0.00	-1.87	-11.00	-0.02	-0.84	-0.98	6.07	-0.27	-9.39
CHP plants	-0.01	-	-0.03	-1.73	-	-	-	-0.83	1.28	0.53	-0.79
Heat plants	-	-	-	-0.00	-	-	-0.00	-0.00	-	0.00	-0.00
Blast furnaces	-1.00 e	-	-	-	-	-	-	-	-	-	-1.00
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat. fuel/BKB/PB plants	-0.00	-	-	-	-	-	-	-	-	-	-0.00
Oil refineries	-	-35.78	35.56	-	-	-	-	-	-	-	-0.23
Petrochemical plants	-	1.41	-1.47	-	-	-	-	-	-	-	-0.06
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-0.26	-	-1.29	-0.40	-	-	-	-	-0.49	-0.11	-2.54
Losses	-0.00	-	-	-0.02	-	-	-0.00	-0.00	-0.32	-0.01	-0.35
TFC	1.35	-	19.41	10.49	-	-	0.03	1.99	7.04	0.42	40.73
INDUSTRY	1.01	-	1.41	4.00	-	-	0.00	0.81	3.35	0.35	10.93
Iron and steel	0.62 e	-	0.01	0.50	-	-	-	0.00	0.38	-	1.52
Chemical and petrochemical	0.01	-	1.18	1.33	-	-	-	0.01	1.22	0.28	4.02
Non-ferrous metals	-	-	0.00	0.13	-	-	-	0.00	0.18	-	0.31
Non-metallic minerals	0.31	-	0.04	0.53	-	-	-	0.21	0.24	-	1.33
Transport equipment	-	-	0.00	0.05	-	-	-	-	0.08	0.00	0.13
Machinery	-	-	0.02	0.12	-	-	-	0.00	0.15	-	0.29
Mining and quarrying	-	-	-	0.01	-	-	-	-	0.04	-	0.05
Food and tobacco	0.03	-	0.01	0.88	-	-	-	0.08	0.48	0.04	1.52
Paper, pulp and printing	0.02	-	0.01	0.14	-	-	-	0.32	0.22	0.03	0.74
Wood and wood products	-	-	-	0.02	-	-	-	0.18	0.03	-	0.24
Construction	-	-	0.07	0.06	-	-	-	-	0.07	-	0.21
Textile and leather	-	-	0.00	0.09	-	-	-	0.00	0.09	0.00	0.18
Non-specified	0.02	-	0.07	0.14	-	-	0.00	0.00	0.16	-	0.39
TRANSPORT	-	-	8.20	0.04	-	-	-	0.48	0.14	-	8.86
Domestic aviation	-	-	0.00	-	-	-	-	-	-	-	0.00
Road	-	-	8.02	0.01	-	-	-	0.48	0.00	-	8.52
Rail	-	-	0.02	-	-	-	-	-	0.13	-	0.16
Pipeline transport	-	-	-	0.03	-	-	-	-	0.01	-	0.03
Domestic navigation	-	-	0.15	-	-	-	-	-	-	-	0.15
Non-specified	-	-	0.00	-	-	-	-	-	-	-	0.00
OTHER	0.09	-	3.66	5.40	-	-	0.03	0.71	3.55	0.07	13.49
Residential	0.08	-	2.51	3.31	-	-	0.02	0.58	1.56	0.00	8.06
Comm. and public services	-	-	0.77	1.82	-	-	0.00	0.08	1.85	0.06	4.59
Agriculture/forestry	0.01	-	0.33	0.26	-	-	0.00	0.05	0.14	0.00	0.79
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	0.04	-	-	-	-	0.00	-	-	0.04
NON-ENERGY USE	0.25	-	6.14	1.06	-	-	-	-	-	-	7.45
in industry/transf./energy	0.25	-	6.11	1.06	-	-	-	-	-	-	7.43
of which: chem./petrochem.	0.25	-	5.80	1.06	-	-	-	-	-	-	7.11
in transport	-	-	0.01	-	-	-	-	-	-	-	0.01
in other	-	-	0.01	-	-	-	-	-	-	-	0.01
Electricity and Heat Output											
Electr. generated - TWh	2.43	-	0.16	22.91	42.23	0.27	9.81	7.16	-	0.52	85.48
Electricity plants	2.33	-	0.01	11.75	42.23	0.27	9.81	3.72	-	0.21	70.33
CHP plants	0.09	-	0.15	11.16	-	-	-	3.44	-	0.30	15.15
Heat generated - PJ	-	-	0.41	18.34	-	-	0.06	3.38	-	11.27	33.47
CHP plants	-	-	0.41	18.34	-	-	-	3.37	-	11.27	33.39
Heat plants	-	-	-	0.00	-	-	0.06	0.01	-	-	0.07

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Belgium

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	0.03	-	-	-	7.45	0.02	1.02	2.85	-	0.30	11.68
Imports	3.29	34.93	28.70	16.07	-	-	-	1.15	1.86	-	86.00
Exports	-0.06	-2.52	-30.53	-1.13	-	-	-	-0.28	-0.37	-	-34.89
Intl. marine bunkers	-	-	-8.29	-	-	-	-	-	-	-	-8.29
Intl. aviation bunkers	-	-	-1.82	-	-	-	-	-	-	-	-1.82
Stock changes	-0.16	-0.19	0.10	-0.08	-	-	-	-	-	-	-0.33
TPES	3.11	32.23	-11.83	14.85	7.45	0.02	1.02	3.71	1.49	0.30	52.35
Electricity and Heat Output											
Elec. generated - TWh	2.34	-	0.16	23.76	28.60	0.29	11.48	6.80	-	0.58	74.01
Heat generated - PJ	-	-	0.41	19.02	-	-	0.06	3.27	-	12.71	35.47

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	6.5	8.1	13.1	13.7	15.6	15.3	15.1	11.7
Net imports (Mtoe)	43.1	42.3	39.8	50.6	53.6	47.9	48.0	51.1
Total primary energy supply (Mtoe)	46.0	46.8	47.9	58.1	59.8	55.6	55.3	52.4
Net oil imports (Mtoe)	31.5	26.4	22.3	29.6	32.5	29.2	29.4	30.6
Oil supply (Mtoe)	27.7	23.3	17.6	22.7	23.1	21.4	21.2	20.4
Electricity consumption (TWh) ¹	38.4	48.3	63.6	84.6	91.5	88.1	88.9	88.6
GDP (billion 2010 USD)	225.0	270.4	330.0	411.8	483.6	516.7	525.7	533.2
GDP PPP (billion 2010 USD)	203.0	244.1	297.8	371.6	436.4	466.3	474.4	481.2
Population (millions)	9.73	9.86	9.97	10.25	10.90	11.30	11.35	11.41
Industrial production index (2010=100)	47.5	51.0	61.7	71.8	97.1	104.4	107.3	108.5
Total self-sufficiency ²	0.14	0.17	0.27	0.24	0.26	0.28	0.27	0.22
Coal self-sufficiency ²	0.57	0.41	0.11	0.03	0.00	0.00	0.00	0.01
Oil self-sufficiency ²	-	-	-	-	-	-	-	-
Natural gas self-sufficiency ²	0.01	0.00	0.00	0.00	-	-	-	-
TPES/GDP (toe per thousand 2010 USD)	0.20	0.17	0.15	0.14	0.12	0.11	0.11	0.10
TPES/GDP PPP (toe per thousand 2010 USD)	0.23	0.19	0.16	0.16	0.14	0.12	0.12	0.11
TPES/population (toe per capita)	4.73	4.74	4.80	5.66	5.49	4.92	4.87	4.59
Net oil imports/GDP (toe per thousand 2010 USD)	0.14	0.10	0.07	0.07	0.07	0.06	0.06	0.06
Oil supply/GDP (toe per thousand 2010 USD)	0.12	0.09	0.05	0.06	0.05	0.04	0.04	0.04
Oil supply/population (toe per capita)	2.85	2.37	1.76	2.21	2.12	1.90	1.87	1.79
Share of renewables in TPES	0.00	0.00	0.01	0.01	0.05	0.07	0.07	0.08
Share of renewables in electricity generation	0.01	0.01	0.01 e	0.01	0.07	0.17	0.19	0.23
TFC/GDP (toe per thousand 2010 USD)	0.15	0.12	0.10	0.10	0.09	0.08	0.08	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.17	0.13	0.11	0.11	0.10	0.09	0.09	..
TFC/population (toe per capita)	3.47	3.28	3.23	4.08	3.88	3.67	3.59	..
Elect. cons./GDP (kWh per 2010 USD)	0.17	0.18	0.19	0.21	0.19	0.17	0.17	0.17
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.19	0.20	0.21	0.23	0.21	0.19	0.19	0.18
Elect. cons./population (kWh per capita)	3948	4894	6380	8248	8394	7801	7835	7772
Industry cons. ³ /industrial production (2010=100)	190.2	144.9	118.1	148.0	100.0	96.4	92.3	..
Industry oil cons. ³ /industrial production (2010=100)	208.9	111.0	86.3	134.3	100.0	98.3	89.2	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

Canada

Figure 1. Energy production

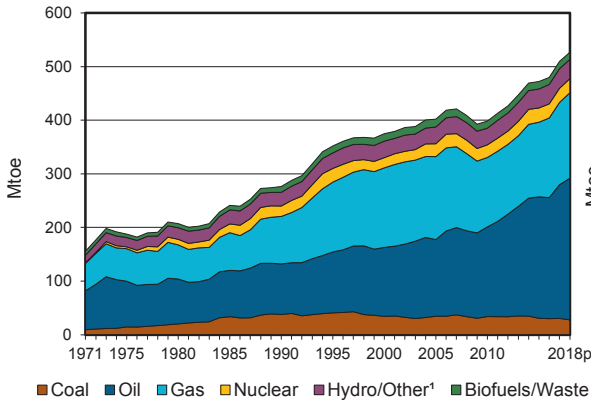


Figure 2. Total primary energy supply²

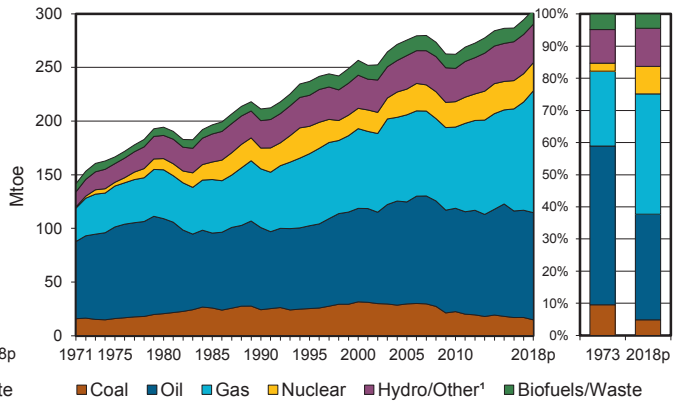


Figure 3. Energy self-sufficiency

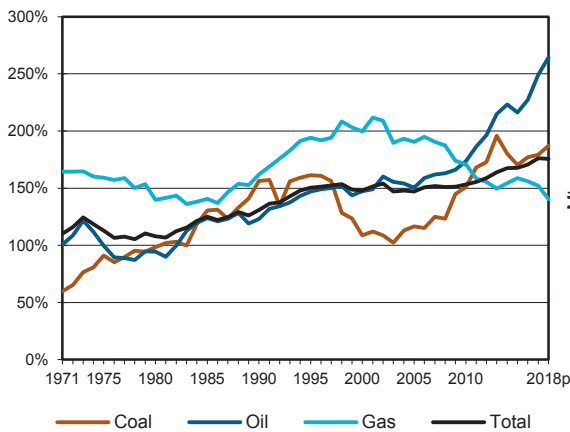


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

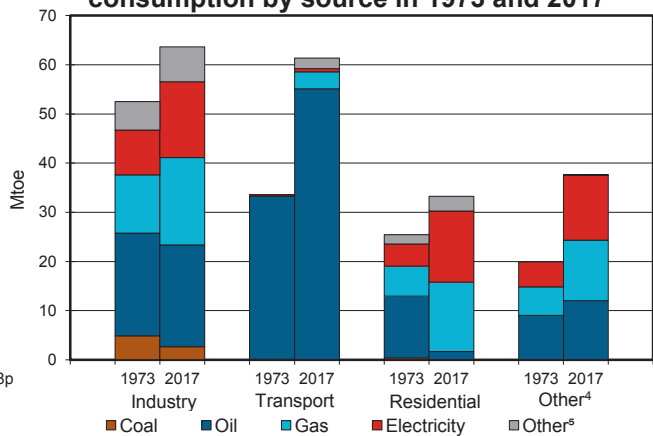


Figure 5. Electricity generation by source

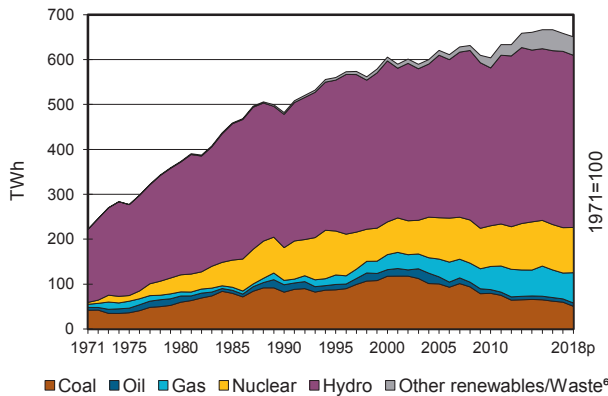
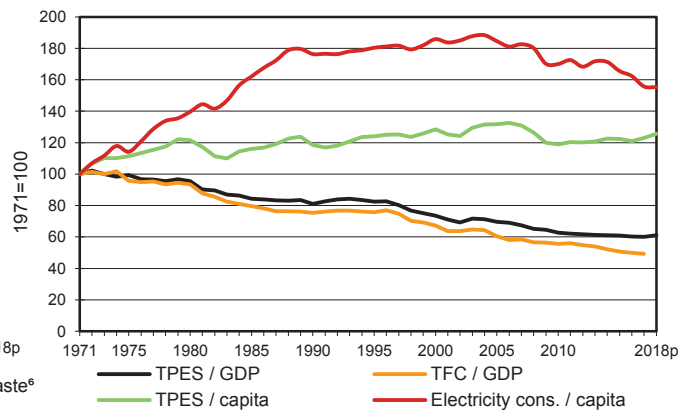


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Canada

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	30.53	249.21	-	153.43	26.35	33.75	2.83	13.56	-	-	509.65
Imports	5.20	45.61	11.51	20.08	-	-	-	1.32	0.85	-	84.56
Exports	-18.50	-180.62	-24.13	-71.05	-	-	-	-1.19	-6.20	-	-301.68
Intl. marine bunkers	-	-	-0.37	-	-	-	-	-	-	-	-0.37
Intl. aviation bunkers	-	-	-0.64	-	-	-	-	-	-	-	-0.64
Stock changes	-0.21	-0.32	-0.32	-1.60	-	-	-	-0.00	-	-	-2.45
TPES	17.02	113.88	-13.96	100.86	26.35	33.75	2.83	13.69	-5.35	-	289.06
Transfers	-	-10.44	14.36	-	-	-	-	-	-	-	3.92
Statistical differences	0.25	-8.31	11.28	-4.75	-	-	-	0.01	3.08	-	1.56
Electricity plants	-13.78	-	-1.88	-11.23	-26.35	-33.75	-2.78	-1.66	55.61	-	-35.82
CHP plants	-	-	-0.00	-2.49	-	-	-	-0.07	0.99	0.46	-1.11
Heat plants	-0.00	-	-	-	-	-	-	-0.19	-	0.10	-0.09
Blast furnaces	-0.79 e	-	-	-	-	-	-	-	-	-	-0.79
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat. fuel/BKB/PB plants	-0.03	-	-	-	-	-	-	-	-	-	-0.03
Oil refineries	-	-98.00	95.87	-	-	-	-	-	-	-	-2.14
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	2.88	-	-2.85	-	-	-	-	-	-	0.04
Energy industry own use	-	-	-16.13	-31.96	-	-	-	-0.00	-4.18	-	-52.27
Losses	-	-	-	-	-	-	-	-	-6.42	-	-6.42
TFC	2.66	-	89.54	47.59	-	-	0.04	11.78	43.74	0.57	195.93
INDUSTRY	2.57	-	5.85	14.68	-	-	-	6.60	15.40	0.51	45.62
Iron and steel	1.71 e	-	-	2.01	-	-	-	0.00	0.76	0.00	4.49
Chemical and petrochemical	-	-	-	3.75	-	-	-	-	1.60	0.26	5.61
Non-ferrous metals	0.23	-	-	0.78	-	-	-	-	5.02	-	6.03
Non-metallic minerals	0.36	-	0.51	0.78	-	-	-	0.15	0.67	-	2.47
Transport equipment	-	-	-	0.24	-	-	-	-	0.31	-	0.55
Machinery	-	-	-	0.33	-	-	-	-	0.15	-	0.49
Mining and quarrying	0.02	-	1.28	0.78	-	-	-	-	0.81	-	2.90
Food and tobacco	-	-	-	0.87	-	-	-	-	0.50	0.00	1.37
Paper, pulp and printing	-	-	0.17	1.78	-	-	-	6.45	3.33	0.05	11.78
Wood and wood products	-	-	0.55	0.20	-	-	-	-	0.34	-	1.09
Construction	-	-	2.13	0.40	-	-	-	-	-	0.00	2.54
Textile and leather	-	-	-	0.09	-	-	-	-	0.07	-	0.16
Non-specified	0.25	-	1.21	2.67	-	-	-	-	1.83	0.19	6.14
TRANSPORT	-	-	55.05	3.42	-	-	-	2.17	0.68	-	61.31
Domestic aviation	-	-	5.43	-	-	-	-	-	-	-	5.43
Road	-	-	46.20	0.05	-	-	-	2.17	0.10	-	48.52
Rail	-	-	1.91	-	-	-	-	-	-	-	1.91
Pipeline transport	-	-	0.01	3.32	-	-	-	-	0.57	-	3.90
Domestic navigation	-	-	1.37	-	-	-	-	-	-	-	1.37
Non-specified	-	-	0.13	0.05	-	-	-	-	-	-	0.18
OTHER	0.01	-	10.78	26.42	-	-	0.04	3.02	27.67	0.05	67.99
Residential	0.01	-	1.66	14.17	-	-	-	3.00	14.43	-	33.27
Comm. and public services	-	-	3.96	11.42	-	-	-	0.02	10.26	0.03	25.69
Agriculture/forestry	-	-	5.16	0.83	-	-	-	0.00	0.83	-	6.82
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	0.04	-	2.15	0.02	2.21
NON-ENERGY USE	0.08	-	17.85	3.07	-	-	-	-	-	-	21.01
in industry/transf./energy	0.08	-	14.85	3.07	-	-	-	-	-	-	18.00
of which: chem./petrochem.	-	-	10.86	3.07	-	-	-	-	-	-	13.93
in transport	-	-	0.06	-	-	-	-	-	-	-	0.06
in other	-	-	2.95	-	-	-	-	-	-	-	2.95
Electricity and Heat Output											
Electr. generated - TWh	59.85	-	7.30	57.57	101.11	392.54	32.58	7.35	-	-	658.29
Electricity plants	59.85	-	7.29	46.29	101.11	392.54	32.58	7.10	-	-	646.75
CHP plants	-	-	0.01	11.27	-	-	-	0.25	-	-	11.54
Heat generated - PJ	0.02	-	0.03	18.48	-	-	-	5.16	-	-	23.68
CHP plants	-	-	0.03	18.48	-	-	-	0.86	-	-	19.36
Heat plants	0.02	-	-	-	-	-	-	4.30	-	-	4.31

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Canada

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	27.75	264.04	-	159.38	26.25	32.96	2.93	13.28	-	-	526.59
Imports	4.95	40.58	14.08	17.87	-	-	-	1.23	1.13	-	79.84
Exports	-17.71	-195.97	-21.53	-67.35	-	-	-	-1.08	-5.31	-	-308.95
Intl. marine bunkers	-	-	-0.37	-	-	-	-	-	-	-	-0.37
Intl. aviation bunkers	-	-	-0.73	-	-	-	-	-	-	-	-0.73
Stock changes	-0.15	0.07	-0.31	3.63	-	-	-	-	-	-	3.23
TPES	14.83	108.72	-8.86	113.52	26.25	32.96	2.93	13.43	-4.17	-	299.61
Electricity and Heat Output											
Elec. generated - TWh	50.82	-	7.34	67.31	100.74	383.38	33.75	7.39	-	-	650.74
Heat generated - PJ	0.02	-	0.03	18.48	-	-	-	5.16	-	-	23.68

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	198.2	207.2	276.5	374.9	398.4	479.7	509.7	526.6
Net imports (Mtoe)	-35.6	-12.3	-59.3	-127.7	-144.0	-197.8	-217.1	-229.1
Total primary energy supply (Mtoe)	159.4	192.0	211.3	253.6	260.1	281.2	289.1	299.6
Net oil imports (Mtoe)	-14.5	8.4	-14.9	-39.0	-69.1	-126.7	-147.6	-162.8
Oil supply (Mtoe)	79.4	88.5	76.5	87.1	96.3	99.3	99.9	99.9
Electricity consumption (TWh) ¹	230.4	313.9	447.7	522.8	529.9	537.5	521.5	527.7
GDP (billion 2010 USD)	620.6	782.4	1014.7	1344.8	1617.3	1819.2	1873.4	1908.6
GDP PPP (billion 2010 USD)	523.3	659.8	855.7	1134.1	1363.8	1534.1	1579.8	1609.5
Population (millions)	22.49	24.52	27.69	30.69	34.01	36.11	36.54	37.06
Industrial production index (2010=100)	50.4	55.3	68.0	96.8	89.9	99.9	105.4	109.1
Total self-sufficiency ²	1.24	1.08	1.31	1.48	1.53	1.71	1.76	1.76
Coal self-sufficiency ²	0.77	0.98	1.56	1.09	1.51	1.77	1.79	1.87
Oil self-sufficiency ²	1.22	0.94	1.23	1.47	1.74	2.27	2.49	2.64
Natural gas self-sufficiency ²	1.65	1.40	1.62	2.00	1.71	1.56	1.52	1.40
TPES/GDP (toe per thousand 2010 USD)	0.26	0.25	0.21	0.19	0.16	0.15	0.15	0.16
TPES/GDP PPP (toe per thousand 2010 USD)	0.30	0.29	0.25	0.22	0.19	0.18	0.18	0.19
TPES/population (toe per capita)	7.08	7.83	7.63	8.26	7.65	7.79	7.91	8.08
Net oil imports/GDP (toe per thousand 2010 USD)	-0.02	0.01	-0.01	-0.03	-0.04	-0.07	-0.08	-0.09
Oil supply/GDP (toe per thousand 2010 USD)	0.13	0.11	0.08	0.06	0.06	0.05	0.05	0.05
Oil supply/population (toe per capita)	3.53	3.61	2.76	2.84	2.83	2.75	2.73	2.69
Share of renewables in TPES	0.15	0.15	0.17	0.18 e	0.17	0.17	0.17	0.16
Share of renewables in electricity generation	0.72	0.68	0.62	0.61 e	0.61	0.65	0.66	0.65
TFC/GDP (toe per thousand 2010 USD)	0.21	0.20	0.16	0.14	0.12	0.11	0.11	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.25	0.24	0.19	0.17	0.14	0.13	0.12	..
TFC/population (toe per capita)	5.84	6.33	5.84	6.24	5.60	5.32	5.36	..
Elect. cons./GDP (kWh per 2010 USD)	0.37	0.40	0.44	0.39	0.33	0.30	0.28	0.28
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.44	0.48	0.52	0.46	0.39	0.35	0.33	0.33
Elect. cons./population (kWh per capita)	10242	12804	16168	17037	15582	14885	14273	14238
Industry cons. ³ /industrial production (2010=100)	152.4	162.0	131.9	111.3	100.0	92.3	88.4	..
Industry oil cons. ³ /industrial production (2010=100)	176.9	156.8	107.8	90.5	100.0	99.7	84.1	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

Chile

Figure 1. Energy production

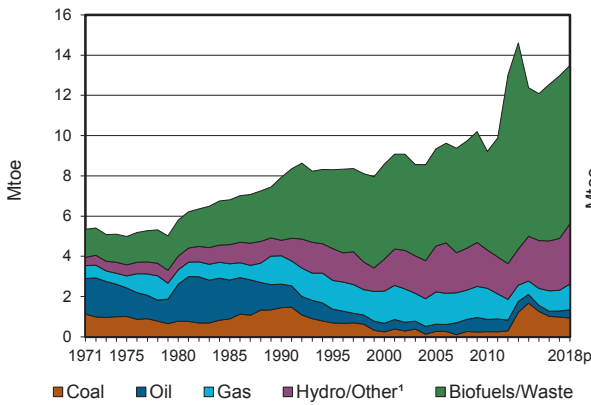


Figure 2. Total primary energy supply²

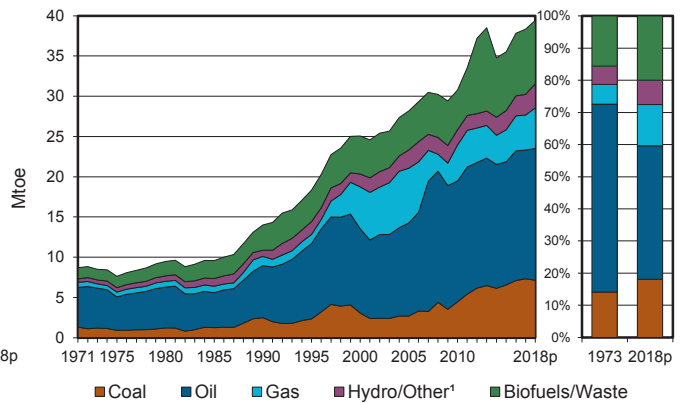


Figure 3. Energy self-sufficiency

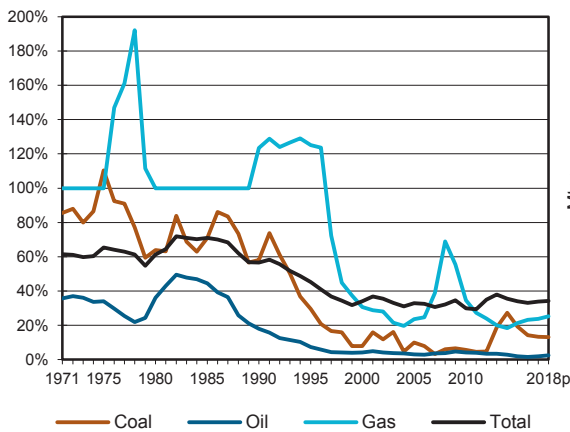


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

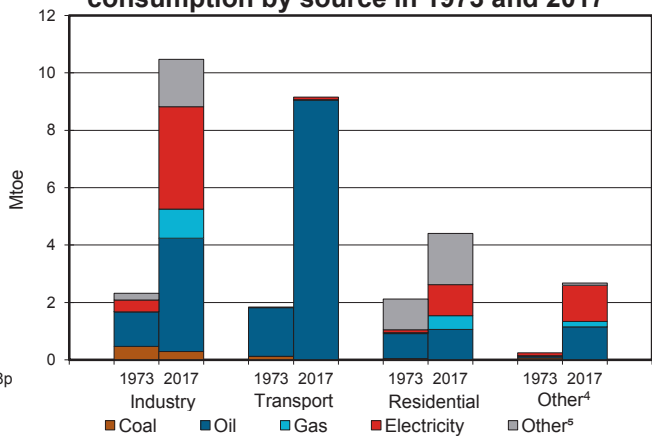


Figure 5. Electricity generation by source

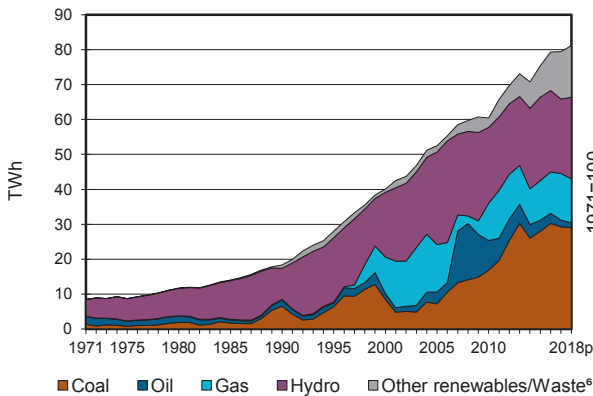
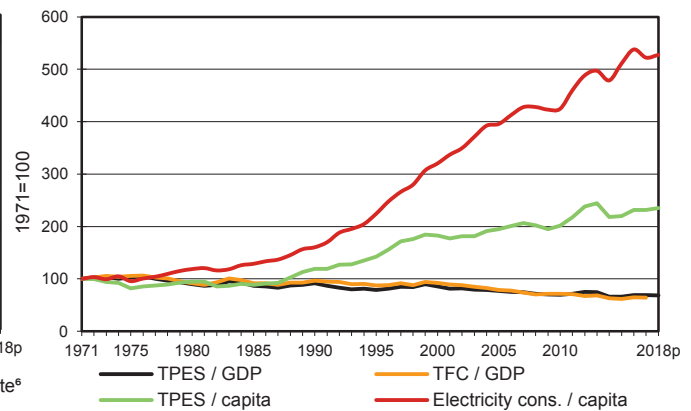


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Chile

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	0.98	0.30	-	1.03	-	1.83	0.74 e	8.09	-	-	12.97
Imports	6.69	8.91	8.19	3.50	-	-	-	-	-	-	27.29
Exports	-0.41	-	-0.50	-0.18	-	-	-	-	-0.00	-	-1.09
Intl. marine bunkers	-	-	-0.14	-	-	-	-	-	-	-	-0.14
Intl. aviation bunkers	-	-	-0.62	-	-	-	-	-	-	-	-0.62
Stock changes	0.07	-0.01	-0.15	-0.01	-	-	-	0.01	-	-	-0.09
TPES	7.34	9.20	6.79	4.34	-	1.83	0.74	8.10	-0.00	-	38.34
Transfers	-	0.81	-0.78	-	-	-	-	-	-	-	0.03
Statistical differences	0.12	0.07	0.11	-0.12	-	-	-	0.13	-0.20	-	0.12
Electricity plants	-6.93	-	-0.52	-2.28	-	-1.83	-0.69 e	-	6.31	-	-5.94
CHP plants	-	-	-	-	-	-	-	-4.63	0.52	-	-4.11
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-0.10 e	-	-	-	-	-	-	-	-	-	-0.10
Gas works	0.00	-	-	-0.00	-	-	-	-	-	-	-0.00
Coke/pat. fuel/BKB/PB plants	0.00	-	-	-	-	-	-	-	-	-	0.00
Oil refineries	-	-10.11	9.91	-	-	-	-	-	-	-	-0.20
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	0.04	-	-0.02 e	-	-	-	-0.12 e	-	-	-0.11
Energy industry own use	-0.13	-	-0.30	-0.15 e	-	-	-	-	-0.27	-	-0.84
Losses	-0.01	-	-	-0.08	-	-	-	-0.01	-0.36	-	-0.47
TFC	0.29	-	15.22	1.69	-	-	0.05	3.46	6.00	-	26.71
INDUSTRY	0.29	-	3.61	0.80	-	-	-	1.65	3.58	-	9.92
Iron and steel	0.06 e	-	0.01	0.01	-	-	-	-	0.05	-	0.13
Chemical and petrochemical	-	-	0.00	0.07	-	-	-	-	0.02	-	0.09
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	0.00	-	0.22	0.01	-	-	-	0.00	0.04	-	0.27
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	0.09	-	2.17	0.18	-	-	-	0.00	2.19	-	4.63
Food and tobacco	0.09	-	0.00	0.00	-	-	-	0.00	-	-	0.09
Paper, pulp and printing	0.00	-	0.21	0.16	-	-	-	1.22	0.47	-	2.06
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	0.18	0.04	-	-	-	-	0.01	-	0.23
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	0.04	-	0.82	0.33	-	-	-	0.42	0.79	-	2.41
TRANSPORT	-	-	9.06	0.02	-	-	-	-	0.08	-	9.16
Domestic aviation	-	-	0.51	-	-	-	-	-	-	-	0.51
Road	-	-	8.12	0.02	-	-	-	-	0.04	-	8.18
Rail	-	-	0.04	-	-	-	-	-	0.04	-	0.08
Pipeline transport	-	-	0.00	-	-	-	-	-	-	-	0.00
Domestic navigation	-	-	0.38	-	-	-	-	-	-	-	0.38
Non-specified	-	-	-	-	-	-	-	-	0.00	-	0.00
OTHER	0.00	-	2.21	0.66	-	-	0.05	1.81	2.34	-	7.08
Residential	0.00	-	1.06	0.48	-	-	-	1.78	1.08	-	4.40
Comm. and public services	0.00	-	0.71	0.16	-	-	-	0.02	1.10	-	2.00
Agriculture/forestry	-	-	0.21	0.02	-	-	-	0.01	0.14	-	0.39
Fishing	0.00	-	0.23	0.00	-	-	-	0.00	0.01	-	0.24
Non-specified	-	-	-	-	-	-	0.05 e	0.00	-	-	0.05
NON-ENERGY USE	-	-	0.34	0.21	-	-	-	-	-	-	0.55
in industry/transf./energy	-	-	0.34	0.21	-	-	-	-	-	-	0.55
of which: chem./petrochem.	-	-	-	0.21	-	-	-	-	-	-	0.21
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - TWh	29.28	-	1.91	13.35	-	21.32	7.50 e	6.06	-	-	79.42
Electricity plants	29.28	-	1.91	13.35	-	21.32	7.50 e	-	-	-	73.36
CHP plants	-	-	-	-	-	-	-	6.06	-	-	6.06
Heat generated - PJ	-	-	-	-	-	-	-	..	-	-	-
CHP plants	-	-	-	-	-	-	-	..	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Chile

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./ Solar/ etc.	Biofuels/ Waste	Electricity	Heat	Total
Production	0.93	0.41	-	1.28	-	2.00	0.98	7.88	-	-	13.49
Imports	6.44	8.70	8.32	3.91	-	-	-	-	-	-	27.37
Exports	-0.19	-	-0.36	-0.08	-	-	-	-	-0.00	-	-0.64
Intl. marine bunkers	-	-	-0.14	-	-	-	-	-	-	-	-0.14
Intl. aviation bunkers	-	-	-0.68	-	-	-	-	-	-	-	-0.68
Stock changes	-0.05	0.06	0.08	-0.04	-	-	-	-	-	-	0.05
TPES	7.13	9.18	7.21	5.07	-	2.00	0.98	7.88	-0.00	-	39.45
Electricity and Heat Output											
Elec. generated - TWh	29.01	-	1.41	12.63	-	23.31	8.92	5.89	-	-	81.17
Heat generated - PJ	-	-	-	-	-	-	-	-	-	-	-

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	5.1	5.8	7.9	8.6	9.2	12.6	13.0	13.5
Net imports (Mtoe)	3.7	4.0	7.0	17.7	22.3	26.2	26.2	26.7
Total primary energy supply (Mtoe)	8.5	9.5	14.0	25.2	30.9	37.8	38.3	39.5
Net oil imports (Mtoe)	3.5	3.4	5.9	11.1	15.4	16.6	16.6	16.7
Oil supply (Mtoe)	5.0	5.1	6.5	10.5	15.0	16.1	16.0	16.4
Electricity consumption (TWh) ¹	7.8	10.3	16.4	38.4	56.4	76.4	75.2	77.0
GDP (billion 2010 USD)	40.4	52.1	75.5	144.5	218.5	269.0	272.4	283.4
GDP PPP (billion 2010 USD)	57.3	73.9	107.0	204.9	309.9	381.4	386.3	401.8
Population (millions)	10.07	11.17	13.18	15.40	17.09	18.28	18.52	18.77
Industrial production index (2010=100)	..	..	..	70.2	88.6	100.2	99.3	101.8
Total self-sufficiency ²	0.60	0.61	0.57	0.34	0.30	0.33	0.34	0.34
Coal self-sufficiency ²	0.80	0.64	0.58	0.08	0.06	0.14	0.13	0.13
Oil self-sufficiency ²	0.36	0.36	0.18	0.04	0.04	0.02	0.02	0.03
Natural gas self-sufficiency ²	1.00	1.00	1.23	0.31	0.35	0.23	0.24	0.25
TPES/GDP (toe per thousand 2010 USD)	0.21	0.18	0.19	0.17	0.14	0.14	0.14	0.14
TPES/GDP PPP (toe per thousand 2010 USD)	0.15	0.13	0.13	0.12	0.10	0.10	0.10	0.10
TPES/population (toe per capita)	0.84	0.85	1.06	1.63	1.81	2.07	2.07	2.10
Net oil imports/GDP (toe per thousand 2010 USD)	0.09	0.07	0.08	0.08	0.07	0.06	0.06	0.06
Oil supply/GDP (toe per thousand 2010 USD)	0.12	0.10	0.09	0.07	0.07	0.06	0.06	0.06
Oil supply/population (toe per capita)	0.49	0.45	0.49	0.68	0.88	0.88	0.86	0.87
Share of renewables in TPES	0.21	0.26	0.28	0.25	0.22	0.27	0.28	0.28
Share of renewables in electricity generation	0.64	0.68	0.54	0.49	0.40	0.43	0.44 e	0.47
TFC/GDP (toe per thousand 2010 USD)	0.16	0.14	0.15	0.14	0.11	0.10	0.10	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.11	0.10	0.10	0.10	0.08	0.07	0.07	..
TFC/population (toe per capita)	0.65	0.65	0.84	1.32	1.40	1.45	1.44	..
Elect. cons./GDP (kWh per 2010 USD)	0.19	0.20	0.22	0.27	0.26	0.28	0.28	0.27
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.14	0.14	0.15	0.19	0.18	0.20	0.20	0.19
Elect. cons./population (kWh per capita)	772	923	1247	2490	3301	4182	4060	4102
Industry cons. ³ /industrial production (2010=100)	..	..	..	117.3	100.0	101.4	96.1	..
Industry oil cons. ³ /industrial production (2010=100)	..	..	..	80.7	100.0	111.1	105.8	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

Czech Republic

Figure 1. Energy production

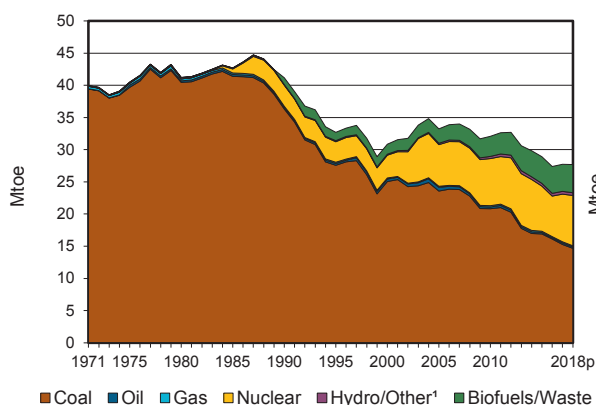


Figure 2. Total primary energy supply²

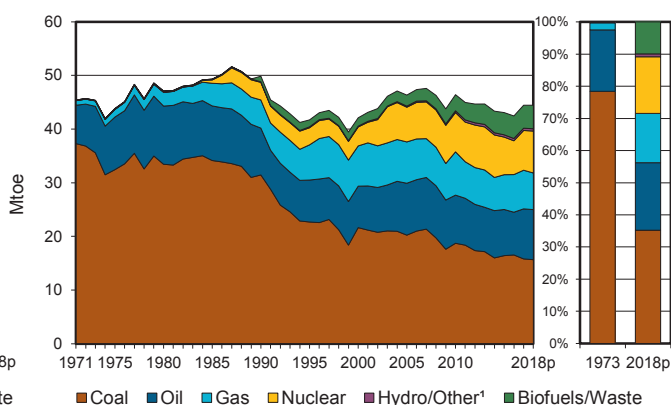


Figure 3. Energy self-sufficiency

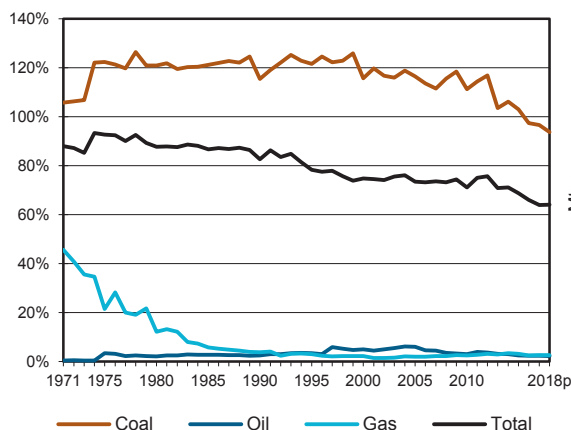


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

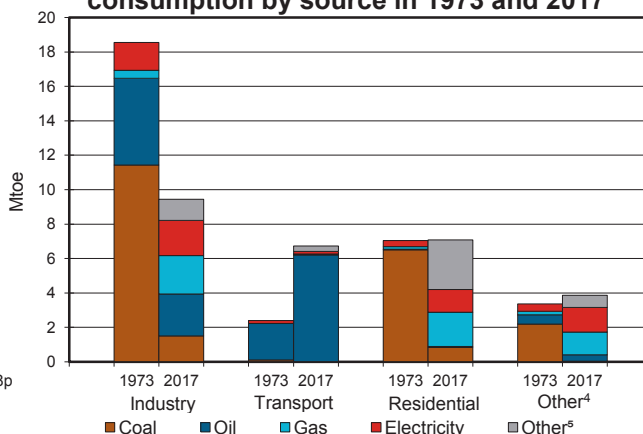


Figure 5. Electricity generation by source

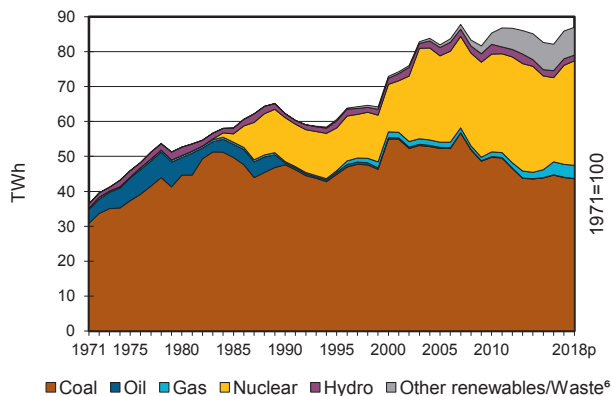
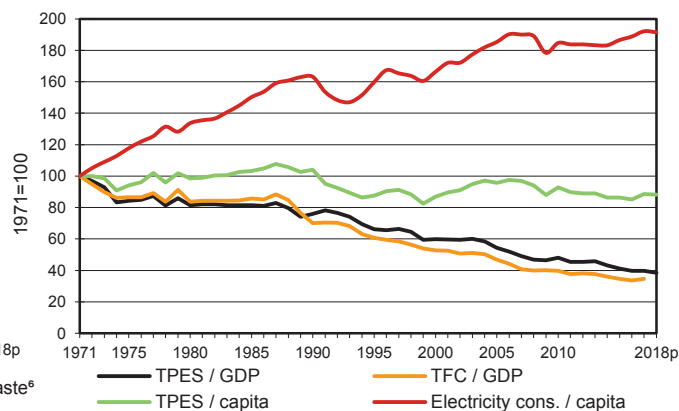


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Czech Republic

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	15.27	0.23	-	0.19	7.41	0.16	0.26	4.21	-	0.01	27.73
Imports	3.01	7.95	3.84	7.33	-	-	-	0.45	1.30	0.00	23.88
Exports	-2.54	-0.02	-2.37	-	-	-	-	-0.37	-2.42	-0.00	-7.72
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-0.35	-	-	-	-	-	-	-	-0.35
Stock changes	0.07	-0.03	0.08	-0.32	-	-	-	-0.00	-	-	-0.20
TPES	15.81	8.12	1.20	7.20	7.41	0.16	0.26	4.28	-1.12	0.01	43.33
Transfers	-	0.13	-0.10	-	-	-	-	-	-	-	0.02
Statistical differences	0.19	0.01	-0.00	-	-	-	-	-	-0.16	-0.09	-0.06
Electricity plants	-1.79	-	-0.00	-0.27	-7.38	-0.16	-0.24	-0.01	3.62	-0.00	-6.25
CHP plants	-10.09	-	-0.04	-0.51	-0.02	-	-	-1.21	3.77	2.28	-5.83
Heat plants	-0.06	-	-0.01	-0.62	-	-	-	-0.05	-0.00	0.65	-0.08
Blast furnaces	-0.76	-	-	-	-	-	-	-	-	-	-0.76
Gas works	-0.19	-	-	-	-	-	-	-	-	-	-0.19
Coke/pat. fuel/BKB/PB plants	-0.05	-	-	-	-	-	-	-	-	-	-0.05
Oil refineries	-	-8.33	8.32	-	-	-	-	-	-	-	-0.01
Petrochemical plants	-	0.07	-0.07	-	-	-	-	-	-	-	0.00
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-0.63	-	-0.23	-0.10	-	-	-	-	-0.80	-0.55	-2.30
Losses	-0.05	-	-	-0.09	-	-	-	-	-0.38	-0.17	-0.68
TFC	2.38	-	9.05	5.62	-	-	0.02	3.01	4.93	2.13	27.14
INDUSTRY	1.15	-	0.13	2.14	-	-	-	0.66	2.05	0.57	6.70
Iron and steel	0.55	-	-	0.19	-	-	-	0.00	0.20	0.08	1.02
Chemical and petrochemical	0.32	-	0.04	0.22	-	-	-	0.00	0.29	0.18	1.05
Non-ferrous metals	0.00	-	-	0.06	-	-	-	0.00	0.04	0.00	0.10
Non-metallic minerals	0.18	-	0.01	0.54	-	-	-	0.21	0.21	0.01	1.15
Transport equipment	0.01	-	0.00	0.16	-	-	-	0.00	0.26	0.04	0.48
Machinery	0.01	-	0.01	0.26	-	-	-	0.01	0.37	0.07	0.72
Mining and quarrying	0.00	-	0.00	0.05	-	-	-	0.00	0.03	0.00	0.09
Food and tobacco	0.05	-	0.01	0.31	-	-	-	0.01	0.14	0.08	0.59
Paper, pulp and printing	0.03	-	0.00	0.10	-	-	-	0.28	0.15	0.03	0.60
Wood and wood products	0.00	-	0.00	0.01	-	-	-	0.14	0.05	0.01	0.22
Construction	0.00	-	0.05	0.08	-	-	-	0.00	0.05	0.01	0.19
Textile and leather	0.00	-	0.00	0.05	-	-	-	0.00	0.06	0.01	0.13
Non-specified	0.00	-	0.02	0.10	-	-	-	0.01	0.20	0.06	0.37
TRANSPORT	0.00	-	6.04	0.07	-	-	-	0.31	0.15	-	6.57
Domestic aviation	-	-	0.05	-	-	-	-	-	-	-	0.05
Road	-	-	5.90	0.06	-	-	-	0.31	0.01	-	6.27
Rail	0.00	-	0.08	-	-	-	-	0.01	0.14	-	0.22
Pipeline transport	-	-	-	0.01	-	-	-	-	0.00	-	0.02
Domestic navigation	-	-	0.00	-	-	-	-	-	-	-	0.00
Non-specified	-	-	-	-	-	-	-	-	0.00	-	0.00
OTHER	0.88	-	0.42	3.32	-	-	0.02	2.03	2.74	1.56	10.97
Residential	0.84	-	0.05	2.00	-	-	0.02	1.81	1.31	1.07	7.09
Comm. and public services	0.03	-	0.03	1.19	-	-	0.00	0.08	1.34	0.49	3.17
Agriculture/forestry	0.01	-	0.33	0.07	-	-	-	0.14	0.09	0.01	0.64
Fishing	-	-	-	0.00	-	-	-	0.00	0.00	-	0.00
Non-specified	-	-	0.01	0.06	-	-	-	-	-	-	0.07
NON-ENERGY USE	0.35	-	2.46	0.09	-	-	-	-	-	-	2.90
in industry/transf./energy	0.35	-	2.30	0.09	-	-	-	-	-	-	2.74
of which: chem./petrochem.	0.35	-	1.87	0.09	-	-	-	-	-	-	2.31
in transport	-	-	0.16	-	-	-	-	-	-	-	0.16
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - TWh	43.93	-	0.12	3.68	28.34	1.87	2.87	5.06	-	0.02	85.88
Electricity plants	7.23	-	0.02	1.73	28.34	1.87	2.78	0.05	-	-	42.03
CHP plants	36.69	-	0.10	1.94	-	-	0.09	5.01	-	0.02	43.85
Heat generated - PJ	74.35	-	1.20	33.91	0.91	-	1.07	11.09	0.01	0.41	122.95
CHP plants	72.55	-	0.99	11.09	0.91	-	0.40	9.52	-	0.17	95.62
Heat plants	1.81	-	0.21	22.82	-	-	0.67	1.57	0.01	0.24	27.33

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Czech Republic

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	14.67	0.22	-	0.18	7.82	0.14	0.27	4.37	-	0.01	27.69
Imports	2.97	7.56	4.26	6.60	-	-	-	0.46	1.00	0.00	22.85
Exports	-2.14	-0.02	-2.14	-	-	-	-	-0.44	-2.19	-0.00	-6.94
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-0.38	-	-	-	-	-	-	-	-0.38
Stock changes	0.17	-0.01	-0.15	0.04	-	-	-	-0.00	-	-	0.05
TPES	15.67	7.74	1.59	6.82	7.82	0.14	0.27	4.39	-1.20	0.01	43.25
Electricity and Heat Output											
Elec. generated - TWh	43.58	-	0.10	3.75	29.92	1.63	3.04	4.91	-	0.02	86.95
Heat generated - PJ	70.33	-	1.10	29.14	0.86	-	0.61	10.41	0.02	0.41	112.89

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	38.5	41.2	41.2	30.8	32.1	27.4	27.7	27.7
Net imports (Mtoe)	7.0	6.4	7.6	9.4	11.5	13.6	16.2	15.9
Total primary energy supply (Mtoe)	45.2	47.0	49.8	41.2	45.1	41.5	43.3	43.3
Net oil imports (Mtoe)	8.9	10.9	8.6	7.5	9.0	8.1	9.4	9.7
Oil supply (Mtoe)	8.7	10.8	8.7	7.7	9.0	8.0	9.3	9.3
Electricity consumption (TWh) ¹	37.0	47.3	57.9	58.5	66.5	68.3	69.6	69.7
GDP (billion 2010 USD)	107.3	127.2	144.6	151.8	207.5	231.0	241.1	248.1
GDP PPP (billion 2010 USD)	149.8	177.7	201.9	212.1	289.8	322.7	336.7	346.5
Population (millions)	9.92	10.33	10.36	10.27	10.52	10.57	10.59	10.64
Industrial production index (2010=100)	..	..	72.5	60.5	87.1	103.4	110.1	113.6
Total self-sufficiency ²	0.85	0.88	0.83	0.75	0.71	0.66	0.64	0.64
Coal self-sufficiency ²	1.07 e	1.21	1.15	1.16	1.11	0.97	0.97	0.94
Oil self-sufficiency ²	0.01	0.02	0.03	0.05	0.03	0.02	0.02	0.02
Natural gas self-sufficiency ²	0.36	0.12	0.04	0.02	0.03	0.03	0.03	0.03
TPES/GDP (toe per thousand 2010 USD)	0.42	0.37	0.34	0.27	0.22	0.18	0.18	0.17
TPES/GDP PPP (toe per thousand 2010 USD)	0.30	0.26	0.25	0.19	0.16	0.13	0.13	0.12
TPES/population (toe per capita)	4.55	4.55	4.81	4.01	4.29	3.93	4.09	4.07
Net oil imports/GDP (toe per thousand 2010 USD)	0.08	0.09	0.06	0.05	0.04	0.03	0.04	0.04
Oil supply/GDP (toe per thousand 2010 USD)	0.08	0.09	0.06	0.05	0.04	0.03	0.04	0.04
Oil supply/population (toe per capita)	0.87	1.05	0.84	0.75	0.85	0.75	0.88	0.88
Share of renewables in TPES	0.00	0.00	0.02	0.04	0.07	0.10	0.10	0.10
Share of renewables in electricity generation	0.03	0.05	0.02	0.03	0.07	0.11	0.11	0.11
TFC/GDP (toe per thousand 2010 USD)	0.29	0.27	0.23	0.17	0.13	0.11	0.11	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.21	0.20	0.16	0.12	0.09	0.08	0.08	..
TFC/population (toe per capita)	3.16	3.36	3.18	2.54	2.55	2.40	2.56	..
Elect. cons./GDP (kWh per 2010 USD)	0.35	0.37	0.40	0.39	0.32	0.30	0.29	0.28
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.25	0.27	0.29	0.28	0.23	0.21	0.21	0.20
Elect. cons./population (kWh per capita)	3730	4575	5584	5694	6322	6461	6576	6555
Industry cons. ³ /industrial production (2010=100)	..	..	220.4	167.5	100.0	70.8	78.3	..
Industry oil cons. ³ /industrial production (2010=100)	..	..	205.5	141.8	100.0	40.5	73.1	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES. Coal self-sufficiency also includes peat, when applicable.

3. Includes non-energy use.

Denmark

Figure 1. Energy production

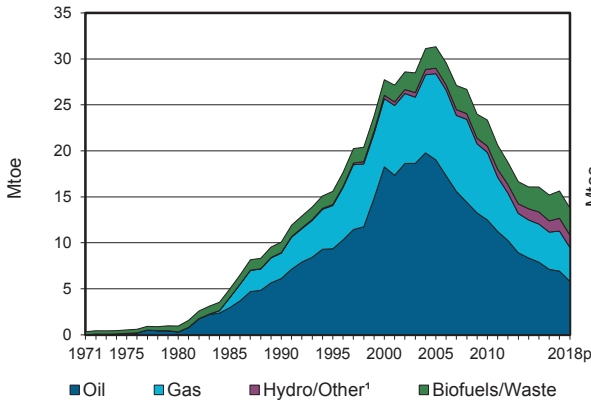


Figure 2. Total primary energy supply²

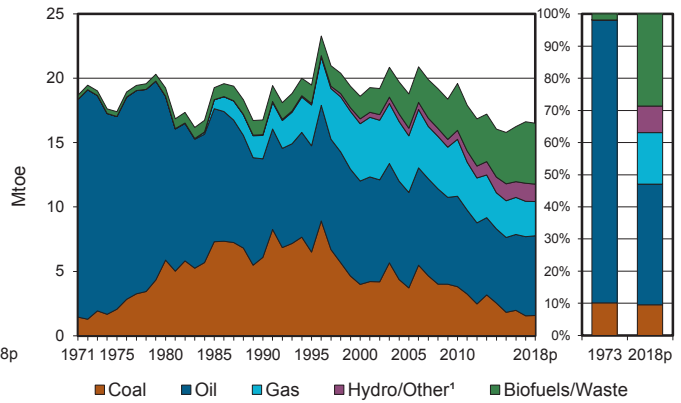


Figure 3. Energy self-sufficiency

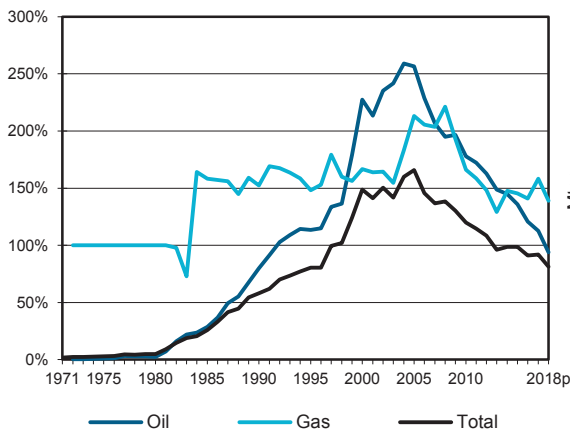


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

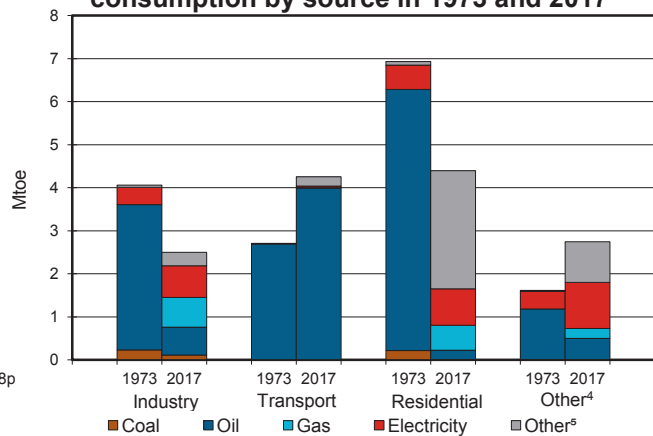


Figure 5. Electricity generation by source

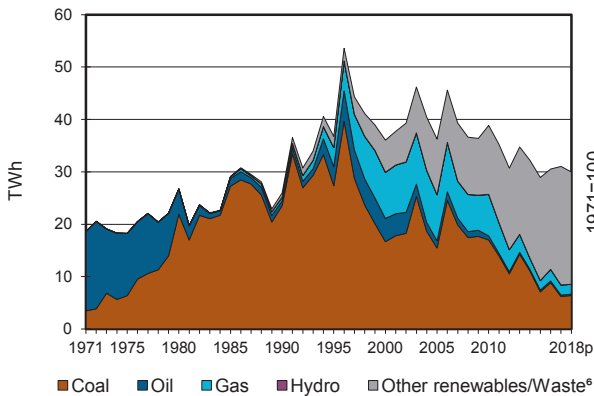
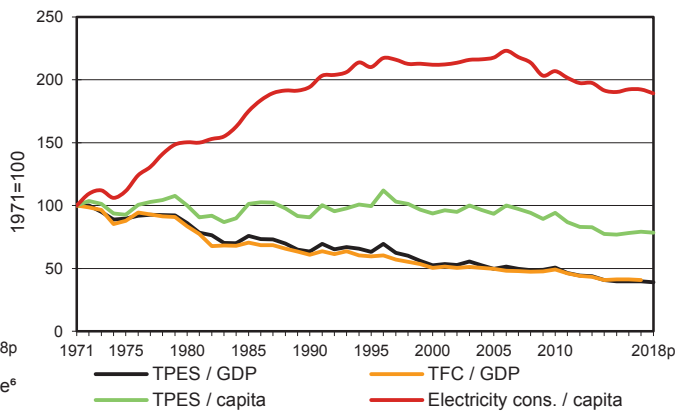


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Denmark

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	6.92	-	4.35	-	0.00	1.39	2.97	-	0.00	15.64
Imports	1.79	5.04	5.56	0.46	-	-	-	1.83	1.31	0.00	16.00
Exports	-0.00	-4.67	-6.21	-2.01	-	-	-	-0.02	-0.92	-	-13.83
Intl. marine bunkers	-	-	-0.53	-	-	-	-	-	-	-	-0.53
Intl. aviation bunkers	-	-	-0.97	-	-	-	-	-	-	-	-0.97
Stock changes	-0.25	0.03	0.98	-0.06	-	-	-	-0.01	-	-	0.69
TPES	1.55	7.32	-1.17	2.75	-	0.00	1.39	4.77	0.39	0.01	17.01
Transfers	-	1.70	-1.68	-	-	-	-	-	-	-	0.03
Statistical differences	0.02	0.08	-0.32	-0.05	-	-	-0.00	-0.01	-0.00	0.00	-0.28
Electricity plants	-	-	-0.01	-	-	-0.00	-1.34	-0.00	1.34	-	-0.01
CHP plants	-1.45	-	-0.07	-0.44	-	-	-	-2.44	1.33	2.20	-0.86
Heat plants	-0.00	-	-0.01	-0.31	-	-	-0.05	-0.57	-0.03	1.03	0.06
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	0.01	-	-	0.11	-	-	-	-0.12	-	-	0.00
Coke/pat. fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-9.10	8.95	-	-	-	-	-	-	-	-0.16
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-	-	-0.35	-0.54	-	-	-	-0.00	-0.20	-0.03	-1.12
Losses	-0.00	-	-	-0.00	-	-	-	-0.00	-0.14	-0.65	-0.79
TFC	0.13	-	5.34	1.51	-	-	0.01	1.63	2.69	2.57	13.89
INDUSTRY	0.11	-	0.44	0.69	-	-	-	0.24	0.74	0.08	2.30
Iron and steel	-	-	0.00	0.05	-	-	-	0.00	0.04	0.00	0.09
Chemical and petrochemical	0.02	-	0.01	0.12	-	-	-	0.01	0.13	0.01	0.30
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	0.06	-	0.21	0.12	-	-	-	0.04	0.07	0.01	0.51
Transport equipment	0.00	-	0.00	0.00	-	-	-	0.00	0.01	0.00	0.01
Machinery	0.00	-	0.01	0.05	-	-	-	0.01	0.12	0.01	0.21
Mining and quarrying	0.00	-	0.02	0.02	-	-	-	0.03	0.01	0.00	0.07
Food and tobacco	0.03	-	0.05	0.28	-	-	-	0.04	0.21	0.02	0.63
Paper, pulp and printing	-	-	0.00	0.02	-	-	-	0.01	0.03	0.00	0.07
Wood and wood products	-	-	0.00	0.00	-	-	-	0.08	0.02	0.00	0.11
Construction	-	-	0.13	0.01	-	-	-	0.00	0.03	-	0.17
Textile and leather	0.00	-	0.00	0.01	-	-	-	0.00	0.01	0.00	0.02
Non-specified	-	-	0.00	0.02	-	-	-	0.02	0.07	0.01	0.12
TRANSPORT	-	-	3.96	0.01	-	-	-	0.22	0.04	-	4.22
Domestic aviation	-	-	0.03	-	-	-	-	-	-	-	0.03
Road	-	-	3.64	0.01	-	-	-	0.22	-	-	3.86
Rail	-	-	0.08	-	-	-	-	-	0.04	-	0.11
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	0.15	-	-	-	-	-	-	-	0.15
Non-specified	-	-	0.07	-	-	-	-	-	-	-	0.07
OTHER	0.02	-	0.69	0.81	-	-	0.01	1.18	1.92	2.49	7.13
Residential	0.01	-	0.22	0.58	-	-	0.01	1.05	0.85	1.67	4.39
Comm. and public services	0.00	-	0.06	0.18	-	-	0.00	0.07	0.92	0.78	2.01
Agriculture/forestry	0.01	-	0.31	0.04	-	-	-	0.06	0.15	0.04	0.60
Fishing	-	-	0.12	-	-	-	-	-	-	-	0.12
Non-specified	-	-	0.00	0.01	-	-	-	-	-	-	0.01
NON-ENERGY USE	-	-	0.24	-	-	-	-	-	-	-	0.24
in industry/transf./energy	-	-	0.20	-	-	-	-	-	-	-	0.20
of which: chem./petrochem.	-	-	0.00	-	-	-	-	-	-	-	0.00
in transport	-	-	0.03	-	-	-	-	-	-	-	0.03
in other	-	-	0.01	-	-	-	-	-	-	-	0.01
Electricity and Heat Output											
Electr. generated - TWh	6.21	-	0.28	1.91	-	0.02	15.53	7.09	-	-	31.04
Electricity plants	-	-	0.02	-	-	0.02	15.53	0.00	-	-	15.57
CHP plants	6.21	-	0.26	1.91	-	-	-	7.09	-	-	15.47
Heat generated - PJ	19.24	-	1.23	20.64	-	-	5.56	87.79	0.96	0.17	135.58
CHP plants	19.14	-	0.75	8.04	-	-	-	64.33	-	-	92.26
Heat plants	0.09	-	0.48	12.60	-	-	5.56	23.46	0.96	0.17	43.32

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Denmark

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	5.82	-	3.69	-	0.00	1.35	2.93	-	0.00	13.79
Imports	1.61	4.90	6.02	0.35	-	-	-	1.83	1.34	0.00	16.06
Exports	-0.01	-3.58	-5.79	-1.38	-	-	-	-0.02	-0.90	-	-11.67
Intl. marine bunkers	-	-	-0.58	-	-	-	-	-	-	-	-0.58
Intl. aviation bunkers	-	-	-1.02	-	-	-	-	-	-	-	-1.02
Stock changes	-0.03	-0.04	0.46	-0.00	-	-	-	-0.01	-	-	0.37
TPES	1.57	7.11	-0.92	2.66	-	0.00	1.35	4.73	0.45	0.01	16.95
Electricity and Heat Output											
Elec. generated - TWh	6.41	-	0.26	1.87	-	0.01	14.85	6.60	-	-	29.99
Heat generated - PJ	16.49	-	1.28	20.20	-	-	4.89	88.29	0.94	0.18	132.27

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	0.4	1.0	10.1	27.7	23.4	15.2	15.6	13.8
Net imports (Mtoe)	20.4	19.2	8.7	-7.5	-3.5	2.5	2.2	4.4
Total primary energy supply (Mtoe)	19.0	19.1	17.4	18.7	19.5	16.7	17.0	17.0
Net oil imports (Mtoe)	18.6	13.2	2.8	-8.5	-3.8	0.2	-0.3	1.6
Oil supply (Mtoe)	16.7	12.7	7.7	8.0	7.0	5.9	6.1	6.2
Electricity consumption (TWh) ¹	17.2	23.6	30.6	34.6	35.1	33.7	33.9	33.5
GDP (billion 2010 USD)	167.8	186.4	229.1	298.2	322.0	351.5	359.5	364.6
GDP PPP (billion 2010 USD)	124.3	138.1	169.8	220.9	238.6	260.4	266.3	270.1
Population (millions)	5.02	5.12	5.14	5.34	5.55	5.73	5.77	5.79
Industrial production index (2010=100)	..	61.9	81.6	109.8	98.6	104.2	106.3	108.4
Total self-sufficiency ²	0.02	0.05	0.58	1.49	1.20	0.91	0.92	0.81
Coal self-sufficiency ²	-	-	-	-	-	-	-	-
Oil self-sufficiency ²	0.00	0.02	0.80	2.28	1.78	1.21	1.13	0.94
Natural gas self-sufficiency ²	1.00	1.00	1.52	1.67	1.66	1.41	1.58	1.39
TPES/GDP (toe per thousand 2010 USD)	0.11	0.10	0.08	0.06	0.06	0.05	0.05	0.05
TPES/GDP PPP (toe per thousand 2010 USD)	0.15	0.14	0.10	0.08	0.08	0.06	0.06	0.06
TPES/population (toe per capita)	3.78	3.73	3.38	3.49	3.51	2.91	2.95	2.93
Net oil imports/GDP (toe per thousand 2010 USD)	0.11	0.07	0.01	-0.03	-0.01	0.00	-0.00	0.00
Oil supply/GDP (toe per thousand 2010 USD)	0.10	0.07	0.03	0.03	0.02	0.02	0.02	0.02
Oil supply/population (toe per capita)	3.33	2.48	1.49	1.50	1.27	1.03	1.07	1.07
Share of renewables in TPES	0.02	0.03	0.06	0.10	0.20	0.30	0.34	0.33
Share of renewables in electricity generation	0.00	0.00	0.03	0.16	0.32	0.60	0.71	0.69
TFC/GDP (toe per thousand 2010 USD)	0.09	0.08	0.06	0.05	0.05	0.04	0.04	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.12	0.11	0.08	0.06	0.06	0.05	0.05	..
TFC/population (toe per capita)	3.05	2.88	2.56	2.67	2.70	2.40	2.41	..
Elect. cons./GDP (kWh per 2010 USD)	0.10	0.13	0.13	0.12	0.11	0.10	0.09	0.09
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.14	0.17	0.18	0.16	0.15	0.13	0.13	0.12
Elect. cons./population (kWh per capita)	3428	4598	5946	6485	6328	5886	5883	5789
Industry cons. ³ /industrial production (2010=100)	..	215.6	134.7	108.1	100.0	86.5	88.2	..
Industry oil cons. ³ /industrial production (2010=100)	..	522.3	183.6	116.6	100.0	77.7	77.6	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

Estonia

Figure 1. Energy production

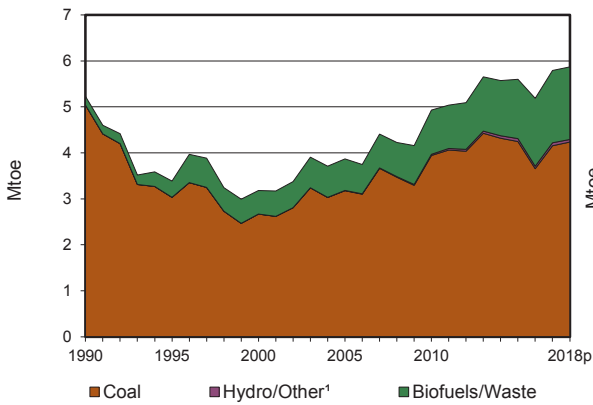


Figure 2. Total primary energy supply²

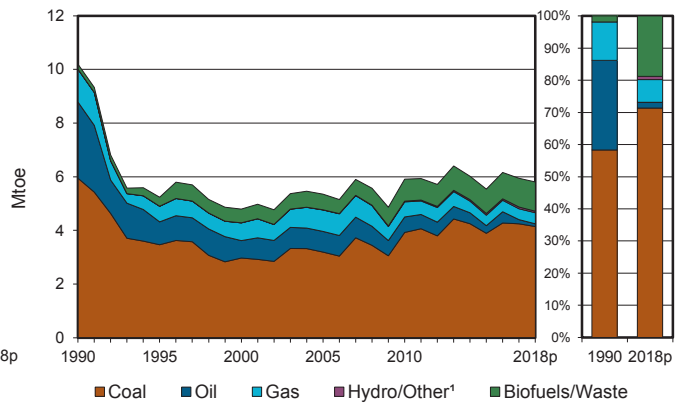


Figure 3. Energy self-sufficiency

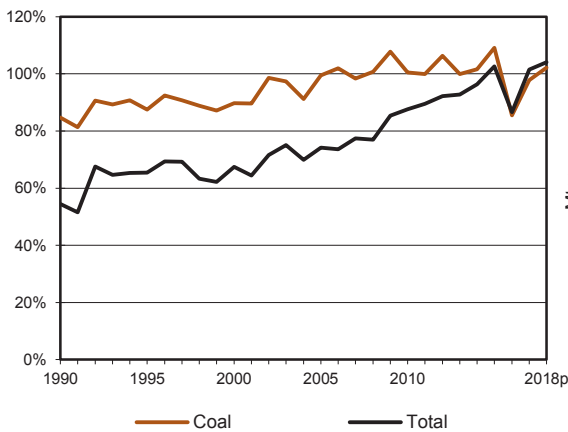


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

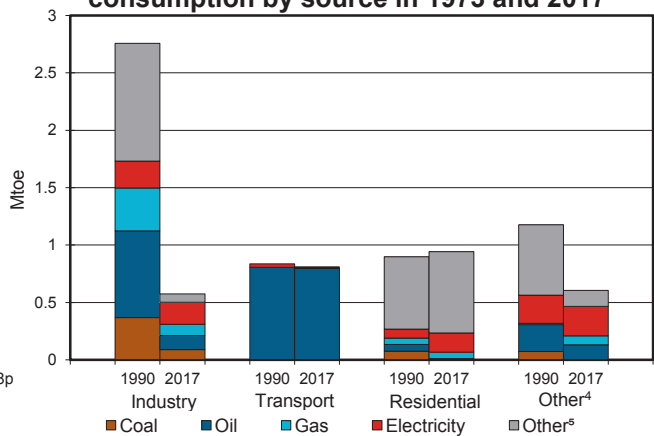


Figure 5. Electricity generation by source

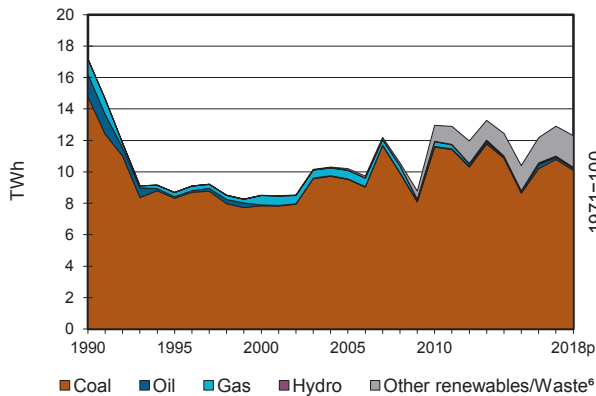
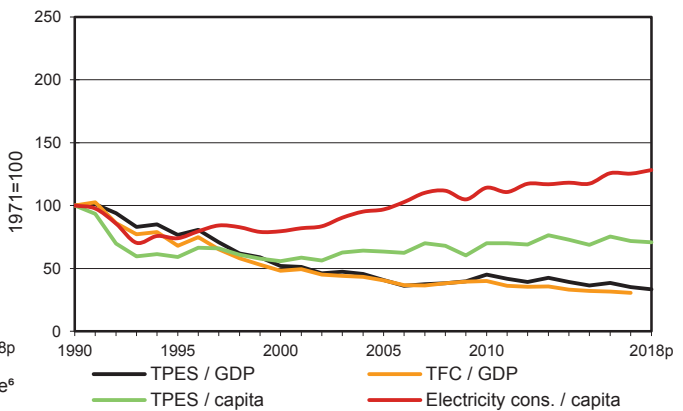


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Estonia

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./ Solar/ etc.	Biofuels/ Waste	Electricity	Heat	Total
Production	4.15	-	-	-	-	0.00	0.06	1.57	-	-	5.79
Imports	0.02	-	1.90	0.41	-	-	-	0.02	0.20	-	2.55
Exports	-0.02	-0.87	-0.43	-	-	-	-	-0.54	-0.43	-	-2.29
Intl. marine bunkers	-	-	-0.31	-	-	-	-	-	-	-	-0.31
Intl. aviation bunkers	-	-	-0.06	-	-	-	-	-	-	-	-0.06
Stock changes	0.09	-	-0.08	-	-	-	-	0.02	-	-	0.03
TPES	4.25	-0.87	1.02	0.41	-	0.00	0.06	1.07	-0.24	-	5.71
Transfers	-	-0.09	0.09	-	-	-	-	-	-	-	0.00
Statistical differences	-0.02	-	0.00	-	-	-	-	-0.04	-	-0.01	-0.07
Electricity plants	-2.46	-	-0.02	-	-	-0.00	-0.06	-0.02	0.98	-	-1.58
CHP plants	-0.18	-	-0.00	-0.01	-	-	-	-0.33	0.13	0.27	-0.13
Heat plants	-0.01	-	-0.02	-0.15	-	-	-	-0.23	-	0.31	-0.10
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-0.04	-	-	-	-	-	-	-	-	-	-0.04
Coke/pat. fuel/BKB/PB plants	-0.00	-	-	-	-	-	-	-	-	-	-0.00
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-1.44	0.95	-	-	-	-	-	-	-	-	-0.49
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-0.00	-	-0.01	-0.00	-	-	-	-0.00	-0.19	-0.01	-0.22
Losses	-	-	-	-	-	-	-	-	-0.07	-0.08	-0.15
TFC	0.09	-	1.06	0.24	-	-	-	0.45	0.62	0.48	2.93
INDUSTRY	0.04	-	0.06	0.10	-	-	-	0.04	0.19	0.04	0.46
Iron and steel	-	-	-	0.00	-	-	-	-	0.00	-	0.00
Chemical and petrochemical	-	-	0.01	0.00	-	-	-	-	0.01	0.02	0.04
Non-ferrous metals	0.00	-	-	0.00	-	-	-	-	-	-	0.00
Non-metallic minerals	0.04	-	0.00	0.02	-	-	-	0.02	0.01	0.00	0.08
Transport equipment	-	-	0.00	0.00	-	-	-	0.00	0.00	0.00	0.01
Machinery	-	-	0.00	0.00	-	-	-	0.00	0.03	0.01	0.04
Mining and quarrying	-	-	0.00	0.00	-	-	-	-	0.00	0.00	0.01
Food and tobacco	0.00	-	0.00	0.02	-	-	-	0.00	0.03	0.00	0.06
Paper, pulp and printing	-	-	-	0.02	-	-	-	0.01	0.04	0.00	0.07
Wood and wood products	-	-	0.00	0.01	-	-	-	0.01	0.04	0.00	0.07
Construction	-	-	0.03	0.01	-	-	-	0.00	0.01	0.00	0.05
Textile and leather	-	-	-	0.00	-	-	-	0.00	0.00	0.00	0.01
Non-specified	-	-	0.00	0.00	-	-	-	0.00	0.02	0.00	0.02
TRANSPORT	-	-	0.80	0.00	-	-	-	0.00	0.00	-	0.81
Domestic aviation	-	-	0.00	-	-	-	-	-	-	-	0.00
Road	-	-	0.77	0.00	-	-	-	0.00	0.00	-	0.78
Rail	-	-	0.02	-	-	-	-	-	0.00	-	0.02
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	0.01	-	-	-	-	-	-	-	0.01
Non-specified	-	-	-	-	-	-	-	0.00	-	-	0.00
OTHER	0.00	-	0.14	0.13	-	-	-	0.41	0.42	0.44	1.55
Residential	0.00	-	0.01	0.06	-	-	-	0.39	0.17	0.32	0.94
Comm. and public services	-	-	0.03	0.07	-	-	-	0.01	0.24	0.12	0.47
Agriculture/forestry	0.00	-	0.10	0.00	-	-	-	0.01	0.02	0.00	0.13
Fishing	-	-	-	-	-	-	-	-	0.00	-	0.00
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	0.05	-	0.07	-	-	-	-	-	-	-	0.12
in industry/transf./energy	0.05	-	0.07	-	-	-	-	-	-	-	0.12
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	0.00	-	-	-	-	-	-	-	0.00
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - TWh	10.79	-	0.12	0.06	-	0.03	0.72	1.18	-	-	12.90
Electricity plants	10.40	-	0.12	-	-	0.03	0.72	0.14	-	-	11.41
CHP plants	0.39	-	0.00	0.06	-	-	-	1.04	-	-	1.49
Heat generated - PJ	4.56	-	0.80	5.35	-	-	-	13.55	-	-	24.26
CHP plants	4.28	-	0.02	0.19	-	-	-	6.66	-	-	11.15
Heat plants	0.28	-	0.78	5.16	-	-	-	6.89	-	-	13.11

1. Includes peat and oil shale.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Estonia

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	4.23	-	-	-	-	0.00	0.05	1.58	-	-	5.87
Imports	0.02	-	2.08	0.41	-	-	-	0.01	0.26	-	2.79
Exports	-0.02	-0.97	-0.62	-	-	-	-	-0.50	-0.43	-	-2.53
Intl. marine bunkers	-	-	-0.35	-	-	-	-	-	-	-	-0.35
Intl. aviation bunkers	-	-	-0.05	-	-	-	-	-	-	-	-0.05
Stock changes	-0.10	-	-0.00	-	-	-	-	-	-	-	-0.10
TPES	4.14	-0.97	1.07	0.41	-	0.00	0.05	1.09	-0.16	-	5.64
Electricity and Heat Output											
Elec. generated - TWh	10.09	-	0.12	0.06	-	0.02	0.64	1.38	-	-	12.30
Heat generated - PJ	3.23	-	0.81	5.50	-	-	-	13.09	-	-	22.62

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes peat and oil shale.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	5.2	3.2	4.9	5.2	5.8	5.9
Net imports (Mtoe)	4.5	1.6	0.9	0.5	0.3	0.3
Total primary energy supply (Mtoe)	9.6	4.7	5.6	6.0	5.7	5.6
Net oil imports (Mtoe)	3.2	0.8	0.8	0.8	0.6	0.5
Oil supply (Mtoe)	2.8	0.7	0.6	0.4	0.2	0.1
Electricity consumption (TWh) ¹	9.0	6.3	8.7	9.4	9.4	9.6
GDP (billion 2010 USD)	15.0	14.1	19.5	24.2	25.4	26.4
GDP PPP (billion 2010 USD)	22.0	20.8	28.7	35.7	37.4	38.9
Population (millions)	1.59	1.40	1.33	1.32	1.32	1.32
Industrial production index (2010=100)	45.5	76.1	103.4	107.6	111.9
Total self-sufficiency ²	0.54	0.67	0.88	0.87	1.01	1.04
Coal self-sufficiency ²	0.85	0.90	1.00	0.85	0.98	1.02
Oil self-sufficiency ²	-	-	-	-	-	-
Natural gas self-sufficiency ²	-	-	-	-	-	-
TPES/GDP (toe per thousand 2010 USD)	0.64	0.33	0.29	0.25	0.22	0.21
TPES/GDP PPP (toe per thousand 2010 USD)	0.44	0.23	0.20	0.17	0.15	0.15
TPES/population (toe per capita)	6.04	3.37	4.22	4.55	4.34	4.28
Net oil imports/GDP (toe per thousand 2010 USD)	0.21	0.06	0.04	0.03	0.02	0.02
Oil supply/GDP (toe per thousand 2010 USD)	0.19	0.05	0.03	0.02	0.01	0.00
Oil supply/population (toe per capita)	1.79	0.46	0.43	0.32	0.12	0.08
Share of renewables in TPES	0.02	0.11	0.15	0.16	0.19	0.19
Share of renewables in electricity generation	-	0.00	0.08	0.12	0.14	0.16
TFC/GDP (toe per thousand 2010 USD)	0.38	0.18	0.15	0.12	0.12	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.26	0.12	0.10	0.08	0.08	..
TFC/population (toe per capita)	3.57	1.84	2.22	2.19	2.23	..
Elect. cons./GDP (kWh per 2010 USD)	0.60	0.45	0.44	0.39	0.37	0.37
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.41	0.31	0.30	0.26	0.25	0.25
Elect. cons./population (kWh per capita)	5691	4528	6499	7155	7135	7297
Industry cons. ³ /industrial production (2010=100)	188.2	100.0	61.4	61.3	..
Industry oil cons. ³ /industrial production (2010=100)	163.9	100.0	67.9	65.1	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES. Coal self-sufficiency also includes peat, when applicable.

3. Includes non-energy use.

Finland

Figure 1. Energy production

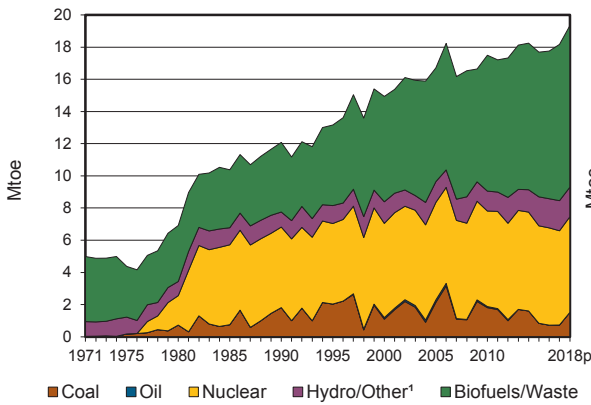


Figure 2. Total primary energy supply²

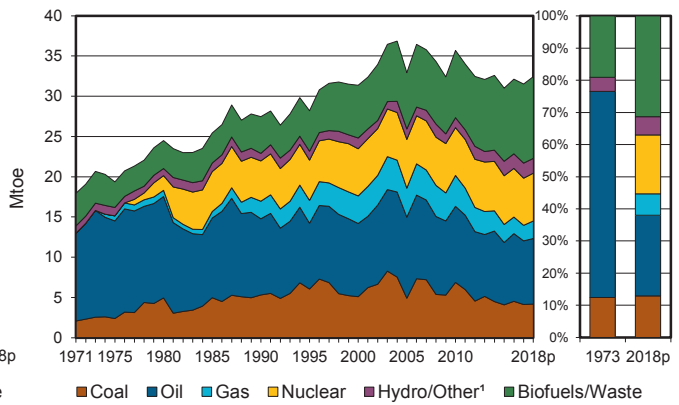


Figure 3. Energy self-sufficiency

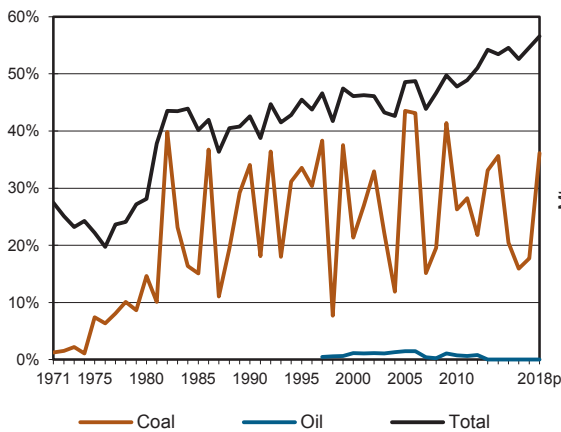


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

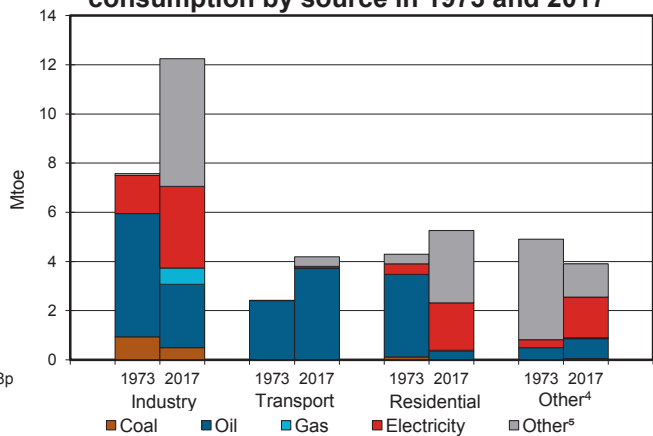


Figure 5. Electricity generation by source

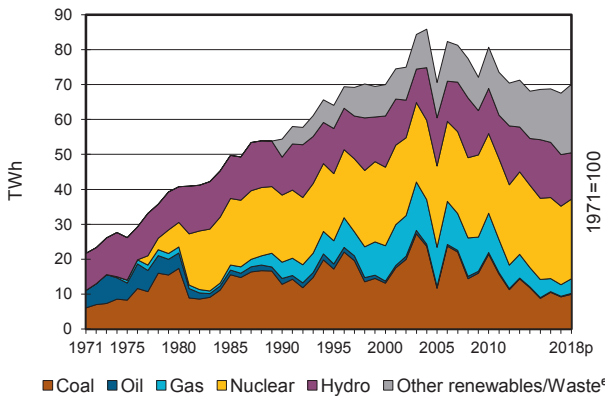
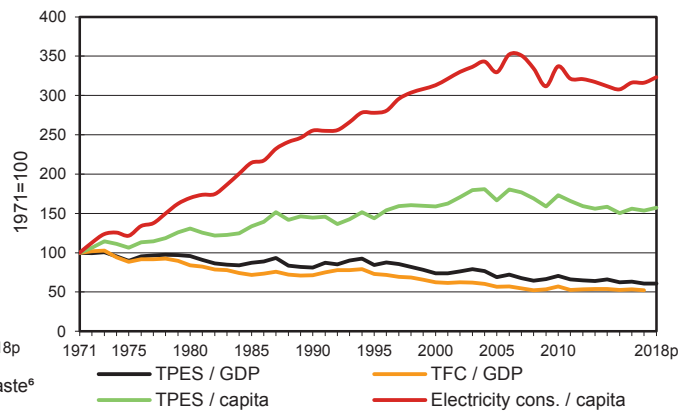


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Finland

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	0.73	-	-	-	5.86	1.27	0.42	9.71	-	0.18	18.17
Imports	2.71	12.71	5.24	1.92	-	-	-	0.15	1.91	-	24.62
Exports	-0.10	-	-9.33	-	-	-	-	-0.03	-0.15	-	-9.61
Intl. marine bunkers	-	-	-0.35	-0.00	-	-	-	-	-	-	-0.35
Intl. aviation bunkers	-	-	-0.68	-	-	-	-	-	-	-	-0.68
Stock changes	0.79	0.20	0.11	0.02	-	-	-	-0.00	-	-	1.12
TPES	4.13	12.91	-5.00	1.93	5.86	1.27	0.42	9.83	1.76	0.18	33.28
Transfers	-	1.81	-1.79	-	-	-	-	-	-	-	0.02
Statistical differences	-0.03	-0.02	0.29	0.02	-	-	-	-0.00	0.00	-0.00	0.27
Electricity plants	-0.50	-	-0.02	-0.00	-5.86	-1.27	-0.42	-0.29	3.96	-0.05	-4.44
CHP plants	-2.05	-	-0.11	-0.67	-	-	-	-2.72	1.85	2.86	-0.84
Heat plants	-0.29	-	-0.12	-0.20	-	-	-	-0.90	-0.04	1.55	-0.00
Blast furnaces	-0.40 e	-	-	-	-	-	-	-	-	-	-0.40
Gas works	-	-	-	0.01	-	-	-	-0.01	-	-	-
Coke/pat. fuel/BKB/PB plants	-0.02	-	-	-	-	-	-	-	-	-	-0.02
Oil refineries	-	-15.12	15.12	-	-	-	-	-	-	-	-0.00
Petrochemical plants	-	0.21	-0.22	-	-	-	-	-	-	-	-0.01
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-0.05	0.21	-	-0.27	-	-	-	-	-	-	-0.11
Energy industry own use	-0.19	-	-0.66	-0.07	-	-	-	-0.04	-0.32	-0.13	-1.41
Losses	-0.05	-	-0.02	-0.01	-	-	-	-	-0.24	-0.40	-0.72
TFC	0.56	-	7.46	0.74	-	-	0.00	5.87	6.97	4.02	25.61
INDUSTRY	0.50	-	1.23	0.57	-	-	-	3.94	3.32	1.26	10.81
Iron and steel	0.21 e	-	0.11	0.06	-	-	-	0.00	0.36	0.09	0.83
Chemical and petrochemical	-	-	0.29	0.03	-	-	-	0.02	0.40	0.27	1.01
Non-ferrous metals	0.01	-	0.03	0.00	-	-	-	-	0.16	0.05	0.24
Non-metallic minerals	0.08	-	0.09	0.03	-	-	-	0.05	0.07	0.01	0.32
Transport equipment	-	-	0.01	0.00	-	-	-	0.00	0.03	0.02	0.06
Machinery	-	-	0.03	0.00	-	-	-	0.00	0.19	0.09	0.31
Mining and quarrying	-	-	0.03	0.00	-	-	-	0.00	0.13	0.01	0.16
Food and tobacco	0.01	-	0.05	0.02	-	-	-	0.01	0.17	0.17	0.41
Paper, pulp and printing	0.19	-	0.15	0.42	-	-	-	3.62	1.54	0.32	6.24
Wood and wood products	0.00	-	0.01	0.00	-	-	-	0.24	0.14	0.19	0.58
Construction	-	-	0.34	-	-	-	-	-	0.04	-	0.38
Textile and leather	-	-	0.00	0.00	-	-	-	0.00	0.01	0.01	0.02
Non-specified	0.00	-	0.09	0.01	-	-	-	0.01	0.09	0.04	0.23
TRANSPORT	-	-	3.73	0.01	-	-	-	0.39	0.07	-	4.19
Domestic aviation	-	-	0.06	-	-	-	-	-	-	-	0.06
Road	-	-	3.51	0.00	-	-	-	0.39	0.00	-	3.91
Rail	-	-	0.02	-	-	-	-	-	0.06	-	0.09
Pipeline transport	-	-	-	0.00	-	-	-	-	-	-	0.00
Domestic navigation	-	-	0.13	-	-	-	-	0.00	-	-	0.13
Non-specified	-	-	-	0.00	-	-	-	-	-	-	0.00
OTHER	0.06	-	1.17	0.06	-	-	0.00	1.54	3.59	2.76	9.17
Residential	0.00	-	0.36	0.03	-	-	0.00	1.28	1.94	1.66	5.26
Comm. and public services	0.00	-	0.26	0.03	-	-	-	0.10	1.52	1.02	2.93
Agriculture/forestry	0.05	-	0.35	0.00	-	-	-	0.17	0.13	0.01	0.72
Fishing	-	-	0.03	-	-	-	-	-	-	-	0.03
Non-specified	-	-	0.17	-	-	-	-	-	-	0.06	0.23
NON-ENERGY USE	-	-	1.34	0.10	-	-	-	-	-	-	1.44
in industry/transf./energy	-	-	1.34	0.10	-	-	-	-	-	-	1.44
of which: chem./petrochem.	-	-	1.02	0.10	-	-	-	-	-	-	1.12
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - TWh	9.21	-	0.18	3.30	22.48	14.77	4.98	12.34	-	0.26	67.52
Electricity plants	2.27	-	0.07	0.02	22.48	14.77	4.95	1.21	-	0.07	45.84
CHP plants	6.95	-	0.12	3.29	-	-	0.02	11.12	-	0.19	21.68
Heat generated - PJ	59.46	-	8.33	20.73	-	-	9.55	85.16	0.08	9.11	192.43
CHP plants	49.23	-	3.87	13.22	-	-	0.43	53.20	-	0.82	120.76
Heat plants	10.23	-	4.47	7.52	-	-	9.13	31.97	0.08	8.29	71.67

1. Includes peat.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Finland

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	1.51	-	-	-	5.94	1.14	0.52	10.04	-	0.18	19.33
Imports	2.79	13.02	4.80	2.19	-	-	-	0.16	1.94	-	24.89
Exports	-0.08	-	-8.75	-	-	-	-	-0.04	-0.22	-	-9.10
Intl. marine bunkers	-	-	-0.37	-0.00	-	-	-	-	-	-	-0.37
Intl. aviation bunkers	-	-	-0.68	-	-	-	-	-	-	-	-0.68
Stock changes	-0.04	-0.02	0.15	-0.01	-	-	-	c	-	-	0.09
TPES	4.18	13.01	-4.86	2.18	5.94	1.14	0.52	10.16	1.71	0.18	34.16
Electricity and Heat Output											
Elec. generated - TWh	9.95	-	0.25	4.18	22.79	13.29	6.12	13.18	-	0.26	70.01
Heat generated - PJ	56.34	-	10.80	25.25	-	-	10.00	85.14	0.07	8.80	196.40

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes peat.
2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	4.9	6.9	12.1	14.9	17.5	17.8	18.2	19.3
Net imports (Mtoe)	16.4	18.3	17.8	18.5	18.0	15.6	15.0	15.8
Total primary energy supply (Mtoe)	21.0	24.6	28.4	32.4	36.6	33.8	33.3	34.2
Net oil imports (Mtoe)	13.6	13.7	10.3	10.5	9.4	9.1	8.6	9.1
Oil supply (Mtoe)	13.3	12.6	9.5	9.1	9.5	8.4	7.9	8.1
Electricity consumption (TWh) ¹	28.2	39.7	62.3	79.2	88.4	85.0	85.2	87.2
GDP (billion 2010 USD)	99.9	122.7	167.1	209.4	247.8	255.2	262.0	268.1
GDP PPP (billion 2010 USD)	83.7	102.8	140.1	175.6	207.8	214.0	219.6	224.8
Population (millions)	4.67	4.78	4.99	5.18	5.36	5.50	5.51	5.52
Industrial production index (2010=100)	39.9	51.1	67.7	99.9	106.6	104.2	107.5	111.0
Total self-sufficiency ²	0.23	0.28	0.43	0.46	0.48	0.53	0.55	0.57
Coal self-sufficiency ²	0.02	0.15	0.34	0.21	0.26	0.16	0.18	0.36
Oil self-sufficiency ²	-	-	-	0.01	0.01	-	-	-
Natural gas self-sufficiency ²	-	-	-	-	-	-	-	-
TPES/GDP (toe per thousand 2010 USD)	0.21	0.20	0.17	0.15	0.15	0.13	0.13	0.13
TPES/GDP PPP (toe per thousand 2010 USD)	0.25	0.24	0.20	0.18	0.18	0.16	0.15	0.15
TPES/population (toe per capita)	4.51	5.15	5.69	6.26	6.82	6.14	6.04	6.19
Net oil imports/GDP (toe per thousand 2010 USD)	0.14	0.11	0.06	0.05	0.04	0.04	0.03	0.03
Oil supply/GDP (toe per thousand 2010 USD)	0.13	0.10	0.06	0.04	0.04	0.03	0.03	0.03
Oil supply/population (toe per capita)	2.84	2.64	1.90	1.76	1.76	1.53	1.43	1.48
Share of renewables in TPES	0.23	0.18	0.19	0.24	0.26	0.32	0.34	0.34
Share of renewables in electricity generation	0.40	0.25	0.30	0.33	0.30	0.44	0.47	0.46
TFC/GDP (toe per thousand 2010 USD)	0.19	0.16	0.13	0.12	0.11	0.10	0.10	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.23	0.19	0.16	0.14	0.13	0.12	0.12	..
TFC/population (toe per capita)	4.11	4.05	4.48	4.72	4.93	4.64	4.65	..
Elect. cons./GDP (kWh per 2010 USD)	0.28	0.32	0.37	0.38	0.36	0.33	0.33	0.33
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.34	0.39	0.44	0.45	0.43	0.40	0.39	0.39
Elect. cons./population (kWh per capita)	6047	8295	12487	15306	16485	15469	15465	15805
Industry cons. ³ /industrial production (2010=100)	167.7	124.9	137.9	112.1	100.0	102.5	100.7	..
Industry oil cons. ³ /industrial production (2010=100)	529.3	308.6	166.9	107.7	100.0	106.8	101.0	..

1. Electricity consumption equals domestic supply less losses.
2. Production divided by TPES. Coal self-sufficiency also includes peat, when applicable.
3. Includes non-energy use.

France

Figure 1. Energy production

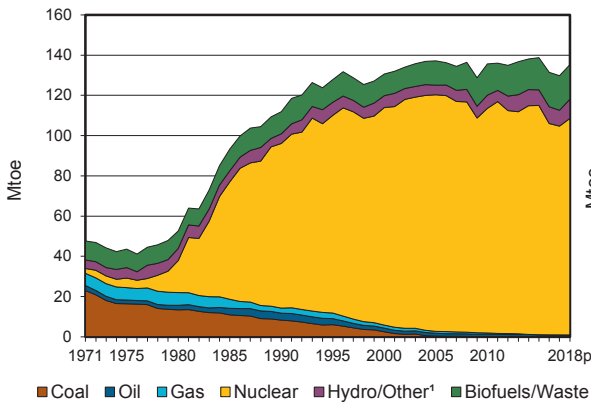


Figure 2. Total primary energy supply²

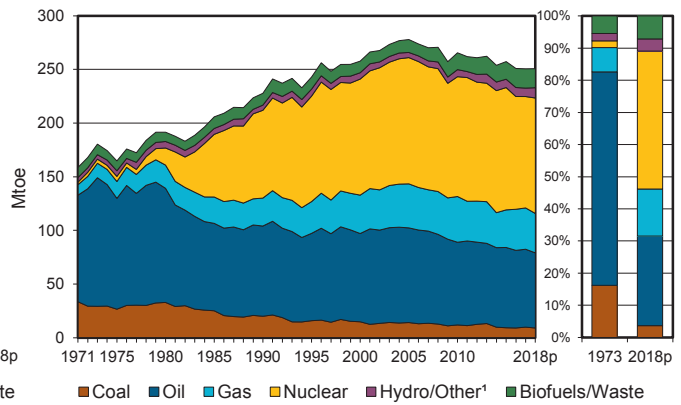


Figure 3. Energy self-sufficiency

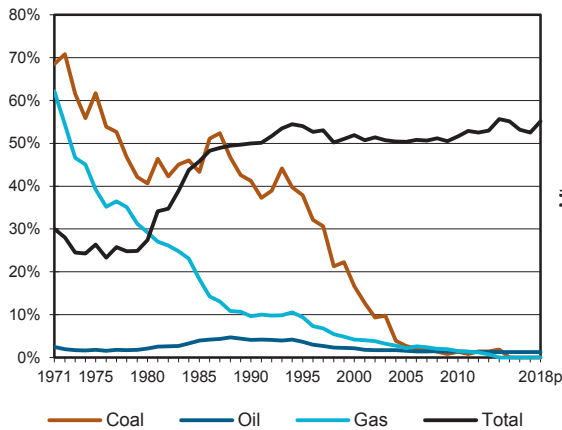


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

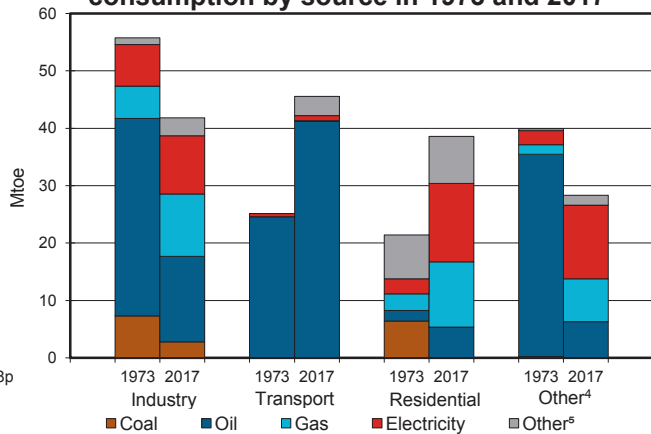


Figure 5. Electricity generation by source

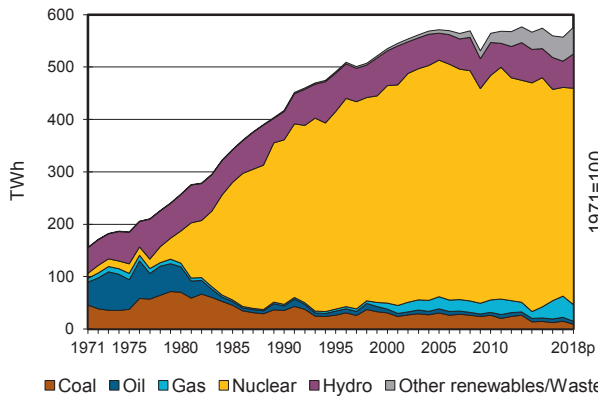
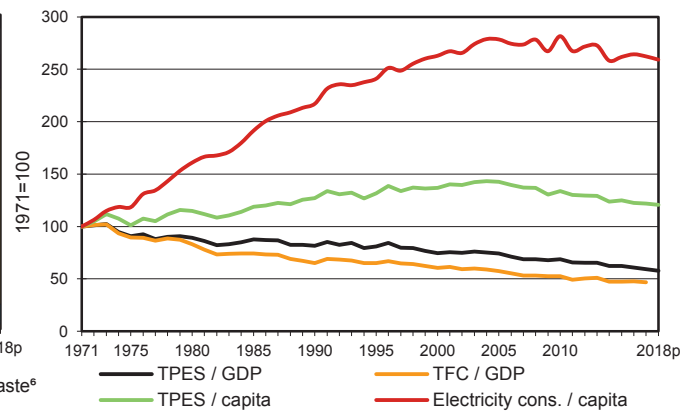


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

France

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	0.91	-	0.01	103.80	4.30	3.58	17.20	-	-	129.80
Imports	10.09	58.99	41.71	43.16	-	-	-	1.05	1.82	-	156.82
Exports	-0.00	-0.10	-20.53	-5.42	-	-	-	-0.33	-5.27	-	-31.66
Intl. marine bunkers	-	-	-1.65	-	-	-	-	-	-	-	-1.65
Intl. aviation bunkers	-	-	-6.43	-	-	-	-	-	-	-	-6.43
Stock changes	-0.19	-0.32	-0.02	0.74	-	-	-	-0.01	-	-	0.20
TPES	9.89	59.48	13.08	38.49	103.80	4.30	3.58	17.91	-3.45	-	247.09
Transfers	-	0.46	-0.22	-	-	-	-	-	-	-	0.23
Statistical differences	-0.29	-0.08	-1.07	-	-	-	-	0.01	-0.74	-0.00	-2.17
Electricity plants	-3.37	-	-1.35	-4.32	-103.80	-4.30	-3.11	-1.29	46.09	-	-75.44
CHP plants	-0.26	-	-0.30	-2.32	-	-	-	-3.03	1.80	2.41	-1.70
Heat plants	-0.19	-	-0.03	-0.66	-	-	-0.26	-1.01	-0.01	1.83	-0.32
Blast furnaces	-1.63 e	-	-	-	-	-	-	-	-	-	-1.63
Gas works	-	-	-	0.03	-	-	-	-0.03	-	-	0.00
Coke/pat. fuel/BKB/PB plants	-0.38	-	-	-	-	-	-	-	-	-	-0.38
Oil refineries	-	-61.08	60.56	-	-	-	-	-	-	-	-0.52
Petrochemical plants	-	1.21	-1.26	-	-	-	-	-	-	-	-0.05
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-0.92	-	-1.69	-1.01	-	-	-	-0.08	-2.81	-	-6.51
Losses	-	-	-	-0.44	-	-	-	-	-3.32	-0.57	-4.32
TFC	2.85	-	67.72	29.78	-	-	0.21	12.49	37.56	3.67	154.29
INDUSTRY	2.48	-	2.46	9.75	-	-	0.00	1.64	10.15	1.47	27.95
Iron and steel	1.56 e	-	0.05	0.77	-	-	-	0.00	1.00	-	3.38
Chemical and petrochemical	0.37	-	0.11	1.89	-	-	-	0.07	1.71	-	4.15
Non-ferrous metals	0.00	-	0.01	0.34	-	-	-	-	0.77	-	1.11
Non-metallic minerals	0.22	-	0.62	1.69	-	-	-	0.12	0.71	-	3.36
Transport equipment	0.00	-	0.03	0.43	-	-	-	0.01	0.62	-	1.09
Machinery	0.02	-	0.11	0.62	-	-	-	0.00	1.12	-	1.88
Mining and quarrying	-	-	0.19	0.04	-	-	-	0.01	0.14	-	0.38
Food and tobacco	0.29	-	0.21	2.34	-	-	-	0.24	1.80	-	4.88
Paper, pulp and printing	0.01	-	0.04	0.85	-	-	-	0.84	0.66	-	2.40
Wood and wood products	-	-	0.03	0.06	-	-	-	0.31	0.19	-	0.59
Construction	-	-	0.93	0.30	-	-	-	0.00	0.58	-	1.82
Textile and leather	-	-	0.02	0.17	-	-	-	0.00	0.14	-	0.32
Non-specified	-	-	0.10	0.26	-	-	0.00	0.03	0.72	1.47	2.59
TRANSPORT	-	-	41.00	0.09	-	-	-	3.34	0.93	-	45.36
Domestic aviation	-	-	0.80	-	-	-	-	-	-	-	0.80
Road	-	-	39.58	0.07	-	-	-	3.34	0.02	-	43.00
Rail	-	-	0.14	-	-	-	-	-	0.83	-	0.97
Pipeline transport	-	-	-	0.02	-	-	-	-	0.07	-	0.09
Domestic navigation	-	-	0.48	-	-	-	-	-	-	-	0.48
Non-specified	-	-	-	-	-	-	-	-	0.02	-	0.02
OTHER	0.08	-	11.51	18.83	-	-	0.21	7.51	26.48	2.20	66.82
Residential	0.04	-	5.34	11.34	-	-	0.16	6.69	13.69	1.33	38.59
Comm. and public services	0.04	-	2.75	7.29	-	-	0.03	0.67	11.98	0.86	23.61
Agriculture/forestry	0.00	-	2.67	0.21	-	-	0.02	0.15	0.74	0.01	3.80
Fishing	-	-	0.32	0.00	-	-	0.01	-	0.02	-	0.34
Non-specified	-	-	0.43	0.00	-	-	-	-	0.05	-	0.48
NON-ENERGY USE	0.30	-	12.75	1.11	-	-	-	-	-	-	14.16
in industry/transf./energy	0.30	-	12.45	1.11	-	-	-	-	-	-	13.86
of which: chem./petrochem.	0.00	-	9.32	1.11	-	-	-	-	-	-	10.43
in transport	-	-	0.21	-	-	-	-	-	-	-	0.21
in other	-	-	0.08	-	-	-	-	-	-	-	0.08
Electricity and Heat Output											
Electr. generated - TWh	15.06	-	7.39	40.44	398.36	49.97	35.62	10.17	-	-	557.01
Electricity plants	14.07	-	6.92	27.99	398.36	49.97	35.32	3.42	-	-	536.06
CHP plants	0.99	-	0.47	12.44	-	-	0.29	6.75	-	-	20.95
Heat generated - PJ	8.83	-	10.06	62.60	-	-	9.11	86.35	0.01	0.52	177.48
CHP plants	1.70	-	9.10	37.60	-	-	2.93	49.44	-	-	100.78
Heat plants	7.13	-	0.96	25.00	-	-	6.18	36.91	0.01	0.52	76.70

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

France

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	0.90	-	0.01	107.60	5.60	3.98	17.16	-	-	135.24
Imports	9.23	54.35	43.01	43.78	-	-	-	1.13	1.17	-	152.67
Exports	-0.03	-0.04	-20.06	-5.32	-	-	-	-0.57	-6.58	-	-32.60
Intl. marine bunkers	-	-	-1.82	-	-	-	-	-	-	-	-1.82
Intl. aviation bunkers	-	-	-7.07	-	-	-	-	-	-	-	-7.07
Stock changes	-0.11	0.43	0.27	-1.74	-	-	-	0.02	-	-	-1.13
TPES	9.09	55.64	14.33	36.73	107.60	5.60	3.98	17.74	-5.41	-	245.29
Electricity and Heat Output											
Elec. generated - TWh	9.27	-	5.59	31.86	412.96	65.09	40.19	10.73	-	-	575.70
Heat generated - PJ	8.54	-	9.91	75.17	-	-	9.97	85.49	0.01	0.52	189.61

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	44.2	52.6	111.9	130.6	135.7	131.5	129.8	135.2
Net imports (Mtoe)	145.5	149.0	119.2	132.5	132.3	121.9	125.2	120.1
Total primary energy supply (Mtoe)	180.1	191.8	223.8	251.7	262.9	247.3	247.1	245.3
Net oil imports (Mtoe)	128.7	112.3	85.9	89.8	83.2	78.3	80.1	77.3
Oil supply (Mtoe)	119.8	106.3	84.0	82.2	77.0	72.3	72.6	70.0
Electricity consumption (TWh) ¹	168.3	243.9	347.6	440.1	503.2	485.4	483.4	479.2
GDP (billion 2010 USD)	1215.4	1482.6	1894.1	2333.5	2642.6	2811.8	2875.3	2924.9
GDP PPP (billion 2010 USD)	1073.7	1309.8	1673.2	2061.4	2334.5	2483.9	2540.1	2583.9
Population (millions)	53.33	55.16	58.26	60.90	65.01	66.83	67.06	67.27
Industrial production index (2010=100)	73.5	80.7	91.7	109.3	100.1	100.6	102.6	103.1
Total self-sufficiency ²	0.25	0.27	0.50	0.52	0.52	0.53	0.53	0.55
Coal self-sufficiency ²	0.62	0.41	0.41	0.17	0.01	-	-	-
Oil self-sufficiency ²	0.02	0.02	0.04	0.02	0.01	0.01	0.01	0.01
Natural gas self-sufficiency ²	0.47	0.29	0.10	0.04	0.02	0.00	0.00	0.00
TPES/GDP (toe per thousand 2010 USD)	0.15	0.13	0.12	0.11	0.10	0.09	0.09	0.08
TPES/GDP PPP (toe per thousand 2010 USD)	0.17	0.15	0.13	0.12	0.11	0.10	0.10	0.09
TPES/population (toe per capita)	3.38	3.48	3.84	4.13	4.04	3.70	3.68	3.65
Net oil imports/GDP (toe per thousand 2010 USD)	0.11	0.08	0.05	0.04	0.03	0.03	0.03	0.03
Oil supply/GDP (toe per thousand 2010 USD)	0.10	0.07	0.04	0.04	0.03	0.03	0.03	0.02
Oil supply/population (toe per capita)	2.25	1.93	1.44	1.35	1.18	1.08	1.08	1.04
Share of renewables in TPES	0.08	0.08	0.07	0.06	0.08	0.10	0.10	0.11
Share of renewables in electricity generation	0.27 e	0.27 e	0.13	0.13	0.14	0.18	0.17	0.20
TFC/GDP (toe per thousand 2010 USD)	0.12	0.10	0.08	0.07	0.06	0.06	0.05	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.13	0.11	0.09	0.08	0.07	0.06	0.06	..
TFC/population (toe per capita)	2.67	2.56	2.43	2.66	2.46	2.30	2.30	..
Elect. cons./GDP (kWh per 2010 USD)	0.14	0.16	0.18	0.19	0.19	0.17	0.17	0.16
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.16	0.19	0.21	0.21	0.22	0.20	0.19	0.19
Elect. cons./population (kWh per capita)	3155	4422	5967	7226	7740	7264	7209	7124
Industry cons. ³ /industrial production (2010=100)	180.2	159.2	114.0	106.9	100.0	97.0	96.7	..
Industry oil cons. ³ /industrial production (2010=100)	303.7	240.6	121.7	111.7	100.0	92.7	94.2	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

Germany

Figure 1. Energy production

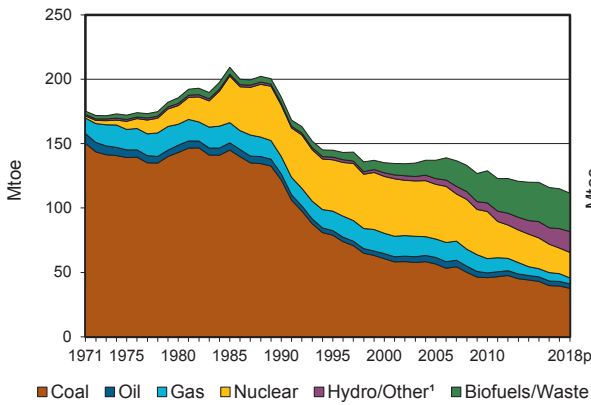


Figure 2. Total primary energy supply²

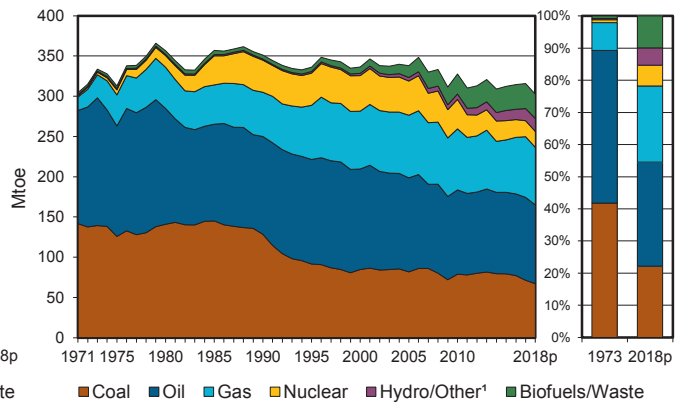


Figure 3. Energy self-sufficiency

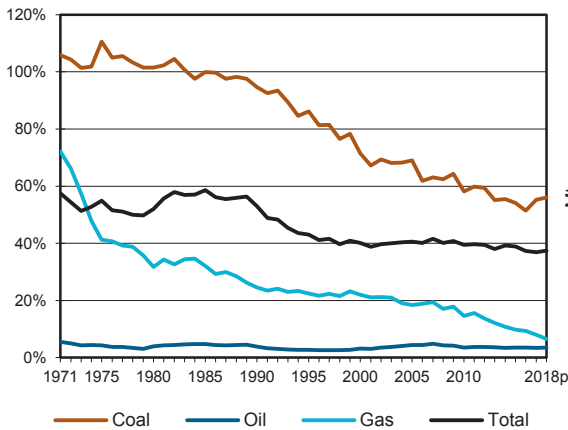


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

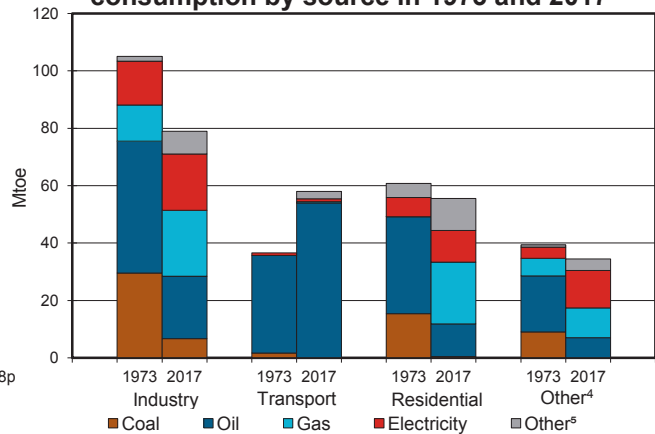


Figure 5. Electricity generation by source

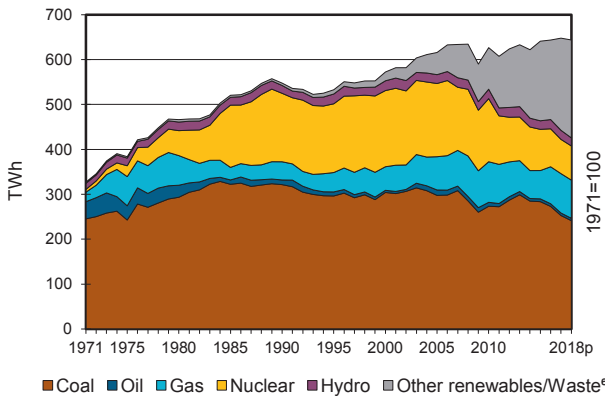
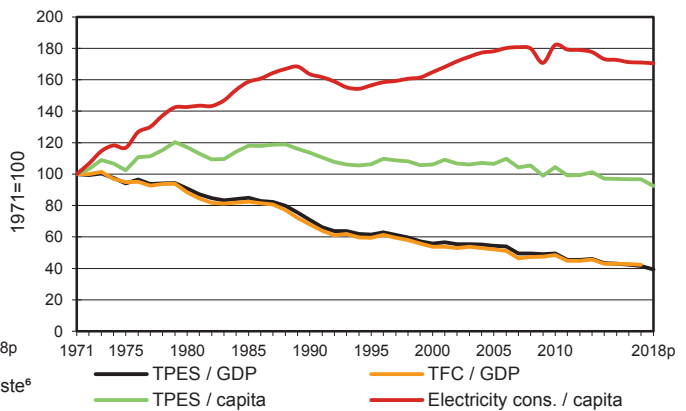


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Germany

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	39.44	3.53	-	6.03	19.89	1.73	13.41	30.92	-	-	114.95
Imports	33.80	92.12	41.77	95.74	-	-	-	2.04	2.39	-	267.87
Exports	-1.50	-	-23.42	-26.90	-	-	-	-1.95	-6.90	-0.00	-60.68
Intl. marine bunkers	-	-	-2.27	-	-	-	-	-	-	-	-2.27
Intl. aviation bunkers	-	-	-9.57	-	-	-	-	-	-	-	-9.57
Stock changes	-0.33	0.25	0.55	0.47	-	-	-	-	-	-	0.94
TPES	71.41	95.90	7.06	75.34	19.89	1.73	13.41	31.01	-4.51	-0.00	311.25
Transfers	-	3.31	-2.56	-	-	-	-	-	-	-	0.76
Statistical differences	-0.53	-0.01	-0.61	-0.30	-	-	-	-0.00	-	-	-1.46
Electricity plants	-48.92	-	-0.83	-3.45	-19.89	-1.73	-12.62	-5.07	44.25	-	-48.24
CHP plants	-6.88	-	-0.42	-12.67	-	-	-	-8.77	11.44	8.13	-9.16
Heat plants	-0.34	-	-0.12	-2.19	-	-	-0.03	-1.40	-	3.09	-0.99
Blast furnaces	-5.63	-	-0.03	-	-	-	-	-	-	-	-5.65
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat. fuel/BKB/PB plants	-0.56	-	-0.40	-	-	-	-	-	-	-	-0.96
Oil refineries	-	-105.33	103.79	-	-	-	-	-	-	-	-1.54
Petrochemical plants	-	6.12	-6.30	-	-	-	-	-	-	-	-0.18
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-0.01	-	-	-0.01
Energy industry own use	-0.83	-	-5.48	-1.37	-	-	-	-0.54	-4.24	-0.34	-12.80
Losses	-0.56	-	-	-	-	-	-	-0.07	-2.32	-1.07	-4.03
TFC	7.16	-	94.11	55.35	-	-	0.76	15.17	44.62	9.81	226.98
INDUSTRY	6.22	-	2.16	20.36	-	-	-	3.89	19.61	4.11	56.36
Iron and steel	3.03	-	0.03	2.24	-	-	-	0.00	2.30	0.03	7.63
Chemical and petrochemical	0.89	-	1.10	5.87	-	-	-	0.32	4.66	2.37	15.20
Non-ferrous metals	0.03	-	0.06	0.83	-	-	-	0.01	1.40	0.02	2.35
Non-metallic minerals	1.42	-	0.33	2.54	-	-	-	1.30	1.10	0.02	6.71
Transport equipment	0.22	-	0.04	0.93	-	-	-	0.01	1.53	0.30	3.03
Machinery	0.05	-	0.23	1.80	-	-	-	0.04	2.92	0.26	5.30
Mining and quarrying	0.06	-	0.03	0.10	-	-	-	0.01	0.15	0.00	0.36
Food and tobacco	0.21	-	0.15	2.82	-	-	-	0.06	1.60	0.26	5.10
Paper, pulp and printing	0.31	-	0.04	2.08	-	-	-	0.80	1.84	0.62	5.69
Wood and wood products	-	-	0.02	0.14	-	-	-	1.24	0.41	0.06	1.87
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	0.00	-	0.02	0.24	-	-	-	0.00	0.19	0.02	0.47
Non-specified	0.00	-	0.11	0.76	-	-	-	0.11	1.52	0.15	2.65
TRANSPORT	-	-	53.61	0.46	-	-	-	2.60	1.03	-	57.70
Domestic aviation	-	-	0.68	-	-	-	-	-	-	-	0.68
Road	-	-	52.29	0.14	-	-	-	2.59	0.01	-	55.03
Rail	-	-	0.27	-	-	-	-	0.01	1.01	-	1.30
Pipeline transport	-	-	-	0.31	-	-	-	-	-	-	0.31
Domestic navigation	-	-	0.24	-	-	-	-	-	-	-	0.24
Non-specified	-	-	0.14	-	-	-	-	-	-	-	0.14
OTHER	0.52	-	18.36	31.95	-	-	0.76	8.68	23.98	5.70	89.95
Residential	0.50	-	11.30	21.60	-	-	0.67	5.99	11.02	4.43	55.52
Comm. and public services	0.02	-	6.97	10.36	-	-	0.09	2.69	12.96	1.27	34.35
Agriculture/forestry	-	-	-	-	-	-	-	-	-	-	-
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	0.09	-	-	-	-	-	-	-	0.09
NON-ENERGY USE	0.42	-	19.97	2.58	-	-	-	-	-	-	22.98
in industry/transf./energy	0.42	-	19.65	2.58	-	-	-	-	-	-	22.65
of which: chem./petrochem.	0.02	-	16.12	2.58	-	-	-	-	-	-	18.72
in transport	-	-	0.32	-	-	-	-	-	-	-	0.32
in other	-	-	0.01	-	-	-	-	-	-	-	0.01
Electricity and Heat Output											
Electr. generated - TWh	252.82	-	5.57	87.69	76.32	20.15	146.96	58.22	-	-	647.73
Electricity plants	228.02	-	3.12	21.01	76.32	20.15	146.06	19.98	-	-	514.66
CHP plants	24.80	-	2.46	66.67	-	-	0.90	38.24	-	-	133.07
Heat generated - PJ	131.46	-	4.56	219.45	-	-	8.14	106.19	-	-	469.80
CHP plants	120.76	-	0.86	144.55	-	-	4.92	69.18	-	-	340.27
Heat plants	10.70	-	3.70	74.90	-	-	3.22	37.01	-	-	129.54

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Germany

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./ Solar/ etc.	Biofuels/ Waste	Electricity	Heat	Total
Production	37.62	3.48	-	4.65	19.80	1.55	14.58	29.88	-	-	111.56
Imports	29.98	86.49	40.97	97.94	-	-	-	2.44	2.73	-	260.55
Exports	-1.48	-	-22.27	-27.40	-	-	-	-2.28	-6.92	-0.00	-60.36
Intl. marine bunkers	-	-	-1.96	-	-	-	-	-	-	-	-1.96
Intl. aviation bunkers	-	-	-9.83	-	-	-	-	-	-	-	-9.83
Stock changes	1.02	0.51	0.50	-3.72	-	-	-	-	-	-	-1.68
TPES	67.14	90.49	7.41	71.47	19.80	1.55	14.58	30.03	-4.19	-0.00	298.28
Electricity and Heat Output											
Elec. generated - TWh	241.48	-	5.23	85.04	76.00	18.00	159.58	58.35	-	-	643.69
Heat generated - PJ	136.17	-	3.81	246.22	-	-	7.47	107.56	-	-	501.23

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	171.7	185.6	186.2	135.2	128.9	115.9	115.0	111.6
Net imports (Mtoe)	171.1	183.4	167.3	205.7	204.0	204.9	207.2	200.2
Total primary energy supply (Mtoe)	334.7	357.2	351.2	336.6	326.4	310.1	311.3	298.3
Net oil imports (Mtoe)	160.8	148.9	122.1	126.9	112.1	109.2	110.5	105.2
Oil supply (Mtoe)	158.7	143.9	121.4	124.8	104.7	101.4	103.0	97.9
Electricity consumption (TWh) ¹	367.5	453.9	527.4	545.5	594.1	572.8	574.3	574.1
GDP (billion 2010 USD)	1729.0	2040.5	2568.6	3123.9	3417.1	3801.9	3883.9	3939.2
GDP PPP (billion 2010 USD)	1621.5	1913.7	2408.9	2929.7	3204.6	3565.5	3642.4	3694.3
Population (millions)	78.96	78.30	79.36	81.46	80.28	82.35	82.66	82.90
Industrial production index (2010=100)	55.3	59.6	71.9	80.4	90.4	101.5	104.5	105.7
Total self-sufficiency ²	0.51	0.52	0.53	0.40	0.40	0.37	0.37	0.37
Coal self-sufficiency ²	1.01	1.02	0.95	0.71	0.58	0.51	0.55	0.56
Oil self-sufficiency ²	0.04	0.04	0.04	0.03	0.04	0.04	0.03	0.04
Natural gas self-sufficiency ²	0.57	0.32	0.25	0.22	0.15	0.09	0.08	0.07
TPES/GDP (toe per thousand 2010 USD)	0.19	0.18	0.14	0.11	0.10	0.08	0.08	0.08
TPES/GDP PPP (toe per thousand 2010 USD)	0.21	0.19	0.15	0.11	0.10	0.09	0.09	0.08
TPES/population (toe per capita)	4.24	4.56	4.43	4.13	4.07	3.77	3.77	3.60
Net oil imports/GDP (toe per thousand 2010 USD)	0.09	0.07	0.05	0.04	0.03	0.03	0.03	0.03
Oil supply/GDP (toe per thousand 2010 USD)	0.09	0.07	0.05	0.04	0.03	0.03	0.03	0.02
Oil supply/population (toe per capita)	2.01	1.84	1.53	1.53	1.30	1.23	1.25	1.18
Share of renewables in TPES	0.01	0.02	0.02	0.03	0.08	0.13	0.13	0.14
Share of renewables in electricity generation	0.05	0.05	0.04	0.06	0.17	0.29	0.33	0.35
TFC/GDP (toe per thousand 2010 USD)	0.14	0.12	0.09	0.07	0.07	0.06	0.06	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.15	0.13	0.10	0.08	0.07	0.06	0.06	..
TFC/population (toe per capita)	3.06	3.18	3.03	2.84	2.85	2.72	2.75	..
Elect. cons./GDP (kWh per 2010 USD)	0.21	0.22	0.21	0.17	0.17	0.15	0.15	0.15
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.23	0.24	0.22	0.19	0.19	0.16	0.16	0.16
Elect. cons./population (kWh per capita)	4654	5796	6646	6697	7399	6956	6947	6925
Industry cons. ³ /industrial production (2010=100)	221.6	198.0	143.6	110.2	100.0	88.4	88.2	..
Industry oil cons. ³ /industrial production (2010=100)	319.9	232.3	140.9	130.8	100.0	77.5	80.1	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

Greece

Figure 1. Energy production

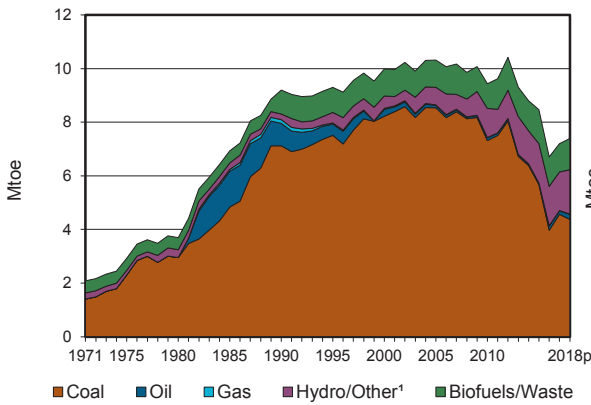


Figure 2. Total primary energy supply²

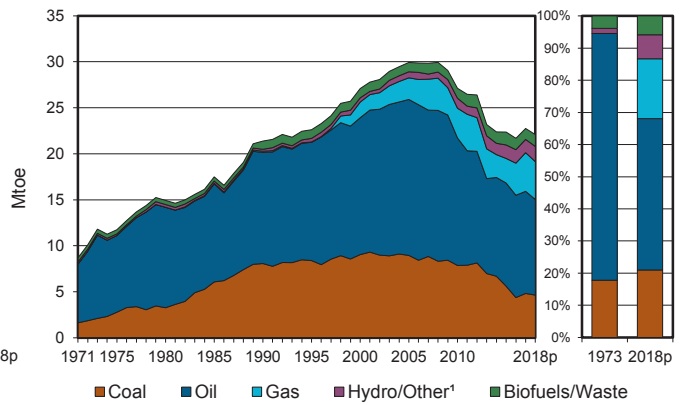


Figure 3. Energy self-sufficiency

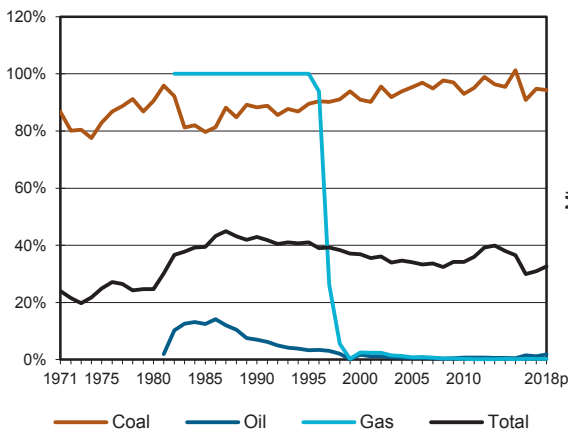


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

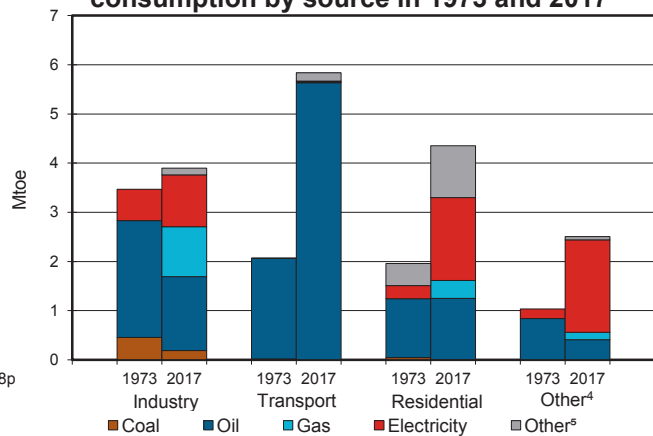


Figure 5. Electricity generation by source

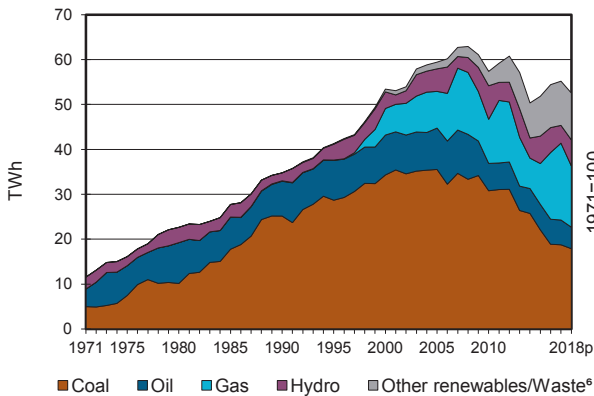
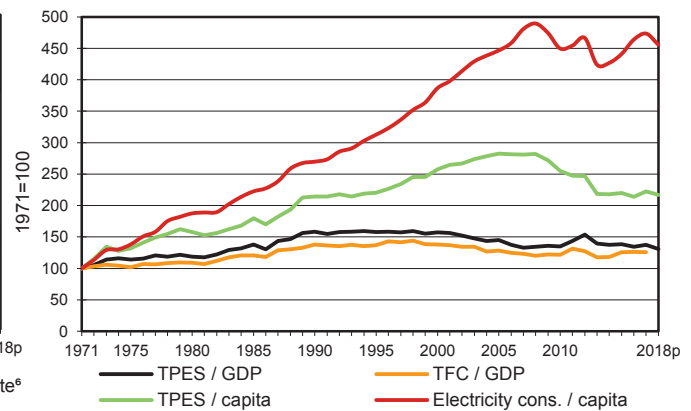


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Greece

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./ Solar/ etc.	Biofuels/ Waste	Electricity	Heat	Total
Production	4.57	0.13	-	0.01	-	0.34	1.10	1.05	-	-	7.20
Imports	0.23	28.89	4.13	4.23	-	-	-	0.14	0.75	-	38.37
Exports	-	-0.18	-19.06	-	-	-	-	-0.01	-0.21	-	-19.46
Intl. marine bunkers	-	-	-2.13	-	-	-	-	-	-	-	-2.13
Intl. aviation bunkers	-	-	-0.99	-	-	-	-	-	-	-	-0.99
Stock changes	0.02	0.40	-0.09	-0.03	-	-	-	-0.00	-	-	0.29
TPES	4.82	29.24	-18.14	4.20	-	0.34	1.10	1.18	0.54	-	23.28
Transfers	-	2.07	-2.04	-	-	-	-	-	-	-	0.03
Statistical differences	-0.08	-0.01	-0.23	-0.03	-	-	-	0.00	-	-	-0.34
Electricity plants	-2.70	-	-1.18	-2.41	-	-0.34	-0.82	-0.02	3.92	-	-3.54
CHP plants	-1.84	-	-0.18	-0.20	-	-	-	-0.08	0.82	0.05	-1.44
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-0.00	-	-	-	-	-	-	-	-0.00
Coke/pat. fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-31.31	32.02	-	-	-	-	-	-	-	0.71
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-0.00	-	-	-	-	-0.00	-	-	-0.00
Energy industry own use	-	-	-1.46	-0.01	-	-	-	-0.00	-0.55	-	-2.02
Losses	-	-	-	-0.01	-	-	-	-	-0.09	-	-0.10
TFC	0.20	-	8.79	1.54	-	-	0.28	1.09	4.64	0.05	16.59
INDUSTRY	0.19	-	1.06	0.66	-	-	0.00	0.13	1.06	-	3.10
Iron and steel	-	-	0.01	0.03	-	-	-	-	0.09	-	0.13
Chemical and petrochemical	-	-	0.02	0.04	-	-	-	-	0.06	-	0.12
Non-ferrous metals	0.15	-	0.01	0.32	-	-	-	-	0.39	-	0.87
Non-metallic minerals	0.04	-	0.54	0.02	-	-	-	0.00	0.09	-	0.68
Transport equipment	-	-	0.01	-	-	-	-	-	0.00	-	0.02
Machinery	-	-	0.01	0.00	-	-	-	-	0.04	-	0.05
Mining and quarrying	-	-	0.09	-	-	-	-	-	0.01	-	0.09
Food and tobacco	-	-	0.16	0.06	-	-	-	0.11	0.09	-	0.42
Paper, pulp and printing	-	-	0.02	0.01	-	-	-	0.00	0.02	-	0.05
Wood and wood products	-	-	0.00	0.00	-	-	-	0.01	0.01	-	0.03
Construction	-	-	0.11	0.01	-	-	-	-	0.04	-	0.17
Textile and leather	-	-	0.01	0.01	-	-	-	-	0.02	-	0.04
Non-specified	-	-	0.07	0.15	-	-	0.00	-	0.21	-	0.43
TRANSPORT	-	-	5.62	0.01	-	-	-	0.17	0.02	-	5.82
Domestic aviation	-	-	0.20	-	-	-	-	-	-	-	0.20
Road	-	-	4.81	0.01	-	-	-	0.17	0.00	-	5.00
Rail	-	-	0.04	-	-	-	-	0.00	0.01	-	0.06
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	0.57	-	-	-	-	0.00	-	-	0.57
Non-specified	-	-	0.00	-	-	-	-	0.00	-	-	0.00
OTHER	0.01	-	1.65	0.51	-	-	0.28	0.79	3.57	0.05	6.85
Residential	0.00	-	1.25	0.36	-	-	0.26	0.74	1.69	0.05	4.35
Comm. and public services	-	-	0.12	0.15	-	-	0.02	0.02	1.65	-	1.96
Agriculture/forestry	0.00	-	0.03	0.00	-	-	0.00	0.03	0.23	-	0.29
Fishing	-	-	0.01	-	-	-	0.00	-	-	-	0.01
Non-specified	0.00	-	0.23	-	-	-	-	-	-	-	0.23
NON-ENERGY USE	-	-	0.46	0.36	-	-	-	-	-	-	0.82
in industry/transf./energy	-	-	0.44	0.36	-	-	-	-	-	-	0.80
of which: chem./petrochem.	-	-	0.22	0.36	-	-	-	-	-	-	0.57
in transport	-	-	0.01	-	-	-	-	-	-	-	0.01
in other	-	-	0.00	-	-	-	-	-	-	-	0.00
Electricity and Heat Output											
Electr. generated - TWh	18.77	-	5.51	17.11	-	3.96	9.53	0.31	-	-	55.19
Electricity plants	11.36	-	5.05	15.69	-	3.96	9.53	0.06	-	-	45.64
CHP plants	7.41	-	0.46	1.42	-	-	-	0.25	-	-	9.55
Heat generated - PJ	2.12	-	0.02	-	-	-	-	-	-	-	2.14
CHP plants	2.12	-	0.02	-	-	-	-	-	-	-	2.14
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Greece

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	4.38	0.19	-	0.01	-	0.50	1.15	1.16	-	-	7.39
Imports	0.21	30.04	3.63	4.14	-	-	-	0.14	0.75	-	38.90
Exports	-	-0.21	-20.14	-	-	-	-	-0.02	-0.19	-	-20.55
Intl. marine bunkers	-	-	-2.21	-	-	-	-	-	-	-	-2.21
Intl. aviation bunkers	-	-	-1.08	-	-	-	-	-	-	-	-1.08
Stock changes	0.05	-0.02	0.20	-0.04	-	-	-	-0.00	-	-	0.19
TPES	4.64	29.99	-19.60	4.12	-	0.50	1.15	1.28	0.56	-	22.64
Electricity and Heat Output											
Elec. generated - TWh	17.91	-	4.79	13.65	-	5.79	10.09	0.32	-	-	52.56
Heat generated - PJ	2.12	-	0.02	-	-	-	-	-	-	-	2.14

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	2.3	3.7	9.2	10.0	9.4	6.7	7.2	7.4
Net imports (Mtoe)	12.0	13.7	15.3	21.8	21.3	18.5	18.9	18.4
Total primary energy supply (Mtoe)	11.8	15.0	21.4	27.1	27.6	22.4	23.3	22.6
Net oil imports (Mtoe)	11.6	13.2	14.3	19.3	17.0	14.0	13.8	13.3
Oil supply (Mtoe)	9.1	10.9	12.1	14.9	13.9	11.1	11.1	10.4
Electricity consumption (TWh) ¹	13.8	21.7	32.9	49.6	59.3	59.3	60.4	58.0
GDP (billion 2010 USD)	151.2	184.6	197.7	251.5	299.4	244.3	247.9	252.7
GDP PPP (billion 2010 USD)	158.1	193.0	206.7	263.0	313.1	255.4	259.3	264.3
Population (millions)	9.02	9.74	10.27	10.81	11.12	10.78	10.76	10.73
Industrial production index (2010=100)	79.5	106.2	116.8	140.3	113.2	102.6	107.5	108.8
Total self-sufficiency ²	0.20	0.25	0.43	0.37	0.34	0.30	0.31	0.33
Coal self-sufficiency ²	0.80	0.90	0.88	0.91	0.93	0.91	0.95	0.94
Oil self-sufficiency ²	-	-	0.07	0.02	0.01	0.01	0.01	0.02
Natural gas self-sufficiency ²	-	-	1.00	0.02	0.00	0.00	0.00	0.00
TPES/GDP (toe per thousand 2010 USD)	0.08	0.08	0.11	0.11	0.09	0.09	0.09	0.09
TPES/GDP PPP (toe per thousand 2010 USD)	0.07	0.08	0.10	0.10	0.09	0.09	0.09	0.09
TPES/population (toe per capita)	1.31	1.54	2.09	2.51	2.48	2.08	2.16	2.11
Net oil imports/GDP (toe per thousand 2010 USD)	0.08	0.07	0.07	0.08	0.06	0.06	0.06	0.05
Oil supply/GDP (toe per thousand 2010 USD)	0.06	0.06	0.06	0.06	0.05	0.05	0.04	0.04
Oil supply/population (toe per capita)	1.00	1.12	1.18	1.38	1.25	1.03	1.03	0.97
Share of renewables in TPES	0.05	0.05	0.05	0.05	0.08	0.12	0.11	0.13
Share of renewables in electricity generation	0.15	0.15	0.05	0.08	0.18	0.27	0.25	0.31
TFC/GDP (toe per thousand 2010 USD)	0.06	0.06	0.07	0.07	0.07	0.07	0.07	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.05	0.06	0.07	0.07	0.06	0.06	0.06	..
TFC/population (toe per capita)	0.95	1.10	1.41	1.71	1.75	1.52	1.54	..
Elect. cons./GDP (kWh per 2010 USD)	0.09	0.12	0.17	0.20	0.20	0.24	0.24	0.23
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.09	0.11	0.16	0.19	0.19	0.23	0.23	0.22
Elect. cons./population (kWh per capita)	1532	2224	3200	4586	5334	5501	5616	5406
Industry cons. ³ /industrial production (2010=100)	108.6	102.4	97.3	90.8	100.0	88.6	90.3	..
Industry oil cons. ³ /industrial production (2010=100)	164.3	157.4	96.6	97.9	100.0	86.4	77.0	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

Hungary

Figure 1. Energy production

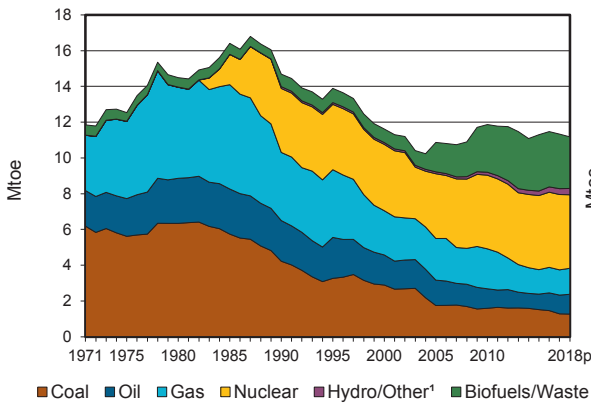


Figure 2. Total primary energy supply²

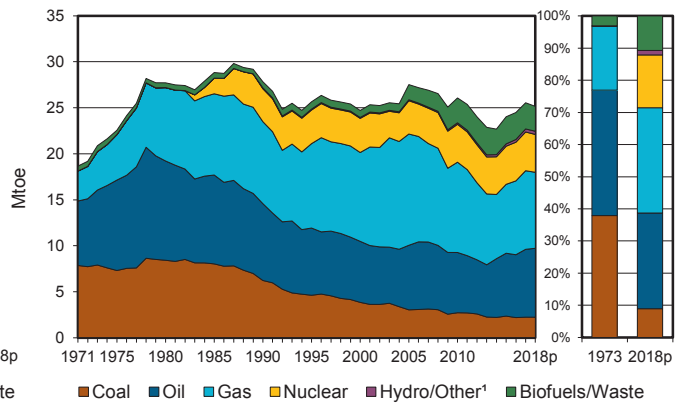


Figure 3. Energy self-sufficiency

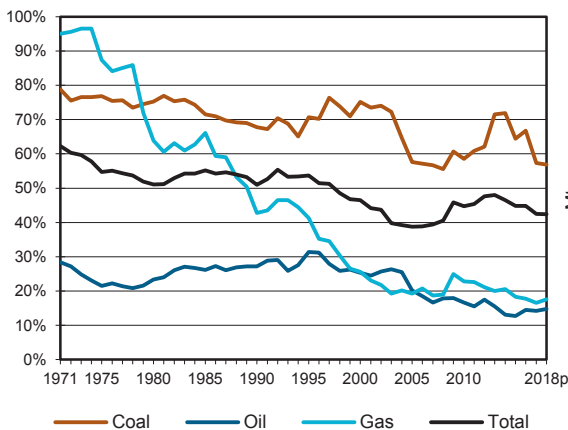


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

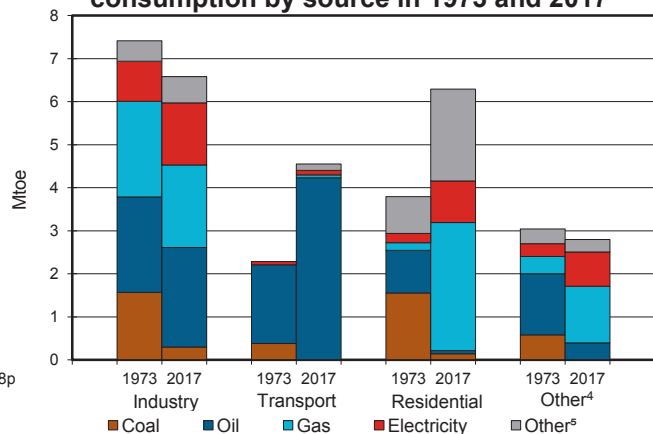


Figure 5. Electricity generation by source

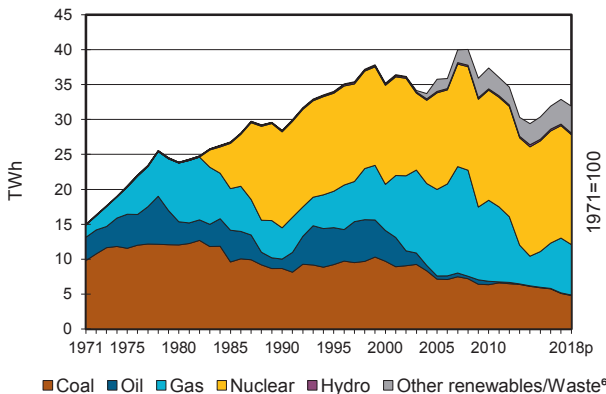
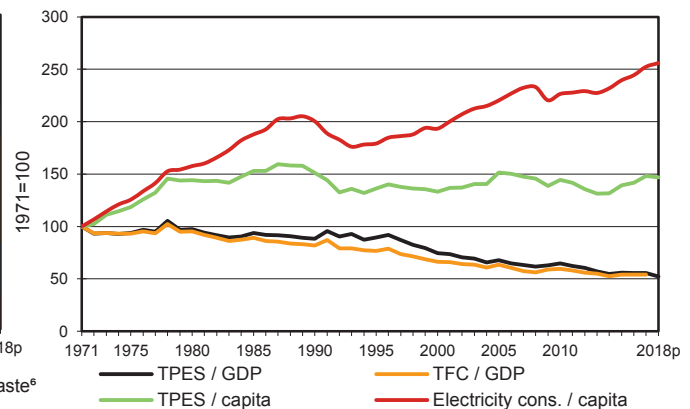


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Hungary

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	1.28	1.05	-	1.41	4.21	0.02	0.31	3.05	-	-	11.33
Imports	1.26	6.18	3.59	11.16	-	-	-	0.26	1.70	-	24.15
Exports	-0.27	-0.19	-2.99	-2.94	-	-	-	-0.46	-0.60	-	-7.45
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-0.22	-	-	-	-	-	-	-	-0.22
Stock changes	-0.03	0.00	-0.04	-1.09	-	-	-	-0.01	-	-	-1.16
TPES	2.24	7.04	0.34	8.54	4.21	0.02	0.31	2.84	1.11	-	26.65
Transfers	-	-0.09	0.10	-	-	-	-	-	-	-	0.01
Statistical differences	0.01	-	-	0.26	-	-	-	-0.00	-0.04	0.00	0.23
Electricity plants	-1.27	-	-0.02	-0.60	-2.10	-0.02	-0.10	-0.34	1.67	-	-2.78
CHP plants	-0.08	-	-0.00	-0.89	-2.12	-	-0.00	-0.34	1.16	0.49	-1.79
Heat plants	-0.08	-	-0.00	-0.55	-	-	-0.13	-0.07	-	0.77	-0.07
Blast furnaces	-0.25 e	-	-	-0.03 e	-	-	-	-	-	-	-0.28
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat. fuel/BKB/PB plants	-0.04	-	-	-	-	-	-	-	-	-	-0.04
Oil refineries	-	-7.21	7.21	-	-	-	-	-	-	-	-0.00
Petrochemical plants	-	0.24	-0.25	-	-	-	-	-	-	-	-0.01
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	0.03	-	-0.13	-	-	-	-	-	-	-0.10
Energy industry own use	-0.07	-	-0.36	-0.22	-	-	-	-0.01	-0.29	-0.12	-1.07
Losses	-0.01	-	-	-0.11	-	-	-	-	-0.30	-0.10	-0.52
TFC	0.44	-	7.01	6.27	-	-	0.07	2.07	3.31	1.04	20.22
INDUSTRY	0.29	-	0.67	1.36	-	-	0.00	0.25	1.44	0.36	4.37
Iron and steel	0.19 e	-	0.00	0.06 e	-	-	-	0.00	0.06	0.02	0.33
Chemical and petrochemical	-	-	0.37	0.26	-	-	-	0.00	0.29	0.25	1.16
Non-ferrous metals	-	-	0.00	0.08	-	-	-	-	0.04	0.01	0.13
Non-metallic minerals	0.03	-	0.09	0.19	-	-	-	0.09	0.12	0.00	0.53
Transport equipment	-	-	0.00	0.07	-	-	0.00	0.00	0.15	0.01	0.24
Machinery	0.00	-	0.01	0.18	-	-	0.00	0.00	0.24	0.01	0.44
Mining and quarrying	-	-	0.02	0.00	-	-	-	0.00	0.01	-	0.03
Food and tobacco	0.00	-	0.01	0.29	-	-	0.00	0.07	0.21	0.03	0.62
Paper, pulp and printing	0.06	-	0.00	0.05	-	-	-	0.03	0.08	0.02	0.24
Wood and wood products	-	-	0.01	0.01	-	-	-	0.04	0.03	0.00	0.09
Construction	0.00	-	0.15	0.05	-	-	0.00	0.00	0.03	0.00	0.24
Textile and leather	-	-	-	0.02	-	-	-	0.00	0.02	0.00	0.04
Non-specified	0.00	-	0.00	0.09	-	-	0.00	0.01	0.18	0.01	0.29
TRANSPORT	-	-	4.19	0.07	-	-	-	0.15	0.10	-	4.51
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	4.14	0.01	-	-	-	0.15	0.00	-	4.30
Rail	-	-	0.04	-	-	-	-	-	0.10	-	0.14
Pipeline transport	-	-	-	0.06	-	-	-	-	0.00	-	0.06
Domestic navigation	-	-	0.01	-	-	-	-	-	-	-	0.01
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	0.14	-	0.47	4.28	-	-	0.07	1.67	1.77	0.68	9.09
Residential	0.14	-	0.07	2.97	-	-	0.01	1.62	0.97	0.50	6.29
Comm. and public services	0.00	-	0.03	1.17	-	-	0.02	0.03	0.72	0.18	2.15
Agriculture/forestry	0.00	-	0.36	0.12	-	-	0.04	0.02	0.08	0.00	0.61
Fishing	-	-	0.00	0.00	-	-	-	0.00	0.00	-	0.00
Non-specified	-	-	0.01	0.02	-	-	-	-	0.01	0.00	0.03
NON-ENERGY USE	0.00	-	1.69	0.56	-	-	-	-	-	-	2.25
in industry/transf./energy	0.00	-	1.64	0.56	-	-	-	-	-	-	2.21
of which: chem./petrochem.	0.00	-	1.52	0.56	-	-	-	-	-	-	2.08
in transport	-	-	0.04	-	-	-	-	-	-	-	0.04
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - TWh	5.10	-	0.09	7.84	16.10	0.22	1.19	2.34	-	-	32.87
Electricity plants	4.83	-	0.07	3.84	8.05	0.22	1.18	1.22	-	-	19.41
CHP plants	0.27	-	0.01	4.00	8.05	-	0.01	1.12	-	-	13.46
Heat generated - PJ	4.38	-	0.16	35.91	0.83	-	5.34	6.06	-	-	52.68
CHP plants	1.43	-	0.01	14.65	0.83	-	0.02	3.68	-	-	20.61
Heat plants	2.95	-	0.15	21.26	-	-	5.31	2.38	-	-	32.07

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Hungary

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	1.27	1.10	-	1.46	4.11	0.02	0.33	2.89	-	-	11.18
Imports	1.24	6.86	3.51	10.62	-	-	-	0.27	1.60	-	24.11
Exports	-0.22	-0.43	-3.28	-4.17	-	-	-	-0.44	-0.37	-	-8.91
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-0.27	-	-	-	-	-	-	-	-0.27
Stock changes	-0.05	-0.07	0.06	0.36	-	-	-	-0.01	-	-	0.28
TPES	2.23	7.47	0.02	8.26	4.11	0.02	0.33	2.70	1.23	-	26.38
Electricity and Heat Output											
Elec. generated - TWh	4.80	-	0.07	7.23	15.73	0.22	1.37	2.49	-	-	31.91
Heat generated - PJ	4.36	-	0.06	32.72	0.62	-	5.24	5.07	-	-	48.07

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	12.7	14.5	14.7	11.6	11.9	11.5	11.3	11.2
Net imports (Mtoe)	8.7	14.3	14.2	13.9	15.1	14.3	16.7	15.2
Total primary energy supply (Mtoe)	21.3	28.4	28.8	25.0	26.5	25.6	26.7	26.4
Net oil imports (Mtoe)	6.5	8.3	6.4	5.2	5.8	6.3	6.6	6.7
Oil supply (Mtoe)	8.2	10.8	8.4	6.6	6.6	6.8	7.4	7.5
Electricity consumption (TWh) ¹	20.4	28.9	35.6	33.8	38.8	41.1	42.3	42.8
GDP (billion 2010 USD)	72.7	93.1	104.3	107.2	130.9	147.5	153.6	161.2
GDP PPP (billion 2010 USD)	119.6	153.2	171.5	176.3	215.4	242.7	252.7	265.2
Population (millions)	10.43	10.71	10.37	10.21	10.00	9.81	9.79	9.77
Industrial production index (2010=100)	..	40.7	39.7	58.1	82.5	101.0	105.6	109.4
Total self-sufficiency ²	0.60	0.51	0.51	0.46	0.45	0.45	0.43	0.42
Coal self-sufficiency ²	0.77	0.75	0.68	0.75	0.59	0.67	0.57	0.57
Oil self-sufficiency ²	0.25	0.23	0.27	0.25	0.17	0.15	0.14	0.15
Natural gas self-sufficiency ²	0.97	0.64	0.43	0.26	0.23	0.18	0.17	0.18
TPES/GDP (toe per thousand 2010 USD)	0.29	0.30	0.28	0.23	0.20	0.17	0.17	0.16
TPES/GDP PPP (toe per thousand 2010 USD)	0.18	0.19	0.17	0.14	0.12	0.11	0.11	0.10
TPES/population (toe per capita)	2.04	2.65	2.78	2.45	2.65	2.61	2.72	2.70
Net oil imports/GDP (toe per thousand 2010 USD)	0.09	0.09	0.06	0.05	0.04	0.04	0.04	0.04
Oil supply/GDP (toe per thousand 2010 USD)	0.11	0.12	0.08	0.06	0.05	0.05	0.05	0.05
Oil supply/population (toe per capita)	0.78	1.01	0.81	0.65	0.65	0.70	0.75	0.77
Share of renewables in TPES	0.03	0.02	0.03	0.03	0.11	0.12	0.11	0.11
Share of renewables in electricity generation	0.01	0.01	0.01 e	0.01 e	0.08	0.10	0.11	0.12
TFC/GDP (toe per thousand 2010 USD)	0.23	0.23	0.20	0.16	0.15	0.13	0.13	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.14	0.14	0.12	0.10	0.09	0.08	0.08	..
TFC/population (toe per capita)	1.59	2.01	2.00	1.69	1.90	1.97	2.07	..
Elect. cons./GDP (kWh per 2010 USD)	0.28	0.31	0.34	0.32	0.30	0.28	0.28	0.27
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.17	0.19	0.21	0.19	0.18	0.17	0.17	0.16
Elect. cons./population (kWh per capita)	1957	2699	3430	3309	3877	4183	4321	4380
Industry cons. ³ /industrial production (2010=100)	..	434.1	352.9	150.6	100.0	105.4	111.6	..
Industry oil cons. ³ /industrial production (2010=100)	..	374.7	246.9	123.6	100.0	92.3	103.1	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

Iceland

Figure 1. Energy production

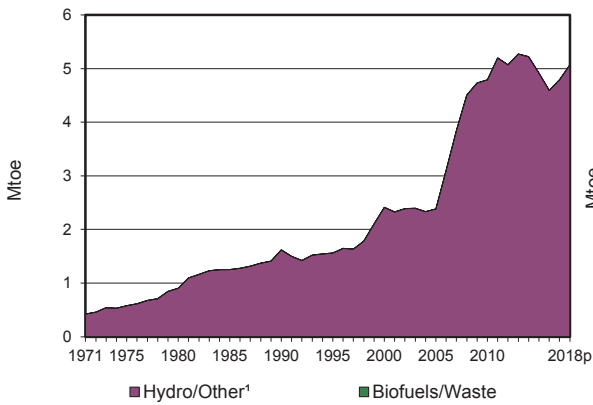


Figure 2. Total primary energy supply²

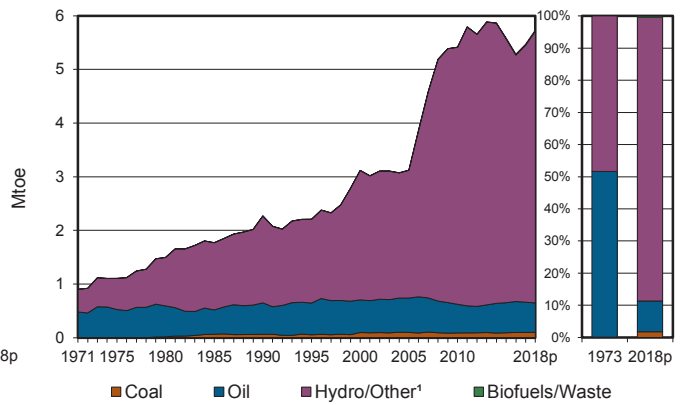


Figure 3. Energy self-sufficiency

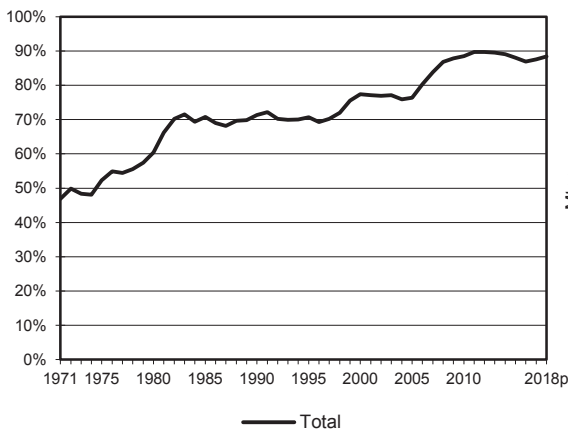


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

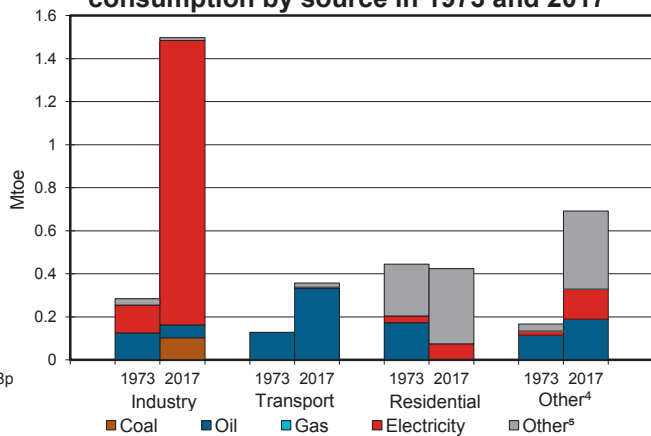


Figure 5. Electricity generation by source

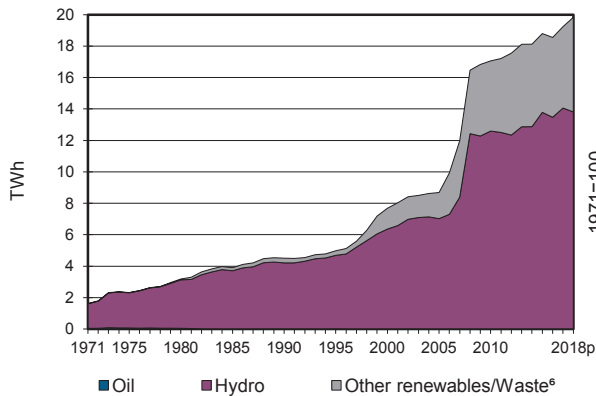
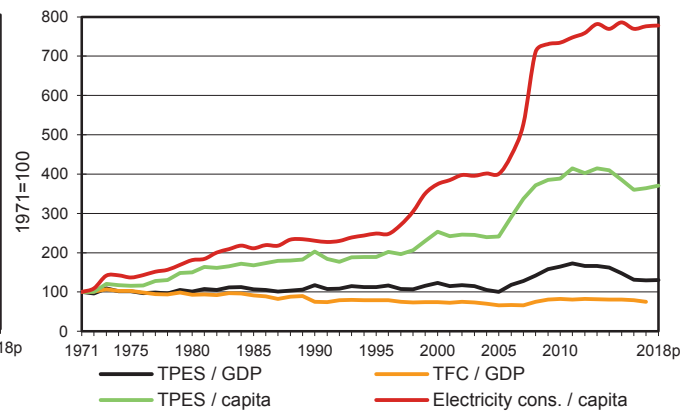


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Iceland

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	1.21	3.58	0.00 e	-	-	4.79
Imports	0.10	-	0.98	-	-	-	-	0.02	-	-	1.09
Exports	-	-	-	-	-	-	-	-	-	-	-
Intl. marine bunkers	-	-	-0.06	-	-	-	-	-	-	-	-0.06
Intl. aviation bunkers	-	-	-0.37	-	-	-	-	-	-	-	-0.37
Stock changes	-	-	0.02	-	-	-	-	-	-	-	0.02
TPES	0.10	-	0.56	-	-	1.21	3.58	0.02	-	-	5.47
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	0.00	-	0.02	-	-	-	0.04	0.00	-0.00	-0.00	0.07
Electricity plants	-	-	-0.00	-	-	-1.21	-0.36	-	1.26	-	-0.31
CHP plants	-	-	-	-	-	-	-2.60	-	0.40	0.24	-1.97
Heat plants	-	-	-0.00	-	-	-	-0.57	-	-0.02	0.48	-0.10
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat. fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-	-	-	-	-	-	-	-0.00	-0.05	-	-0.05
Losses	-	-	-	-	-	-	-0.01	-	-0.05	-0.07	-0.13
TFC	0.10	-	0.58	-	-	-	0.08	0.02	1.54	0.64	2.97
INDUSTRY	0.10	-	0.04	-	-	-	0.01	0.00	1.32	-	1.48
Iron and steel	0.10	-	0.01	-	-	-	-	0.00 e	0.09 e	-	0.20
Chemical and petrochemical	-	-	0.00	-	-	-	-	-	0.01	-	0.01
Non-ferrous metals	-	-	0.00	-	-	-	-	-	1.16	-	1.16
Non-metallic minerals	-	-	0.00	-	-	-	-	-	0.00 e	-	0.00
Transport equipment	-	-	-	-	-	-	-	-	0.00	-	0.00
Machinery	-	-	-	-	-	-	-	-	0.00	-	0.00
Mining and quarrying	-	-	-	-	-	-	-	-	0.00	-	0.00
Food and tobacco	-	-	0.00	-	-	-	-	-	0.05	-	0.05
Paper, pulp and printing	-	-	-	-	-	-	-	-	0.00	-	0.00
Wood and wood products	-	-	-	-	-	-	-	-	0.00	-	0.00
Construction	-	-	0.03	-	-	-	-	0.00	0.00	-	0.03
Textile and leather	-	-	-	-	-	-	-	-	0.00	-	0.00
Non-specified	0.00	-	0.00	-	-	-	0.01	-	0.00	-	0.02
TRANSPORT	-	-	0.33	-	-	-	-	0.02	0.01	-	0.36
Domestic aviation	-	-	0.01	-	-	-	-	-	-	-	0.01
Road	-	-	0.32	-	-	-	-	0.02 e	..	-	0.33
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	0.01	-	-	-	-	0.00	-	-	0.01
Non-specified	-	-	0.00	-	-	-	-	0.00	0.01	-	0.01
OTHER	-	-	0.19	-	-	-	0.07	0.00	0.21	0.64	1.11
Residential	-	-	0.00	-	-	-	0.01	-	0.07	0.34	0.42
Comm. and public services	-	-	0.00	-	-	-	0.04	-	0.11	0.25	0.40
Agriculture/forestry	-	-	0.01	-	-	-	0.01	-	0.02	0.01	0.04
Fishing	-	-	0.17	-	-	-	0.01	0.00	0.01	0.04	0.23
Non-specified	-	-	0.01	-	-	-	-	0.00	-	0.01	0.02
NON-ENERGY USE	-	-	0.02	-	-	-	-	-	-	-	0.02
in industry/transf./energy	-	-	0.01	-	-	-	-	-	-	-	0.01
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	0.00	-	-	-	-	-	-	-	0.00
Electricity and Heat Output											
Electr. generated - TWh	-	-	0.00	-	-	14.06	5.18	-	-	-	19.24
Electricity plants	-	-	0.00	-	-	14.06	0.57	-	-	-	14.63
CHP plants	-	-	-	-	-	-	4.61	-	-	-	4.61
Heat generated - PJ	-	-	0.06	-	-	-	29.11	-	0.82	-	30.00
CHP plants	-	-	-	-	-	-	9.90	-	-	-	9.90
Heat plants	-	-	0.06	-	-	-	19.22	-	0.82	-	20.10

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Iceland

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	1.19	3.88	0.00	-	-	5.07
Imports	0.10	-	1.06	-	-	-	-	0.02	-	-	1.18
Exports	-	-	-	-	-	-	-	-	-	-	-
Intl. marine bunkers	-	-	-0.08	-	-	-	-	-	-	-	-0.08
Intl. aviation bunkers	-	-	-0.44	-	-	-	-	-	-	-	-0.44
Stock changes	-	-	0.00	-	-	-	-	-	-	-	0.00
TPES	0.10	-	0.55	-	-	1.19	3.88	0.02	-	-	5.73
Electricity and Heat Output											
Elec. generated - TWh	-	-	0.00	-	-	13.81	6.01	-	-	-	19.83
Heat generated - PJ	-	-	0.06	-	-	-	31.50	-	0.91	-	32.47

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	0.5	0.9	1.6	2.4	4.8	4.6	4.8	5.1
Net imports (Mtoe)	0.7	0.6	0.8	1.0	0.8	1.1	1.1	1.2
Total primary energy supply (Mtoe)	1.1	1.5	2.3	3.1	5.4	5.3	5.5	5.7
Net oil imports (Mtoe)	0.7	0.6	0.7	0.9	0.7	0.9	1.0	1.1
Oil supply (Mtoe)	0.6	0.6	0.6	0.6	0.5	0.6	0.6	0.6
Electricity consumption (TWh) ¹	2.1	2.9	4.1	7.4	16.4	18.1	18.7	19.2
GDP (billion 2010 USD)	4.3	6.1	8.0	10.5	13.7	16.8	17.5	18.4
GDP PPP (billion 2010 USD)	3.9	5.7	7.4	9.7	12.6	15.4	16.1	16.9
Population (millions)	0.21	0.23	0.26	0.28	0.32	0.34	0.34	0.35
Industrial production index (2010=100)	..	..	..	29.4	80.4	91.0	91.8	-
Total self-sufficiency ²	0.48	0.60	0.71	0.77	0.88	0.87	0.88	0.88
Coal self-sufficiency ²	-	-	-	-	-	-	-	-
Oil self-sufficiency ²	-	-	-	-	-	-	-	-
Natural gas self-sufficiency ²	-	-	-	-	-	-	-	-
TPES/GDP (toe per thousand 2010 USD)	0.26	0.24	0.28	0.30	0.40	0.32	0.31	0.31
TPES/GDP PPP (toe per thousand 2010 USD)	0.29	0.27	0.31	0.32	0.43	0.34	0.34	0.34
TPES/population (toe per capita)	5.28	6.57	8.90	11.10	17.03	15.78	15.95	16.24
Net oil imports/GDP (toe per thousand 2010 USD)	0.16	0.09	0.09	0.08	0.05	0.06	0.06	0.06
Oil supply/GDP (toe per thousand 2010 USD)	0.14	0.09	0.07	0.06	0.04	0.03	0.03	0.03
Oil supply/population (toe per capita)	2.72	2.52	2.30	2.16	1.68	1.72	1.64	1.56
Share of renewables in TPES	0.48	0.60	0.71	0.77	0.89	0.87	0.88	0.89
Share of renewables in electricity generation	0.96	0.99	1.00	1.00	1.00	1.00	1.00	1.00
TFC/GDP (toe per thousand 2010 USD)	0.24	0.21	0.17	0.17	0.19	0.18	0.17	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.26	0.23	0.18	0.18	0.20	0.19	0.18	..
TFC/population (toe per capita)	4.83	5.62	5.32	6.29	7.96	8.93	8.66	..
Elect. cons./GDP (kWh per 2010 USD)	0.49	0.47	0.51	0.70	1.20	1.08	1.06	1.05
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.54	0.51	0.56	0.76	1.30	1.17	1.16	1.14
Elect. cons./population (kWh per capita)	9910	12689	16137	26221	51447	53913	54366	54501
Industry cons. ³ /industrial production (2010=100)	..	..	..	145.7	100.0	97.4	99.9	..
Industry oil cons. ³ /industrial production (2010=100)	..	..	..	751.7	100.0	100.8	99.6	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

Ireland

Figure 1. Energy production

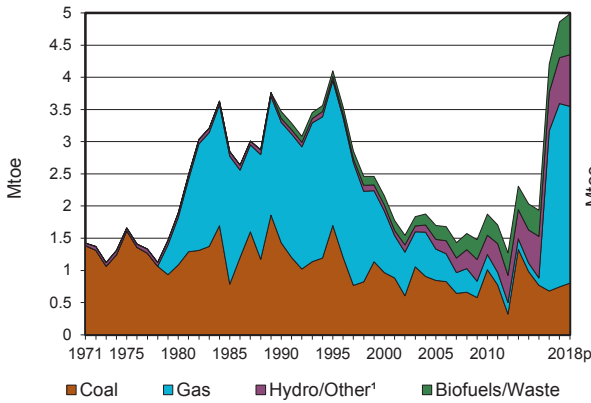


Figure 2. Total primary energy supply²

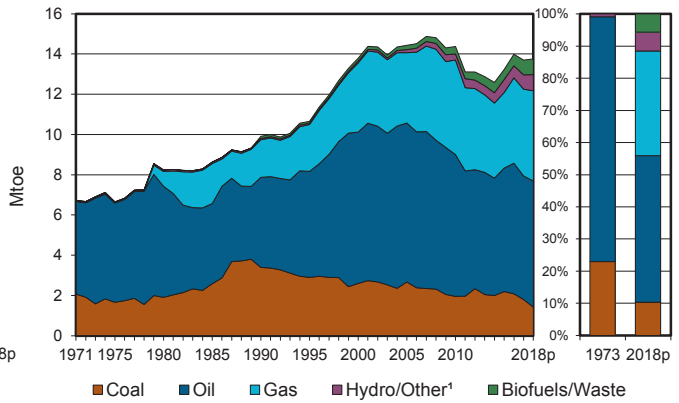


Figure 3. Energy self-sufficiency

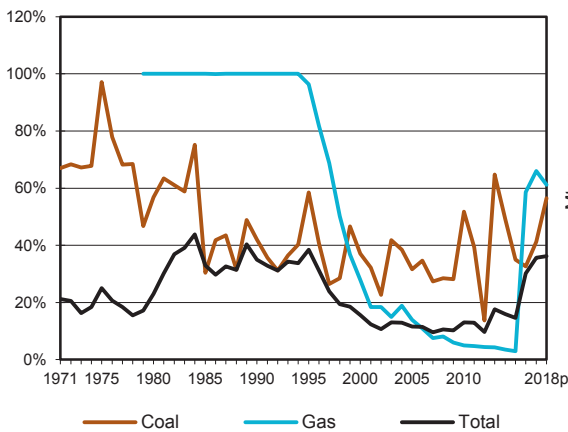


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

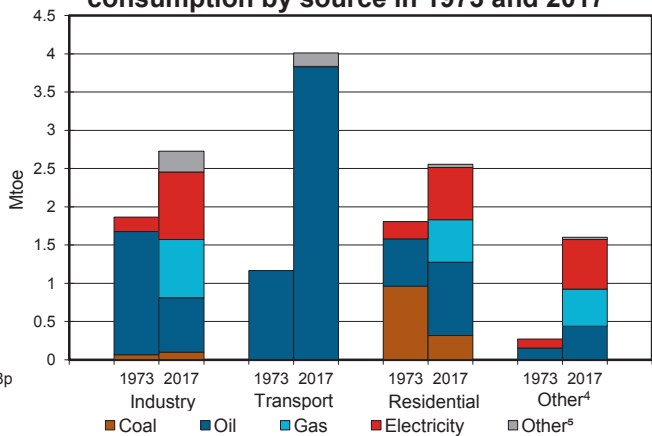


Figure 5. Electricity generation by source

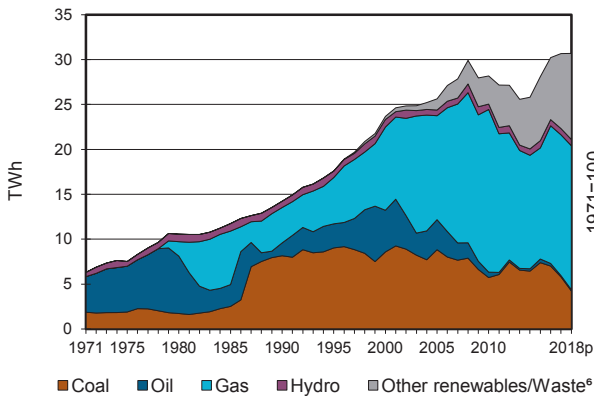
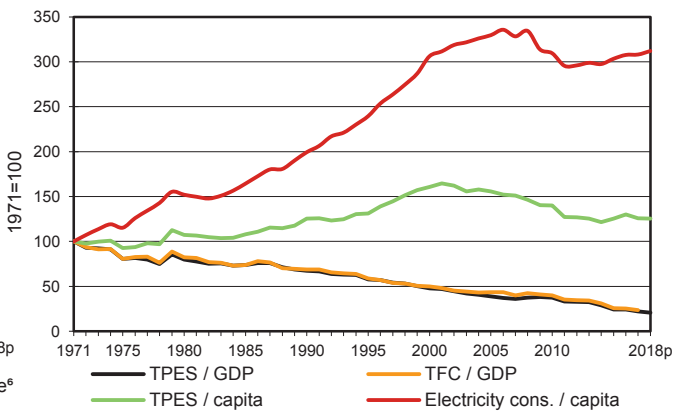


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Ireland

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	0.74	-	-	2.85	-	0.06	0.65	0.56	-	-	4.86
Imports	1.23	3.29	6.02	1.41	-	-	-	0.17	0.10	-	12.21
Exports	-0.02	-0.30	-1.85	-	-	-	-	-0.00	-0.15	-	-2.32
Intl. marine bunkers	-	-	-0.15	-	-	-	-	-	-	-	-0.15
Intl. aviation bunkers	-	-	-0.99	-	-	-	-	-	-	-	-0.99
Stock changes	-0.16	0.27	-0.14	0.05	-	-	-	0.01	-	-	0.03
TPES	1.80	3.25	2.89	4.31	-	0.06	0.65	0.73	-0.06	-	13.64
Transfers	-	-0.03	0.03	-	-	-	-	-	-	-	-0.01
Statistical differences	-0.01	-	-0.04	0.01	-	-	-	0.01	-0.07	-	-0.10
Electricity plants	-1.35	-	-0.03	-2.14	-	-0.06	-0.64	-0.23	2.45	-	-2.00
CHP plants	-0.01	-	-0.00	-0.28	-	-	-	-0.01	0.19	-	-0.11
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat. fuel/BKB/PB plants	-0.00	-	-	-	-	-	-	-	-	-	-0.00
Oil refineries	-	-3.26	3.22	-	-	-	-	-	-	-	-0.05
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	0.05	-	-0.05	-	-	-	-	-	-	-0.01
Energy industry own use	-0.01	-	-0.13	-	-	-	-	-	-0.09	-	-0.24
Losses	-	-	-	-0.05	-	-	-	-	-0.19	-	-0.24
TFC	0.42	-	5.94	1.80	-	-	0.01	0.50	2.22	-	10.89
INDUSTRY	0.10	-	0.49	0.76	-	-	-	0.27	0.88	-	2.50
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	0.03	0.06	-	-	-	-	0.16	-	0.25
Non-ferrous metals	-	-	0.01	0.42	-	-	-	-	0.07	-	0.49
Non-metallic minerals	0.08	-	0.18	0.02	-	-	-	0.12	0.06	-	0.46
Transport equipment	-	-	0.00	0.00	-	-	-	-	0.02	-	0.02
Machinery	-	-	0.05	0.13	-	-	-	-	0.13	-	0.31
Mining and quarrying	-	-	0.03	0.01	-	-	-	-	0.06	-	0.11
Food and tobacco	0.02	-	0.13	0.10	-	-	-	0.02	0.19	-	0.47
Paper, pulp and printing	0.00	-	0.00	0.00	-	-	-	-	0.02	-	0.03
Wood and wood products	0.00	-	0.00	0.00	-	-	-	0.13	0.04	-	0.17
Construction	-	-	-	-	-	-	-	-	0.01	-	0.01
Textile and leather	-	-	0.00	0.00	-	-	-	-	0.01	-	0.02
Non-specified	0.00	-	0.05	0.01	-	-	-	-	0.12	-	0.18
TRANSPORT	-	-	3.80	0.00	-	-	-	0.18	0.00	-	3.98
Domestic aviation	-	-	0.00	-	-	-	-	-	-	-	0.00
Road	-	-	3.69	0.00	-	-	-	0.18	0.00	-	3.86
Rail	-	-	0.04	-	-	-	-	-	0.00	-	0.04
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	0.07	-	-	-	-	-	-	-	0.07
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	0.32	-	1.40	1.04	-	-	0.01	0.06	1.34	-	4.16
Residential	0.32	-	0.96	0.55	-	-	0.01	0.03	0.68	-	2.56
Comm. and public services	-	-	0.25	0.48	-	-	0.00	0.03	0.60	-	1.37
Agriculture/forestry	-	-	0.16	-	-	-	-	-	0.05	-	0.21
Fishing	-	-	0.02	-	-	-	-	-	-	-	0.02
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	0.25	-	-	-	-	-	-	-	0.25
in industry/transf./energy	-	-	0.22	-	-	-	-	-	-	-	0.22
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	0.03	-	-	-	-	-	-	-	0.03
in other	-	-	0.00	-	-	-	-	-	-	-	0.00
Electricity and Heat Output											
Electr. generated - TWh	5.81	-	0.14	15.68	-	0.69	7.46	0.89	-	-	30.67
Electricity plants	5.79	-	0.14	13.58	-	0.69	7.46	0.83	-	-	28.48
CHP plants	0.02	-	0.01	2.10	-	-	-	0.06	-	-	2.19
Heat generated - PJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes peat.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Ireland

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	0.80	-	-	2.75	-	0.06	0.74	0.63	-	-	4.98
Imports	0.83	3.07	6.02	1.74	-	-	-	0.15	0.14	-	11.95
Exports	-0.02	-	-1.69	-	-	-	-	-0.01	-0.14	-	-1.86
Intl. marine bunkers	-	-	-0.16	-	-	-	-	-	-	-	-0.16
Intl. aviation bunkers	-	-	-1.08	-	-	-	-	-	-	-	-1.08
Stock changes	-0.20	0.03	0.09	-	-	-	-	0.00	-	-	-0.08
TPES	1.42	3.10	3.17	4.49	-	0.06	0.74	0.78	-0.00	-	13.76
Electricity and Heat Output											
Elec. generated - TWh	4.25	-	0.14	16.03	-	0.69	8.47	1.10	-	-	30.69
Heat generated - PJ	-	-	-	-	-	-	-	-	-	-	-

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes peat.
2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	1.1	1.9	3.5	2.2	1.9	4.2	4.9	5.0
Net imports (Mtoe)	6.0	6.6	7.1	12.3	13.2	10.3	9.9	10.1
Total primary energy supply (Mtoe)	6.9	8.2	9.9	13.8	14.4	13.9	13.6	13.8
Net oil imports (Mtoe)	5.5	5.8	5.1	8.2	7.7	7.4	7.2	7.4
Oil supply (Mtoe)	5.3	5.5	4.5	7.5	7.0	6.5	6.1	6.3
Electricity consumption (TWh) ¹	6.6	9.8	13.2	22.1	26.7	27.7	28.0	28.7
GDP (billion 2010 USD)	43.4	59.7	85.2	167.8	222.1	334.3	358.4	382.3
GDP PPP (billion 2010 USD)	38.5	53.1	75.7	149.1	197.4	297.1	318.6	339.8
Population (millions)	3.07	3.40	3.51	3.80	4.56	4.75	4.80	4.86
Industrial production index (2010=100)	..	7.3	13.5	42.9	63.0	101.8	99.5	99.4
Total self-sufficiency ²	0.16	0.23	0.35	0.16	0.13	0.30	0.36	0.36
Coal self-sufficiency ²	0.67	0.57	0.42	0.37	0.52	0.33	0.41	0.56
Oil self-sufficiency ²	-	-	-	-	-	-	-	-
Natural gas self-sufficiency ²	-	1.00	1.00	0.28	0.05	0.59	0.66	0.61
TPES/GDP (toe per thousand 2010 USD)	0.16	0.14	0.12	0.08	0.06	0.04	0.04	0.04
TPES/GDP PPP (toe per thousand 2010 USD)	0.18	0.16	0.13	0.09	0.07	0.05	0.04	0.04
TPES/population (toe per capita)	2.25	2.42	2.83	3.63	3.16	2.93	2.84	2.83
Net oil imports/GDP (toe per thousand 2010 USD)	0.13	0.10	0.06	0.05	0.03	0.02	0.02	0.02
Oil supply/GDP (toe per thousand 2010 USD)	0.12	0.09	0.05	0.04	0.03	0.02	0.02	0.02
Oil supply/population (toe per capita)	1.71	1.62	1.28	1.98	1.54	1.37	1.28	1.29
Share of renewables in TPES	0.01	0.01	0.02	0.02	0.05	0.08	0.10	0.10
Share of renewables in electricity generation	0.09	0.08	0.05	0.05	0.13	0.25	0.29	0.33
TFC/GDP (toe per thousand 2010 USD)	0.12	0.11	0.09	0.06	0.05	0.03	0.03	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.13	0.12	0.10	0.07	0.06	0.04	0.03	..
TFC/population (toe per capita)	1.66	1.87	2.15	2.83	2.52	2.30	2.27	..
Elect. cons./GDP (kWh per 2010 USD)	0.15	0.16	0.16	0.13	0.12	0.08	0.08	0.08
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.17	0.19	0.18	0.15	0.14	0.09	0.09	0.09
Elect. cons./population (kWh per capita)	2152	2878	3776	5798	5861	5826	5834	5909
Industry cons. ³ /industrial production (2010=100)	..	817.5	438.7	182.9	100.0	67.3	70.1	..
Industry oil cons. ³ /industrial production (2010=100)	..	1418.4	403.7	203.8	100.0	46.7	46.3	..

1. Electricity consumption equals domestic supply less losses.
2. Production divided by TPES. Coal self-sufficiency also includes peat, when applicable.
3. Includes non-energy use.

Israel

Figure 1. Energy production

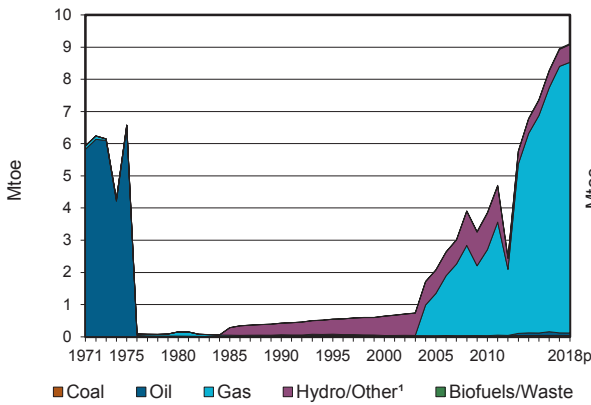


Figure 2. Total primary energy supply²

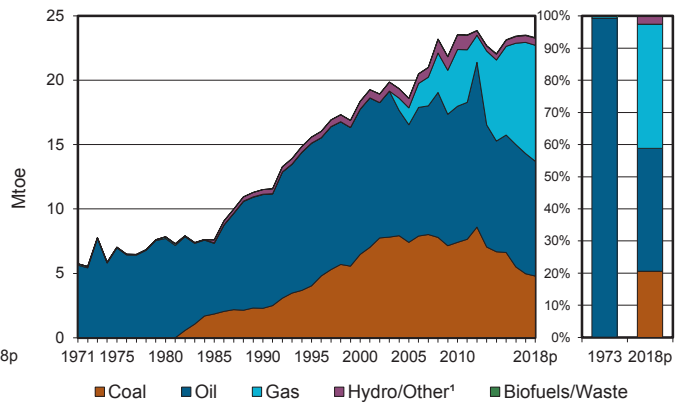


Figure 3. Energy self-sufficiency

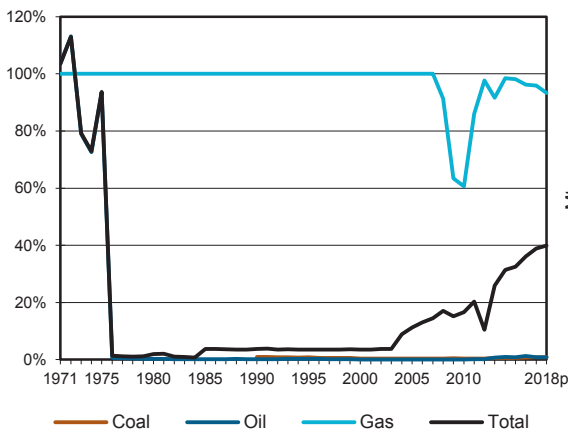


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

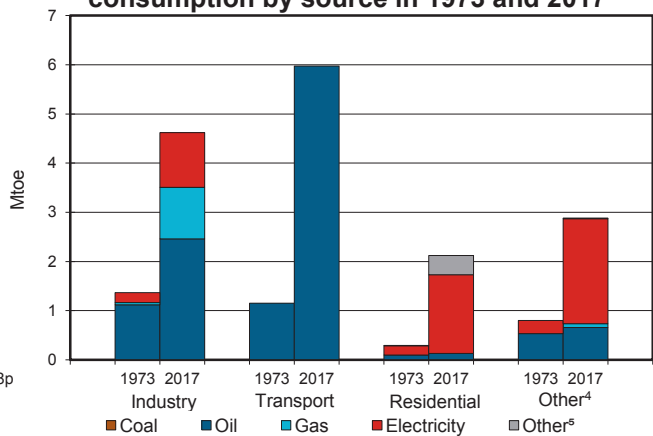


Figure 5. Electricity generation by source

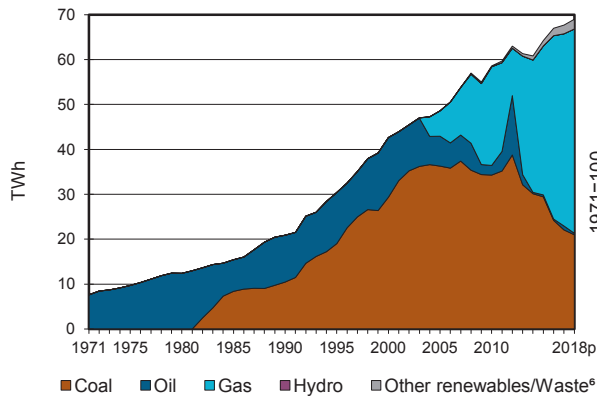
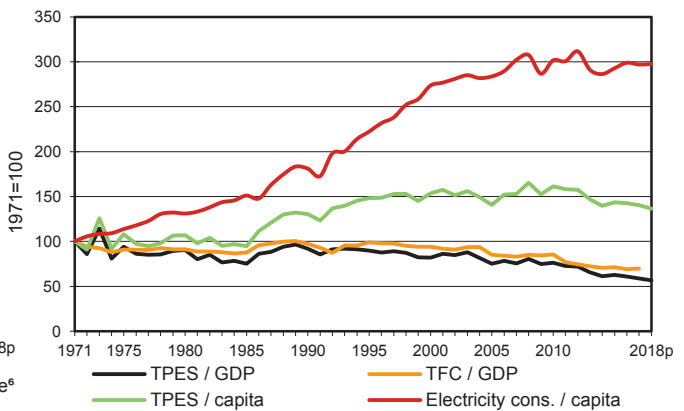


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Israel

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./ Solar/ etc.	Biofuels/ Waste	Electricity	Heat	Total
Production	0.04	0.08	-	8.28 e	-	c	0.53 e	0.03 e	-	c	8.96
Imports	5.07	14.88	2.08	0.42 e	-	-	-	0.02 e	-	-	22.46
Exports	-	-	-5.83	-0.06 e	-	-	-	-	-0.49	-	-6.38
Intl. marine bunkers	-	-	-0.23	-	-	-	-	-	-	-	-0.23
Intl. aviation bunkers	-	-	-1.09	-	-	-	-	-	-	-	-1.09
Stock changes	-0.14	-0.46	-0.10	-	-	-	-	-	-	-	-0.70
TPES	4.97	14.49	-5.16	8.63	-	c	0.53	0.04	-0.49	c	23.02
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	0.02	-0.69	1.16	0.03 e	-	-	-	-	-0.02	-	0.49
Electricity plants	-4.97	-	-0.19	-7.36 e	-	c	-0.15	-0.02	5.82 e	c	-6.87
CHP plants	-	-	-	-	-	-	-	-	-	c	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat. fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-13.94	14.07	-	-	-	-	-	-	-	0.13
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	0.14	-	-0.17 e	-	-	-	-	-	-	-0.03
Energy industry own use	-0.02	-	-0.66	-	-	-	-	-	-0.26	-	-0.94
Losses	-	-	-	-	-	-	-	-	-0.21	-	-0.21
TFC	0.00	-	9.22	1.13	-	-	0.39	0.02	4.84	-	15.60
INDUSTRY	-	-	0.57	1.05	-	-	-	-	1.11	-	2.73
Iron and steel	-	-	-	-	-	-	-	-	0.04 e	-	0.04
Chemical and petrochemical	-	-	-	-	-	-	-	-	c	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	0.31	-	-	-	-	-	c	-	0.31
Transport equipment	-	-	-	-	-	-	-	-	0.04 e	-	0.04
Machinery	-	-	-	-	-	-	-	-	0.22 e	-	0.22
Mining and quarrying	-	-	-	-	-	-	-	-	0.19 e	-	0.19
Food and tobacco	-	-	-	-	-	-	-	-	0.14 e	-	0.14
Paper, pulp and printing	-	-	-	-	-	-	-	-	0.01 e	-	0.01
Wood and wood products	-	-	-	-	-	-	-	-	0.05 e	-	0.05
Construction	-	-	-	-	-	-	-	-	c	-	-
Textile and leather	-	-	-	-	-	-	-	-	0.02 e	-	0.02
Non-specified	-	-	0.26	1.05 e	-	-	-	-	0.40 e	-	1.71
TRANSPORT	-	-	5.97	-	-	-	-	-	-	-	5.97
Domestic aviation	-	-	0.03	-	-	-	-	-	-	-	0.03
Road	-	-	5.95	-	-	-	-	-	-	-	5.95
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	0.79	0.08	-	-	0.39	0.02	3.73	-	5.00
Residential	-	-	0.13	-	-	-	0.39 e	0.00 e	1.60	-	2.12
Comm. and public services	-	-	0.13	-	-	-	-	-	1.54	-	1.66
Agriculture/forestry	-	-	-	-	-	-	-	-	0.25 e	-	0.25
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	0.53	0.08 e	-	-	-	0.02 e	0.34 e	-	0.97
NON-ENERGY USE	0.00	-	1.89	-	-	-	-	-	-	-	1.89
in industry/transf./energy	-	-	1.89	-	-	-	-	-	-	-	1.89
of which: chem./petrochem.	-	-	1.33	-	-	-	-	-	-	-	1.33
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	0.00	-	-	-	-	-	-	-	-	-	0.00
Electricity and Heat Output											
Electr. generated - TWh	22.08	-	0.87	42.80	-	c	1.69	c	-	0.24	67.67
Electricity plants	22.08	-	0.87	42.80	-	c	1.69	c	-	0.24 e	67.67
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - PJ	-	-	-	-	-	-	-	-	-	c	-
CHP plants	-	-	-	-	-	-	-	-	-	c	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes oil shale.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Israel

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	0.04	0.08	-	8.41	-	c	0.55	0.03	-	c	9.10
Imports	4.59	13.36	2.04	0.60	-	-	-	0.02	-	-	20.61
Exports	-	-	-4.98	-	-	-	-	-	-0.49	-	-5.47
Intl. marine bunkers	-	-	-0.28	-	-	-	-	-	-	-	-0.28
Intl. aviation bunkers	-	-	-1.30	-	-	-	-	-	-	-	-1.30
Stock changes	0.15	-	-	-	-	-	-	-	-	-	0.15
TPES	4.79	13.44	-4.53	9.01	-	c	0.55	0.04	-0.49	c	22.82
Electricity and Heat Output											
Elec. generated - TWh	21.00	-	0.33	45.48	-	-	1.93	-	-	0.24	68.98
Heat generated - PJ	-	-	-	-	-	-	-	-	-	-	-

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes oil shale.
2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	6.2	0.2	0.4	0.6	3.9	8.3	9.0	9.1
Net imports (Mtoe)	2.4	8.5	11.4	18.2	20.5	15.1	16.1	15.1
Total primary energy supply (Mtoe)	7.8	7.8	11.5	18.2	23.2	23.0	23.0	22.8
Net oil imports (Mtoe)	2.4	8.5	9.0	12.3	11.7	10.0	11.1	10.4
Oil supply (Mtoe)	7.7	7.7	8.8	11.3	10.6	9.5	9.3	8.9
Electricity consumption (TWh) ¹	8.2	11.7	19.5	39.8	53.0 e	58.9	59.6	61.0
GDP (billion 2010 USD)	52.3	66.5	96.2	170.9	233.7	290.4	300.5	310.4
GDP PPP (billion 2010 USD)	49.2	62.5	90.4	160.7	219.8	273.1	282.6	291.9
Population (millions)	3.28	3.88	4.66	6.30	7.62	8.54	8.71	8.88
Industrial production index (2010=100)	..	..	39.7	70.1	91.6	99.7	101.5	104.0
Total self-sufficiency ²	0.79	0.02	0.04	0.04	0.17	0.36	0.39	0.40
Coal self-sufficiency ²	-	-	0.01	0.00	0.00	0.01	0.01	0.01
Oil self-sufficiency ²	0.79	0.00	0.00	0.00	0.00	0.01	0.01	0.01
Natural gas self-sufficiency ²	1.00	1.00	1.00	1.00	0.61	0.96 e	0.96 e	0.93
TPES/GDP (toe per thousand 2010 USD)	0.15	0.12	0.12	0.11	0.10	0.08	0.08	0.07
TPES/GDP PPP (toe per thousand 2010 USD)	0.16	0.13	0.13	0.11	0.11	0.08	0.08	0.08
TPES/population (toe per capita)	2.37	2.02	2.46	2.89	3.04	2.69	2.64	2.57
Net oil imports/GDP (toe per thousand 2010 USD)	0.05	0.13	0.09	0.07	0.05	0.03	0.04	0.03
Oil supply/GDP (toe per thousand 2010 USD)	0.15	0.12	0.09	0.07	0.05	0.03	0.03	0.03
Oil supply/population (toe per capita)	2.35	1.99	1.89	1.79	1.39	1.11	1.07	1.00
Share of renewables in TPES	-	-	0.03	0.03	0.05	0.02	0.03	0.03
Share of renewables in electricity generation	-	-	-	0.00	0.00	0.03	0.03	0.03
TFC/GDP (toe per thousand 2010 USD)	0.07	0.07	0.07	0.07	0.06	0.05	0.05	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.07	0.07	0.08	0.08	0.07	0.06	0.06	..
TFC/population (toe per capita)	1.10	1.16	1.50	1.90	1.95	1.75	1.79	..
Elect. cons./GDP (kWh per 2010 USD)	0.16	0.18	0.20	0.23	0.23 e	0.20	0.20	0.20
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.17	0.19	0.22	0.25	0.24 e	0.22	0.21	0.21
Elect. cons./population (kWh per capita)	2498	3022	4175	6308	6956 e	6893	6848	6863
Industry cons. ³ /industrial production (2010=100)	..	..	145.3	119.9	100.0	117.9	120.7	..
Industry oil cons. ³ /industrial production (2010=100)	..	..	167.3	126.7	100.0	89.3	95.7	..

1. Electricity consumption equals domestic supply less losses.
2. Production divided by TPES. Coal self-sufficiency also includes peat, when applicable.
3. Includes non-energy use.

Italy

Figure 1. Energy production

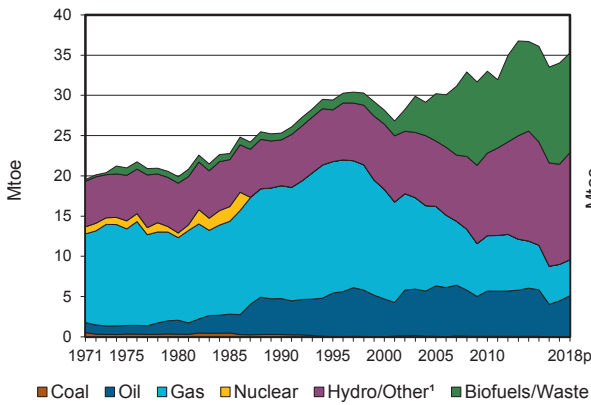


Figure 2. Total primary energy supply²

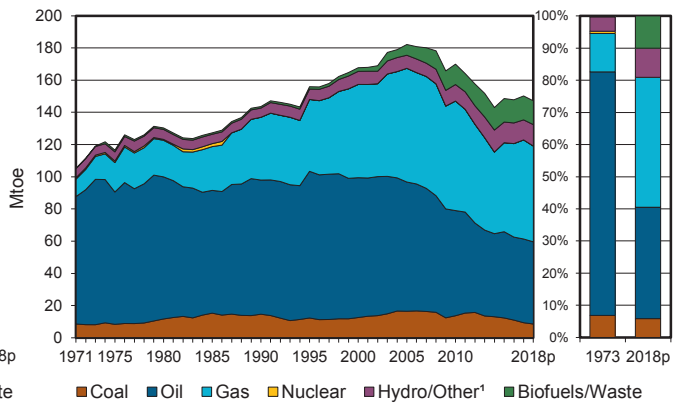


Figure 3. Energy self-sufficiency

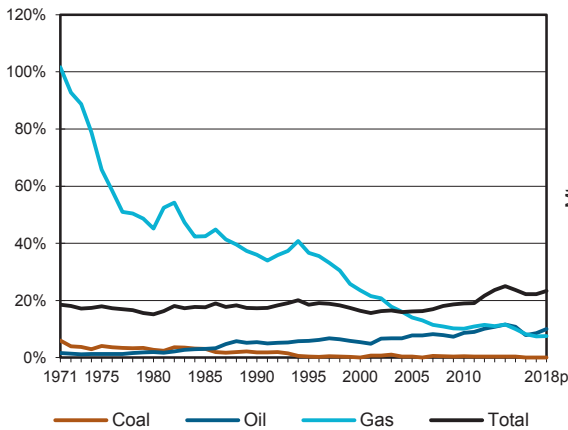


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

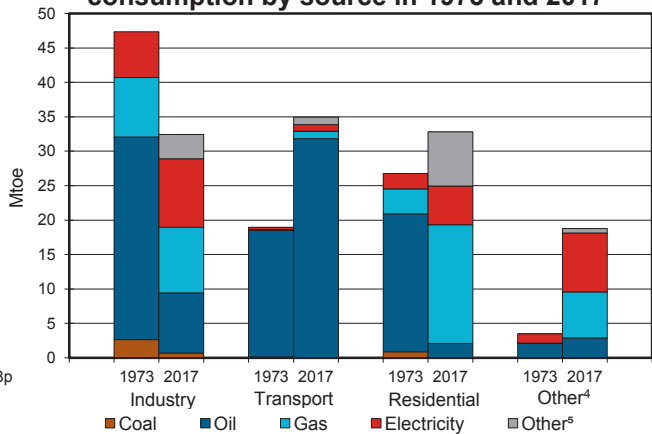


Figure 5. Electricity generation by source

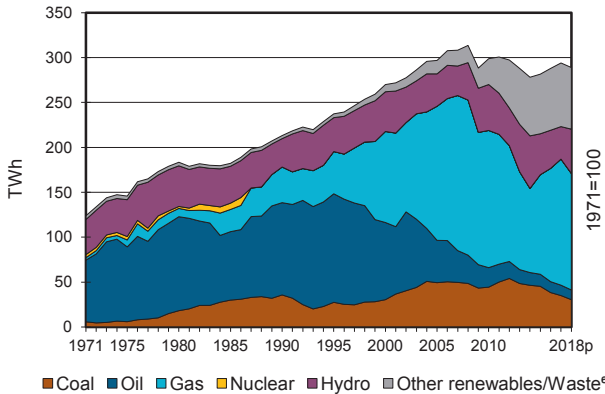
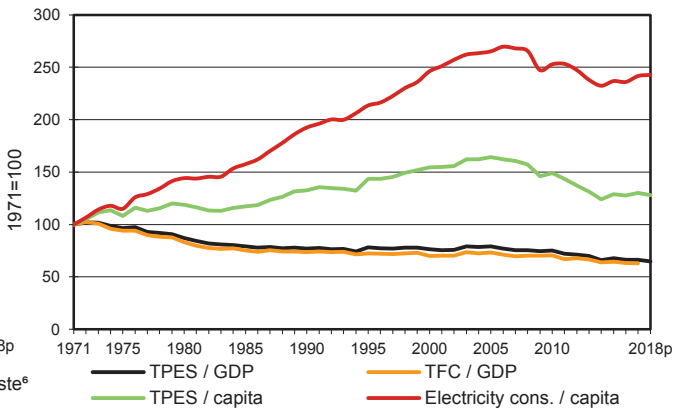


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Italy

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	4.46	-	4.54	-	3.11	9.33	12.58	-	-	34.02
Imports	9.59	70.24	14.72	57.04	-	-	-	2.64	3.69	-	157.93
Exports	-0.23	-1.65	-30.49	-0.22	-	-	-	-0.33	-0.44	-	-33.37
Intl. marine bunkers	-	-	-2.30	-	-	-	-	-	-	-	-2.30
Intl. aviation bunkers	-	-	-3.42	-	-	-	-	-	-	-	-3.42
Stock changes	-0.02	0.88	-0.44	0.19	-	-	-	-0.03	-	-	0.59
TPES	9.34	73.92	-21.92	61.55	-	3.11	9.33	14.86	3.25	-	153.45
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	0.30	-0.06	0.13	-	-	-	-	-	-	-	0.37
Electricity plants	-7.21	-	-0.50	-8.62	-	-3.11	-8.95	-2.74	15.81	-	-15.32
CHP plants	-0.72	-	-3.66	-16.37	-	-	-	-3.44	9.47	5.25	-9.47
Heat plants	-	-	-0.00	-0.25	-	-	-0.04	-0.10	-	0.32	-0.06
Blast furnaces	-0.75 e	-	-	-	-	-	-	-	-	-	-0.75
Gas works	-	-	-	0.01	-	-	-	-0.01	-	-	0.00
Coke/pat. fuel/BKB/PB plants	-0.14	-	-	-	-	-	-	-	-	-	-0.14
Oil refineries	-	-75.67	76.36	-	-	-	-	-	-	-	0.69
Petrochemical plants	-	1.80	-1.87	-	-	-	-	-	-	-	-0.07
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-0.01	-	-	-0.01
Energy industry own use	-0.06	-	-3.06	-1.42	-	-	-	-	-1.82	-1.40	-7.75
Losses	-	-	-	-0.33	-	-	-	-	-1.61	-0.06	-1.99
TFC	0.77	-	45.46	34.58	-	-	0.34	8.57	25.10	4.11	118.93
INDUSTRY	0.71	-	1.95	8.87	-	-	0.01	0.63	9.94	2.87	24.98
Iron and steel	0.56 e	-	0.07	1.26	-	-	-	-	1.61	0.16	3.66
Chemical and petrochemical	-	-	0.30	1.01	-	-	-	0.08	1.23	1.03	3.65
Non-ferrous metals	-	-	0.05	0.43	-	-	-	-	0.22	0.00	0.69
Non-metallic minerals	0.15	-	0.88	2.00	-	-	-	0.27	0.77	0.13	4.19
Transport equipment	-	-	-	-	-	-	-	-	0.31	0.11	0.42
Machinery	-	-	0.25	1.42	-	-	-	0.01	1.80	0.03	3.50
Mining and quarrying	-	-	0.03	0.03	-	-	-	-	0.05	0.00	0.11
Food and tobacco	-	-	0.19	1.17	-	-	-	0.04	1.07	0.38	2.85
Paper, pulp and printing	-	-	0.06	0.66	-	-	-	0.00	0.74	0.83	2.29
Wood and wood products	-	-	-	0.03	-	-	-	0.16	0.26	0.04	0.48
Construction	-	-	0.03	0.23	-	-	-	0.00	0.12	0.00	0.38
Textile and leather	-	-	0.07	0.61	-	-	-	0.00	0.44	0.04	1.16
Non-specified	-	-	0.03	0.02	-	-	0.01	0.07	1.33	0.12	1.58
TRANSPORT	-	-	31.42	1.06	-	-	-	1.06	0.98	-	34.53
Domestic aviation	-	-	0.78	-	-	-	-	-	-	-	0.78
Road	-	-	29.74	0.85	-	-	-	1.06	0.01	-	31.65
Rail	-	-	0.03	-	-	-	-	-	0.47	-	0.51
Pipeline transport	-	-	-	0.22	-	-	-	-	0.03	-	0.25
Domestic navigation	-	-	0.87	-	-	-	-	-	-	-	0.87
Non-specified	-	-	-	-	-	-	-	-	0.46	-	0.46
OTHER	-	-	4.89	23.99	-	-	0.33	6.88	14.19	1.24	51.51
Residential	-	-	2.09	17.26	-	-	0.16	6.76	5.63	0.90	32.80
Comm. and public services	-	-	0.55	6.59	-	-	0.12	0.09	8.04	0.31	15.69
Agriculture/forestry	-	-	2.01	0.14	-	-	0.02	0.04	0.49	0.01	2.70
Fishing	-	-	0.16	-	-	-	0.03	-	0.03	-	0.22
Non-specified	-	-	0.09	-	-	-	-	-	-	0.02	0.10
NON-ENERGY USE	0.06	-	7.20	0.66	-	-	-	-	-	-	7.91
in industry/transf./energy	-	-	6.80	0.66	-	-	-	-	-	-	7.45
of which: chem./petrochem.	-	-	5.11	0.66	-	-	-	-	-	-	5.76
in transport	-	-	0.40	-	-	-	-	-	-	-	0.40
in other	0.06	-	-	-	-	-	-	-	-	-	0.06
Electricity and Heat Output											
Electr. generated - TWh	35.10	-	11.53	140.35	-	36.20	48.98	21.85	-	-	294.00
Electricity plants	32.49	-	2.02	53.57	-	36.20	48.98	10.62	-	-	183.88
CHP plants	2.61	-	9.51	86.78	-	-	-	11.23	-	-	110.13
Heat generated - PJ	6.24	-	32.28	149.17	-	-	0.80	44.94	-	-	233.42
CHP plants	6.24	-	32.19	139.83	-	-	-	41.63	-	-	219.89
Heat plants	-	-	0.09	9.34	-	-	0.80	3.31	-	-	13.53

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Italy

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	5.10	-	4.46	-	4.24	9.07	12.38	-	-	35.25
Imports	8.88	65.38	15.58	55.59	-	-	-	2.66	4.06	-	152.15
Exports	-0.25	-1.97	-28.05	-0.32	-	-	-	-0.29	-0.28	-	-31.15
Intl. marine bunkers	-	-	-2.33	-	-	-	-	-	-	-	-2.33
Intl. aviation bunkers	-	-	-3.65	-	-	-	-	-	-	-	-3.65
Stock changes	-0.10	0.83	0.13	-0.22	-	-	-	0.00	-	-	0.65
TPES	8.53	69.35	-18.31	59.51	-	4.24	9.07	14.75	3.78	-	150.92
Electricity and Heat Output											
Elec. generated - TWh	30.54	-	10.76	129.74	-	49.28	46.95	21.66	-	-	288.94
Heat generated - PJ	5.57	-	30.42	138.61	-	-	0.80	45.21	-	-	220.61

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	20.4	19.9	25.3	28.2	33.0	33.5	34.0	35.3
Net imports (Mtoe)	107.8	116.8	127.3	152.4	148.5	121.5	124.6	121.0
Total primary energy supply (Mtoe)	119.1	130.8	146.6	171.5	173.7	151.0	153.5	150.9
Net oil imports (Mtoe)	98.3	92.8	85.1	88.0	66.8	51.9	52.8	51.0
Oil supply (Mtoe)	90.3	88.2	83.3	86.9	65.3	51.5	52.0	51.0
Electricity consumption (TWh) ¹	134.6	175.2	235.1	301.8	325.7	308.0	314.9	315.8
GDP (billion 2010 USD)	1074.6	1379.8	1749.2	2060.2	2125.1	2085.4	2120.6	2138.8
GDP PPP (billion 2010 USD)	1049.4	1347.4	1708.1	2011.9	2075.2	2036.5	2070.8	2088.6
Population (millions)	54.75	56.43	56.72	56.94	59.83	60.63	60.54	60.44
Industrial production index (2010=100)	79.0	97.8	110.3	127.1	108.6	101.4	104.5	105.9
Total self-sufficiency ²	0.17	0.15	0.17	0.16	0.19	0.22	0.22	0.23
Coal self-sufficiency ²	0.04	0.03	0.02	0.00	0.00	-	-	-
Oil self-sufficiency ²	0.01	0.02	0.05	0.05	0.09	0.08	0.09	0.10
Natural gas self-sufficiency ²	0.89	0.45	0.36	0.24	0.10	0.08	0.07	0.08
TPES/GDP (toe per thousand 2010 USD)	0.11	0.09	0.08	0.08	0.08	0.07	0.07	0.07
TPES/GDP PPP (toe per thousand 2010 USD)	0.11	0.10	0.09	0.09	0.08	0.07	0.07	0.07
TPES/population (toe per capita)	2.18	2.32	2.58	3.01	2.90	2.49	2.53	2.50
Net oil imports/GDP (toe per thousand 2010 USD)	0.09	0.07	0.05	0.04	0.03	0.02	0.02	0.02
Oil supply/GDP (toe per thousand 2010 USD)	0.08	0.06	0.05	0.04	0.03	0.02	0.02	0.02
Oil supply/population (toe per capita)	1.65	1.56	1.47	1.53	1.09	0.85	0.86	0.84
Share of renewables in TPES	0.05	0.05	0.04	0.06 e	0.13	0.17	0.17	0.18
Share of renewables in electricity generation	0.29	0.27	0.16 e	0.19 e	0.26	0.38	0.35	0.40
TFC/GDP (toe per thousand 2010 USD)	0.09	0.07	0.07	0.06	0.06	0.06	0.06	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.09	0.08	0.07	0.06	0.06	0.06	0.06	..
TFC/population (toe per capita)	1.76	1.81	2.03	2.26	2.24	1.94	1.97	..
Elect. cons./GDP (kWh per 2010 USD)	0.13	0.13	0.13	0.15	0.15	0.15	0.15	0.15
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.13	0.13	0.14	0.15	0.16	0.15	0.15	0.15
Elect. cons./population (kWh per capita)	2458	3105	4145	5300	5443	5081	5202	5226
Industry cons. ³ /industrial production (2010=100)	165.2	125.6	110.5	99.9	100.0	84.5	85.6	..
Industry oil cons. ³ /industrial production (2010=100)	332.8	203.6	133.9	94.9	100.0	70.1	74.9	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

Japan

Figure 1. Energy production

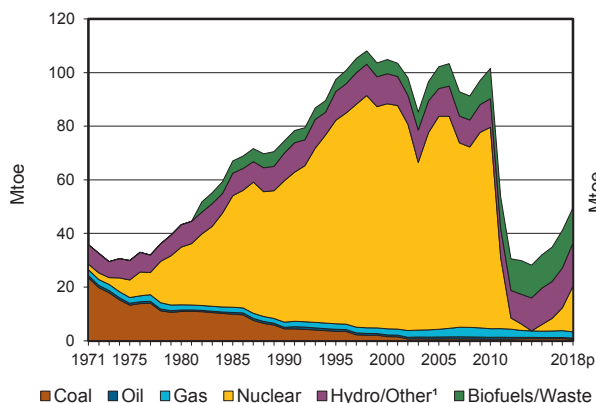


Figure 2. Total primary energy supply²

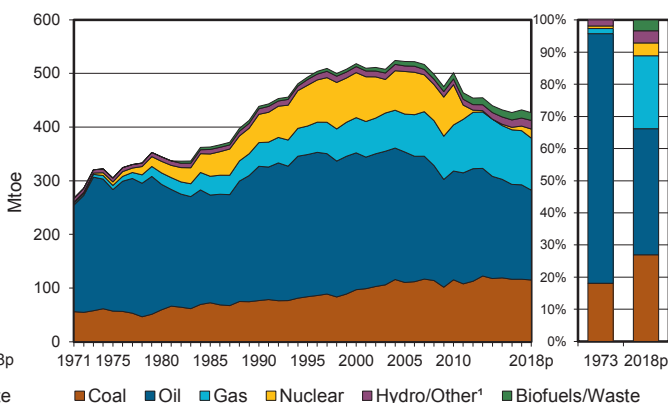


Figure 3. Energy self-sufficiency

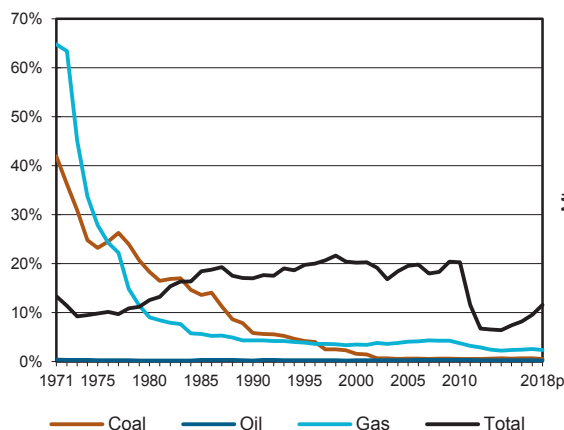


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

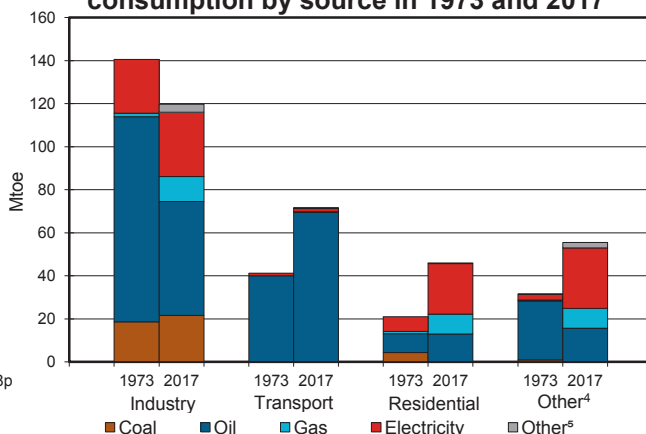


Figure 5. Electricity generation by source

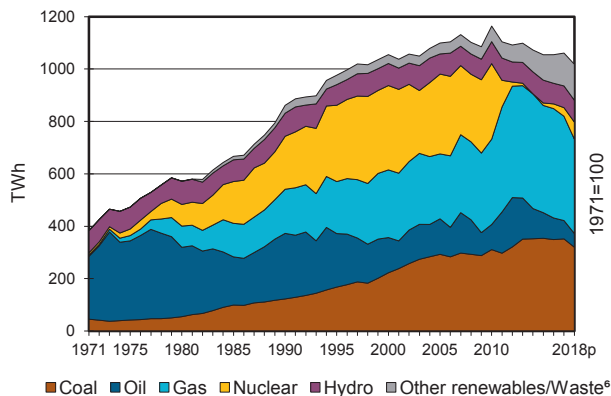
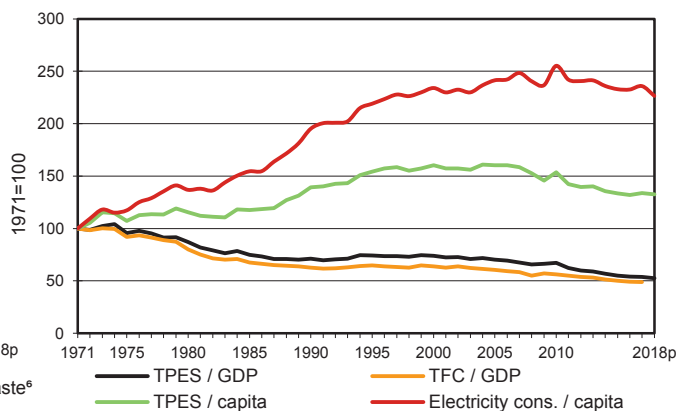


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Japan

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	0.77	0.44	-	2.56	8.58	7.12	7.77	14.02	-	-	41.26
Imports	116.51	158.76	44.69	98.21	-	-	-	1.18	-	-	419.35
Exports	-0.86	-	-17.66	-	-	-	-	-	-	-	-18.52
Intl. marine bunkers	-	-	-4.25	-	-	-	-	-	-	-	-4.25
Intl. aviation bunkers	-	-	-7.07	-	-	-	-	-	-	-	-7.07
Stock changes	0.06	1.41	-0.34	0.12	-	-	-	-	-	-	1.25
TPES	116.48	160.61	15.38	100.90	8.58	7.12	7.77	15.21	-	-	432.03
Transfers	-	-0.99	0.87	-	-	-	-	-	-	-	-0.12
Statistical differences	-0.11	-0.45	-4.14	-1.01	-	-	-	-0.32	-0.59	0.06	-6.56
Electricity plants	-72.41	-1.36	-12.99	-70.07	-8.58	-7.12	-7.41	-8.47	91.23	-	-97.18
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-0.00	-0.32	-	-	-	-	-0.09	0.49	0.07
Blast furnaces	-17.62 e	-	-	-	-	-	-	-	-	-	-17.62
Gas works	-	-	-1.38	1.66	-	-	-	-0.00	-	-	0.27
Coke/pat. fuel/BKB/PB plants	-1.57	-	-0.45	-	-	-	-	-0.11	-	-	-2.14
Oil refineries	-	-161.96	164.09	-	-	-	-	-	-	-	2.13
Petrochemical plants	-	4.49	-4.66	-	-	-	-	-	-	-	-0.17
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-0.01 e	-	-	-0.01
Energy industry own use	-3.01	-0.07	-5.91	-1.16	-	-	-	-0.07	-4.18	-0.02	-14.41
Losses	-	-	-	-	-	-	-	-	-3.49	-	-3.49
TFC	21.75	0.27	150.79	29.99	-	-	0.36	6.22	82.88	0.54	292.80
INDUSTRY	21.19	0.02	20.19	11.40	-	-	0.00	3.79	29.78	-	86.38
Iron and steel	11.88 e	-	1.37	2.47	-	-	-	0.03	6.09	-	21.85
Chemical and petrochemical	3.84 e	0.02	11.00	2.27	-	-	-	0.14	4.78	-	22.05
Non-ferrous metals	0.21	-	0.38	0.45	-	-	-	0.03	1.11	-	2.19
Non-metallic minerals	3.42	-	2.02	0.76	-	-	-	0.66	1.53	-	8.40
Transport equipment	0.06	-	0.19	0.72	-	-	-	-	2.41	-	3.39
Machinery	0.00	-	0.60	1.04	-	-	-	0.00	4.34	-	5.99
Mining and quarrying	0.00	-	0.19	0.11	-	-	-	-	0.09	-	0.39
Food and tobacco	0.00	-	1.15	1.93	-	-	0.00	0.01	2.13	-	5.22
Paper, pulp and printing	1.77	-	0.70	0.56	-	-	-	2.88	2.64	-	8.55
Wood and wood products	-	-	0.12	0.02	-	-	-	0.04	0.31	-	0.49
Construction	-	-	1.50	0.06	-	-	-	-	0.54	-	2.11
Textile and leather	-	-	0.28	0.22	-	-	-	-	0.34	-	0.85
Non-specified	-	-	0.67	0.78	-	-	0.00	-	3.46	-	4.92
TRANSPORT	0.00	-	68.78	0.05	-	-	-	0.42	1.50	-	70.75
Domestic aviation	-	-	3.49	-	-	-	-	-	-	-	3.49
Road	-	-	62.00	0.05	-	-	-	0.42	-	-	62.47
Rail	0.00	-	0.16	-	-	-	-	-	1.50	-	1.66
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	3.13	-	-	-	-	-	-	-	3.13
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	0.12	-	28.11	18.32	-	-	0.36	2.01	51.59	0.54	101.05
Residential	-	-	12.93	9.21	-	-	0.27	0.01	23.50	0.03	45.94
Comm. and public services	0.12	-	10.52	9.10	-	-	0.07	1.43	27.81	0.51	49.56
Agriculture/forestry	0.00	-	3.36	0.00	-	-	0.01	-	0.25	-	3.62
Fishing	-	-	1.30	0.00	-	-	0.00	-	0.04	-	1.34
Non-specified	-	-	-	-	-	-	0.01	0.57	-	-	0.58
NON-ENERGY USE	0.44	0.25	33.71	0.22	-	-	-	-	-	-	34.62
in industry/transf./energy	0.44	0.25	32.46	0.22	-	-	-	-	-	-	33.37
of which: chem./petrochem.	0.44	0.25	29.51	0.22	-	-	-	-	-	-	30.42
in transport	-	-	0.86	-	-	-	-	-	-	-	0.86
in other	-	-	0.39	-	-	-	-	-	-	-	0.39
Electricity and Heat Output											
Electr. generated - TWh	351.83	6.82	63.11	398.14	32.91	82.85	84.42	40.93	-	-	1061.01
Electricity plants	351.83	6.82	63.11	398.14	32.91	82.85	84.42	40.93	-	-	1061.01
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - PJ	-	-	0.19	13.55	-	-	3.10	-	3.60	-	20.43
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	0.19	13.55	-	-	3.10	-	3.60	-	20.43

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Japan

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	0.59	0.40	-	2.33	16.92	7.16	8.93	13.12	-	-	49.44
Imports	115.56	152.88	43.70	94.31	-	-	-	1.25	-	-	407.70
Exports	-1.02	-	-17.58	-	-	-	-	-	-	-	-18.60
Intl. marine bunkers	-	-	-4.47	-	-	-	-	-	-	-	-4.47
Intl. aviation bunkers	-	-	-7.35	-	-	-	-	-	-	-	-7.35
Stock changes	-0.04	-0.59	0.36	0.39	-	-	-	-	-	-	0.11
TPES	115.09	152.69	14.65	97.02	16.92	7.16	8.93	14.37	-	-	426.81
Electricity and Heat Output											
Elec. generated - TWh	320.30	2.60	49.86	360.38	64.93	83.27	97.42	39.70	-	-	1018.44
Heat generated - PJ	-	-	0.19	13.55	-	-	3.10	-	3.60	-	20.43

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	29.5	43.3	74.5	104.9	101.5	34.9	41.3	49.4
Net imports (Mtoe)	316.8	318.8	377.8	429.2	409.8	401.7	400.8	389.1
Total primary energy supply (Mtoe)	320.4	344.5	438.7	518.2	501.4	427.1	432.0	426.8
Net oil imports (Mtoe)	273.1	251.7	263.3	270.0	212.1	185.8	185.8	179.0
Oil supply (Mtoe)	248.9	233.7	250.3	255.0	202.7	176.8	176.0	167.3
Electricity consumption (TWh) ¹	442.2	550.9	829.9	1020.9	1123.8	1015.4	1027.7	985.2
GDP (billion 2010 USD)	2392.7	3019.4	4703.6	5348.9	5700.1	6025.2	6141.4	6189.8
GDP PPP (billion 2010 USD)	1880.9	2373.5	3697.5	4204.7	4480.8	4736.3	4827.7	4865.7
Population (millions)	108.90	117.06	123.61	126.83	128.04	126.93	126.71	126.44
Industrial production index (2010=100)	60.7	71.7	105.6	107.2	102.8	100.1	102.9	104.0
Total self-sufficiency ²	0.09	0.13	0.17	0.20	0.20	0.08	0.10	0.12
Coal self-sufficiency ²	0.31	0.18	0.06	0.02	0.01	0.01	0.01	0.01
Oil self-sufficiency ²	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural gas self-sufficiency ²	0.45	0.09	0.04	0.03	0.04	0.02	0.03	0.02
TPES/GDP (toe per thousand 2010 USD)	0.13	0.11	0.09	0.10	0.09	0.07	0.07	0.07
TPES/GDP PPP (toe per thousand 2010 USD)	0.17	0.15	0.12	0.12	0.11	0.09	0.09	0.09
TPES/population (toe per capita)	2.94	2.94	3.55	4.09	3.92	3.36	3.41	3.38
Net oil imports/GDP (toe per thousand 2010 USD)	0.11	0.08	0.06	0.05	0.04	0.03	0.03	0.03
Oil supply/GDP (toe per thousand 2010 USD)	0.10	0.08	0.05	0.05	0.04	0.03	0.03	0.03
Oil supply/population (toe per capita)	2.29	2.00	2.02	2.01	1.58	1.39	1.39	1.32
Share of renewables in TPES	0.02	0.02	0.03	0.03	0.04	0.05	0.06	0.06
Share of renewables in electricity generation	0.14	0.16	0.11	0.09	0.10 e	0.14 e	0.16 e	0.18
TFC/GDP (toe per thousand 2010 USD)	0.10	0.08	0.06	0.06	0.06	0.05	0.05	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.12	0.10	0.08	0.08	0.07	0.06	0.06	..
TFC/population (toe per capita)	2.15	2.01	2.33	2.62	2.44	2.28	2.31	..
Elect. cons./GDP (kWh per 2010 USD)	0.18	0.18	0.18	0.19	0.20	0.17	0.17	0.16
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.24	0.23	0.22	0.24	0.25	0.21	0.21	0.20
Elect. cons./population (kWh per capita)	4060	4707	6714	8049	8776	7999	8111	7792
Industry cons. ³ /industrial production (2010=100)	188.3	138.9	107.0	104.3	100.0	95.7	94.6	..
Industry oil cons. ³ /industrial production (2010=100)	285.3	179.4	117.6	119.4	100.0	94.7	93.5	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

Korea

Figure 1. Energy production

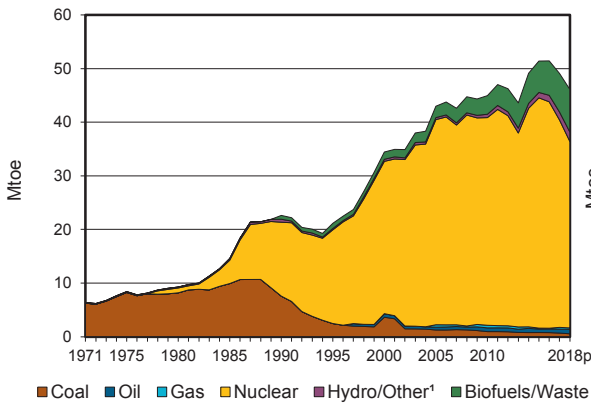


Figure 2. Total primary energy supply²

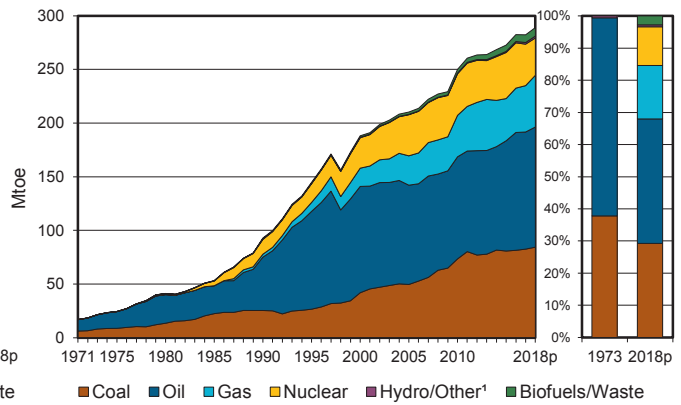


Figure 3. Energy self-sufficiency

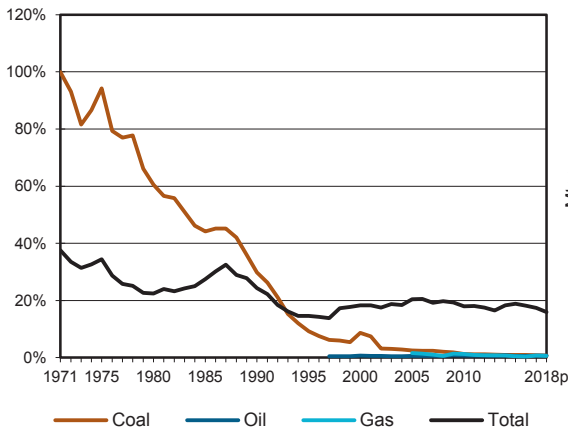


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

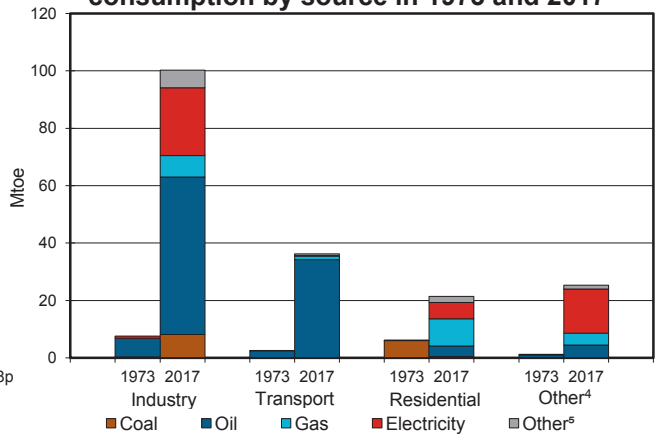


Figure 5. Electricity generation by source

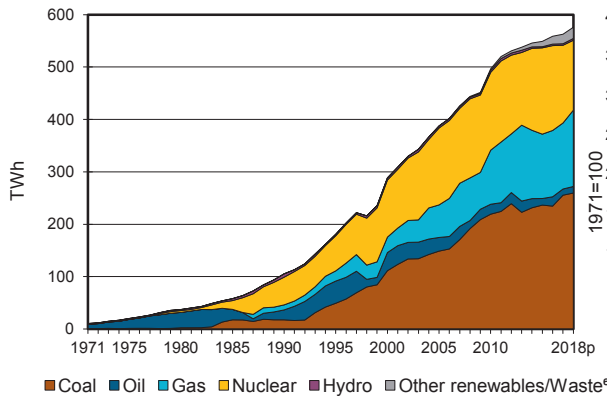
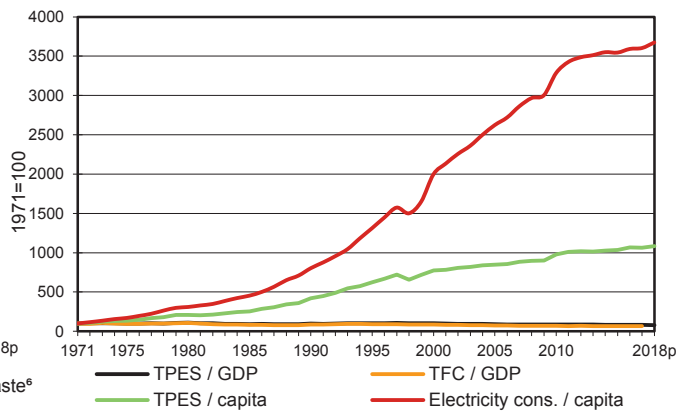


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Korea

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	0.69	0.75	-	0.31	38.67	0.24	1.19	7.19	-	0.05	49.09
Imports	81.67	152.84	38.04	43.63	-	-	-	-	-	-	316.17
Exports	-	-0.37	-66.46	-	-	-	-	-	-	-	-66.82
Intl. marine bunkers	-	-	-10.21	-	-	-	-	-	-	-	-10.21
Intl. aviation bunkers	-	-	-5.04	-	-	-	-	-	-	-	-5.04
Stock changes	0.24	-0.18	-0.28	-0.72	-	-	-	0.00	-	-	-0.94
TPES	82.60	153.04	-43.94	43.21	38.67	0.24	1.19	7.19	-	0.05	282.25
Transfers	-	-0.79	0.89	-	-	-	-	-	-	-	0.10
Statistical differences	0.43	0.19	2.74	0.50	-	-	-	0.00	1.45	-0.45	4.87
Electricity plants	-53.50	-	-1.31	-13.18	-38.67	-0.24	-0.96	-1.34	42.84	-0.03	-66.40
CHP plants	-6.07	-	-1.65	-8.18	-	-	-	-0.56	5.55	5.09	-5.81
Heat plants	-	-	-0.22	-0.05	-	-	-	-0.55	-	0.58	-0.23
Blast furnaces	-8.83 e	-	-	-	-	-	-	-	-	-	-8.83
Gas works	-	-	-0.11	-	-	-	-	-	-	-	-0.11
Coke/pat. fuel/BKB/PB plants	-3.06	-	-	-	-	-	-	-	-	-	-3.06
Oil refineries	-	-164.46	158.35	-	-	-	-	-	-	-	-6.11
Petrochemical plants	-	12.01	-11.00	-	-	-	-	-	-	-	1.01
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-2.97	-	-6.41	-0.14	-	-	-	-	-3.23	-0.10	-12.85
Losses	-	-	-	-	-	-	-	-	-1.62	-0.07	-1.68
TFC	8.60	-	97.34	22.17	-	-	0.22	4.74	44.99	5.08	183.15
INDUSTRY	7.59	-	3.59	7.48	-	-	0.01	3.22	23.60	2.90	48.39
Iron and steel	4.72 e	-	0.09	1.55	-	-	-	0.01	4.69	0.01	11.05
Chemical and petrochemical	0.01	-	0.64	1.08	-	-	-	0.40	4.46	1.89	8.49
Non-ferrous metals	-	-	0.03	0.26	-	-	-	-	0.77	0.00	1.07
Non-metallic minerals	2.36	-	0.49	0.54	-	-	-	0.70	1.11	0.00	5.21
Transport equipment	-	-	0.23	0.53	-	-	-	0.00	2.18	0.01	2.95
Machinery	-	-	0.07	0.97	-	-	-	0.00	6.88	0.00	7.93
Mining and quarrying	-	-	0.04	-	-	-	-	0.00	0.15	-	0.19
Food and tobacco	0.02	-	0.08	0.67	-	-	-	0.13	0.98	0.12	2.00
Paper, pulp and printing	-	-	0.04	0.24	-	-	-	0.72	0.87	0.24	2.10
Wood and wood products	-	-	0.00	0.03	-	-	-	0.12	0.17	0.01	0.32
Construction	-	-	0.73	0.00	-	-	-	0.03	-	-	0.76
Textile and leather	0.05	-	0.09	0.29	-	-	-	0.13	0.99	0.40	1.94
Non-specified	0.42	-	1.06	1.32	-	-	0.01	0.99	0.35	0.23	4.37
TRANSPORT	-	-	33.66	1.19	-	-	-	0.53	0.25	-	35.62
Domestic aviation	-	-	1.32	-	-	-	-	-	-	-	1.32
Road	-	-	31.83	1.19	-	-	-	0.53	0.00	-	33.54
Rail	-	-	0.10	-	-	-	-	-	0.24	-	0.34
Pipeline transport	-	-	0.00	-	-	-	-	-	-	-	0.00
Domestic navigation	-	-	0.42	-	-	-	-	-	-	-	0.42
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	0.50	-	8.09	13.50	-	-	0.22	0.99	21.15	2.18	46.63
Residential	0.50	-	3.67	9.40	-	-	0.05	0.16	5.72	1.88	21.37
Comm. and public services	-	-	1.92	4.10	-	-	0.14	0.77	14.05	0.30	21.29
Agriculture/forestry	-	-	0.29	0.00	-	-	0.03	0.07	1.13	-	1.51
Fishing	-	-	0.84	-	-	-	-	-	0.25	-	1.09
Non-specified	-	-	1.37	-	-	-	-	-	-	-	1.37
NON-ENERGY USE	0.51	-	52.00	-	-	-	-	-	-	-	52.51
in industry/transf./energy	0.51	-	51.32	-	-	-	-	-	-	-	51.83
of which: chem./petrochem.	0.51	-	49.75	-	-	-	-	-	-	-	50.26
in transport	-	-	0.63	-	-	-	-	-	-	-	0.63
in other	-	-	0.05	-	-	-	-	-	-	-	0.05
Electricity and Heat Output											
Electr. generated - TWh	255.51	-	11.80	125.95	148.43	2.82	11.18	6.90	-	0.11	562.69
Electricity plants	238.35	-	6.48	84.82	148.43	2.82	11.18	5.99	-	0.11	498.18
CHP plants	17.16	-	5.32	41.12	-	-	-	0.90	-	-	64.51
Heat generated - PJ	65.47	-	46.03	92.49	-	-	-	33.72	-	2.19	239.90
CHP plants	65.47	-	43.27	90.41	-	-	-	14.09	-	2.19	215.42
Heat plants	-	-	2.76	2.08	-	-	-	19.64	-	-	24.48

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Korea

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	0.56	0.82	-	0.27	34.79	0.29	1.42	7.93	-	0.05	46.12
Imports	83.49	153.01	40.97	50.21	-	-	-	-	-	-	327.68
Exports	-	-0.62	-69.72	-	-	-	-	-	-	-	-70.33
Intl. marine bunkers	-	-	-9.63	-	-	-	-	-	-	-	-9.63
Intl. aviation bunkers	-	-	-5.27	-	-	-	-	-	-	-	-5.27
Stock changes	0.37	3.07	-0.72	-2.28	-	-	-	-0.00	-	-	0.44
TPES	84.41	156.29	-44.37	48.19	34.79	0.29	1.42	7.93	-	0.05	289.01
Electricity and Heat Output											
Elec. generated - TWh	259.60	-	12.45	145.59	133.51	3.37	13.48	7.85	-	0.11	575.97
Heat generated - PJ	64.92	-	44.03	123.85	-	-	-	36.11	-	2.15	271.07

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	6.8	9.3	22.6	34.4	45.0	51.4	49.1	46.1
Net imports (Mtoe)	13.6	30.8	70.2	165.7	221.1	246.5	249.3	257.4
Total primary energy supply (Mtoe)	21.6	41.3	92.9	188.2	250.0	282.4	282.3	289.0
Net oil imports (Mtoe)	13.2	27.3	51.7	109.5	108.8	125.5	124.1	123.7
Oil supply (Mtoe)	13.3	26.7	49.7	99.0	95.1	109.8	109.1	111.9
Electricity consumption (TWh) ¹	13.5 e	34.8 e	101.7	277.7	481.5	544.1	548.1	561.1
GDP (billion 2010 USD)	79.5	141.1	362.9	710.0	1094.5	1306.0	1346.0	1381.9
GDP PPP (billion 2010 USD)	109.3	193.9	498.9	976.2	1504.7	1795.4	1850.4	1899.8
Population (millions)	34.10	38.12	42.87	47.01	49.55	51.25	51.45	51.66
Industrial production index (2010=100)	..	7.0	21.1	49.4	92.5	102.2	104.7	106.1
Total self-sufficiency ²	0.31	0.22	0.24	0.18	0.18	0.18	0.17	0.16
Coal self-sufficiency ²	0.82 e	0.61	0.30	0.09	0.01	0.01	0.01	0.01
Oil self-sufficiency ²	-	-	-	0.01	0.01	0.01	0.01	0.01
Natural gas self-sufficiency ²	-	-	-	-	0.01	0.00	0.01	0.01
TPES/GDP (toe per thousand 2010 USD)	0.27	0.29	0.26	0.27	0.23	0.22	0.21	0.21
TPES/GDP PPP (toe per thousand 2010 USD)	0.20	0.21	0.19	0.19	0.17	0.16	0.15	0.15
TPES/population (toe per capita)	0.63	1.08	2.17	4.00	5.05	5.51	5.49	5.59
Net oil imports/GDP (toe per thousand 2010 USD)	0.17	0.19	0.14	0.15	0.10	0.10	0.09	0.09
Oil supply/GDP (toe per thousand 2010 USD)	0.17	0.19	0.14	0.14	0.09	0.08	0.08	0.08
Oil supply/population (toe per capita)	0.39	0.70	1.16	2.11	1.92	2.14	2.12	2.17
Share of renewables in TPES	0.01	0.00	0.01	0.00 e	0.01	0.02	0.02	0.02
Share of renewables in electricity generation	0.09	0.05	0.06	0.01 e	0.01	0.03	0.03	0.04
TFC/GDP (toe per thousand 2010 USD)	0.22	0.22	0.18	0.18	0.14	0.14	0.14	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.16	0.16	0.13	0.13	0.11	0.10	0.10	..
TFC/population (toe per capita)	0.51	0.82	1.51	2.70	3.18	3.49	3.56	..
Elect. cons./GDP (kWh per 2010 USD)	0.17 e	0.25 e	0.28	0.39	0.44	0.42	0.41	0.41
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.12 e	0.18 e	0.20	0.28	0.32	0.30	0.30	0.30
Elect. cons./population (kWh per capita)	397 e	914 e	2373	5907	9716	10618	10654	10862
Industry cons. ³ /industrial production (2010=100)	..	214.1	137.9	142.8	100.0	106.5	107.2	..
Industry oil cons. ³ /industrial production (2010=100)	..	308.8	178.9	154.0	100.0	109.9	112.4	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

Latvia

Figure 1. Energy production

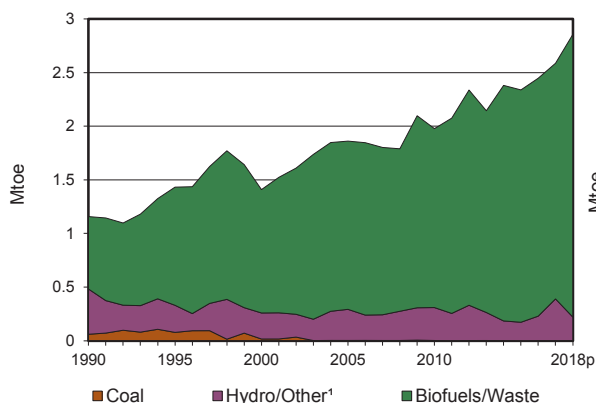


Figure 2. Total primary energy supply²

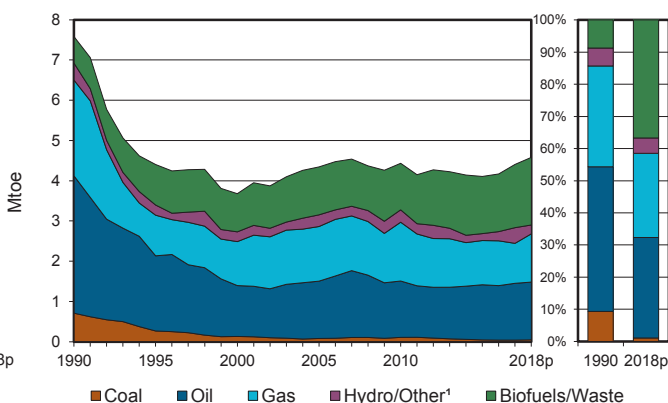


Figure 3. Energy self-sufficiency

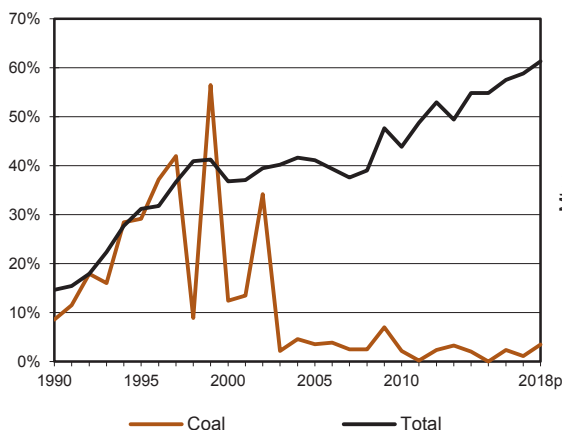


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

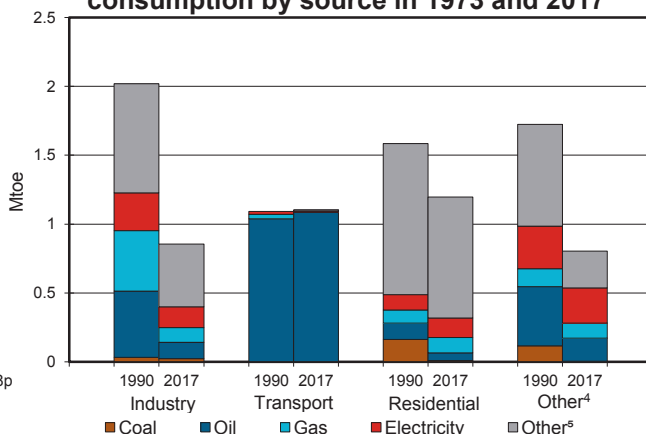


Figure 5. Electricity generation by source

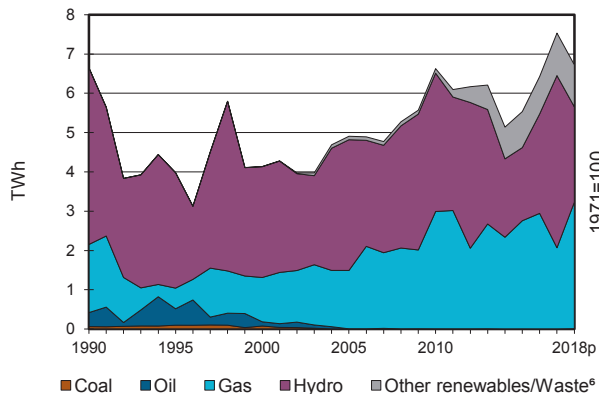
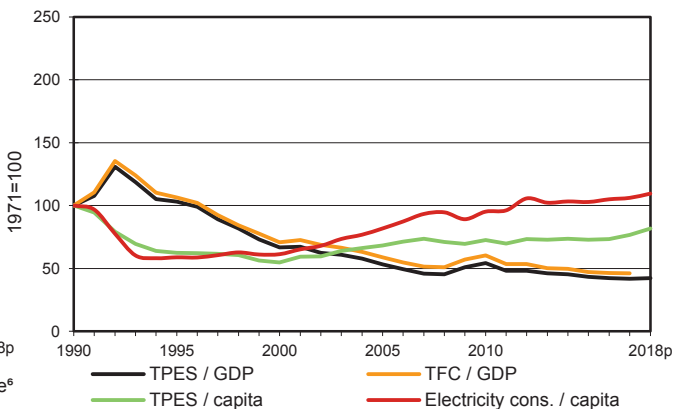


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Latvia

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	0.00	-	-	-	-	0.38	0.01	2.20	-	-	2.59
Imports	0.04	0.00	2.60	1.01	-	-	-	0.18	0.35	-	4.18
Exports	-0.00	-0.00	-0.77	-	-	-	-	-0.93	-0.36	-	-2.06
Intl. marine bunkers	-	-	-0.26	-	-	-	-	-	-	-	-0.26
Intl. aviation bunkers	-	-	-0.14	-	-	-	-	-	-	-	-0.14
Stock changes	0.01	0.00	-0.02	-0.02	-	-	-	0.12	-	-	0.09
TPES	0.04	0.00	1.41	0.99	-	0.38	0.01	1.57	-0.01	-	4.40
Transfers	-	-0.00	0.01	-	-	-	-	-	-	-	0.01
Statistical differences	-0.00	-	0.01	-	-	-	-	-	-	-	0.01
Electricity plants	-	-	-	-	-	-0.38	-0.01	-	0.39	-	0.00
CHP plants	-0.00	-	-0.00	-0.40	-	-	-0.00	-0.35	0.26	0.33	-0.16
Heat plants	-0.00	-	-0.00	-0.24	-	-	-	-0.20	-0.00	0.39	-0.06
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat. fuel/BKB/PB plants	-0.00	-	-	-	-	-	-	-	-	-	-0.00
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-0.01	-	-	-0.01
Energy industry own use	-	-	-0.01	-0.01	-	-	-	-0.00	-0.04	-0.03	-0.09
Losses	-	-	-	-0.01	-	-	-	-	-0.04	-0.09	-0.14
TFC	0.04	-	1.43	0.33	-	-	-	1.01	0.56	0.60	3.96
INDUSTRY	0.02	-	0.06	0.11	-	-	-	0.38	0.15	0.08	0.79
Iron and steel	-	-	0.00	0.00	-	-	-	0.00	0.00	0.00	0.00
Chemical and petrochemical	-	-	0.00	0.01	-	-	-	0.01	0.01	0.00	0.03
Non-ferrous metals	0.00	-	0.00	0.00	-	-	-	-	0.00	-	0.00
Non-metallic minerals	0.02	-	0.01	0.03	-	-	-	0.05	0.02	0.00	0.13
Transport equipment	0.00	-	0.00	0.00	-	-	-	0.00	0.00	0.00	0.01
Machinery	0.00	-	0.00	0.01	-	-	-	0.00	0.01	0.00	0.02
Mining and quarrying	0.00	-	0.00	0.00	-	-	-	0.00	0.00	0.00	0.01
Food and tobacco	0.00	-	0.01	0.03	-	-	-	0.01	0.02	0.01	0.08
Paper, pulp and printing	-	-	0.00	0.00	-	-	-	0.00	0.00	0.00	0.01
Wood and wood products	0.00	-	0.01	0.02	-	-	-	0.31	0.07	0.07	0.46
Construction	0.00	-	0.02	0.01	-	-	-	0.00	0.01	0.00	0.03
Textile and leather	0.00	-	0.00	0.00	-	-	-	0.00	0.00	0.00	0.01
Non-specified	0.00	-	0.00	0.00	-	-	-	0.00	0.01	0.00	0.01
TRANSPORT	-	-	1.07	-	-	-	-	0.01	0.01	-	1.08
Domestic aviation	-	-	0.00	-	-	-	-	-	-	-	0.00
Road	-	-	1.01	-	-	-	-	0.01	0.00	-	1.02
Rail	-	-	0.05	-	-	-	-	0.00	0.00	-	0.06
Pipeline transport	-	-	-	-	-	-	-	-	0.00	-	0.00
Domestic navigation	-	-	0.00	-	-	-	-	-	-	-	0.00
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	0.01	-	0.22	0.22	-	-	-	0.62	0.40	0.53	2.00
Residential	0.01	-	0.06	0.11	-	-	-	0.51	0.14	0.37	1.20
Comm. and public services	0.00	-	0.04	0.10	-	-	-	0.09	0.24	0.14	0.61
Agriculture/forestry	0.00	-	0.12	0.01	-	-	-	0.03	0.02	0.01	0.19
Fishing	0.00	-	0.01	0.00	-	-	-	0.00	0.00	-	0.01
Non-specified	-	-	0.00	-	-	-	-	-	0.00	0.00	0.00
NON-ENERGY USE	-	-	0.08	-	-	-	-	-	-	-	0.08
in industry/transf./energy	-	-	0.06	-	-	-	-	-	-	-	0.06
of which: chem./petrochem.	-	-	0.00	-	-	-	-	-	-	-	0.00
in transport	-	-	0.02	-	-	-	-	-	-	-	0.02
in other	-	-	0.00	-	-	-	-	-	-	-	0.00
Electricity and Heat Output											
Electr. generated - TWh	0.00	-	0.00	2.07	-	4.38	0.15	0.93	-	-	7.53
Electricity plants	-	-	-	-	-	4.38	0.15	-	-	-	4.53
CHP plants	0.00	-	0.00	2.07	-	-	-	0.93	-	-	3.00
Heat generated - PJ	0.10	-	0.04	16.60	-	-	0.01	13.23	0.01	-	29.99
CHP plants	0.03	-	0.00	6.66	-	-	0.01	7.15	-	-	13.86
Heat plants	0.07	-	0.03	9.94	-	-	-	6.08	0.01	-	16.12

1. Includes peat.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Latvia

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	0.00	-	-	-	-	0.21	0.01	2.63	-	-	2.85
Imports	0.05	0.00	2.51	1.19	-	-	-	0.27	0.44	-	4.45
Exports	-0.01	-0.00	-0.90	-	-	-	-	-1.00	-0.37	-	-2.27
Intl. marine bunkers	-	-	-0.04	-	-	-	-	-	-	-	-0.04
Intl. aviation bunkers	-	-	-0.15	-	-	-	-	-	-	-	-0.15
Stock changes	0.01	0.00	0.02	0.01	-	-	-	-0.22	-	-	-0.18
TPES	0.05	0.00	1.43	1.20	-	0.21	0.01	1.68	0.08	-	4.66
Electricity and Heat Output											
Elec. generated - TWh	0.01	-	0.00	3.22	-	2.43	0.12	0.94	-	-	6.72
Heat generated - PJ	0.15	-	0.07	15.61	-	-	-	13.85	0.01	-	29.69

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes peat.
2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	1.2	1.4	2.0	2.5	2.6	2.9
Net imports (Mtoe)	7.5	2.4	2.2	2.2	2.1	2.2
Total primary energy supply (Mtoe)	7.9	3.8	4.5	4.3	4.4	4.7
Net oil imports (Mtoe)	4.0	1.2	1.7	2.0	1.8	1.6
Oil supply (Mtoe)	3.4	1.3	1.4	1.4	1.4	1.4
Electricity consumption (TWh) ¹	9.1	4.9	6.8	7.0	7.0	7.2
GDP (billion 2010 USD)	16.4	23.8	28.8	30.2	31.6
GDP PPP (billion 2010 USD)	35.0	25.5	36.8	44.7	46.8	49.0
Population (millions)	2.66	2.37	2.10	1.96	1.94	1.93
Industrial production index (2010=100)	59.3	85.0	105.4	114.2	115.9
Total self-sufficiency ²	0.15	0.37	0.44	0.57	0.59	0.61
Coal self-sufficiency ²	0.09	0.12	0.02	0.02	0.01	0.03
Oil self-sufficiency ²	-	-	-	-	-	-
Natural gas self-sufficiency ²	-	-	-	-	-	-
TPES/GDP (toe per thousand 2010 USD)	0.23	0.19	0.15	0.15	0.15
TPES/GDP PPP (toe per thousand 2010 USD)	0.23	0.15	0.12	0.10	0.09	0.10
TPES/population (toe per capita)	2.96	1.62	2.15	2.17	2.27	2.42
Net oil imports/GDP (toe per thousand 2010 USD)	0.08	0.07	0.07	0.06	0.05
Oil supply/GDP (toe per thousand 2010 USD)	0.08	0.06	0.05	0.05	0.05
Oil supply/population (toe per capita)	1.28	0.53	0.67	0.69	0.73	0.74
Share of renewables in TPES	0.13	0.31	0.32	0.38	0.44	0.40
Share of renewables in electricity generation	0.68	0.68	0.55	0.54	0.73	0.52
TFC/GDP (toe per thousand 2010 USD)	0.20	0.17	0.13	0.13	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.18	0.13	0.11	0.09	0.09	..
TFC/population (toe per capita)	2.41	1.39	1.94	1.94	2.04	..
Elect. cons./GDP (kWh per 2010 USD)	0.30	0.29	0.24	0.23	0.23
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.26	0.19	0.18	0.16	0.15	0.15
Elect. cons./population (kWh per capita)	3396	2082	3231	3564	3603	3717
Industry cons. ³ /industrial production (2010=100)	108.2	100.0	78.7	76.9	..
Industry oil cons. ³ /industrial production (2010=100)	214.3	100.0	64.8	63.2	..

1. Electricity consumption equals domestic supply less losses.
2. Production divided by TPES. Coal self-sufficiency also includes peat, when applicable.
3. Includes non-energy use.

Lithuania

Figure 1. Energy production

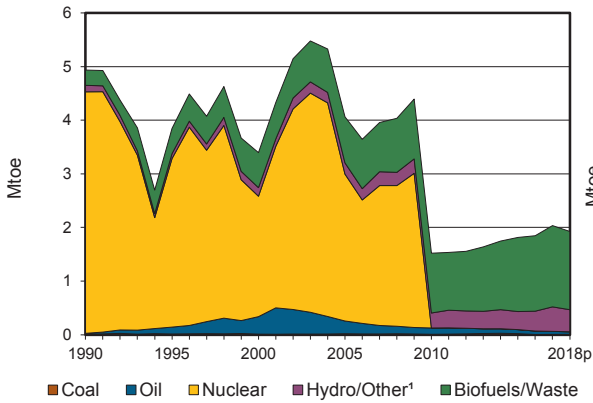


Figure 2. Total primary energy supply²

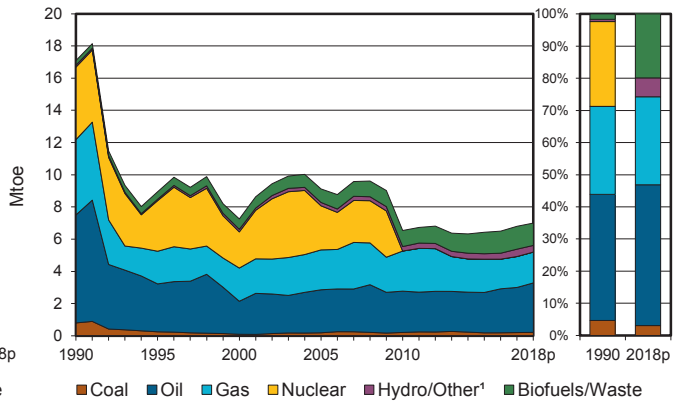


Figure 3. Energy self-sufficiency

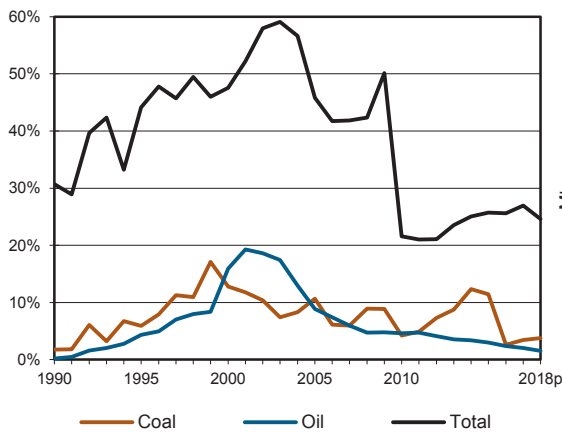


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

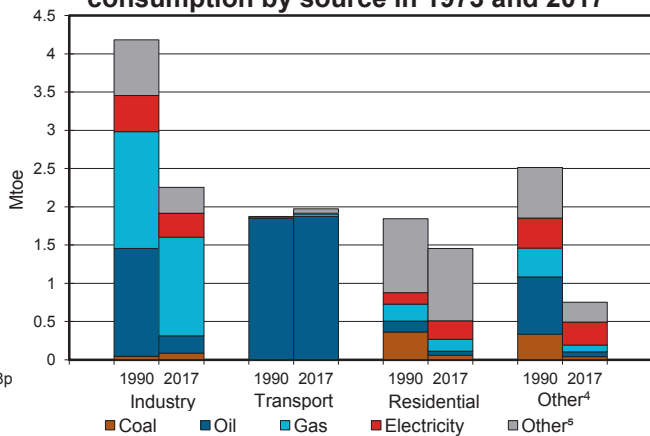


Figure 5. Electricity generation by source

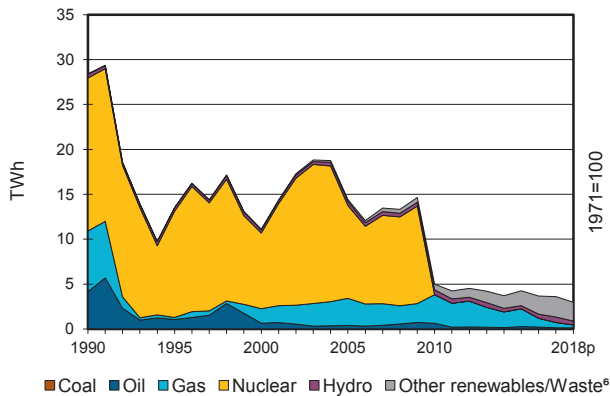
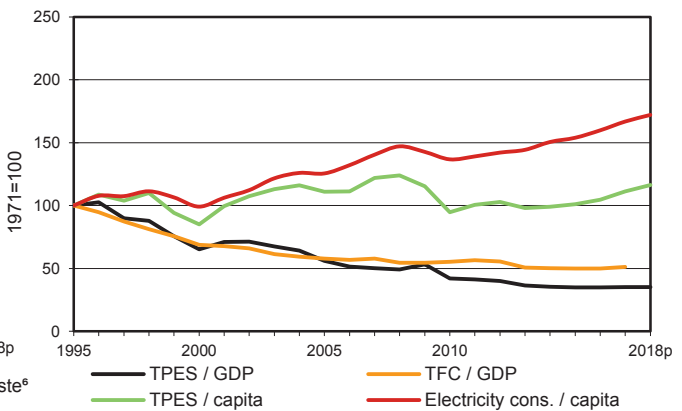


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Lithuania

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	0.01	0.06	-	-	-	0.05	0.12	1.51	-	0.28	2.03
Imports	0.19	10.22	1.10	2.08	-	-	-	0.16	1.03	-	14.78
Exports	-0.00	-0.04	-8.31	-0.17	-	-	-	-0.27	-0.28	-	-9.08
Intl. marine bunkers	-	-	-0.18	-	-	-	-	-	-	-	-0.18
Intl. aviation bunkers	-	-	-0.11	-	-	-	-	-	-	-	-0.11
Stock changes	-0.00	-0.00	0.05	0.01	-	-	-	0.02	-	-	0.08
TPES	0.20	10.23	-7.43	1.92	-	0.05	0.12	1.42	0.75	0.28	7.54
Transfers	-	-0.00	-0.00	-	-	-	-	-	-	-	-0.00
Statistical differences	-0.00	-	-	-	-	-	-	0.01	-	-	0.01
Electricity plants	-	-	-	-	-	-0.05	-0.12	-	0.20	-0.07	-0.05
CHP plants	-	-	-0.02	-0.24	-	-	-	-0.26	0.11	0.31	-0.09
Heat plants	-0.01	-	-0.01	-0.10	-	-	-0.00	-0.49	-0.00	0.52	-0.09
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat. fuel/BKB/PB plants	-0.00	-	-	-	-	-	-	-	-	-	-0.00
Oil refineries	-	-10.23	10.23	-	-	-	-	-	-	-	-0.01
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-0.00	-	-	-0.00
Energy industry own use	-0.00	-	-0.54	-0.02	-	-	-	-	-0.11	-0.01	-0.69
Losses	-0.00	-	-0.00	-	-	-	-	-0.00	-0.08	-0.12	-0.20
TFC	0.19	-	2.22	1.57	-	-	-	0.68	0.86	0.92	6.44
INDUSTRY	0.09	-	0.04	0.29	-	-	-	0.10	0.31	0.24	1.07
Iron and steel	0.00	-	-	0.00	-	-	-	-	0.00	-	0.00
Chemical and petrochemical	0.00	-	0.00	0.12	-	-	-	0.02	0.07	0.21	0.42
Non-ferrous metals	-	-	0.00	-	-	-	-	-	-	-	0.00
Non-metallic minerals	0.08	-	0.00	0.02	-	-	-	0.00	0.02	0.00	0.13
Transport equipment	-	-	0.00	0.00	-	-	-	0.00	0.00	0.00	0.00
Machinery	0.00	-	0.00	0.01	-	-	-	0.00	0.02	0.00	0.03
Mining and quarrying	-	-	0.00	0.00	-	-	-	0.00	0.00	0.00	0.01
Food and tobacco	0.00	-	0.01	0.08	-	-	-	0.02	0.07	0.01	0.19
Paper, pulp and printing	-	-	0.00	0.01	-	-	-	0.01	0.02	0.00	0.04
Wood and wood products	0.00	-	0.00	0.01	-	-	-	0.04	0.03	0.01	0.10
Construction	0.00	-	0.01	0.01	-	-	-	0.00	0.01	0.00	0.04
Textile and leather	0.00	-	0.00	0.01	-	-	-	0.00	0.01	0.00	0.03
Non-specified	0.00	-	0.00	0.01	-	-	-	0.01	0.05	0.00	0.07
TRANSPORT	-	-	1.85	0.03	-	-	-	0.06	0.01	-	1.95
Domestic aviation	-	-	0.00	-	-	-	-	-	-	-	0.00
Road	-	-	1.79	0.01	-	-	-	0.06	0.00	-	1.86
Rail	-	-	0.05	-	-	-	-	0.00	0.00	-	0.06
Pipeline transport	-	-	-	0.03	-	-	-	-	0.00	-	0.03
Domestic navigation	-	-	0.01	-	-	-	-	-	-	-	0.01
Non-specified	-	-	0.01	-	-	-	-	-	-	-	0.01
OTHER	0.10	-	0.12	0.24	-	-	-	0.52	0.55	0.68	2.21
Residential	0.06	-	0.06	0.15	-	-	-	0.47	0.24	0.47	1.46
Comm. and public services	0.04	-	0.00	0.07	-	-	-	0.04	0.28	0.20	0.63
Agriculture/forestry	0.00	-	0.05	0.02	-	-	-	0.01	0.02	0.00	0.11
Fishing	-	-	0.00	-	-	-	-	-	0.00	-	0.00
Non-specified	-	-	0.01	-	-	-	-	-	-	-	0.01
NON-ENERGY USE	-	-	0.21	1.00	-	-	-	-	-	-	1.21
in industry/transf./energy	-	-	0.19	1.00	-	-	-	-	-	-	1.18
of which: chem./petrochem.	-	-	0.06	1.00	-	-	-	-	-	-	1.06
in transport	-	-	0.02	-	-	-	-	-	-	-	0.02
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - TWh	-	-	0.14	0.60	-	0.60	1.43	0.59	-	0.25	3.61
Electricity plants	-	-	-	-	-	0.60	1.43	-	-	-	2.03
CHP plants	-	-	0.14	0.60	-	-	-	0.59	-	0.25	1.57
Heat generated - PJ	0.31	-	0.31	9.95	-	-	0.02	24.39	0.01	11.77	46.75
CHP plants	-	-	0.06	6.32	-	-	-	6.73	-	6.21	19.32
Heat plants	0.31	-	0.26	3.63	-	-	0.02	17.66	0.01	5.55	27.43

1. Includes peat.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Lithuania

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	0.01	0.05	-	-	-	0.04	0.11	1.46	-	0.27	1.93
Imports	0.20	10.07	0.92	2.02	-	-	-	0.20	1.10	-	14.51
Exports	-0.01	-0.05	-7.60	-0.12	-	-	-	-0.27	-0.28	-	-8.32
Intl. marine bunkers	-	-	-0.20	-	-	-	-	-	-	-	-0.20
Intl. aviation bunkers	-	-	-0.12	-	-	-	-	-	-	-	-0.12
Stock changes	0.01	0.02	-0.02	0.02	-	-	-	0.01	-	-	0.04
TPES	0.21	10.10	-7.03	1.92	-	0.04	0.11	1.39	0.83	0.27	7.83
Electricity and Heat Output											
Elec. generated - TWh	-	-	0.13	0.33	-	0.43	1.23	0.63	-	0.23	2.98
Heat generated - PJ	0.32	-	0.40	10.39	-	-	-	23.50	0.01	11.27	45.90

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes peat.
2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	4.9	3.4	1.5	1.9	2.0	1.9
Net imports (Mtoe)	11.6	4.2	5.8	5.6	5.7	6.2
Total primary energy supply (Mtoe)	16.1	7.1	7.1	7.2	7.5	7.8
Net oil imports (Mtoe)	7.2	2.2	2.7	2.9	3.0	3.4
Oil supply (Mtoe)	6.7	2.1	2.6	2.7	2.8	3.1
Electricity consumption (TWh) ¹	14.9	8.8	10.8	11.6	12.0	12.2
GDP (billion 2010 USD)	24.3	37.1	45.8	47.6	49.3
GDP PPP (billion 2010 USD)	40.7	62.2	76.7	79.8	82.6
Population (millions)	3.70	3.50	3.10	2.87	2.82	2.80
Industrial production index (2010=100)	50.3	83.8	102.9	110.0	115.3
Total self-sufficiency ²	0.31	0.48	0.22	0.26	0.27	0.25
Coal self-sufficiency ²	0.02	0.13	0.04	0.03	0.03	0.04
Oil self-sufficiency ²	0.00	0.16	0.05	0.02	0.02	0.02
Natural gas self-sufficiency ²	-	-	-	-	-	-
TPES/GDP (toe per thousand 2010 USD)	0.29	0.19	0.16	0.16	0.16
TPES/GDP PPP (toe per thousand 2010 USD)	0.18	0.11	0.09	0.09	0.09
TPES/population (toe per capita)	4.35	2.04	2.28	2.51	2.67	2.80
Net oil imports/GDP (toe per thousand 2010 USD)	0.09	0.07	0.06	0.06	0.07
Oil supply/GDP (toe per thousand 2010 USD)	0.08	0.07	0.06	0.06	0.06
Oil supply/population (toe per capita)	1.82	0.59	0.83	0.95	0.99	1.10
Share of renewables in TPES	0.02	0.09	0.15	0.20	0.21	0.19
Share of renewables in electricity generation	0.02	0.03	0.18	0.57	0.70	0.74
TFC/GDP (toe per thousand 2010 USD)	0.18	0.15	0.13	0.14	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.11	0.09	0.08	0.08	..
TFC/population (toe per capita)	2.82	1.26	1.74	2.11	2.28	..
Elect. cons./GDP (kWh per 2010 USD)	0.36	0.29	0.25	0.25	0.25
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.22	0.17	0.15	0.15	0.15
Elect. cons./population (kWh per capita)	4024	2517	3471	4057	4235	4368
Industry cons. ³ /industrial production (2010=100)	148.1	100.0	103.0	107.9	..
Industry oil cons. ³ /industrial production (2010=100)	215.8	100.0	88.0	86.2	..

0

1. Electricity consumption equals domestic supply less losses.
2. Production divided by TPES. Coal self-sufficiency also includes peat, when applicable.
3. Includes non-energy use.

Luxembourg

Figure 1. Energy production

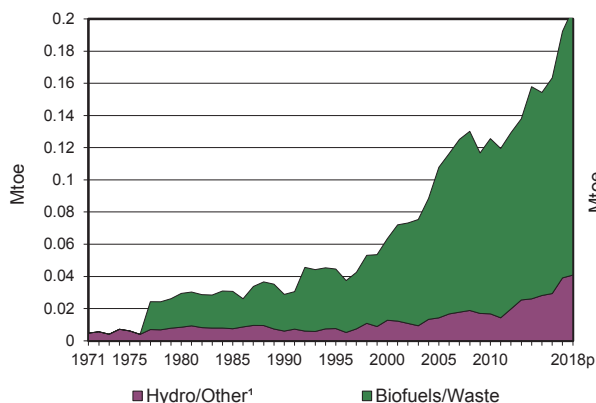


Figure 2. Total primary energy supply²

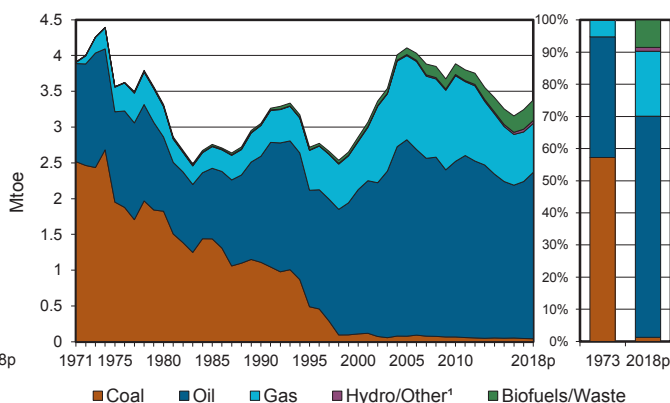


Figure 3. Energy self-sufficiency

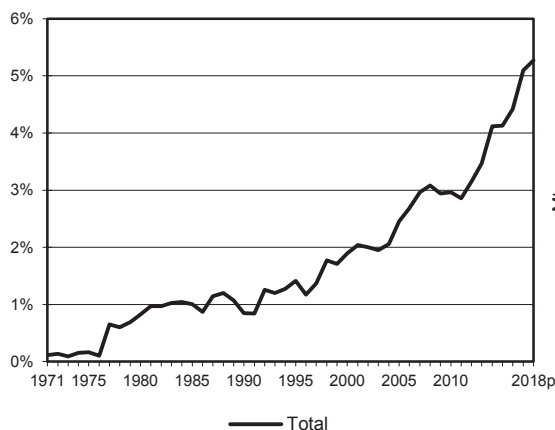


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

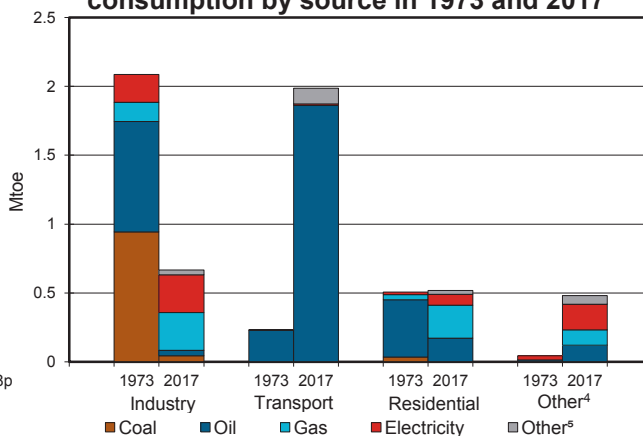


Figure 5. Electricity generation by source

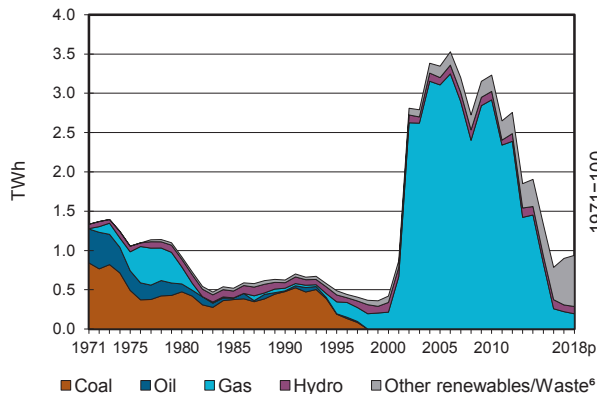
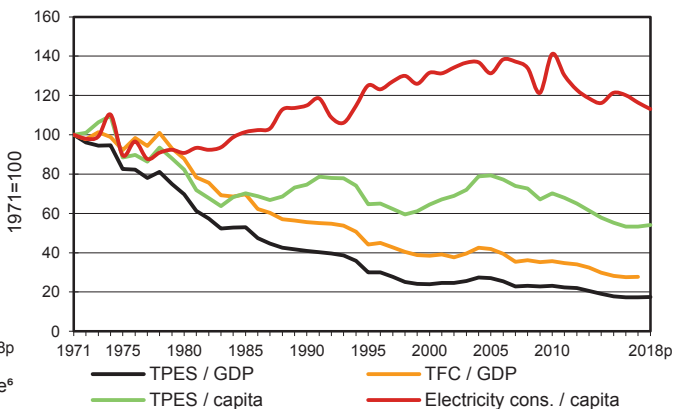


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Luxembourg

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	0.01	0.03	0.15	-	-	0.19
Imports	0.05	-	2.78	0.69	-	-	-	0.14	0.65	-	4.32
Exports	-	-	-0.03	-	-	-	-	-0.02	-0.12	-	-0.17
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-0.57	-	-	-	-	-	-	-	-0.57
Stock changes	-	-	0.01	-	-	-	-	-0.00	-	-	0.01
TPES	0.05	-	2.19	0.69	-	0.01	0.03	0.27	0.53	-	3.77
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	0.00	-0.00	-	-	-	-0.00	0.00	-	-0.00
Electricity plants	-	-	-	-	-	-0.01	-0.03	-0.04	0.05	-	-0.03
CHP plants	-	-	-0.00	-0.07	-	-	-	-0.04	0.03	0.06	-0.02
Heat plants	-	-	-0.00	-0.01	-	-	-	-0.00	-	0.01	-0.00
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	0.01	-	-	-	-0.01	-	-	-
Coke/pat. fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-	-	-0.00	-	-	-	-	-	-0.05	-	-0.05
Losses	-	-	-	-	-	-	-	-	-0.01	-0.01	-0.02
TFC	0.05	-	2.19	0.62	-	-	0.00	0.18	0.55	0.06	3.66
INDUSTRY	0.04	-	0.01	0.27	-	-	-	0.04	0.27	0.00	0.64
Iron and steel	0.00	-	0.00	0.14	-	-	-	-	0.16	0.00	0.30
Chemical and petrochemical	-	-	0.00	0.02	-	-	-	-	0.03	0.00	0.05
Non-ferrous metals	-	-	-	c	-	-	-	-	-	-	-
Non-metallic minerals	0.04	-	0.00	0.07	-	-	-	0.02	0.02	-	0.14
Transport equipment	-	-	0.00	0.00	-	-	-	-	0.00	-	0.00
Machinery	-	-	0.00	0.00	-	-	-	-	0.01	-	0.01
Mining and quarrying	-	-	0.00	0.00	-	-	-	-	0.00	-	0.00
Food and tobacco	-	-	0.00	0.01	-	-	-	-	0.01	-	0.02
Paper, pulp and printing	-	-	0.00	0.00	-	-	-	-	0.00	-	0.01
Wood and wood products	-	-	0.00	0.00	-	-	-	0.02	0.00	-	0.02
Construction	0.00	-	0.00	0.00	-	-	-	-	0.01	-	0.02
Textile and leather	-	-	0.00	0.03	-	-	-	-	0.01	0.00	0.03
Non-specified	-	-	0.00	0.01	-	-	-	-	0.03	0.00	0.04
TRANSPORT	-	-	1.85	-	-	-	-	0.11	0.01	-	1.98
Domestic aviation	-	-	0.00	-	-	-	-	-	-	-	0.00
Road	-	-	1.84	-	-	-	-	0.11	0.00	-	1.95
Rail	-	-	0.02	-	-	-	-	-	0.01	-	0.03
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	0.00	-	0.29	0.35	-	-	0.00	0.03	0.26	0.06	1.00
Residential	0.00	-	0.17	0.24	-	-	0.00	0.03	0.08	-	0.52
Comm. and public services	-	-	0.10	0.11	-	-	-	0.00	0.18	0.06	0.46
Agriculture/forestry	-	-	0.02	-	-	-	-	0.00	0.00	-	0.03
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	0.03	c	-	-	-	-	-	-	0.03
in industry/transf./energy	-	-	0.03	c	-	-	-	-	-	-	0.03
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	0.01	-	-	-	-	-	-	-	0.01
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - TWh	-	-	0.00	0.22	-	0.09	0.34	0.25	-	-	0.90
Electricity plants	-	-	-	-	-	0.09	0.34	0.12	-	-	0.55
CHP plants	-	-	0.00	0.22	-	-	-	0.12	-	-	0.35
Heat generated - PJ	-	-	0.01	1.72	-	-	-	1.07	-	-	2.81
CHP plants	-	-	0.00	1.55	-	-	-	0.90	-	-	2.45
Heat plants	-	-	0.01	0.18	-	-	-	0.17	-	-	0.36

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Luxembourg

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	0.01	0.03	0.17	-	-	0.21
Imports	0.04	-	2.93	0.68	-	-	-	0.14	0.65	-	4.45
Exports	-	-	-0.03	-	-	-	-	-0.02	-0.12	-	-0.17
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-0.59	-	-	-	-	-	-	-	-0.59
Stock changes	-	-	0.01	-	-	-	-	-0.00	-	-	0.01
TPES	0.04	-	2.33	0.68	-	0.01	0.03	0.29	0.53	-	3.91
Electricity and Heat Output											
Elec. generated - TWh	-	-	0.00	0.19	-	0.09	0.36	0.29	-	-	0.94
Heat generated - PJ	-	-	0.01	1.53	-	-	0.00	1.65	-	-	3.20

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	-	0.0	0.0	0.1	0.1	0.2	0.2	0.2
Net imports (Mtoe)	4.5	3.6	3.5	3.7	4.5	4.0	4.2	4.3
Total primary energy supply (Mtoe)	4.4	3.6	3.4	3.4	4.2	3.7	3.8	3.9
Net oil imports (Mtoe)	1.7	1.1	1.6	2.4	2.9	2.6	2.8	2.9
Oil supply (Mtoe)	1.6	1.0	1.5	2.0	2.5	2.1	2.2	2.3
Electricity consumption (TWh) ¹	4.1	3.9	5.2	6.8	8.5	8.3	8.3	8.2
GDP (billion 2010 USD)	13.7	14.9	24.1	40.8	53.2	62.6	63.5	65.2
GDP PPP (billion 2010 USD)	11.1	12.1	19.7	33.3	43.4	51.0	51.8	53.2
Population (millions)	0.35	0.36	0.38	0.44	0.51	0.58	0.60	0.61
Industrial production index (2010=100)	58.7	51.0	73.1	92.0	100.9	100.2	103.9	102.0
Total self-sufficiency ²	0.00	0.01	0.01	0.02	0.03	0.04	0.05	0.05
Coal self-sufficiency ²	-	-	-	-	-	-	-	-
Oil self-sufficiency ²	-	-	-	-	-	-	-	-
Natural gas self-sufficiency ²	-	-	-	-	-	-	-	-
TPES/GDP (toe per thousand 2010 USD)	0.32	0.24	0.14	0.08	0.08	0.06	0.06	0.06
TPES/GDP PPP (toe per thousand 2010 USD)	0.40	0.29	0.17	0.10	0.10	0.07	0.07	0.07
TPES/population (toe per capita)	12.63	9.78	8.87	7.67	8.34	6.33	6.32	6.42
Net oil imports/GDP (toe per thousand 2010 USD)	0.12	0.07	0.07	0.06	0.05	0.04	0.04	0.04
Oil supply/GDP (toe per thousand 2010 USD)	0.12	0.07	0.06	0.05	0.05	0.03	0.03	0.04
Oil supply/population (toe per capita)	4.56	2.85	3.88	4.61	4.83	3.66	3.67	3.82
Share of renewables in TPES	0.00	0.01	0.01	0.01	0.03	0.06	0.07	0.08
Share of renewables in electricity generation	0.03	0.12 e	0.13 e	0.41	0.08	0.58	0.67	0.71
TFC/GDP (toe per thousand 2010 USD)	0.21	0.18	0.12	0.08	0.07	0.06	0.06	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.26	0.22	0.14	0.10	0.09	0.07	0.07	..
TFC/population (toe per capita)	8.19	7.45	7.27	7.45	7.76	6.13	6.12	..
Elect. cons./GDP (kWh per 2010 USD)	0.30	0.26	0.22	0.17	0.16	0.13	0.13	0.13
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.37	0.32	0.27	0.21	0.20	0.16	0.16	0.15
Elect. cons./population (kWh per capita)	11778	10789	13662	15639	16774	14278	13831	13443
Industry cons. ³ /industrial production (2010=100)	460.8	425.8	235.5	110.7	100.0	90.5	83.3	..
Industry oil cons. ³ /industrial production (2010=100)	3702.5	1080.3	1078.0	276.3	100.0	96.2	101.8	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

Mexico

Figure 1. Energy production

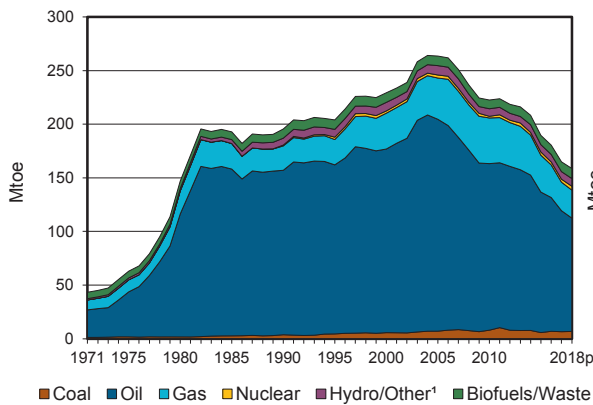


Figure 2. Total primary energy supply²

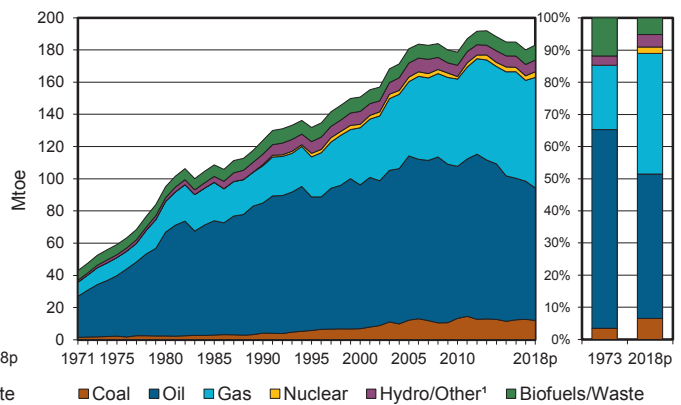


Figure 3. Energy self-sufficiency

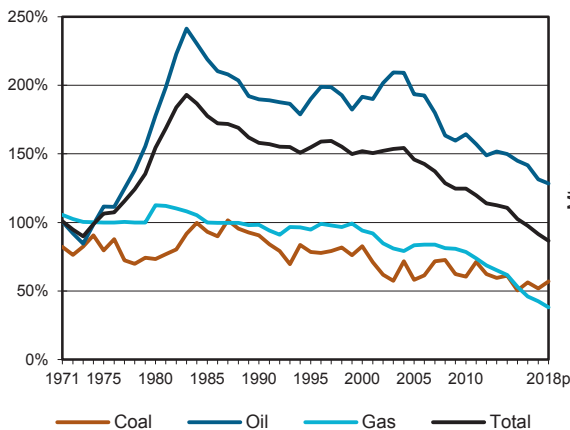


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

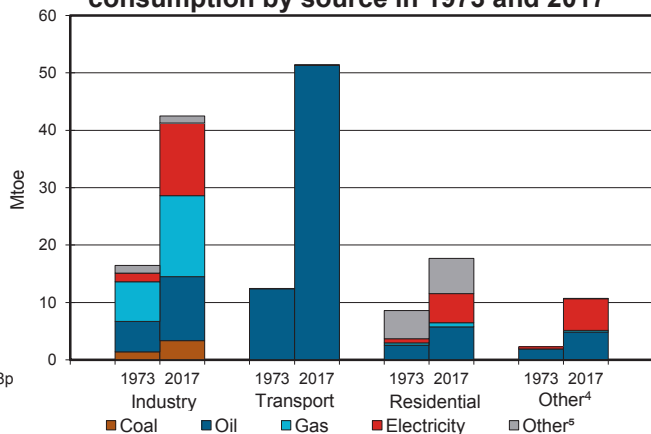


Figure 5. Electricity generation by source

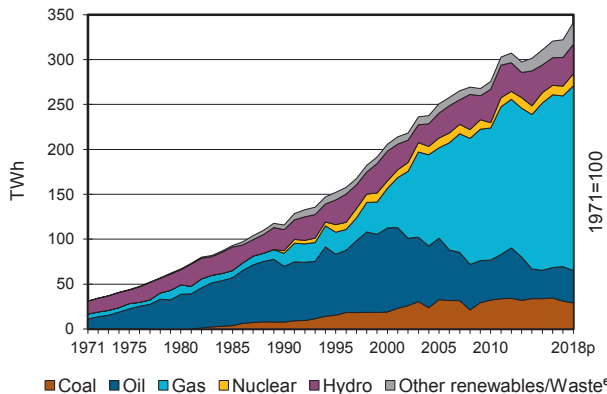
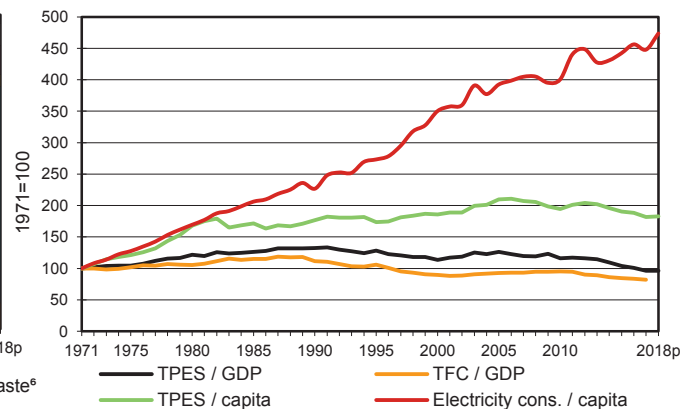


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Mexico

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	6.58	112.77	-	26.57	2.84	2.75	4.29	9.08	-	-	164.88
Imports	6.87	0.62	50.69	35.71	-	-	-	-	0.18	-	94.08
Exports	-0.07	-65.06	-7.92	-0.01	-	-	-	-	-0.16	-	-73.22
Intl. marine bunkers	-	-	-0.79	-	-	-	-	-	-	-	-0.79
Intl. aviation bunkers	-	-	-3.98	-	-	-	-	-	-	-	-3.98
Stock changes	-0.70	-0.58	0.07	0.34	-	-	-	-	-	-	-0.87
TPES	12.69	47.75	38.07	62.60	2.84	2.75	4.29	9.08	0.03	-	180.10
Transfers	-	-5.73	6.67	-	-	-	-	-	-	-	0.94
Statistical differences	0.15	5.00	-2.69	1.67	-	-	-	0.00	0.90	-	5.04
Electricity plants	-8.33	-	-8.58	-32.95	-2.84	-2.75	-4.03	-1.26	26.06	-	-34.68
CHP plants	-	-	-0.42	-5.37	-	-	-	-0.65	1.63	-	-4.81
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-0.70 e	-	-	-	-	-	-	-	-	-	-0.70
Gas works	-	-	-0.78	0.03	-	-	-	-	-	-	-0.74
Coke/pat. fuel/BKB/PB plants	-0.01	-	-	-	-	-	-	-	-	-	-0.01
Oil refineries	-	-47.11	45.11	-	-	-	-	-	-	-	-2.00
Petrochemical plants	-	0.05	-0.06	-	-	-	-	-	-	-	-0.00
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	0.03	-	-	-	-	-	-	-	-	0.03
Energy industry own use	-0.38 e	-	-4.34	-10.86	-	-	-	-	-1.47	-	-17.05
Losses	-	-	-	-	-	-	-	-	-3.78	-	-3.78
TFC	3.41	-	72.98	15.13	-	-	0.26	7.17	23.38	-	122.34
INDUSTRY	3.33	-	6.41	13.72	-	-	0.01	1.19	12.68	-	37.35
Iron and steel	0.70 e	-	0.13	3.18	-	-	-	-	0.46	-	4.48
Chemical and petrochemical	-	-	0.38	2.82	-	-	-	-	0.53	-	3.73
Non-ferrous metals	-	-	-	-	-	-	-	-	0.07	-	0.07
Non-metallic minerals	0.17	-	2.87	1.11	-	-	-	-	0.99	-	5.14
Transport equipment	-	-	0.02	0.12	-	-	-	-	0.23	-	0.37
Machinery	-	-	0.06	-	-	-	-	-	-	-	0.06
Mining and quarrying	-	-	0.38	0.24	-	-	-	-	1.03	-	1.65
Food and tobacco	-	-	0.20	0.40	-	-	-	1.05	0.20	-	1.85
Paper, pulp and printing	-	-	0.25	0.68	-	-	-	-	0.28	-	1.20
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	0.26	-	-	-	-	-	0.05	-	0.31
Textile and leather	-	-	-	-	-	-	-	-	0.01	-	0.01
Non-specified	2.46	-	1.86	5.17	-	-	0.01	0.15	8.84	-	18.49
TRANSPORT	-	-	51.28	0.05	-	-	-	-	0.09	-	51.42
Domestic aviation	-	-	0.01	-	-	-	-	-	-	-	0.01
Road	-	-	49.92	0.05	-	-	-	-	-	-	49.97
Rail	-	-	0.67	-	-	-	-	-	0.09	-	0.76
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	0.67	-	-	-	-	-	-	-	0.67
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	10.54	0.97	-	-	0.25	5.98	10.61	-	28.34
Residential	-	-	5.76	0.71	-	-	0.15	5.98	5.09	-	17.68
Comm. and public services	-	-	1.55	0.26	-	-	0.09	-	2.04	-	3.94
Agriculture/forestry	-	-	3.23	-	-	-	-	-	0.99	-	4.22
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	2.49	-	2.49
NON-ENERGY USE	0.08	-	4.76	0.40	-	-	-	-	-	-	5.23
in industry/transf./energy	-	-	4.76	0.40	-	-	-	-	-	-	5.15
of which: chem./petrochem.	-	-	3.71	0.40	-	-	-	-	-	-	4.11
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	0.08	-	-	-	-	-	-	-	-	-	0.08
Electricity and Heat Output											
Electr. generated - TWh	31.05	-	38.50	190.01	10.88	31.98	17.47	2.16	-	-	322.06
Electricity plants	31.05	-	37.60	172.66	10.88	31.98	17.47	1.45	-	-	303.10
CHP plants	-	-	0.90	17.35	-	-	-	0.72	-	-	18.96
Heat generated - PJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Mexico

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./ Solar/ etc.	Biofuels/ Waste	Electricity	Heat	Total
Production	6.84	105.68	-	26.11	3.56	2.80	4.41	9.35	-	-	158.75
Imports	6.25	0.75	55.51	42.60	-	-	-	-	0.20	-	105.30
Exports	-0.03	-66.05	-7.20	-0.01	-	-	-	-	-0.18	-	-73.47
Intl. marine bunkers	-	-	-0.83	-	-	-	-	-	-	-	-0.83
Intl. aviation bunkers	-	-	-4.01	-	-	-	-	-	-	-	-4.01
Stock changes	-1.05	-1.03	-0.58	-	-	-	-	-	-	-	-2.66
TPES	12.00	39.35	42.89	68.70	3.56	2.80	4.41	9.35	0.02	-	183.08
Electricity and Heat Output											
Elec. generated - TWh	29.14	-	35.96	205.64	13.67	32.53	21.79	2.37	-	-	341.11
Heat generated - PJ	-	-	-	-	-	-	-	-	-	-	-

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	47.3	147.0	195.5	229.3	222.5	180.5	164.9	158.8
Net imports (Mtoe)	6.0	-49.4	-69.9	-72.3	-40.4	9.2	20.9	31.8
Total primary energy supply (Mtoe)	52.6	95.1	123.7	150.8	178.5	184.9	180.1	183.1
Net oil imports (Mtoe)	5.7	-47.6	-70.4	-76.6	-57.2	-32.0	-21.7	-17.0
Oil supply (Mtoe)	32.5	64.5	80.8	89.3	94.4	87.9	85.8	82.3
Electricity consumption (TWh) ¹	32.8	60.1	99.5	178.1	230.3	280.8	278.5	297.4
GDP (billion 2010 USD)	347.7	537.8	643.2	915.2	1057.8	1258.9	1284.9	1310.5
GDP PPP (billion 2010 USD)	572.3	885.2	1058.7	1506.4	1741.1	2072.1	2114.9	2157.1
Population (millions)	57.09	70.40	87.07	100.90	114.12	122.12	123.36	124.58
Industrial production index (2010=100)	..	53.1	63.2	87.2	91.2	100.4	100.1	100.3
Total self-sufficiency ²	0.90	1.55	1.58	1.52	1.25	0.98	0.92	0.87
Coal self-sufficiency ²	0.82	0.73	0.91	0.83	0.60	0.56	0.52	0.57
Oil self-sufficiency ²	0.85	1.78	1.90	1.92	1.64	1.42	1.31	1.28
Natural gas self-sufficiency ²	1.00	1.13	0.98	0.94	0.79	0.46	0.42	0.38
TPES/GDP (toe per thousand 2010 USD)	0.15	0.18	0.19	0.16	0.17	0.15	0.14	0.14
TPES/GDP PPP (toe per thousand 2010 USD)	0.09	0.11	0.12	0.10	0.10	0.09	0.09	0.08
TPES/population (toe per capita)	0.92	1.35	1.42	1.49	1.56	1.51	1.46	1.47
Net oil imports/GDP (toe per thousand 2010 USD)	0.02	-0.09	-0.11	-0.08	-0.05	-0.03	-0.02	-0.01
Oil supply/GDP (toe per thousand 2010 USD)	0.09	0.12	0.13	0.10	0.09	0.07	0.07	0.06
Oil supply/population (toe per capita)	0.57	0.92	0.93	0.89	0.83	0.72	0.70	0.66
Share of renewables in TPES	0.15	0.10	0.12	0.11	0.09	0.09	0.09	0.09
Share of renewables in electricity generation	0.44	0.27	0.25	0.20	0.17	0.15	0.16	0.16
TFC/GDP (toe per thousand 2010 USD)	0.11	0.12	0.13	0.10	0.11	0.10	0.10	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.07	0.07	0.08	0.06	0.07	0.06	0.06	..
TFC/population (toe per capita)	0.70	0.94	0.96	0.94	1.03	1.00	0.99	..
Elect. cons./GDP (kWh per 2010 USD)	0.09	0.11	0.15	0.19	0.22	0.22	0.22	0.23
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.06	0.07	0.09	0.12	0.13	0.14	0.13	0.14
Elect. cons./population (kWh per capita)	575	854	1143	1765	2018	2300	2258	2387
Industry cons. ³ /industrial production (2010=100)	..	117.0	125.3	91.7	100.0	91.8	96.9	..
Industry oil cons. ³ /industrial production (2010=100)	..	123.5	161.0	114.2	100.0	85.3	80.4	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

Netherlands

Figure 1. Energy production

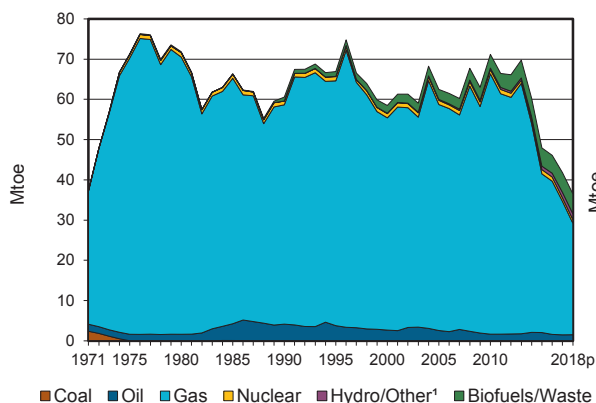


Figure 2. Total primary energy supply²

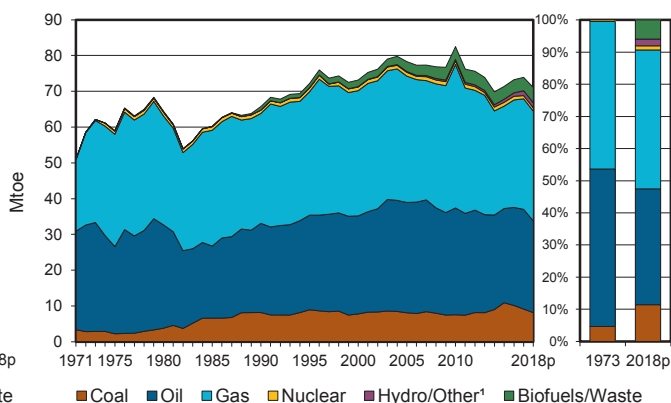


Figure 3. Energy self-sufficiency

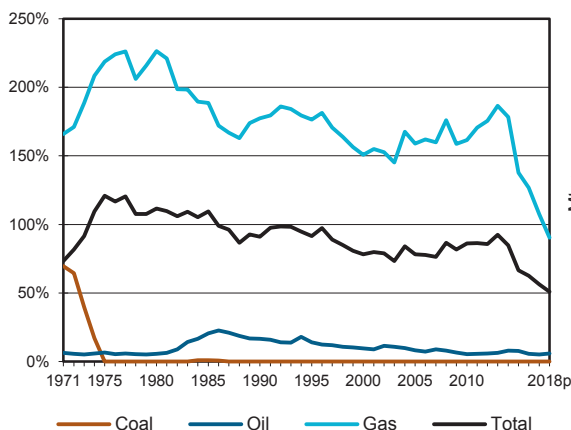


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

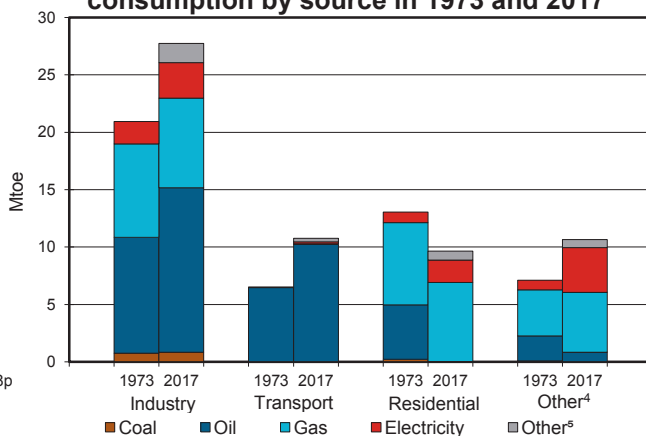


Figure 5. Electricity generation by source

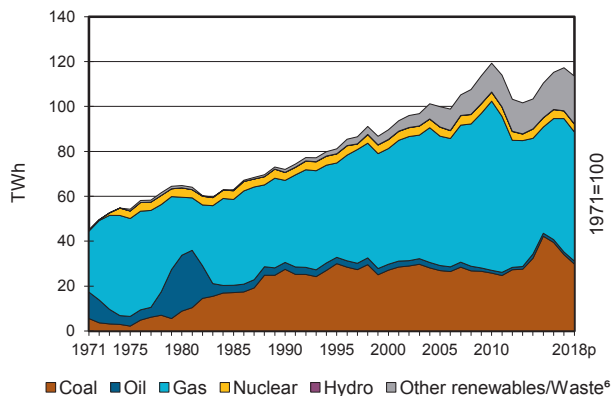
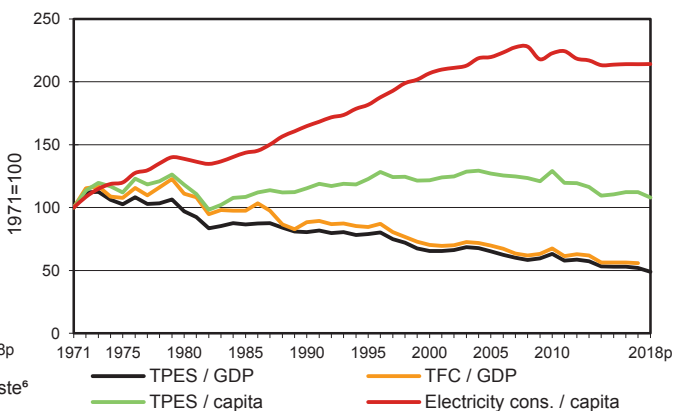


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Netherlands

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./ Solar/ etc.	Biofuels/ Waste	Electricity	Heat	Total
Production	-	1.47	-	33.17	0.89	0.01	1.21	4.90	-	0.14	41.78
Imports	9.41	61.66	91.07	38.80	-	-	-	0.68	1.93	-	203.56
Exports	-0.19	-0.88	-112.31	-40.17	-	-	-	-1.75	-1.63	-	-156.92
Intl. marine bunkers	-	-	-11.39	-0.00	-	-	-	-	-	-	-11.39
Intl. aviation bunkers	-	-	-3.97	-	-	-	-	-	-	-	-3.97
Stock changes	-0.08	0.33	1.88	-0.89	-	-	-	-0.09	-	-	1.15
TPES	9.15	62.58	-34.72	30.91	0.89	0.01	1.21	3.74	0.30	0.14	74.20
Transfers	-	-1.83	2.89	-	-	-	-	-	-	-	1.06
Statistical differences	0.00	-0.00	0.25	0.13	-	-	-	-0.00	-0.01	0.04	0.40
Electricity plants	-5.65	-	-	-4.09	-0.89	-0.01	-1.11	-0.28	6.28	-	-5.75
CHP plants	-1.07	-	-0.29	-5.55	-	-	-	-2.12	3.80	2.33	-2.91
Heat plants	-	-	-0.25	-0.14	-	-	-	-0.03	-	0.33	-0.10
Blast furnaces	-1.33 e	-	-	-	-	-	-	-	-	-	-1.33
Gas works	-	-	-0.14	0.11	-	-	-	-0.07	-	-	-0.11
Coke/pat. fuel/BKB/PB plants	-0.07	-	-	-	-	-	-	-	-	-	-0.07
Oil refineries	-	-61.41	60.73	-	-	-	-	-	-	-	-0.67
Petrochemical plants	-	2.81	-2.87	-	-	-	-	-	-	-	-0.07
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-0.36	-0.36
Energy industry own use	-0.20	-	-2.30	-1.37	-	-	-	-	-0.82	-0.26	-4.95
Losses	-	-	-	-	-	-	-	-	-0.47	-0.10	-0.56
TFC	0.83	2.15	23.30	19.99	-	-	0.10	1.23	9.08	2.11	58.79
INDUSTRY	0.82	-	3.48	5.27	-	-	-	0.14	3.08	1.54	14.33
Iron and steel	0.72 e	-	0.01	0.27	-	-	-	-	0.22	0.00	1.22
Chemical and petrochemical	-	-	3.03	2.14	-	-	-	-	1.09	1.31	7.57
Non-ferrous metals	-	-	-	0.07	-	-	-	-	0.17	0.03	0.27
Non-metallic minerals	0.04	-	0.01	0.42	-	-	-	-	0.11	0.00	0.59
Transport equipment	-	-	0.00	0.05	-	-	-	-	0.05	0.00	0.10
Machinery	-	-	0.00	0.26	-	-	-	-	0.28	0.00	0.55
Mining and quarrying	0.00	-	0.00	0.05	-	-	-	-	0.02	0.04	0.12
Food and tobacco	0.03	-	0.00	1.37	-	-	-	0.01	0.60	0.12	2.13
Paper, pulp and printing	-	-	-	0.33	-	-	-	0.01	0.21	0.04	0.59
Wood and wood products	-	-	-	0.01	-	-	-	0.03	0.01	-	0.05
Construction	0.00	-	0.42	0.10	-	-	-	0.02	0.08	-	0.62
Textile and leather	-	-	-	0.06	-	-	-	-	0.03	0.00	0.10
Non-specified	0.02	-	0.00	0.13	-	-	-	0.08	0.19	0.00	0.42
TRANSPORT	-	-	10.17	0.05	-	-	-	0.31	0.17	-	10.69
Domestic aviation	-	-	0.01	-	-	-	-	-	-	-	0.01
Road	-	-	9.83	0.05	-	-	-	0.31	0.03	-	10.22
Rail	-	-	0.03	-	-	-	-	0.00	0.13	-	0.16
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	0.30	-	-	-	-	-	-	-	0.30
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	0.00	-	0.84	12.11	-	-	0.10	0.79	5.84	0.57	20.25
Residential	0.00	-	0.04	6.89	-	-	0.02	0.46	1.94	0.29	9.64
Comm. and public services	0.00	-	0.17	3.08	-	-	0.01	0.18	3.09	0.20	6.72
Agriculture/forestry	-	-	0.42	2.14	-	-	0.07	0.15	0.80	0.09	3.67
Fishing	-	-	0.15	-	-	-	-	-	-	-	0.15
Non-specified	-	-	0.06	0.00	-	-	-	-	-	-	0.07
NON-ENERGY USE	0.01	2.15	8.81	2.56	-	-	-	-	-	-	13.53
in industry/transf./energy	0.01	2.15	8.70	2.56	-	-	-	-	-	-	13.42
of which: chem./petrochem.	-	2.15	8.51	2.56	-	-	-	-	-	-	13.22
in transport	-	-	0.07	-	-	-	-	-	-	-	0.07
in other	-	-	0.04	-	-	-	-	-	-	-	0.04
Electricity and Heat Output											
Electr. generated - TWh	34.03	-	1.18	59.40	3.40	0.06	12.90	6.29	-	-	117.26
Electricity plants	28.57	-	-	27.00	3.40	0.06	12.90	1.13	-	-	73.05
CHP plants	5.46	-	1.18	32.40	-	-	-	5.16	-	-	44.21
Heat generated - PJ	2.88	-	11.51	70.43	-	-	-	26.39	-	5.78	116.99
CHP plants	2.88	-	3.23	66.07	-	-	-	25.37	-	-	97.55
Heat plants	-	-	8.28	4.36	-	-	-	1.02	-	5.78	19.44

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Netherlands

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	1.50	-	27.75	0.92	0.01	1.37	4.93	-	0.06	36.54
Imports	8.24	61.58	87.29	42.26	-	-	-	0.69	2.30	-	202.37
Exports	-0.13	-0.88	-109.61	-37.67	-	-	-	-1.40	-1.62	-	-151.30
Intl. marine bunkers	-	-	-10.69	-0.01	-	-	-	-	-	-	-10.70
Intl. aviation bunkers	-	-	-3.92	-	-	-	-	-	-	-	-3.92
Stock changes	0.02	-0.12	0.45	-1.64	-	-	-	0.01	-	-	-1.27
TPES	8.13	62.08	-36.47	30.70	0.92	0.01	1.37	4.23	0.69	0.06	71.72
Electricity and Heat Output											
Elec. generated - TWh	29.88	-	1.29	57.54	3.51	0.07	14.47	6.77	-	-	113.54
Heat generated - PJ	2.75	-	11.43	69.64	-	-	0.50	21.04	-	2.63	108.00

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	56.8	71.8	60.6	58.5	71.2	46.1	41.8	36.5
Net imports (Mtoe)	17.9	3.4	18.0	34.8	28.2	41.1	46.6	51.1
Total primary energy supply (Mtoe)	62.0	64.4	66.5	74.8	82.7	73.7	74.2	71.7
Net oil imports (Mtoe)	41.7	38.2	32.9	42.7	44.4	41.2	39.5	38.4
Oil supply (Mtoe)	30.5	28.9	24.9	27.4	29.9	27.4	27.9	25.6
Electricity consumption (TWh) ¹	48.6	61.8	77.5	103.6	116.4	114.7	115.4	116.1
GDP (billion 2010 USD)	356.3	428.2	533.8	739.5	846.6	898.0	923.7	948.4
GDP PPP (billion 2010 USD)	315.0	378.5	471.9	653.7	748.4	793.8	816.6	838.4
Population (millions)	13.44	14.15	14.95	15.93	16.62	17.03	17.13	17.23
Industrial production index (2010=100)	61.1	68.2	78.6	95.9	106.9	101.4	102.5	103.2
Total self-sufficiency ²	0.92	1.12	0.91	0.78	0.86	0.63	0.56	0.51
Coal self-sufficiency ²	0.40	-	-	-	-	-	-	-
Oil self-sufficiency ²	0.05	0.06	0.17	0.10	0.05	0.06	0.05	0.06
Natural gas self-sufficiency ²	1.89	2.26	1.77	1.51	1.62	1.27	1.07	0.90
TPES/GDP (toe per thousand 2010 USD)	0.17	0.15	0.12	0.10	0.10	0.08	0.08	0.08
TPES/GDP PPP (toe per thousand 2010 USD)	0.20	0.17	0.14	0.11	0.11	0.09	0.09	0.09
TPES/population (toe per capita)	4.61	4.55	4.45	4.70	4.98	4.32	4.33	4.16
Net oil imports/GDP (toe per thousand 2010 USD)	0.12	0.09	0.06	0.06	0.05	0.05	0.04	0.04
Oil supply/GDP (toe per thousand 2010 USD)	0.09	0.07	0.05	0.04	0.04	0.03	0.03	0.03
Oil supply/population (toe per capita)	2.27	2.04	1.67	1.72	1.80	1.61	1.63	1.49
Share of renewables in TPES	-	0.00	0.01	0.02	0.04	0.05	0.06	0.06
Share of renewables in electricity generation	-	0.02	0.01	0.03	0.09	0.13	0.15	0.16
TFC/GDP (toe per thousand 2010 USD)	0.13	0.13	0.10	0.08	0.08	0.06	0.06	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.15	0.14	0.11	0.09	0.09	0.07	0.07	..
TFC/population (toe per capita)	3.55	3.84	3.60	3.73	3.93	3.39	3.43	..
Elect. cons./GDP (kWh per 2010 USD)	0.14	0.14	0.15	0.14	0.14	0.13	0.12	0.12
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.15	0.16	0.16	0.16	0.16	0.14	0.14	0.14
Elect. cons./population (kWh per capita)	3613	4365	5186	6507	7006	6735	6734	6737
Industry cons. ³ /industrial production (2010=100)	131.0	141.5	120.5	106.4	100.0	101.3	103.5	..
Industry oil cons. ³ /industrial production (2010=100)	123.3	150.4	99.2	86.0	100.0	101.8	104.5	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

New Zealand

Figure 1. Energy production

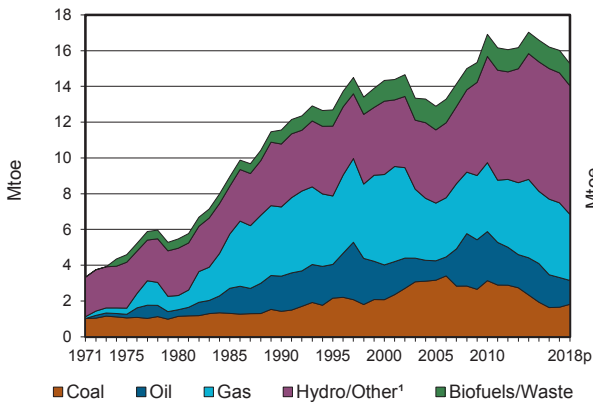


Figure 2. Total primary energy supply²

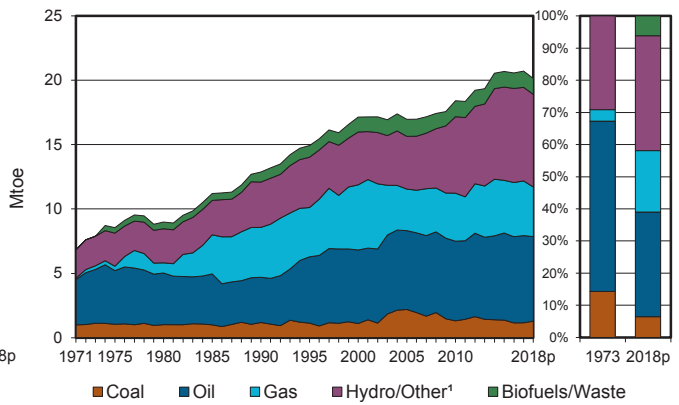


Figure 3. Energy self-sufficiency

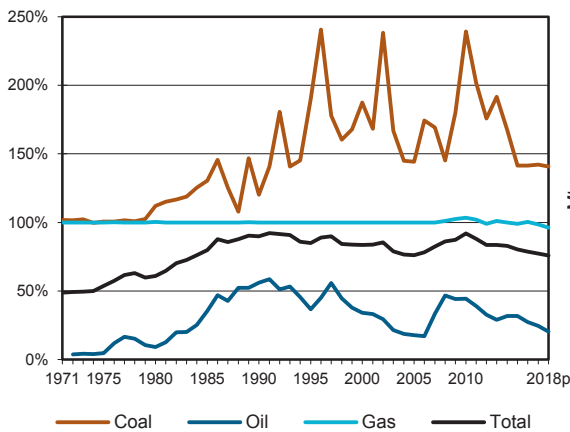


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

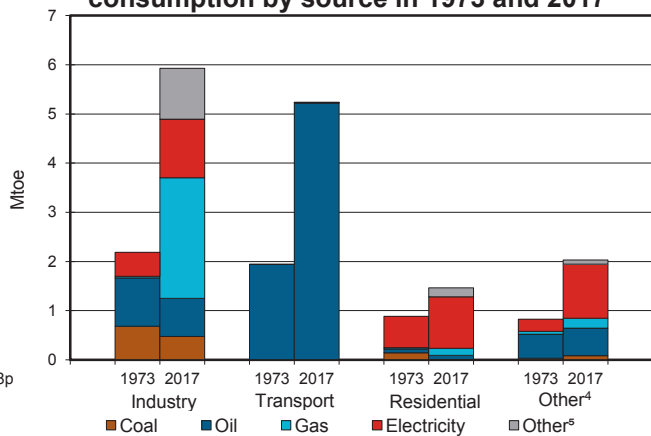


Figure 5. Electricity generation by source

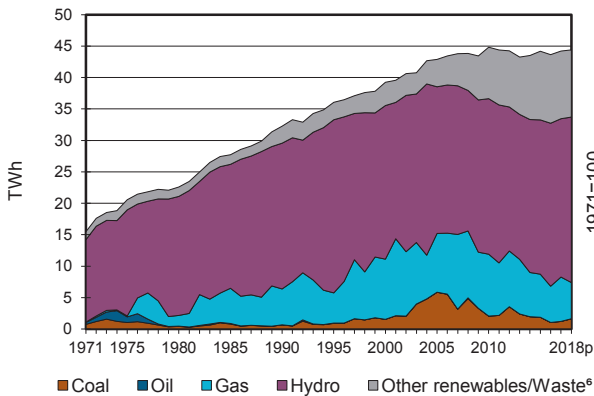
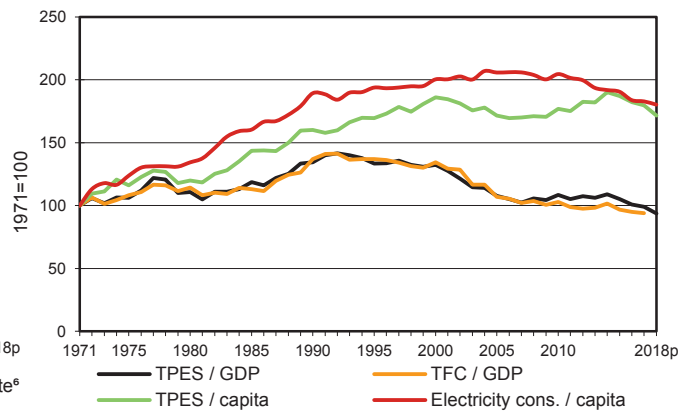


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

New Zealand

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	1.65	1.66	-	4.18	-	2.17	5.10	1.26	-	-	16.02
Imports	0.23	5.49	2.58	-	-	-	-	-	-	-	8.30
Exports	-0.83	-1.40	-0.24	-	-	-	-	-	-	-	-2.48
Intl. marine bunkers	-	-	-0.29	-	-	-	-	-	-	-	-0.29
Intl. aviation bunkers	-	-	-1.23	-	-	-	-	-	-	-	-1.23
Stock changes	0.11	0.03	0.17	0.07	-	-	-	-	-	-	0.38
TPES	1.16	5.78	0.99	4.25	-	2.17	5.10	1.26	-	-	20.70
Transfers	-	-0.20	0.21	-	-	-	-	-	-	-	0.01
Statistical differences	0.01	0.11	0.22	0.08	-	-	-	-	-0.03	-	0.40
Electricity plants	-0.13	-	-0.00	-0.99	-	-2.17	-4.83	-0.05	3.61	-0.02	-4.59
CHP plants	-0.18	-	-0.00	-0.29	-	-	-0.06	-0.12	0.19	0.02	-0.44
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-0.19	-	-	-	-	-	-	-	-	-	-0.19
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat. fuel/BKB/PB plants	0.01	-	-	-0.00	-	-	-	-	-	-	0.01
Oil refineries	-	-5.69	5.58	-	-	-	-	-	-	-	-0.11
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-0.12	-	-0.35	-0.23	-	-	-	-	-0.18	-	-0.87
Losses	-0.00	-	-	-0.01	-	-	-	-	-0.25	-	-0.27
TFC	0.57	-	6.64	2.80	-	-	0.20	1.09	3.35	-	14.65
INDUSTRY	0.48	-	0.44	1.31	-	-	0.11	0.92	1.19	-	4.45
Iron and steel	0.04	-	-	0.05	-	-	-	-	0.12	-	0.21
Chemical and petrochemical	0.00	-	-	0.69	-	-	-	-	0.03	-	0.72
Non-ferrous metals	0.00	-	-	-	-	-	-	-	0.43	-	0.43
Non-metallic minerals	0.05	-	-	0.05	-	-	-	-	0.02	-	0.12
Transport equipment	-	-	-	-	-	-	-	-	0.00	-	0.00
Machinery	0.00	-	-	0.01	-	-	-	-	0.01	-	0.02
Mining and quarrying	-	-	0.06	0.00	-	-	-	-	0.03	-	0.09
Food and tobacco	0.34	-	-	0.37	-	-	-	0.00	0.23	-	0.94
Paper, pulp and printing	-	-	-	0.09	-	-	-	-	0.11	-	0.19
Wood and wood products	0.01	-	-	0.04	-	-	-	-	0.12	-	0.17
Construction	-	-	0.13	0.01	-	-	-	-	0.03	-	0.17
Textile and leather	0.00	-	-	0.01	-	-	-	-	0.01	-	0.02
Non-specified	0.03	-	0.25	0.00	-	-	0.11	0.92	0.04	-	1.35
TRANSPORT	-	-	5.23	0.00	-	-	-	0.00	0.01	-	5.23
Domestic aviation	-	-	0.33	-	-	-	-	-	-	-	0.33
Road	-	-	4.76	0.00	-	-	-	0.00	..	-	4.76
Rail	-	-	0.04	-	-	-	-	-	-	-	0.04
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	0.10	-	-	-	-	-	-	-	0.10
Non-specified	-	-	-	-	-	-	-	-	0.01	-	0.01
OTHER	0.09	-	0.65	0.35	-	-	0.09	0.17	2.15	-	3.49
Residential	0.01	-	0.09	0.15	-	-	0.02	0.16	1.05	-	1.46
Comm. and public services	0.02	-	0.17	0.17	-	-	0.06	0.01	0.82	-	1.25
Agriculture/forestry	0.06	-	0.33	0.03	-	-	0.02	-	0.21	-	0.65
Fishing	-	-	0.06	-	-	-	-	-	0.00	-	0.06
Non-specified	-	-	-	-	-	-	-	-	0.06	-	0.06
NON-ENERGY USE	-	-	0.33	1.15	-	-	-	-	-	-	1.48
in industry/transf./energy	-	-	0.33	1.15	-	-	-	-	-	-	1.48
of which: chem./petrochem.	-	-	-	1.15	-	-	-	-	-	-	1.15
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - TWh	1.21	-	0.01	7.05	-	25.18	10.17	0.59	-	-	44.21
Electricity plants	0.55	-	0.01	5.97	-	25.18	10.05	0.19	-	-	41.95
CHP plants	0.66	-	0.00	1.08	-	-	0.12	0.40	-	-	2.26
Heat generated - PJ	-	-	-	-	-	-	0.84	-	-	-	0.84
CHP plants	-	-	-	-	-	-	0.84	-	-	-	0.84
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

New Zealand

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./ Solar/ etc.	Biofuels/ Waste	Electricity	Heat	Total
Production	1.81	1.34	-	3.70	-	2.26	4.93	1.23	-	-	15.28
Imports	0.23	5.23	2.88	-	-	-	-	-	-	-	8.35
Exports	-0.86	-1.07	-0.22	-	-	-	-	-	-	-	-2.15
Intl. marine bunkers	-	-	-0.32	-	-	-	-	-	-	-	-0.32
Intl. aviation bunkers	-	-	-1.20	-	-	-	-	-	-	-	-1.20
Stock changes	0.10	-0.05	-0.02	0.15	-	-	-	-	-	-	0.17
TPES	1.29	5.45	1.11	3.85	-	2.26	4.93	1.23	-	-	20.13
Electricity and Heat Output											
Elec. generated - TWh	1.63	-	0.01	5.77	-	26.31	10.10	0.58	-	-	44.39
Heat generated - PJ	-	-	-	-	-	-	0.81	-	-	-	0.81

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	3.9	5.5	11.6	14.3	16.9	16.2	16.0	15.3
Net imports (Mtoe)	4.5	4.2	2.1	3.4	2.9	5.8	5.8	6.2
Total primary energy supply (Mtoe)	7.9	9.0	12.9	17.1	18.4	20.6	20.7	20.1
Net oil imports (Mtoe)	4.6	4.3	2.4	4.5	4.5	6.4	6.4	6.8
Oil supply (Mtoe)	4.2	4.0	3.5	5.7	6.2	6.7	6.8	6.6
Electricity consumption (TWh) ¹	16.4	19.8	29.9	36.2	41.7	40.7	41.3	41.5
GDP (billion 2010 USD)	66.8	70.0	82.6	111.7	146.6	176.1	180.6	185.7
GDP PPP (billion 2010 USD)	62.0	65.0	76.7	103.7	136.0	163.3	167.6	172.2
Population (millions)	2.97	3.14	3.37	3.87	4.36	4.73	4.83	4.92
Industrial production index (2010=100)	..	62.3	71.7	87.0	97.2	101.2	103.6	104.3
Total self-sufficiency ²	0.50	0.61	0.90	0.84	0.92	0.79	0.77	0.76
Coal self-sufficiency ²	1.02 e	1.12	1.20	1.87	2.39	1.41	1.42	1.41
Oil self-sufficiency ²	0.04	0.09	0.56	0.34	0.44	0.27	0.25	0.20
Natural gas self-sufficiency ²	1.00	1.00	1.00	1.00	1.03	1.00	0.98	0.96
TPES/GDP (toe per thousand 2010 USD)	0.12	0.13	0.16	0.15	0.13	0.12	0.11	0.11
TPES/GDP PPP (toe per thousand 2010 USD)	0.13	0.14	0.17	0.17	0.14	0.13	0.12	0.12
TPES/population (toe per capita)	2.65	2.86	3.81	4.43	4.22	4.34	4.28	4.09
Net oil imports/GDP (toe per thousand 2010 USD)	0.07	0.06	0.03	0.04	0.03	0.04	0.04	0.04
Oil supply/GDP (toe per thousand 2010 USD)	0.06	0.06	0.04	0.05	0.04	0.04	0.04	0.04
Oil supply/population (toe per capita)	1.40	1.27	1.04	1.48	1.42	1.41	1.40	1.33
Share of renewables in TPES	0.29	0.35	0.33	0.31	0.39	0.41	0.41	0.42
Share of renewables in electricity generation	0.84	0.90	0.80	0.72	0.73	0.84	0.81	0.83
TFC/GDP (toe per thousand 2010 USD)	0.09	0.10	0.12	0.12	0.09	0.08	0.08	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.09	0.11	0.13	0.13	0.10	0.09	0.09	..
TFC/population (toe per capita)	1.96	2.20	2.89	3.35	2.98	3.05	3.03	..
Elect. cons./GDP (kWh per 2010 USD)	0.25	0.28	0.36	0.32	0.28	0.23	0.23	0.22
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.26	0.30	0.39	0.35	0.31	0.25	0.25	0.24
Elect. cons./population (kWh per capita)	5508	6281	8852	9367	9563	8595	8548	8427
Industry cons. ³ /industrial production (2010=100)	..	80.7	113.3	129.6	100.0	114.3	109.6	..
Industry oil cons. ³ /industrial production (2010=100)	..	168.6	106.5	93.9	100.0	103.7	94.4	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

Norway

Figure 1. Energy production

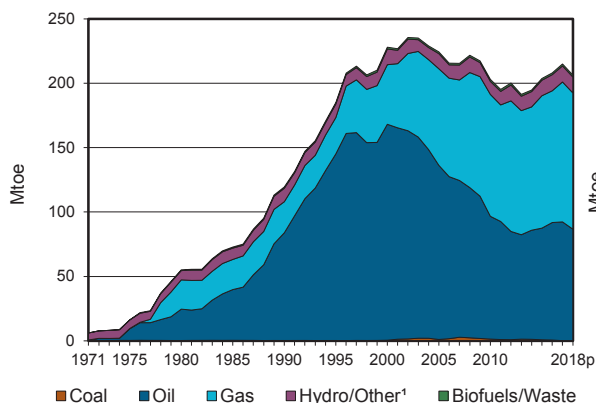


Figure 2. Total primary energy supply²

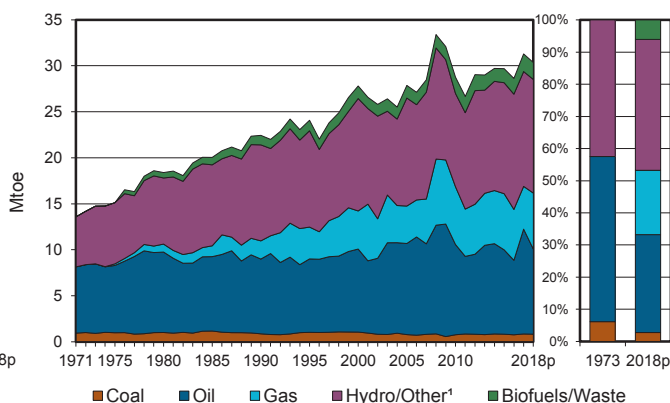


Figure 3. Energy self-sufficiency

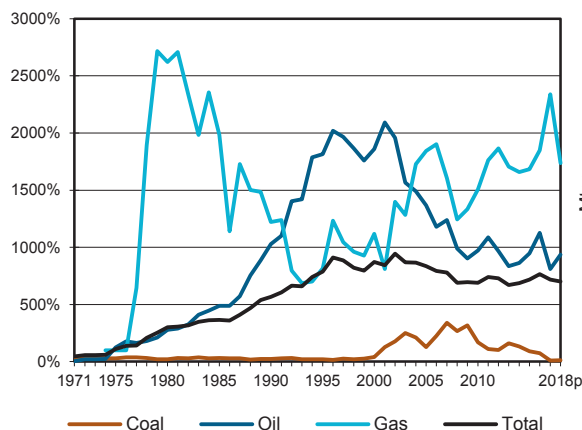


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

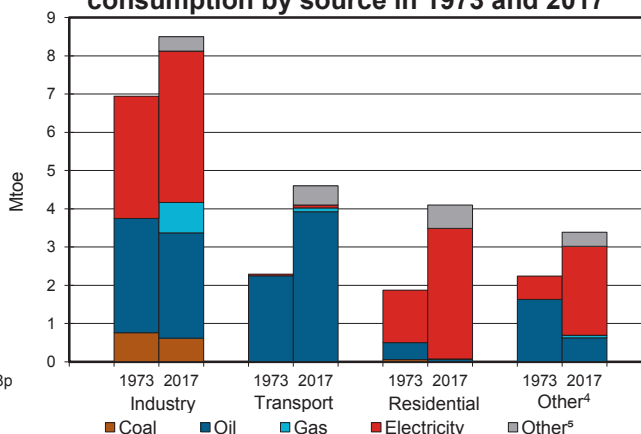


Figure 5. Electricity generation by source

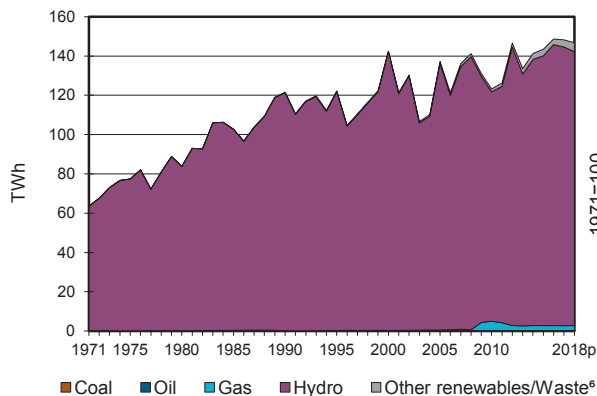
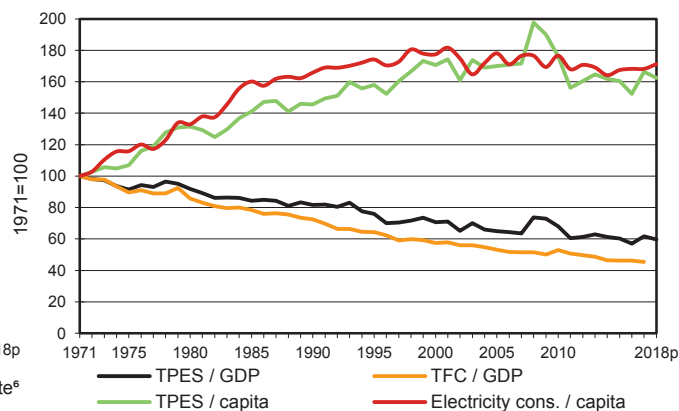


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Norway

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./ Solar/ etc.	Biofuels/ Waste	Electricity	Heat	Total
Production	0.09	92.24	-	108.72	-	12.20	0.25	1.51	-	0.04	215.04
Imports	0.80	1.86	6.01	-	-	-	-	0.49	0.53	-	9.69
Exports	-0.05	-69.45	-19.77	-103.99	-	-	-	-0.09	-1.83	-	-195.18
Intl. marine bunkers	-	-	-0.15	-0.03	-	-	-	-	-	-	-0.18
Intl. aviation bunkers	-	-	-0.54	-	-	-	-	-	-	-	-0.54
Stock changes	0.01	1.01	0.19	-0.05	-	-	-	-	-	-	1.16
TPES	0.85	25.65	-14.26	4.65	-	12.20	0.25	1.92	-1.30	0.04	29.98
Transfers	-	-7.91	8.48	-	-	-	-	-	-	-	0.57
Statistical differences	-0.03	-0.85	-3.11	1.29	-	-	-	-0.00	0.03	-0.00	-2.67
Electricity plants	-0.03	-	-0.00	-	-	-12.20	-0.25	-0.00 e	12.49	-	0.01
CHP plants	-0.02	-	-0.00	-0.32	-	-	-	-0.25	0.26	0.17	-0.16
Heat plants	-0.00	-	-0.01	-0.01	-	-	-	-0.28	-0.09	0.34	-0.06
Blast furnaces	-0.14 e	-	-	-	-	-	-	-	-	-	-0.14
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat. fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-16.94	16.85	-	-	-	-	-	-	-	-0.08
Petrochemical plants	-	0.04	-0.05	-	-	-	-	-	-	-	-0.01
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-	-	-0.54	-4.64	-	-	-	-0.00	-0.81	-	-5.99
Losses	-0.00	-	-	-	-	-	-	-	-0.79	-0.06	-0.85
TFC	0.62	-	7.36	0.96	-	-	-	1.38	9.78	0.49	20.59
INDUSTRY	0.56	-	0.87	0.29	-	-	-	0.33	3.96	0.05	6.05
Iron and steel	0.25 e	-	0.01	0.00	-	-	-	0.00	0.48	0.00	0.74
Chemical and petrochemical	0.23	-	0.33	0.11	-	-	-	0.07	0.64	0.01	1.38
Non-ferrous metals	-	-	0.02	0.04	-	-	-	-	1.79	0.00	1.85
Non-metallic minerals	0.09	-	0.05	0.05	-	-	-	0.08	0.08	0.00	0.35
Transport equipment	-	-	0.00	0.00	-	-	-	0.00	0.03	0.00	0.04
Machinery	-	-	0.01	0.00	-	-	-	0.00	0.09	0.00	0.11
Mining and quarrying	-	-	0.05	0.00	-	-	-	-	0.04	-	0.09
Food and tobacco	-	-	0.08	0.06	-	-	-	0.00	0.25	0.02	0.42
Paper, pulp and printing	-	-	0.01	0.01	-	-	-	0.10	0.34	0.00	0.46
Wood and wood products	-	-	0.01	0.00	-	-	-	0.08	0.05	0.01	0.15
Construction	-	-	0.28	0.00	-	-	-	-	0.12	0.00	0.41
Textile and leather	-	-	0.00	0.00	-	-	-	-	0.01	0.00	0.01
Non-specified	-	-	0.01	0.00	-	-	-	0.00	0.04	0.00	0.06
TRANSPORT	-	-	3.92	0.10	-	-	-	0.51	0.08	-	4.60
Domestic aviation	-	-	0.36	-	-	-	-	-	-	-	0.36
Road	-	-	2.82	0.02	-	-	-	0.50	0.03	-	3.37
Rail	-	-	0.01	-	-	-	-	-	0.05	-	0.06
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	0.72	0.07	-	-	-	0.00	-	-	0.80
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	0.65	0.07	-	-	-	0.54	5.74	0.44	7.45
Residential	-	-	0.06	0.01	-	-	-	0.50	3.41	0.11	4.10
Comm. and public services	-	-	0.26	0.05	-	-	-	0.04	2.15	0.33	2.83
Agriculture/forestry	-	-	0.13	0.01	-	-	-	-	0.16	0.00	0.31
Fishing	-	-	0.11	-	-	-	-	-	0.02	-	0.13
Non-specified	-	-	0.08	-	-	-	-	-	-	-	0.08
NON-ENERGY USE	0.06	-	1.93	0.51	-	-	-	-	-	-	2.49
in industry/transf./energy	0.06	-	1.88	0.51	-	-	-	-	-	-	2.45
of which: chem./petrochem.	-	-	1.02	0.51	-	-	-	-	-	-	1.53
in transport	-	-	0.00	-	-	-	-	-	-	-	0.00
in other	-	-	0.04	-	-	-	-	-	-	-	0.04
Electricity and Heat Output											
Electr. generated - TWh	0.19	-	0.03	2.52	-	141.84	2.85	0.50	-	0.28	148.20
Electricity plants	0.14	-	0.03	-	-	141.84	2.85	0.07	-	0.28	145.21
CHP plants	0.04	-	-	2.52	-	-	-	0.43	-	-	2.99
Heat generated - PJ	0.27	-	0.49	0.51	-	-	0.83	15.46	2.84	2.64	23.04
CHP plants	0.24	-	0.04	0.04	-	-	0.02	6.78	0.09	0.04	7.25
Heat plants	0.03	-	0.46	0.47	-	-	0.81	8.68	2.75	2.60	15.79

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Norway

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	0.10	86.62	-	105.88	-	11.99	0.33	1.48	-	0.03	206.43
Imports	0.78	3.24	6.01	-	-	-	-	0.42	0.72	-	11.17
Exports	-0.08	-66.67	-18.84	-99.76	-	-	-	-0.07	-1.59	-	-187.01
Intl. marine bunkers	-	-	-0.11	-0.04	-	-	-	-	-	-	-0.15
Intl. aviation bunkers	-	-	-0.53	-	-	-	-	-	-	-	-0.53
Stock changes	0.01	-0.30	-0.17	0.02	-	-	-	-	-	-	-0.44
TPES	0.82	22.88	-13.64	6.09	-	11.99	0.33	1.83	-0.87	0.03	29.48
Electricity and Heat Output											
Elec. generated - TWh	0.18	-	0.03	2.60	-	139.39	3.88	0.39	-	0.28	146.74
Heat generated - PJ	0.26	-	0.61	0.63	-	-	0.66	16.15	2.70	2.29	23.30

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	8.1	55.1	119.5	228.0	203.0	208.1	215.0	206.4
Net imports (Mtoe)	6.7	-35.9	-95.7	-200.3	-172.8	-179.9	-185.5	-175.8
Total primary energy supply (Mtoe)	14.3	18.4	21.1	26.2	29.4	27.2	30.0	29.5
Net oil imports (Mtoe)	6.6	-14.7	-72.8	-157.1	-84.9	-82.2	-81.4	-76.3
Oil supply (Mtoe)	7.6	8.7	8.1	9.0	9.8	8.1	11.4	9.2
Electricity consumption (TWh) ¹	61.6	76.5	99.1	112.3	121.6	124.1	125.0	128.2
GDP (billion 2010 USD)	145.5	198.3	255.6	367.0	429.1	473.2	482.6	489.6
GDP PPP (billion 2010 USD)	96.1	131.0	168.8	242.4	283.4	312.5	318.7	323.3
Population (millions)	3.96	4.09	4.24	4.49	4.89	5.24	5.28	5.31
Industrial production index (2010=100)	40.0	57.2	86.3	121.6	102.5	98.8	98.5	96.7
Total self-sufficiency ²	0.56	3.00	5.67	8.72	6.90	7.65	7.17	7.00
Coal self-sufficiency ²	0.32	0.20	0.24	0.40	1.70	0.72	0.10	0.12
Oil self-sufficiency ²	0.20	2.78	10.29	18.59	9.72	11.27	8.09	9.37
Natural gas self-sufficiency ²	-	26.21	12.22	11.17	15.08	18.49	23.40	17.38
TPES/GDP (toe per thousand 2010 USD)	0.10	0.09	0.08	0.07	0.07	0.06	0.06	0.06
TPES/GDP PPP (toe per thousand 2010 USD)	0.15	0.14	0.12	0.11	0.10	0.09	0.09	0.09
TPES/population (toe per capita)	3.61	4.49	4.97	5.83	6.01	5.20	5.68	5.55
Net oil imports/GDP (toe per thousand 2010 USD)	0.05	-0.07	-0.28	-0.43	-0.20	-0.17	-0.17	-0.16
Oil supply/GDP (toe per thousand 2010 USD)	0.05	0.04	0.03	0.02	0.02	0.02	0.02	0.02
Oil supply/population (toe per capita)	1.91	2.14	1.92	2.01	2.01	1.55	2.16	1.74
Share of renewables in TPES	0.44	0.42	0.54	0.52	0.40	0.51	0.47	0.47
Share of renewables in electricity generation	1.00	1.00	1.00 e	1.00 e	0.96	0.98	0.98	0.98
TFC/GDP (toe per thousand 2010 USD)	0.09	0.08	0.07	0.05	0.05	0.04	0.04	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.14	0.12	0.10	0.08	0.08	0.07	0.07	..
TFC/population (toe per capita)	3.37	3.91	4.11	4.41	4.36	3.92	3.90	..
Elect. cons./GDP (kWh per 2010 USD)	0.42	0.39	0.39	0.31	0.28	0.26	0.26	0.26
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.64	0.58	0.59	0.46	0.43	0.40	0.39	0.40
Elect. cons./population (kWh per capita)	15544	18724	23357	24994	24877	23692	23696	24116
Industry cons. ³ /industrial production (2010=100)	211.2	170.0	110.8	90.2	100.0	100.9	104.9	..
Industry oil cons. ³ /industrial production (2010=100)	278.2	230.6	119.3	74.4	100.0	97.1	103.8	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

Poland

Figure 1. Energy production

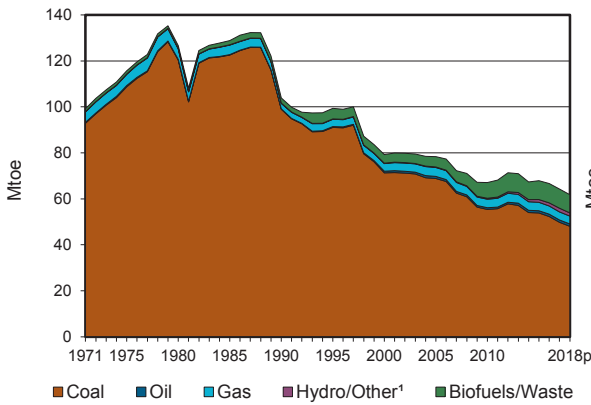


Figure 2. Total primary energy supply²

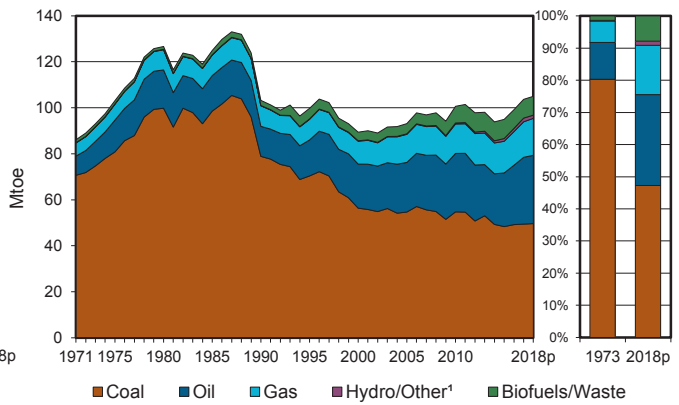


Figure 3. Energy self-sufficiency

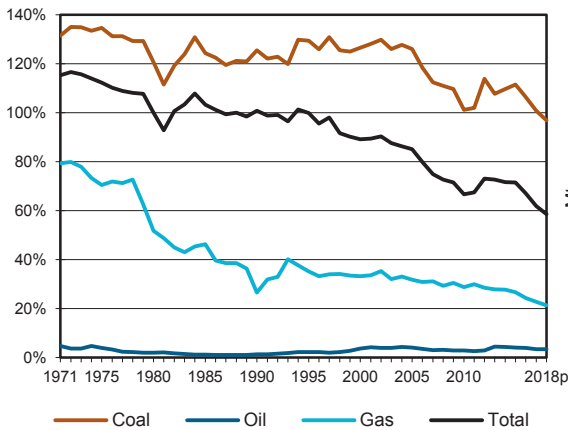


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

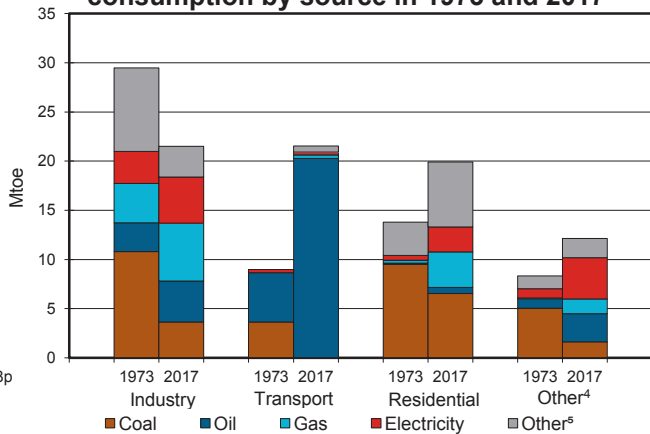


Figure 5. Electricity generation by source

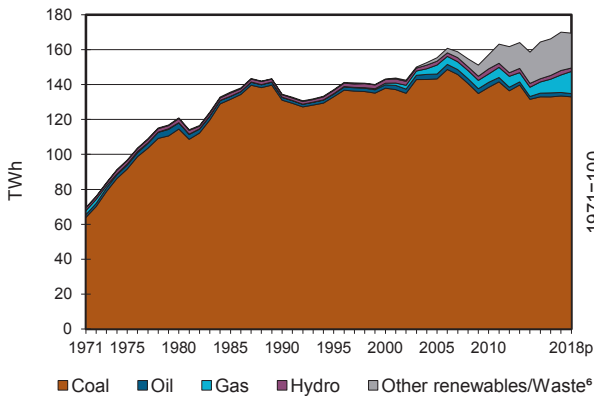
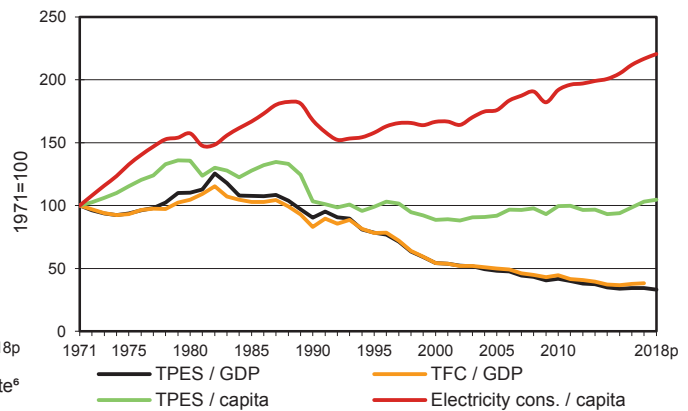


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Poland

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	49.79	1.00	-	3.51	-	0.22	1.37	8.33	-	0.02	64.24
Imports	7.88	25.70	9.41	13.03	-	-	-	0.76	1.14	-	57.92
Exports	-9.35	-0.21	-5.14	-1.02	-	-	-	-0.94	-0.94	-	-17.61
Intl. marine bunkers	-	-	-0.27	-	-	-	-	-	-	-	-0.27
Intl. aviation bunkers	-	-	-0.85	-	-	-	-	-	-	-	-0.85
Stock changes	1.10	-0.28	-0.33	-0.08	-	-	-	-0.00	-	-	0.40
TPES	49.42	26.20	2.82	15.44	-	0.22	1.37	8.15	0.20	0.02	103.84
Transfers	-	0.12	-0.08	-	-	-	-	-	-	-	0.04
Statistical differences	0.52	-0.00	0.01	-0.05	-	-	-	-	-	-	0.48
Electricity plants	-0.54	-	-0.00	-	-	-0.22	-1.30	-0.30	1.87	-0.02	-0.51
CHP plants	-32.16	-	-0.39	-1.80	-	-	-	-1.35	12.75	4.70	-18.25
Heat plants	-2.65	-	-0.03	-0.20	-	-	-	-0.08	-0.00	2.45	-0.51
Blast furnaces	-0.99	-	-	-	-	-	-	-	-	-	-0.99
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat. fuel/BKB/PB plants	-0.60	-	-	-	-	-	-	-	-	-	-0.60
Oil refineries	-	-27.65	27.08	-	-	-	-	-	-	-	-0.57
Petrochemical plants	-	0.73	-0.74	-	-	-	-	-	-	-	-0.01
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-0.11	0.59	-	-0.60	-	-	-	-	-	-	-0.11
Energy industry own use	-1.06	-	-0.77	-1.43	-	-	-	-0.00	-2.28	-0.65	-6.19
Losses	-	-	-	-0.01	-	-	-	-	-0.86	-0.67	-1.55
TFC	11.84	-	27.89	11.36	-	-	0.08	6.42	11.68	5.82	75.08
INDUSTRY	3.58	-	0.75	3.68	-	-	-	2.41	4.69	0.72	15.84
Iron and steel	0.72	-	0.01	0.57	-	-	-	0.00	0.59	0.09	1.97
Chemical and petrochemical	1.22	-	0.31	0.31	-	-	-	0.04	0.75	0.13	2.76
Non-ferrous metals	0.06	-	0.02	0.18	-	-	-	-	0.20	0.03	0.49
Non-metallic minerals	0.62	-	0.08	1.06	-	-	-	0.73	0.47	0.02	2.99
Transport equipment	0.01	-	0.02	0.11	-	-	-	0.00	0.25	0.05	0.43
Machinery	0.03	-	0.03	0.23	-	-	-	0.00	0.41	0.06	0.77
Mining and quarrying	0.01	-	0.07	0.04	-	-	-	0.00	0.24	0.07	0.43
Food and tobacco	0.57	-	0.08	0.72	-	-	-	0.04	0.58	0.07	2.05
Paper, pulp and printing	0.21	-	0.04	0.21	-	-	-	0.82	0.40	0.08	1.76
Wood and wood products	0.04	-	0.01	0.04	-	-	-	0.67	0.21	0.07	1.05
Construction	0.03	-	0.05	0.03	-	-	-	0.00	0.08	0.01	0.20
Textile and leather	0.01	-	0.01	0.04	-	-	-	0.00	0.05	0.01	0.12
Non-specified	0.05	-	0.02	0.14	-	-	-	0.11	0.46	0.03	0.81
TRANSPORT	-	-	20.13	0.38	-	-	-	0.60	0.29	-	21.40
Domestic aviation	-	-	0.03	-	-	-	-	-	-	-	0.03
Road	-	-	20.01	0.01	-	-	-	0.60	0.00	-	20.63
Rail	-	-	0.09	-	-	-	-	-	0.26	-	0.35
Pipeline transport	-	-	0.00	0.37	-	-	-	-	0.02	-	0.39
Domestic navigation	-	-	0.00	-	-	-	-	-	-	-	0.00
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	8.19	-	3.20	5.12	-	-	0.08	3.40	6.70	5.10	31.79
Residential	6.55	-	0.60	3.63	-	-	0.07	2.62	2.51	3.92	19.89
Comm. and public services	0.67	-	0.44	1.45	-	-	0.01	0.26	4.04	1.16	8.03
Agriculture/forestry	0.97	-	2.17	0.04	-	-	-	0.52	0.15	0.02	3.86
Fishing	-	-	-	-	-	-	-	-	0.00	-	0.00
Non-specified	-	-	0.00	-	-	-	-	-	-	-	0.00
NON-ENERGY USE	0.06	-	3.81	2.18	-	-	-	-	-	-	6.06
in industry/transf./energy	0.06	-	3.43	2.18	-	-	-	-	-	-	5.67
of which: chem./petrochem.	-	-	2.04	2.18	-	-	-	-	-	-	4.22
in transport	-	-	0.13	-	-	-	-	-	-	-	0.13
in other	-	-	0.26	-	-	-	-	-	-	-	0.26
Electricity and Heat Output											
Electr. generated - TWh	133.44	-	2.02	10.03	-	2.56	15.08	6.80	-	0.05	169.99
Electricity plants	2.63	-	0.01	-	-	2.56	15.07	1.42	-	-	21.69
CHP plants	130.81	-	2.01	10.03	-	-	0.01	5.39	-	0.05	148.30
Heat generated - PJ	254.86	-	4.11	24.66	-	-	0.08	15.39	-	0.66	299.76
CHP plants	162.91	-	3.16	17.90	-	-	0.08	12.65	-	0.66	197.36
Heat plants	91.95	-	0.95	6.75	-	-	-	2.74	-	0.01	102.40

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Poland

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	48.06	1.02	-	3.42	-	0.17	1.21	7.92	-	0.01	61.81
Imports	11.56	27.87	9.04	13.08	-	-	-	0.93	1.19	-	63.67
Exports	-8.08	-0.29	-5.99	-0.56	-	-	-	-0.68	-0.70	-	-16.30
Intl. marine bunkers	-	-	-0.25	-	-	-	-	-	-	-	-0.25
Intl. aviation bunkers	-	-	-1.00	-	-	-	-	-	-	-	-1.00
Stock changes	-1.91	-0.56	-0.13	0.14	-	-	-	0.00	-	-	-2.46
TPES	49.63	28.04	1.67	16.08	-	0.17	1.21	8.17	0.49	0.01	105.46
Electricity and Heat Output											
Elec. generated - TWh	132.97	-	1.86	12.64	-	1.97	13.15	6.77	-	0.06	169.43
Heat generated - PJ	249.31	-	4.45	25.23	-	-	0.08	14.66	-	0.43	294.15

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	107.4	126.6	103.9	79.2	67.1	66.7	64.2	61.8
Net imports (Mtoe)	-13.2	1.5	0.9	9.6	32.1	30.9	40.3	47.4
Total primary energy supply (Mtoe)	92.9	126.6	103.1	88.8	100.5	99.3	103.8	105.5
Net oil imports (Mtoe)	11.8	17.7	14.3	19.8	25.7	25.4	29.8	30.6
Oil supply (Mtoe)	10.7	16.7	13.0	19.2	25.4	25.8	29.0	29.7
Electricity consumption (TWh) ¹	75.6	109.4	124.7	124.6	144.5	159.1	162.8	165.6
GDP (billion 2010 USD)	197.2	228.2	226.7	326.2	479.3	573.4	601.0	632.0
GDP PPP (billion 2010 USD)	329.5	381.3	378.7	545.0	800.7	957.9	1004.0	1055.7
Population (millions)	33.37	35.58	38.03	38.26	38.52	38.43	38.42	38.41
Industrial production index (2010=100)	..	..	29.6	47.4	83.4	102.8	109.6	116.1
Total self-sufficiency ²	1.16	1.00	1.01	0.89	0.67	0.67	0.62	0.59
Coal self-sufficiency ²	1.35	1.21	1.25	1.27	1.01	1.06	1.01	0.97
Oil self-sufficiency ²	0.04	0.02	0.01	0.04	0.03	0.04	0.03	0.03
Natural gas self-sufficiency ²	0.78	0.52	0.27	0.33	0.29	0.24	0.23	0.21
TPES/GDP (toe per thousand 2010 USD)	0.47	0.55	0.45	0.27	0.21	0.17	0.17	0.17
TPES/GDP PPP (toe per thousand 2010 USD)	0.28	0.33	0.27	0.16	0.13	0.10	0.10	0.10
TPES/population (toe per capita)	2.78	3.56	2.71	2.32	2.61	2.58	2.70	2.75
Net oil imports/GDP (toe per thousand 2010 USD)	0.06	0.08	0.06	0.06	0.05	0.04	0.05	0.05
Oil supply/GDP (toe per thousand 2010 USD)	0.05	0.07	0.06	0.06	0.05	0.05	0.05	0.05
Oil supply/population (toe per capita)	0.32	0.47	0.34	0.50	0.66	0.67	0.76	0.77
Share of renewables in TPES	0.01	0.01	0.02	0.04	0.07	0.09	0.09	0.08
Share of renewables in electricity generation	0.02	0.02	0.01	0.02	0.07	0.14	0.14	0.13
TFC/GDP (toe per thousand 2010 USD)	0.31	0.34	0.27	0.18	0.15	0.12	0.13	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.18	0.21	0.16	0.11	0.09	0.07	0.08	..
TFC/population (toe per capita)	1.82	2.19	1.62	1.51	1.82	1.84	1.95	..
Elect. cons./GDP (kWh per 2010 USD)	0.38	0.48	0.55	0.38	0.30	0.28	0.27	0.26
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.23	0.29	0.33	0.23	0.18	0.17	0.16	0.16
Elect. cons./population (kWh per capita)	2264	3076	3279	3256	3750	4141	4236	4310
Industry cons. ³ /industrial production (2010=100)	..	..	418.9	202.6	100.0	88.7	89.6	..
Industry oil cons. ³ /industrial production (2010=100)	..	..	202.5	163.5	100.0	74.3	76.6	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

Portugal

Figure 1. Energy production

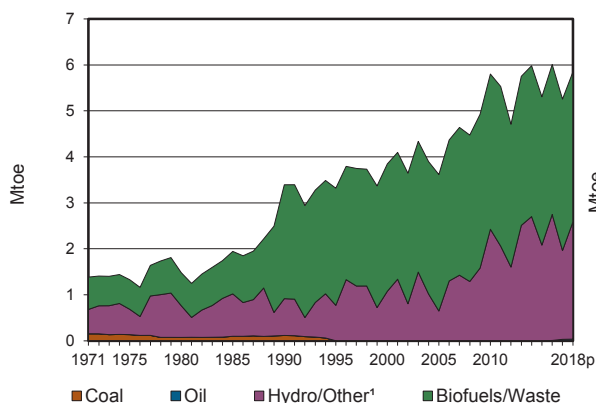


Figure 2. Total primary energy supply²

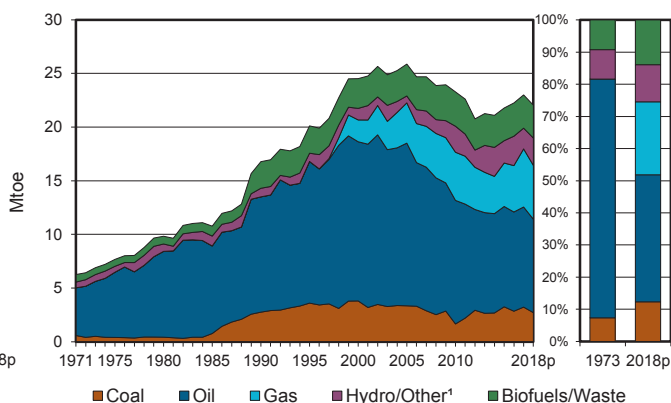


Figure 3. Energy self-sufficiency

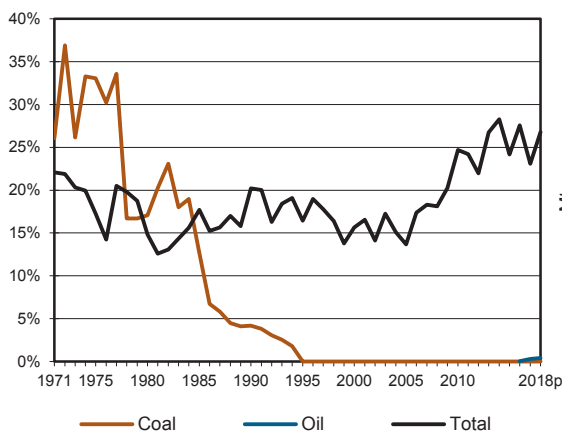


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

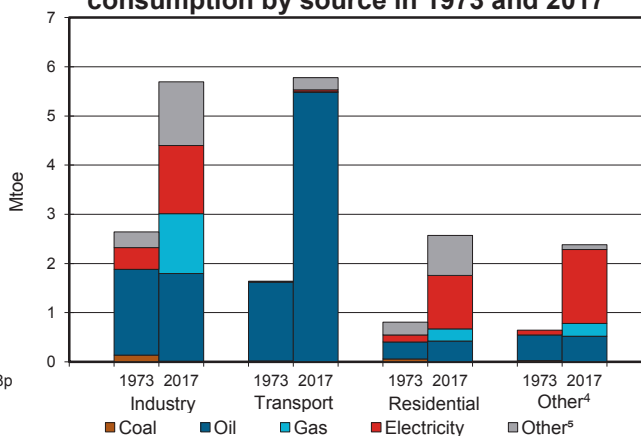


Figure 5. Electricity generation by source

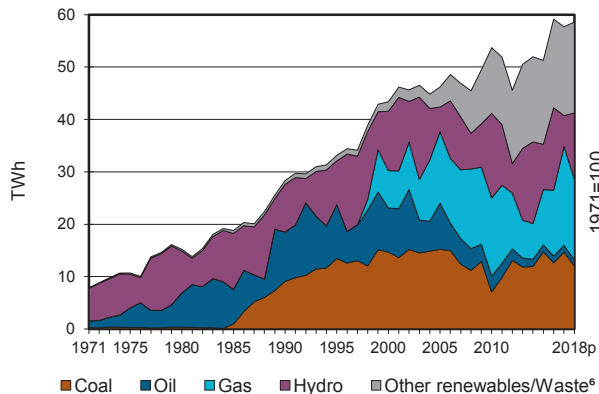
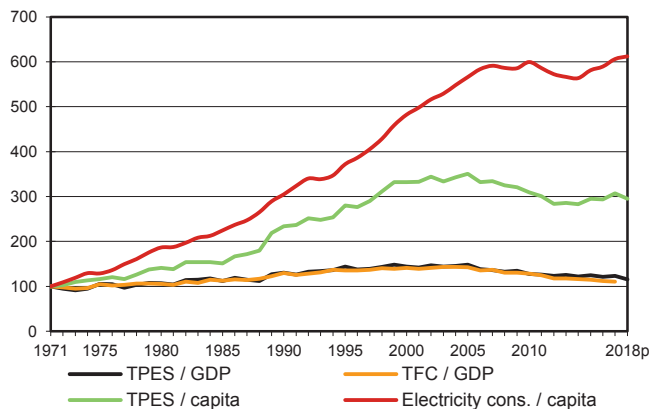


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Portugal

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	0.03	-	-	-	0.51	1.43	3.29	-	-	5.26
Imports	3.41	15.77	2.62	5.44	-	-	-	0.10	0.47	-	27.80
Exports	-	-0.17	-6.83	-	-	-	-	-0.28	-0.70	-	-7.99
Intl. marine bunkers	-	-	-0.78	-	-	-	-	-	-	-	-0.78
Intl. aviation bunkers	-	-	-1.28	-	-	-	-	-	-	-	-1.28
Stock changes	-0.18	-0.10	0.08	-0.02	-	-	-	-0.01	-	-	-0.24
TPES	3.23	15.53	-6.20	5.42	-	0.51	1.43	3.10	-0.23	-	22.77
Transfers	-	0.05	-0.05	-	-	-	-	-	-	-	0.00
Statistical differences	0.02	-	0.03	0.03	-	-	-	0.00	0.00	-	0.08
Electricity plants	-3.24	-	-0.17	-2.17	-	-0.51	-1.34	-0.55	4.35	-	-3.63
CHP plants	-	-	-0.08	-1.17	-	-	-	-0.38	0.61	0.46	-0.56
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat. fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-16.02	15.68	-	-	-	-	-	-	-	-0.34
Petrochemical plants	-	0.23	-0.24	-	-	-	-	-	-	-	-0.01
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	0.20	-	-0.25	-	-	-	-0.01	-	-	-0.05
Energy industry own use	-	-	-0.76	-0.11	-	-	-	-	-0.28	-0.25	-1.40
Losses	-	-	-	-0.01	-	-	-	-	-0.44	-	-0.44
TFC	0.01	-	8.21	1.74	-	-	0.09	2.16	4.01	0.21	16.42
INDUSTRY	0.01	-	0.62	1.21	-	-	-	1.11	1.39	0.18	4.52
Iron and steel	0.01	-	0.00	0.04	-	-	-	0.00	0.13	-	0.18
Chemical and petrochemical	0.00	-	0.01	0.17	-	-	-	0.00	0.20	0.02	0.40
Non-ferrous metals	-	-	0.00	0.02	-	-	-	0.00	0.01	-	0.03
Non-metallic minerals	0.01	-	0.32	0.45	-	-	-	0.18	0.17	0.01	1.12
Transport equipment	-	-	0.01	0.02	-	-	-	0.00	0.05	-	0.07
Machinery	0.00	-	0.02	0.03	-	-	-	0.00	0.09	0.00	0.15
Mining and quarrying	0.00	-	0.03	0.00	-	-	-	0.00	0.04	0.00	0.07
Food and tobacco	-	-	0.07	0.16	-	-	-	0.03	0.17	0.03	0.45
Paper, pulp and printing	-	-	0.05	0.16	-	-	-	0.85	0.27	0.08	1.41
Wood and wood products	-	-	0.01	0.01	-	-	-	0.03	0.06	-	0.11
Construction	-	-	0.09	0.02	-	-	-	0.00	0.05	-	0.16
Textile and leather	-	-	0.01	0.14	-	-	-	0.01	0.11	0.03	0.30
Non-specified	0.00	-	0.00	0.01	-	-	-	0.00	0.04	0.01	0.07
TRANSPORT	-	-	5.45	0.01	-	-	-	0.24	0.04	-	5.74
Domestic aviation	-	-	0.17	-	-	-	-	-	-	-	0.17
Road	-	-	5.18	0.01	-	-	-	0.24	0.00	-	5.43
Rail	-	-	0.01	-	-	-	-	0.00	0.04	-	0.05
Pipeline transport	-	-	0.01	-	-	-	-	-	0.00	-	0.01
Domestic navigation	-	-	0.08	-	-	-	-	0.00	-	-	0.08
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	0.94	0.51	-	-	0.09	0.80	2.58	0.03	4.95
Residential	-	-	0.42	0.25	-	-	0.05	0.76	1.08	0.00	2.57
Comm. and public services	-	-	0.14	0.26	-	-	0.04	0.03	1.41	0.03	1.90
Agriculture/forestry	-	-	0.28	0.01	-	-	-	0.00	0.08	-	0.37
Fishing	-	-	0.08	0.00	-	-	-	0.00	0.01	-	0.09
Non-specified	-	-	0.02	-	-	-	-	0.00	-	-	0.02
NON-ENERGY USE	-	-	1.20	-	-	-	-	-	-	-	1.20
in industry/transf./energy	-	-	1.17	-	-	-	-	-	-	-	1.17
of which: chem./petrochem.	-	-	0.91	-	-	-	-	-	-	-	0.91
in transport	-	-	0.03	-	-	-	-	-	-	-	0.03
in other	-	-	0.00	-	-	-	-	-	-	-	0.00
Electricity and Heat Output											
Electr. generated - TWh	14.67	-	1.28	18.89	-	5.90	13.46	3.50	-	-	57.70
Electricity plants	14.67	-	0.83	14.00	-	5.90	13.46	1.70	-	-	50.55
CHP plants	-	-	0.45	4.89	-	-	-	1.80	-	-	7.15
Heat generated - PJ	-	-	0.04	19.07	-	-	-	-	-	-	19.10
CHP plants	-	-	0.04	19.07	-	-	-	-	-	-	19.10
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Portugal

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	0.04	-	-	-	1.08	1.47	3.26	-	-	5.84
Imports	2.68	13.91	2.62	5.08	-	-	-	0.11	0.49	-	24.90
Exports	-	-0.14	-5.30	-	-	-	-	-0.33	-0.72	-	-6.49
Intl. marine bunkers	-	-	-0.81	-	-	-	-	-	-	-	-0.81
Intl. aviation bunkers	-	-	-1.38	-	-	-	-	-	-	-	-1.38
Stock changes	0.03	-0.09	-0.14	-0.05	-	-	-	0.01	-	-	-0.25
TPES	2.71	13.72	-5.02	5.02	-	1.08	1.47	3.06	-0.23	-	21.81
Electricity and Heat Output											
Elec. generated - TWh	12.06	-	1.17	15.45	-	12.54	13.90	3.47	-	-	58.59
Heat generated - PJ	-	-	0.18	19.03	-	-	-	-	-	-	19.21

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	1.4	1.5	3.4	3.9	5.8	6.0	5.3	5.8
Net imports (Mtoe)	6.5	9.9	14.9	22.1	18.7	17.6	19.8	18.4
Total primary energy supply (Mtoe)	6.9	10.0	16.8	24.6	23.5	21.8	22.8	21.8
Net oil imports (Mtoe)	6.2	9.4	11.9	16.0	12.5	11.0	11.4	11.1
Oil supply (Mtoe)	5.1	8.0	10.7	14.8	11.5	9.2	9.3	8.7
Electricity consumption (TWh) ¹	8.6	15.2	25.2	41.1	52.4	50.3	51.7	52.1
GDP (billion 2010 USD)	97.5	121.0	166.6	221.4	238.3	232.4	238.9	244.1
GDP PPP (billion 2010 USD)	118.1	146.6	201.9	268.2	288.7	281.6	289.5	295.7
Population (millions)	8.72	9.86	10.00	10.29	10.57	10.33	10.30	10.28
Industrial production index (2010=100)	52.7	72.8	115.9	132.9	103.7	102.4	106.0	106.2
Total self-sufficiency ²	0.20	0.15	0.20	0.16	0.25	0.28	0.23	0.27
Coal self-sufficiency ²	0.26	0.17	0.04	-	-	-	-	-
Oil self-sufficiency ²	-	-	-	-	-	0.00	0.00	0.00
Natural gas self-sufficiency ²	-	-	-	-	-	-	-	-
TPES/GDP (toe per thousand 2010 USD)	0.07	0.08	0.10	0.11	0.10	0.09	0.10	0.09
TPES/GDP PPP (toe per thousand 2010 USD)	0.06	0.07	0.08	0.09	0.08	0.08	0.08	0.07
TPES/population (toe per capita)	0.79	1.01	1.68	2.39	2.22	2.11	2.21	2.12
Net oil imports/GDP (toe per thousand 2010 USD)	0.06	0.08	0.07	0.07	0.05	0.05	0.05	0.05
Oil supply/GDP (toe per thousand 2010 USD)	0.05	0.07	0.06	0.07	0.05	0.04	0.04	0.04
Oil supply/population (toe per capita)	0.59	0.81	1.07	1.44	1.09	0.90	0.91	0.85
Share of renewables in TPES	0.18	0.14	0.20	0.15	0.23	0.26	0.21	0.25
Share of renewables in electricity generation	0.77	0.55	0.35	0.30 e	0.53	0.55	0.39	0.51
TFC/GDP (toe per thousand 2010 USD)	0.06	0.07	0.08	0.09	0.08	0.07	0.07	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.05	0.05	0.07	0.07	0.07	0.06	0.06	..
TFC/population (toe per capita)	0.66	0.80	1.34	1.88	1.79	1.56	1.59	..
Elect. cons./GDP (kWh per 2010 USD)	0.09	0.13	0.15	0.19	0.22	0.22	0.22	0.21
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.07	0.10	0.13	0.15	0.18	0.18	0.18	0.18
Elect. cons./population (kWh per capita)	985	1543	2522	3989	4959	4875	5014	5064
Industry cons. ³ /industrial production (2010=100)	72.8	75.2	83.4	91.9	100.0	78.2	78.0	..
Industry oil cons. ³ /industrial production (2010=100)	126.8	133.8	125.9	131.2	100.0	64.8	64.7	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

Slovak Republic

Figure 1. Energy production

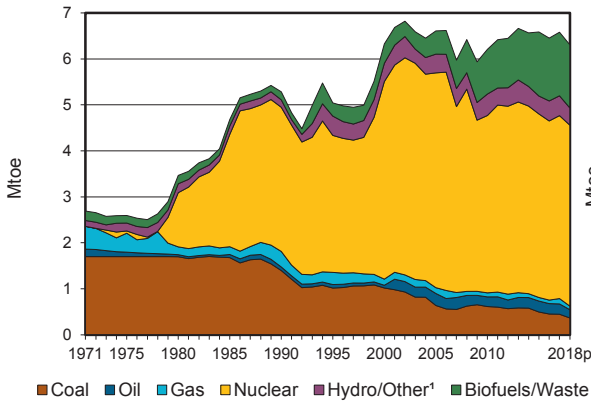


Figure 2. Total primary energy supply²

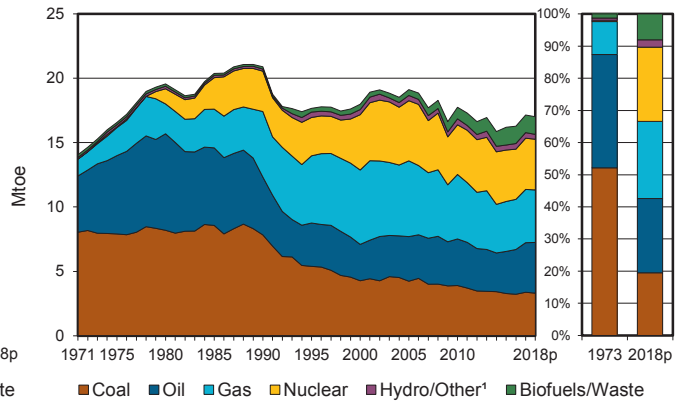


Figure 3. Energy self-sufficiency

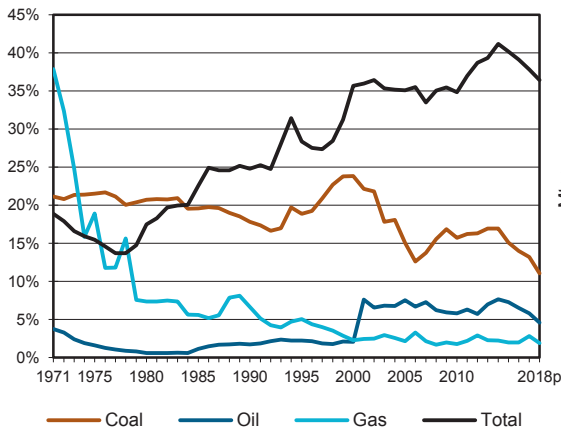


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

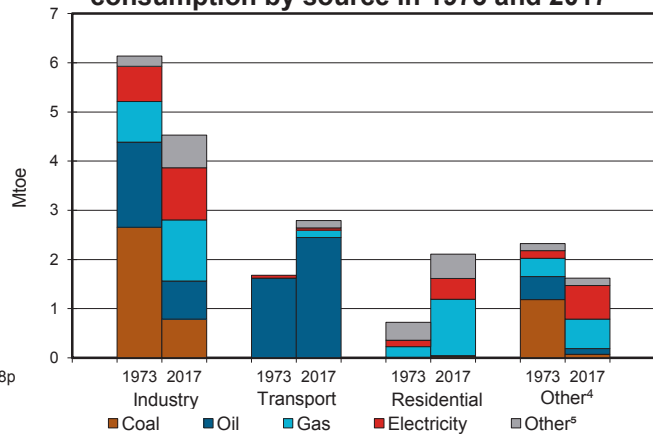


Figure 5. Electricity generation by source

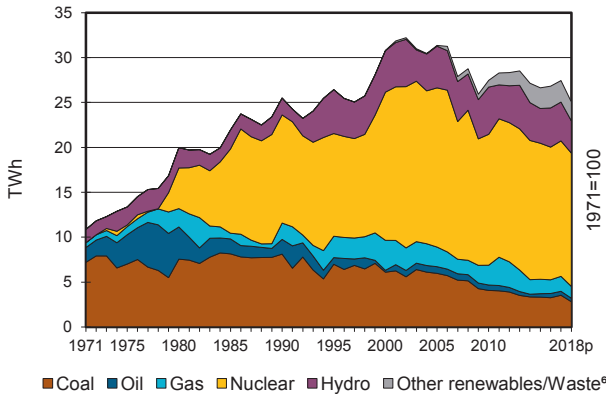
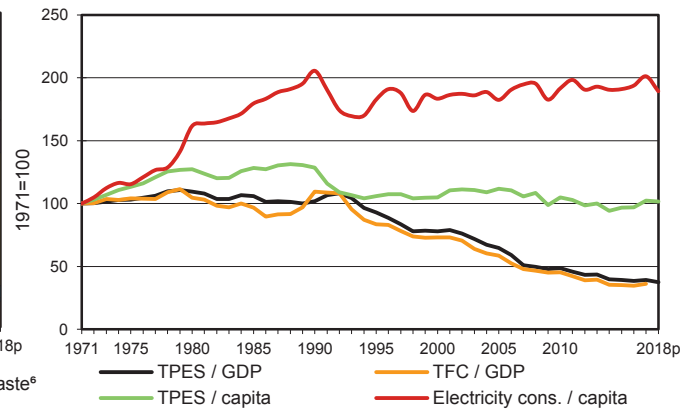


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Slovak Republic

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	0.45	0.22	-	0.12	3.98	0.37	0.06	1.38	-	0.00	6.58
Imports	3.02	5.61	1.96	4.37	-	-	-	0.13	1.34	0.00	16.43
Exports	-0.05	-0.06	-3.94	-	-	-	-	-0.14	-1.08	-	-5.26
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-0.04	-	-	-	-	-	-	-	-0.04
Stock changes	-0.03	0.02	0.06	-0.35	-	-	-	-0.01	-	-	-0.31
TPES	3.38	5.80	-1.95	4.14	3.98	0.37	0.06	1.37	0.26	0.00	17.40
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-0.04	0.00	-	-	-	-	-	-	-	-	-0.04
Electricity plants	-	-	-0.00	-0.05	-1.10	-0.37	-0.04	-0.02	0.82	-	-0.77
CHP plants	-1.01	-	-0.23	-0.38	-2.88	-	-	-0.50	1.54	0.66	-2.80
Heat plants	-0.00	-	-	-0.22	-	-	-0.01	-0.06	-0.00	0.24	-0.05
Blast furnaces	-0.96	-	-	-	-	-	-	-	-	-	-0.96
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat. fuel/BKB/PB plants	-0.07	-	-	-	-	-	-	-	-	-	-0.07
Oil refineries	-	-6.18	6.35	-	-	-	-	-	-	-	0.17
Petrochemical plants	-	0.24	-0.24	-	-	-	-	-	-	-	-0.00
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	0.14	-	-0.17	-	-	-	-	-	-	-0.03
Energy industry own use	-0.38	-	-0.59	-0.09	-	-	-	-	-0.29	-0.13	-1.48
Losses	-0.03	-	-	-0.08	-	-	-	-	-0.11	-0.11	-0.33
TFC	0.89	-	3.35	3.13	-	-	0.01	0.78	2.22	0.67	11.05
INDUSTRY	0.73	-	0.17	0.85	-	-	-	0.53	1.06	0.13	3.49
Iron and steel	0.67	-	-	0.16	-	-	-	0.00	0.22	-	1.05
Chemical and petrochemical	-	-	0.11	0.11	-	-	-	0.03	0.10	0.06	0.41
Non-ferrous metals	0.00	-	0.00	0.04	-	-	-	-	0.22	-	0.27
Non-metallic minerals	0.05	-	0.05	0.16	-	-	-	0.15	0.05	0.00	0.46
Transport equipment	0.00	-	-	0.07	-	-	-	0.00	0.08	0.00	0.16
Machinery	-	-	0.00	0.10	-	-	-	0.01	0.15	-	0.25
Mining and quarrying	0.00	-	0.00	0.00	-	-	-	0.00	0.00	-	0.01
Food and tobacco	0.01	-	0.00	0.08	-	-	-	0.00	0.04	0.00	0.14
Paper, pulp and printing	-	-	0.00	0.05	-	-	-	0.31	0.07	0.05	0.48
Wood and wood products	-	-	-	0.01	-	-	-	0.02	0.02	0.00	0.05
Construction	-	-	0.01	0.02	-	-	-	0.00	0.01	0.00	0.03
Textile and leather	-	-	-	0.01	-	-	-	0.00	0.01	0.00	0.03
Non-specified	-	-	-	0.05	-	-	-	0.01	0.09	-	0.15
TRANSPORT	-	-	2.44	0.15	-	-	-	0.15	0.05	-	2.79
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	2.41	-	-	-	-	0.15	0.00	-	2.56
Rail	-	-	-	-	-	-	-	-	0.04	-	0.04
Pipeline transport	-	-	-	0.14	-	-	-	-	-	-	0.14
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	0.03	0.01	-	-	-	-	0.01	-	0.05
OTHER	0.11	-	0.08	1.74	-	-	0.01	0.10	1.11	0.54	3.68
Residential	0.03	-	0.01	1.15	-	-	0.01	0.03	0.42	0.45	2.11
Comm. and public services	0.07	-	0.01	0.57	-	-	0.00	0.03	0.66	0.08	1.43
Agriculture/forestry	0.00	-	0.06	0.02	-	-	0.00	0.03	0.02	0.00	0.14
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	0.05	-	0.65	0.39	-	-	-	-	-	-	1.09
in industry/transf./energy	0.05	-	0.60	0.39	-	-	-	-	-	-	1.04
of which: chem./petrochem.	-	-	0.44	0.39	-	-	-	-	-	-	0.82
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	0.05	-	-	-	-	-	-	-	0.05
Electricity and Heat Output											
Electr. generated - TWh	3.54	-	0.44	1.67	15.08	4.32	0.67	1.72	-	-	27.44
Electricity plants	-	-	0.00	0.24	4.22	4.32	0.63	0.09	-	-	9.50
CHP plants	3.54	-	0.44	1.43	10.86	-	0.04	1.64	-	-	17.94
Heat generated - PJ	8.77	-	4.91	15.59	2.10	-	0.16	6.17	0.07	0.03	37.78
CHP plants	8.67	-	4.90	7.98	2.10	-	-	4.04	0.07	0.01	27.78
Heat plants	0.09	-	0.00	7.61	-	-	0.16	2.13	0.00	0.01	10.01

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Slovak Republic

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	0.37	0.18	-	0.08	3.94	0.31	0.07	1.37	-	0.00	6.31
Imports	3.05	5.46	1.91	3.65	-	-	-	0.12	1.07	0.00	15.26
Exports	-0.05	-0.00	-3.49	-	-	-	-	-0.12	-0.75	-	-4.42
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-0.05	-	-	-	-	-	-	-	-0.05
Stock changes	-0.06	-0.01	-0.06	0.35	-	-	-	0.00	-	-	0.22
TPES	3.31	5.63	-1.69	4.08	3.94	0.31	0.07	1.37	0.32	0.00	17.32
Electricity and Heat Output											
Elec. generated - TWh	2.83	-	0.39	1.32	14.84	3.59	0.66	1.44	-	-	25.07
Heat generated - PJ	4.57	-	2.81	10.90	2.87	-	0.16	3.59	0.07	0.03	24.99

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	2.6	3.5	5.3	6.3	6.2	6.5	6.6	6.3
Net imports (Mtoe)	13.0	16.2	16.4	11.5	11.4	9.9	11.2	10.8
Total primary energy supply (Mtoe)	15.5	19.8	21.3	17.7	17.8	16.5	17.4	17.3
Net oil imports (Mtoe)	5.3	7.5	4.5	2.6	3.4	3.4	3.6	3.9
Oil supply (Mtoe)	5.4	7.5	4.5	2.8	3.6	3.5	3.9	3.9
Electricity consumption (TWh) ¹	14.1	21.7	29.4 e	26.7 e	28.0	28.4	29.5	27.8
GDP (billion 2010 USD)	37.2	44.1	51.1	55.5	89.5	104.8	108.2	112.6
GDP PPP (billion 2010 USD)	55.9	66.4	76.8	83.4	134.6	157.6	162.6	169.3
Population (millions)	4.64	4.98	5.30	5.40	5.43	5.43	5.44	5.45
Industrial production index (2010=100)	..	..	45.9	41.0	82.3	104.6	108.1	112.8
Total self-sufficiency ²	0.17	0.17	0.25	0.36	0.35	0.39	0.38	0.36
Coal self-sufficiency ²	0.21	0.21	0.18	0.24	0.16	0.14	0.13	0.11
Oil self-sufficiency ²	0.02	0.01	0.02	0.02	0.06	0.07	0.06	0.05
Natural gas self-sufficiency ²	0.25	0.07	0.07	0.02	0.02	0.02	0.03	0.02
TPES/GDP (toe per thousand 2010 USD)	0.42	0.45	0.42	0.32	0.20	0.16	0.16	0.15
TPES/GDP PPP (toe per thousand 2010 USD)	0.28	0.30	0.28	0.21	0.13	0.10	0.11	0.10
TPES/population (toe per capita)	3.34	3.98	4.03	3.29	3.28	3.04	3.20	3.18
Net oil imports/GDP (toe per thousand 2010 USD)	0.14	0.17	0.09	0.05	0.04	0.03	0.03	0.03
Oil supply/GDP (toe per thousand 2010 USD)	0.14	0.17	0.09	0.05	0.04	0.03	0.04	0.04
Oil supply/population (toe per capita)	1.16	1.51	0.85	0.52	0.67	0.64	0.71	0.72
Share of renewables in TPES	0.02	0.02	0.02	0.03	0.07	0.10	0.09	0.09
Share of renewables in electricity generation	0.11	0.11	0.07	0.15	0.22	0.25	0.24	0.22
TFC/GDP (toe per thousand 2010 USD)	0.29	0.30	0.31	0.21	0.13	0.10	0.10	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.19	0.20	0.21	0.14	0.09	0.07	0.07	..
TFC/population (toe per capita)	2.34	2.62	2.97	2.12	2.11	1.89	2.03	..
Elect. cons./GDP (kWh per 2010 USD)	0.38	0.49	0.57 e	0.48 e	0.31	0.27	0.27	0.25
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.25	0.33	0.38 e	0.32 e	0.21	0.18	0.18	0.16
Elect. cons./population (kWh per capita)	3027	4359	5543 e	4945 e	5165	5226	5425	5104
Industry cons. ³ /industrial production (2010=100)	..	..	321.3	232.5	100.0	78.7	80.9	..
Industry oil cons. ³ /industrial production (2010=100)	..	..	585.9	336.4	100.0	60.6	66.8	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

Slovenia

Figure 1. Energy production

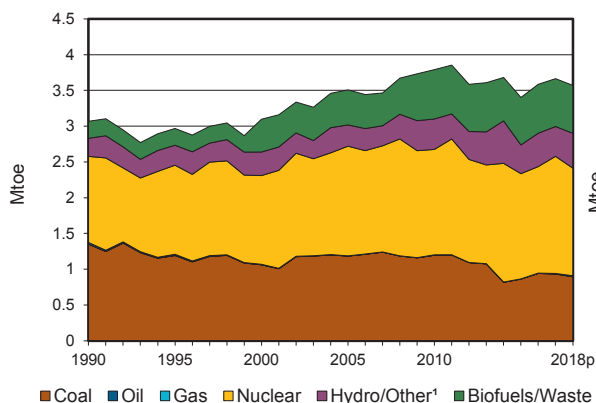


Figure 2. Total primary energy supply²

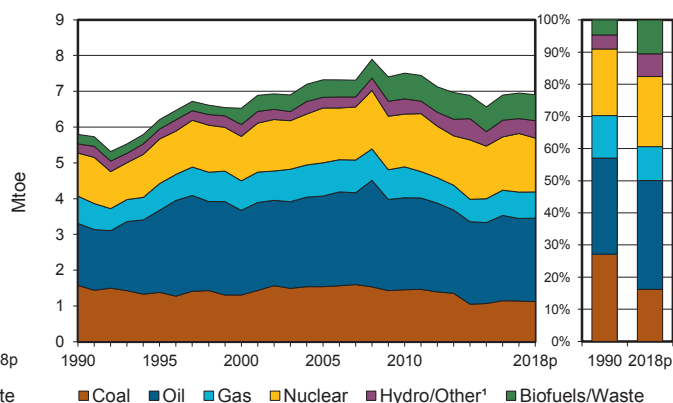


Figure 3. Energy self-sufficiency

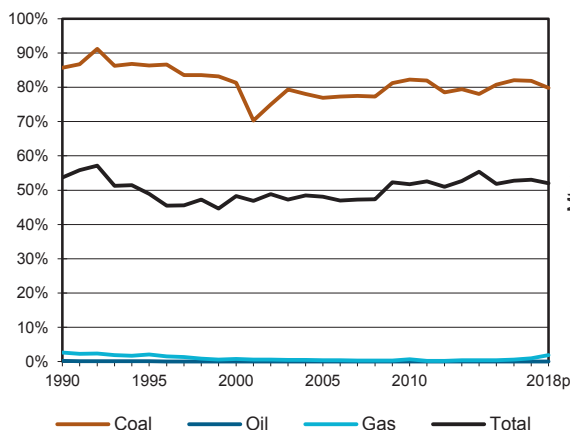


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

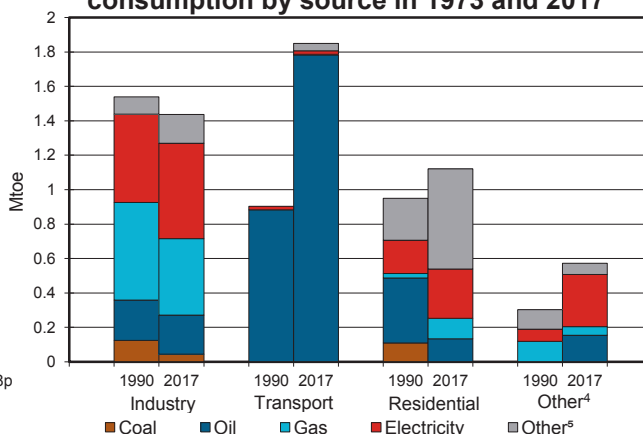


Figure 5. Electricity generation by source

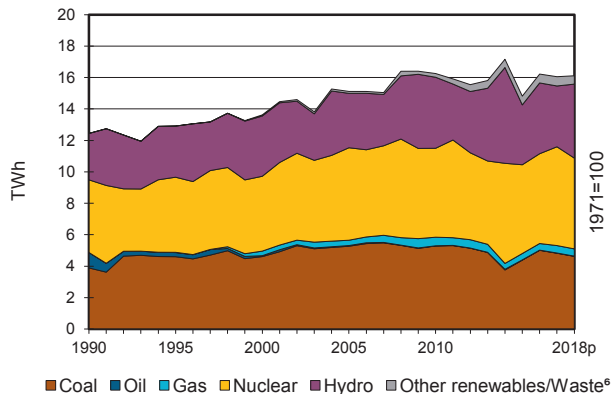
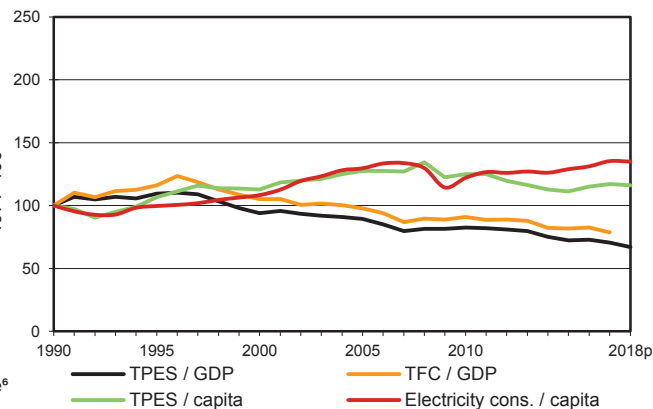


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Slovenia

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	0.93	0.00	-	0.01	1.64	0.33	0.08	0.67	-	-	3.66
Imports	0.20	-	4.67	0.73	-	-	-	0.05	0.79	-	6.43
Exports	-	-0.00	-2.11	-0.00	-	-	-	-	-0.83	-	-2.94
Intl. marine bunkers	-	-	-0.15	-	-	-	-	-	-	-	-0.15
Intl. aviation bunkers	-	-	-0.03	-	-	-	-	-	-	-	-0.03
Stock changes	0.01	-0.00	-0.08	-	-	-	-	-0.00	-	-	-0.07
TPES	1.14	-	2.30	0.74	1.64	0.33	0.08	0.71	-0.04	-	6.91
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-0.01	-	0.00	-	-	-	-	-	-	-	-0.00
Electricity plants	-	-	-0.00	-0.00	-1.64	-0.33	-0.02	-0.00	0.90	-	-1.10
CHP plants	-1.09	-	-0.00	-0.09	-	-	-	-0.08	0.48	0.18	-0.60
Heat plants	-0.00	-	-0.00	-0.03	-	-	-0.00	-0.01	-	0.04	-0.01
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat. fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-	-	-0.00	-0.00	-	-	-	-	-0.10	-0.01	-0.11
Losses	-	-	-	-	-	-	-	-	-0.08	-0.03	-0.11
TFC	0.05	-	2.30	0.62	-	-	0.06	0.62	1.16	0.18	4.98
INDUSTRY	0.04	-	0.09	0.44	-	-	-	0.12	0.55	0.05	1.29
Iron and steel	0.01	-	0.00	0.08	-	-	-	0.00	0.07	0.00	0.16
Chemical and petrochemical	-	-	0.00	0.05	-	-	-	0.02	0.06	0.03	0.16
Non-ferrous metals	0.00	-	0.01	0.04	-	-	-	-	0.12	0.00	0.17
Non-metallic minerals	0.01	-	0.03	0.08	-	-	-	0.04	0.03	0.00	0.19
Transport equipment	-	-	0.00	0.01	-	-	-	0.00	0.02	0.00	0.04
Machinery	-	-	0.01	0.04	-	-	-	0.00	0.09	0.01	0.14
Mining and quarrying	-	-	0.00	0.00	-	-	-	-	0.01	-	0.02
Food and tobacco	-	-	0.01	0.03	-	-	-	0.00	0.03	0.00	0.07
Paper, pulp and printing	0.02	-	0.00	0.08	-	-	-	0.01	0.06	0.00	0.17
Wood and wood products	-	-	0.00	-	-	-	-	0.03	0.01	0.00	0.05
Construction	-	-	0.02	0.00	-	-	-	0.00	0.00	0.00	0.03
Textile and leather	-	-	0.00	0.01	-	-	-	0.00	0.01	0.00	0.02
Non-specified	-	-	0.00	0.02	-	-	-	0.00	0.04	0.01	0.08
TRANSPORT	0.00	-	1.78	0.00	-	-	-	0.04	0.02	-	1.85
Domestic aviation	-	-	0.00	-	-	-	-	-	-	-	0.00
Road	-	-	1.77	0.00	-	-	-	0.04	0.00	-	1.82
Rail	0.00	-	0.01	-	-	-	-	-	0.02	-	0.03
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	0.00	-	-	0.00
OTHER	0.00	-	0.29	0.17	-	-	0.06	0.46	0.59	0.13	1.69
Residential	0.00	-	0.13	0.12	-	-	0.04	0.46	0.29	0.08	1.12
Comm. and public services	-	-	0.07	0.05	-	-	0.01	0.00	0.30	0.05	0.48
Agriculture/forestry	-	-	0.07	-	-	-	0.00	-	-	-	0.07
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	0.02	-	-	-	-	-	-	-	0.02
NON-ENERGY USE	0.01	-	0.13	0.01	-	-	-	-	-	-	0.14
in industry/transf./energy	0.01	-	0.13	0.01	-	-	-	-	-	-	0.14
of which: chem./petrochem.	-	-	0.00	0.01	-	-	-	-	-	-	0.01
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - TWh	4.82	-	0.01	0.47	6.29	3.87	0.29	0.30	-	-	16.05
Electricity plants	-	-	0.00	0.01	6.29	3.87	0.29	0.00	-	-	10.46
CHP plants	4.82	-	0.01	0.46	-	-	-	0.30	-	-	5.60
Heat generated - PJ	5.06	-	0.20	2.54	-	-	0.02	1.64	-	-	9.45
CHP plants	4.94	-	0.03	1.41	-	-	-	1.19	-	-	7.57
Heat plants	0.12	-	0.17	1.13	-	-	0.02	0.45	-	-	1.88

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Slovenia

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	0.89	0.00	-	0.01	1.51	0.40	0.08	0.67	-	-	3.57
Imports	0.21	-	4.71	0.72	-	-	-	0.06	0.77	-	6.47
Exports	-	-0.00	-2.14	-0.00	-	-	-	-	-0.81	-	-2.96
Intl. marine bunkers	-	-	-0.22	-	-	-	-	-	-	-	-0.22
Intl. aviation bunkers	-	-	-0.03	-	-	-	-	-	-	-	-0.03
Stock changes	0.02	-	0.02	-	-	-	-	-0.00	-	-	0.04
TPES	1.12	-	2.34	0.73	1.51	0.40	0.08	0.73	-0.04	-	6.86
Electricity and Heat Output											
Elec. generated - TWh	4.62	-	0.02	0.46	5.78	4.70	0.26	0.27	-	-	16.11
Heat generated - PJ	5.04	-	0.18	2.54	-	-	0.02	1.51	-	-	9.29

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	3.1	3.1	3.8	3.6	3.7	3.6
Net imports (Mtoe)	2.6	3.4	3.6	3.4	3.5	3.5
Total primary energy supply (Mtoe)	5.7	6.4	7.3	6.8	6.9	6.9
Net oil imports (Mtoe)	1.8	2.4	2.6	2.5	2.6	2.6
Oil supply (Mtoe)	1.7	2.4	2.6	2.4	2.3	2.3
Electricity consumption (TWh) ¹	10.7	11.5	13.3	14.5	14.9	14.9
GDP (billion 2010 USD)	30.9	36.9	48.0	50.5	53.0	55.3
GDP PPP (billion 2010 USD)	36.5	43.7	56.8	59.8	62.7	65.5
Population (millions)	2.00	1.99	2.05	2.07	2.07	2.07
Industrial production index (2010=100)	78.3	93.4	107.1	115.3	120.9
Total self-sufficiency ²	0.54	0.48	0.52	0.53	0.53	0.52
Coal self-sufficiency ²	0.86	0.81	0.82	0.82	0.82	0.80
Oil self-sufficiency ²	0.00	0.00	-	-	0.00	0.00
Natural gas self-sufficiency ²	0.03	0.01	0.01	0.01	0.01	0.02
TPES/GDP (toe per thousand 2010 USD)	0.19	0.17	0.15	0.13	0.13	0.12
TPES/GDP PPP (toe per thousand 2010 USD)	0.16	0.15	0.13	0.11	0.11	0.10
TPES/population (toe per capita)	2.86	3.22	3.57	3.29	3.34	3.31
Net oil imports/GDP (toe per thousand 2010 USD)	0.06	0.07	0.05	0.05	0.05	0.05
Oil supply/GDP (toe per thousand 2010 USD)	0.06	0.06	0.05	0.05	0.04	0.04
Oil supply/population (toe per capita)	0.87	1.19	1.26	1.15	1.12	1.13
Share of renewables in TPES	0.09	0.12	0.15	0.17	0.16	0.17
Share of renewables in electricity generation	0.24	0.29	0.29	0.31	0.28	0.32
TFC/GDP (toe per thousand 2010 USD)	0.12	0.13	0.11	0.10	0.09	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.10	0.11	0.09	0.08	0.08	..
TFC/population (toe per capita)	1.85	2.34	2.55	2.42	2.41	..
Elect. cons./GDP (kWh per 2010 USD)	0.35	0.31	0.28	0.29	0.28	0.27
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.29	0.26	0.24	0.24	0.24	0.23
Elect. cons./population (kWh per capita)	5335	5778	6510	6997	7220	7198
Industry cons. ³ /industrial production (2010=100)	135.0	100.0	81.5	79.3	..
Industry oil cons. ³ /industrial production (2010=100)	196.3	100.0	78.0	77.1	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

Spain

Figure 1. Energy production

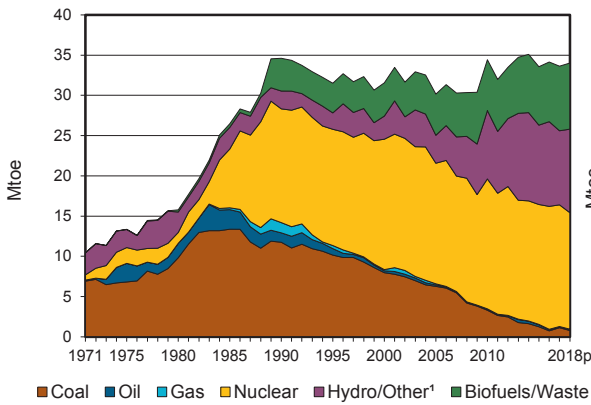


Figure 2. Total primary energy supply²

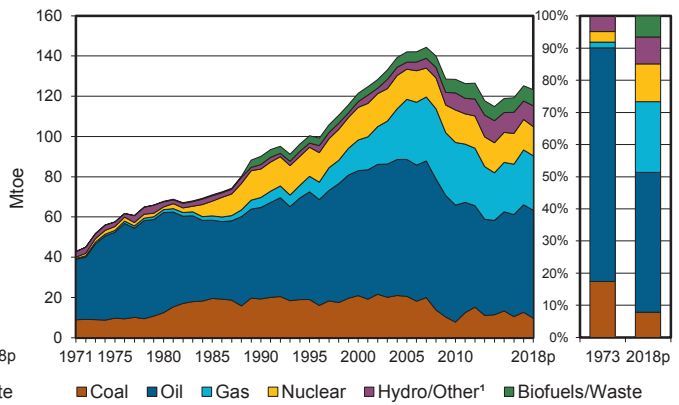


Figure 3. Energy self-sufficiency

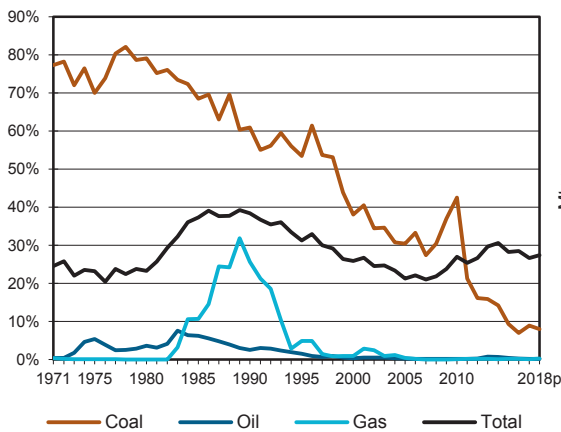


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

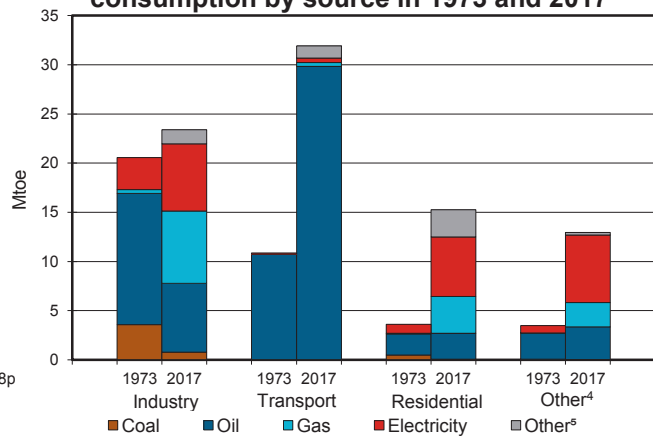


Figure 5. Electricity generation by source

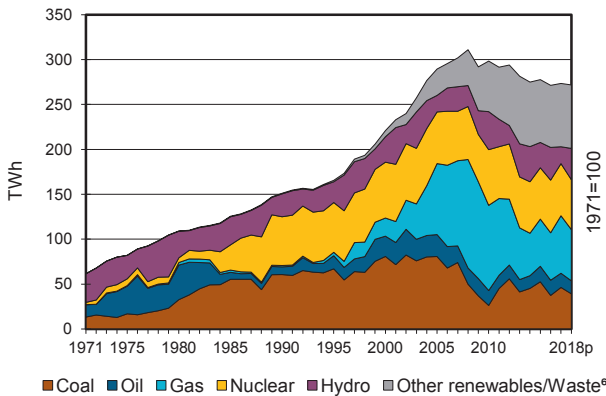
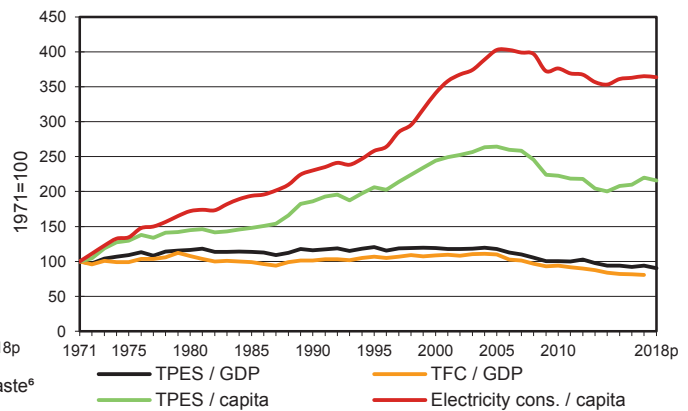


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Spain

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	1.13	0.12	-	0.02	15.12	1.61	7.59	8.02	-	-	33.63
Imports	11.15	70.50	19.75	30.13	-	-	-	0.87	2.04	-	134.44
Exports	-0.24	-4.03	-23.05	-2.51	-	-	-	-1.46	-1.25	-	-32.54
Intl. marine bunkers	-	-	-6.62	-	-	-	-	-	-	-	-6.62
Intl. aviation bunkers	-	-	-4.47	-	-	-	-	-	-	-	-4.47
Stock changes	0.61	0.13	1.11	-0.38	-	-	-	0.10	-	-	1.57
TPES	12.65	66.72	-13.28	27.27	15.12	1.61	7.59	7.54	0.79	-	126.01
Transfers	-	1.30	-1.08	-	-	-	-	-	-	-	0.22
Statistical differences	-0.09	-	-0.82	-0.19	-	-	-	0.00	-0.13	-	-1.23
Electricity plants	-10.62	-	-2.72	-6.56	-15.12	-1.61	-7.27	-1.71	20.75	-	-24.86
CHP plants	-0.03	-	-0.49	-3.37	-	-	-	-0.27	2.76	-	-1.40
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-0.69 e	-	-	-	-	-	-	-	-	-	-0.69
Gas works	-	-	-	0.01	-	-	-	-0.01	-	-	-0.00
Coke/pat. fuel/BKB/PB plants	-0.13 e	-	-	-	-	-	-	-	-	-	-0.13
Oil refineries	-	-68.09	66.18	-	-	-	-	-	-	-	-1.91
Petrochemical plants	-	0.08	-0.08	-	-	-	-	-	-	-	-0.00
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-0.11	-	-	-0.11
Energy industry own use	-0.16	-	-4.92	-3.11	-	-	-0.00	-	-1.68	-	-9.87
Losses	-0.04	-	-	-0.12	-	-	-	-	-2.33	-	-2.48
TFC	0.89	-	42.79	13.92	-	-	0.33	5.44	20.17	-	83.54
INDUSTRY	0.72	-	2.84	6.88	-	-	0.00	1.44	6.83	-	18.71
Iron and steel	0.56 e	-	0.07	0.63	-	-	0.00	0.00	1.22	-	2.48
Chemical and petrochemical	0.11	-	0.11	1.88	-	-	0.00	0.00	0.81	-	2.92
Non-ferrous metals	0.01	-	0.06	0.21	-	-	0.00	0.00	0.85	-	1.13
Non-metallic minerals	0.01	-	1.37	1.22	-	-	0.00	0.23	0.53	-	3.35
Transport equipment	-	-	0.03	0.17	-	-	0.00	0.00	0.38	-	0.58
Machinery	-	-	0.10	0.22	-	-	0.00	0.00	0.42	-	0.74
Mining and quarrying	-	-	0.16	0.15	-	-	0.00	0.00	0.17	-	0.48
Food and tobacco	0.02	-	0.32	1.08	-	-	0.00	0.21	0.89	-	2.52
Paper, pulp and printing	-	-	0.08	0.61	-	-	0.00	0.57	0.50	-	1.76
Wood and wood products	-	-	0.02	0.15	-	-	0.00	0.32	0.13	-	0.63
Construction	-	-	0.44	0.33	-	-	0.00	0.03	0.20	-	1.01
Textile and leather	-	-	0.03	0.13	-	-	0.00	0.00	0.14	-	0.30
Non-specified	-	-	0.03	0.11	-	-	0.00	0.07	0.59	-	0.80
TRANSPORT	-	-	29.63	0.37	-	-	-	1.26	0.45	-	31.72
Domestic aviation	-	-	2.11	-	-	-	-	-	-	-	2.11
Road	-	-	26.41	0.33	-	-	-	1.25	0.00	-	28.00
Rail	-	-	0.08	-	-	-	-	-	0.31	-	0.39
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	0.95	-	-	-	-	0.00	-	-	0.95
Non-specified	-	-	0.09	0.05	-	-	-	0.00	0.14	-	0.27
OTHER	0.12	-	5.91	6.23	-	-	0.32	2.75	12.88	-	28.21
Residential	0.08	-	2.63	3.75	-	-	0.26	2.53	6.02	-	15.27
Comm. and public services	-	-	1.27	2.40	-	-	0.06	0.14	6.24	-	10.11
Agriculture/forestry	-	-	1.74	0.08	-	-	0.01	0.07	0.50	-	2.39
Fishing	-	-	0.24	-	-	-	0.00	0.00	-	-	0.24
Non-specified	0.04	-	0.03	0.00	-	-	0.01	0.00	0.13	-	0.20
NON-ENERGY USE	0.05	-	4.40	0.44	-	-	-	-	-	-	4.89
in industry/transf./energy	0.05	-	4.18	0.44	-	-	-	-	-	-	4.67
of which: chem./petrochem.	0.05	-	3.12	0.44	-	-	-	-	-	-	3.61
in transport	-	-	0.20	-	-	-	-	-	-	-	0.20
in other	-	-	0.02	-	-	-	-	-	-	-	0.02
Electricity and Heat Output											
Electr. generated - TWh	46.35	-	15.77	64.04	58.04	18.78	63.62	6.85	-	-	273.44
Electricity plants	46.10	-	12.23	37.11	58.04	18.78	63.58	5.55	-	-	241.38
CHP plants	0.25	-	3.54	26.93	-	-	0.04	1.30	-	-	32.06
Heat generated - PJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Spain

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	0.78	0.09	-	0.08	14.49	2.98	7.39	8.22	-	-	34.02
Imports	9.37	71.07	17.72	30.29	-	-	-	1.59	2.07	-	132.10
Exports	-0.32	-2.59	-22.04	-2.83	-	-	-	-1.93	-1.11	-	-30.81
Intl. marine bunkers	-	-	-6.56	-	-	-	-	-	-	-	-6.56
Intl. aviation bunkers	-	-	-4.66	-	-	-	-	-	-	-	-4.66
Stock changes	-0.12	0.31	0.27	-0.46	-	-	-	0.11	-	-	0.11
TPES	9.70	68.88	-15.26	27.08	14.49	2.98	7.39	7.99	0.95	-	124.20
Electricity and Heat Output											
Elec. generated - TWh	39.31	-	14.44	57.09	55.59	34.70	63.65	7.00	-	-	271.78
Heat generated - PJ	-	-	-	-	-	-	-	-	-	-	-

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	11.4	15.8	34.6	31.6	34.4	34.2	33.6	34.0
Net imports (Mtoe)	43.9	55.3	60.4	100.2	106.9	94.5	101.9	101.3
Total primary energy supply (Mtoe)	51.6	67.7	90.1	121.9	127.7	119.9	126.0	124.2
Net oil imports (Mtoe)	41.0	49.9	49.7	71.5	69.5	61.8	63.2	64.2
Oil supply (Mtoe)	37.6	49.8	45.5	62.1	58.2	50.7	53.4	53.6
Electricity consumption (TWh) ¹	65.6	99.1	137.5	209.6	265.8	255.7	257.8	257.9
GDP (billion 2010 USD)	558.7	653.9	873.1	1149.5	1431.6	1466.1	1509.8	1548.7
GDP PPP (billion 2010 USD)	580.2	679.1	906.9	1193.9	1486.9	1522.7	1568.0	1608.5
Population (millions)	35.25	37.98	39.34	40.55	46.56	46.45	46.53	46.73
Industrial production index (2010=100)	70.2	83.7	100.6	123.9	105.7	101.6	104.5	105.3
Total self-sufficiency ²	0.22	0.23	0.38	0.26	0.27	0.28	0.27	0.27
Coal self-sufficiency ²	0.72	0.79	0.61	0.38	0.43	0.07	0.09	0.08
Oil self-sufficiency ²	0.02	0.04	0.03	0.00	0.00	0.00	0.00	0.00
Natural gas self-sufficiency ²	0.00	-	0.26	0.01	0.00	0.00	0.00	0.00
TPES/GDP (toe per thousand 2010 USD)	0.09	0.10	0.10	0.11	0.09	0.08	0.08	0.08
TPES/GDP PPP (toe per thousand 2010 USD)	0.09	0.10	0.10	0.10	0.09	0.08	0.08	0.08
TPES/population (toe per capita)	1.46	1.78	2.29	3.00	2.74	2.58	2.71	2.66
Net oil imports/GDP (toe per thousand 2010 USD)	0.07	0.08	0.06	0.06	0.05	0.04	0.04	0.04
Oil supply/GDP (toe per thousand 2010 USD)	0.07	0.08	0.05	0.05	0.04	0.03	0.04	0.03
Oil supply/population (toe per capita)	1.07	1.31	1.16	1.53	1.25	1.09	1.15	1.15
Share of renewables in TPES	0.05	0.04	0.07	0.06 e	0.12	0.15	0.13	0.15
Share of renewables in electricity generation	0.38	0.27	0.17 e	0.16 e	0.33	0.39	0.32	0.38
TFC/GDP (toe per thousand 2010 USD)	0.07	0.07	0.07	0.07	0.06	0.06	0.06	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.07	0.07	0.07	0.07	0.06	0.05	0.05	..
TFC/population (toe per capita)	1.09	1.27	1.54	2.11	1.98	1.77	1.80	..
Elect. cons./GDP (kWh per 2010 USD)	0.12	0.15	0.16	0.18	0.19	0.17	0.17	0.17
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.11	0.15	0.15	0.18	0.18	0.17	0.16	0.16
Elect. cons./population (kWh per capita)	1860	2610	3494	5170	5708	5505	5541	5518
Industry cons. ³ /industrial production (2010=100)	111.9	106.8	94.2	103.8	100.0	85.1	85.5	..
Industry oil cons. ³ /industrial production (2010=100)	178.8	178.2	102.4	108.7	100.0	65.4	63.4	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

Sweden

Figure 1. Energy production

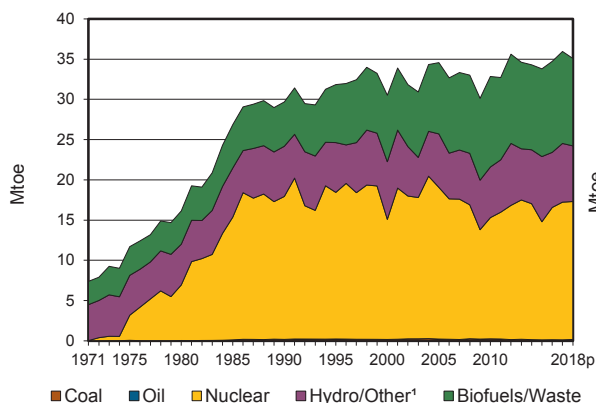


Figure 2. Total primary energy supply²

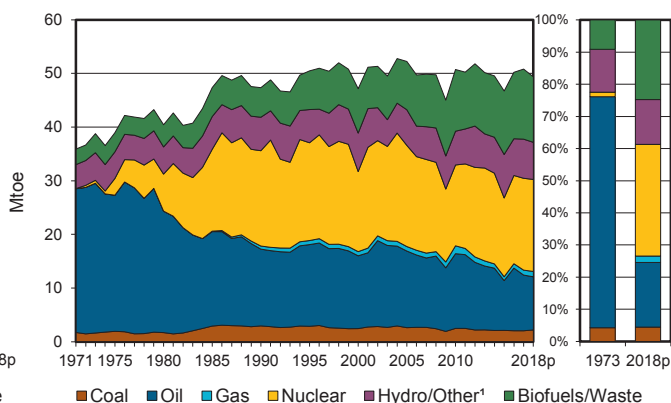


Figure 3. Energy self-sufficiency

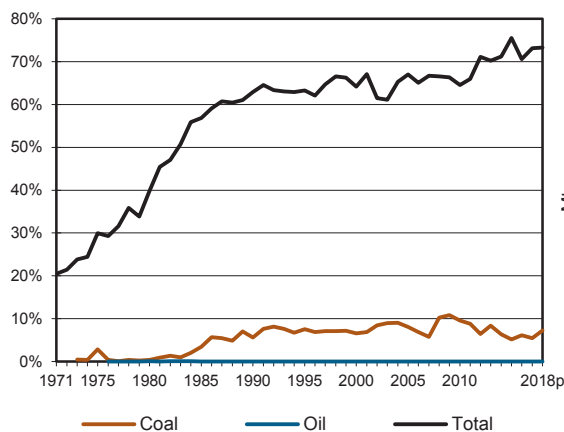


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

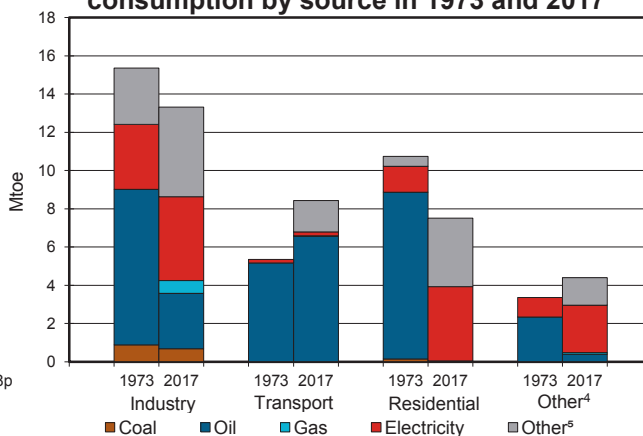


Figure 5. Electricity generation by source

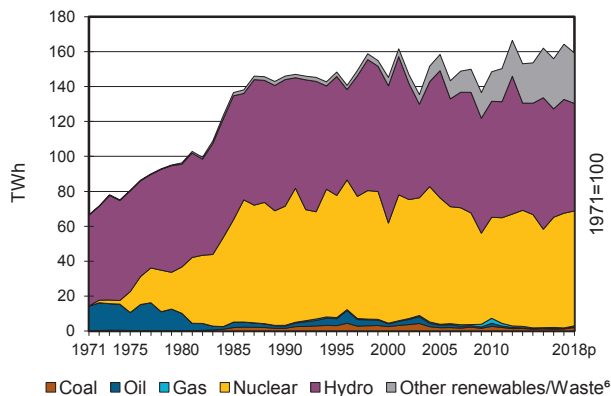
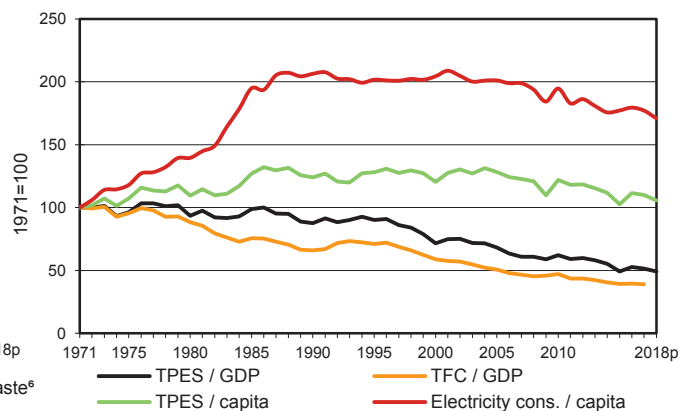


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Sweden

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	0.11	-	-	-	17.12	5.60	1.54	11.43	-	0.15	35.95
Imports	1.98	19.94	9.60	0.94	-	-	-	1.74	1.02	-	35.23
Exports	-0.02	-1.14	-16.91	-0.00	-	-	-	-0.28	-2.66	-	-21.01
Intl. marine bunkers	-	-	-2.30	-0.02	-	-	-	-	-	-	-2.32
Intl. aviation bunkers	-	-	-0.89	-	-	-	-	-	-	-	-0.89
Stock changes	-0.02	0.50	1.58	-	-	-	-	0.16	-	-	2.21
TPES	2.05	19.30	-8.93	0.92	17.12	5.60	1.54	13.05	-1.63	0.15	49.17
Transfers	-	1.90	-1.76	-	-	-	-	-	-	-	0.14
Statistical differences	-0.10	-0.30	1.20	0.01	-	-	-	-0.07	-	-	0.74
Electricity plants	-	-	-0.00	-	-17.12	-5.60	-1.53	-	12.78	-	-11.47
CHP plants	-0.46	-	-0.07	-0.10	-	-	-	-5.03	1.34	3.23	-1.09
Heat plants	-0.03	-	-0.03	-0.01	-	-	-	-0.99	-0.21	1.16	-0.11
Blast furnaces	-0.54 e	-	-	-	-	-	-	-	-	-	-0.54
Gas works	0.01	-	-	-0.01	-	-	-	-	-	-	-
Coke/pat. fuel/BKB/PB plants	-0.10	-	-	-	-	-	-	-	-	-	-0.10
Oil refineries	-	-20.91	20.40	-	-	-	-	-	-	-	-0.50
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-0.10	-	-0.93	-0.02	-	-	-	-0.02	-0.60	-	-1.67
Losses	-0.03	-	-	-	-	-	-	-	-0.74	-0.16	-0.93
TFC	0.70	-	9.89	0.80	-	-	0.01	6.94	10.94	4.37	33.65
INDUSTRY	0.68	-	0.82	0.38	-	-	-	4.16	4.38	0.52	10.93
Iron and steel	0.37 e	-	0.21	0.08	-	-	-	-	0.39	-	1.05
Chemical and petrochemical	0.00	-	0.09	0.11	-	-	-	0.01	0.40	-	0.61
Non-ferrous metals	0.03	-	0.03	0.01	-	-	-	-	0.26	-	0.33
Non-metallic minerals	0.15	-	0.05	0.05	-	-	-	-	0.09	-	0.34
Transport equipment	0.01	-	0.02	0.01	-	-	-	-	0.17	-	0.21
Machinery	-	-	0.02	0.02	-	-	-	-	0.29	-	0.32
Mining and quarrying	0.10	-	0.11	0.00	-	-	-	-	0.32	-	0.53
Food and tobacco	0.00	-	0.05	0.07	-	-	-	0.03	0.21	-	0.36
Paper, pulp and printing	0.00	-	0.16	0.03	-	-	-	3.69	1.74	-	5.63
Wood and wood products	-	-	0.04	0.00	-	-	-	0.41	0.16	-	0.60
Construction	-	-	-	-	-	-	-	-	0.12	-	0.12
Textile and leather	-	-	0.00	0.00	-	-	-	0.00	0.02	-	0.02
Non-specified	0.00	-	0.04	0.00	-	-	-	0.03	0.22	0.52	0.80
TRANSPORT	-	-	6.51	0.02	-	-	-	1.63	0.21	-	8.38
Domestic aviation	-	-	0.18	-	-	-	-	-	-	-	0.18
Road	-	-	6.29	0.02	-	-	-	1.63	..	-	7.94
Rail	-	-	0.00	-	-	-	-	-	0.21	-	0.21
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	0.04	-	-	-	-	-	-	-	0.04
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	0.00	-	0.43	0.12	-	-	0.01	1.15	6.35	3.86	11.91
Residential	0.00	-	0.02	0.04	-	-	0.01	0.94	3.88	2.61	7.51
Comm. and public services	0.00	-	0.32	0.07	-	-	-	0.07	2.37	1.24	4.07
Agriculture/forestry	-	-	0.07	0.01	-	-	-	0.14	0.10	0.01	0.32
Fishing	-	-	0.01	-	-	-	-	-	-	-	0.01
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	0.02	-	2.13	0.29	-	-	-	-	-	-	2.43
in industry/transf./energy	0.02	-	2.07	0.29	-	-	-	-	-	-	2.38
of which: chem./petrochem.	-	-	1.57	0.29	-	-	-	-	-	-	1.86
in transport	-	-	0.06	-	-	-	-	-	-	-	0.06
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - TWh	1.23	-	0.29	0.27	65.70	65.14	17.84	13.76	-	-	164.23
Electricity plants	-	-	0.01	-	65.70	65.14	17.84	-	-	-	148.69
CHP plants	1.23	-	0.28	0.27	-	-	-	13.76	-	-	15.54
Heat generated - PJ	12.71	-	2.43	3.19	-	-	-	155.14	0.78	15.65	189.91
CHP plants	11.67	-	1.38	2.97	-	-	-	119.23	0.39	4.90	140.54
Heat plants	1.04	-	1.05	0.22	-	-	-	35.91	0.39	10.75	49.37

1. Includes peat.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Sweden

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	0.16	-	-	-	17.15	5.29	1.47	10.87	-	0.15	35.09
Imports	2.05	21.08	9.12	1.04	-	-	-	1.71	1.05	-	36.05
Exports	-0.01	-1.16	-16.81	-0.01	-	-	-	-0.36	-2.53	-	-20.89
Intl. marine bunkers	-	-	-1.95	-0.02	-	-	-	-	-	-	-1.97
Intl. aviation bunkers	-	-	-0.91	-	-	-	-	-	-	-	-0.91
Stock changes	-0.01	0.18	0.35	-	-	-	-	-0.02	-	-	0.50
TPES	2.20	20.10	-10.20	1.00	17.15	5.29	1.47	12.20	-1.48	0.15	47.88
Electricity and Heat Output											
Elec. generated - TWh	2.04	-	0.38	0.56	65.80	61.57	17.03	11.88	-	-	159.25
Heat generated - PJ	11.04	-	3.51	4.19	-	-	-	142.05	0.58	15.65	177.01

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes peat.
2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	9.3	16.1	29.7	30.5	32.9	34.7	36.0	35.1
Net imports (Mtoe)	30.3	27.6	18.3	19.3	20.0	17.1	14.2	15.2
Total primary energy supply (Mtoe)	38.8	40.5	47.2	47.6	50.9	49.2	49.2	47.9
Net oil imports (Mtoe)	28.6	25.9	15.3	15.7	15.5	13.9	11.5	12.2
Oil supply (Mtoe)	27.9	22.6	14.3	13.6	13.9	11.7	10.4	9.9
Electricity consumption (TWh) ¹	71.2	89.0	135.5	139.1	140.1	136.7	136.7	133.5
GDP (billion 2010 USD)	228.8	258.8	321.5	397.0	488.9	557.6	569.4	582.8
GDP PPP (billion 2010 USD)	182.7	206.7	256.8	317.1	390.4	445.3	454.7	465.4
Population (millions)	8.14	8.31	8.56	8.87	9.38	9.92	10.06	10.18
Industrial production index (2010=100)	58.1	57.8	70.0	101.2	102.6	101.8	106.2	108.8
Total self-sufficiency ²	0.24	0.40	0.63	0.64	0.65	0.71	0.73	0.73
Coal self-sufficiency ²	0.00	0.00	0.06	0.07	0.10	0.06	0.06	0.07
Oil self-sufficiency ²	-	0.00	0.00	-	-	-	-	-
Natural gas self-sufficiency ²	-	-	-	-	-	-	-	-
TPES/GDP (toe per thousand 2010 USD)	0.17	0.16	0.15	0.12	0.10	0.09	0.09	0.08
TPES/GDP PPP (toe per thousand 2010 USD)	0.21	0.20	0.18	0.15	0.13	0.11	0.11	0.10
TPES/population (toe per capita)	4.77	4.87	5.51	5.36	5.43	4.96	4.89	4.71
Net oil imports/GDP (toe per thousand 2010 USD)	0.13	0.10	0.05	0.04	0.03	0.03	0.02	0.02
Oil supply/GDP (toe per thousand 2010 USD)	0.12	0.09	0.04	0.03	0.03	0.02	0.02	0.02
Oil supply/population (toe per capita)	3.43	2.72	1.67	1.53	1.48	1.18	1.03	0.97
Share of renewables in TPES	0.22	0.23	0.24	0.31	0.33	0.37	0.39	0.38
Share of renewables in electricity generation	0.77	0.62 e	0.51	0.57	0.55	0.57	0.58	0.56
TFC/GDP (toe per thousand 2010 USD)	0.15	0.13	0.10	0.09	0.07	0.06	0.06	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.19	0.17	0.13	0.11	0.09	0.08	0.07	..
TFC/population (toe per capita)	4.28	4.16	3.75	3.98	3.72	3.36	3.35	..
Elect. cons./GDP (kWh per 2010 USD)	0.31	0.34	0.42	0.35	0.29	0.25	0.24	0.23
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.39	0.43	0.53	0.44	0.36	0.31	0.30	0.29
Elect. cons./population (kWh per capita)	8745	10704	15836	15682	14936	13771	13589	13118
Industry cons. ³ /industrial production (2010=100)	197.7	173.7	146.5	112.6	100.0	95.6	93.7	..
Industry oil cons. ³ /industrial production (2010=100)	464.0	348.9	188.1	151.1	100.0	92.1	90.4	..

1. Electricity consumption equals domestic supply less losses.
2. Production divided by TPES. Coal self-sufficiency also includes peat, when applicable.
3. Includes non-energy use.

Switzerland

Figure 1. Energy production

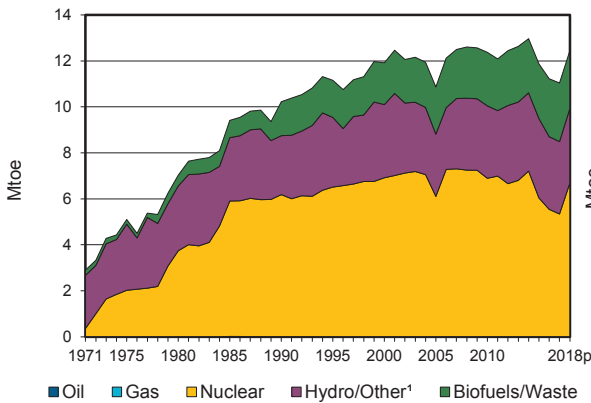


Figure 2. Total primary energy supply²

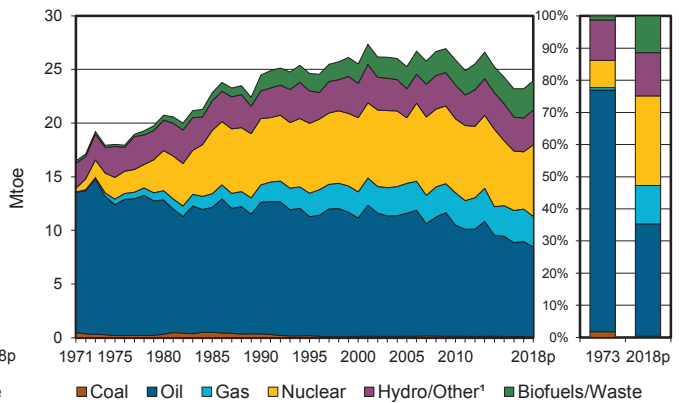


Figure 3. Energy self-sufficiency

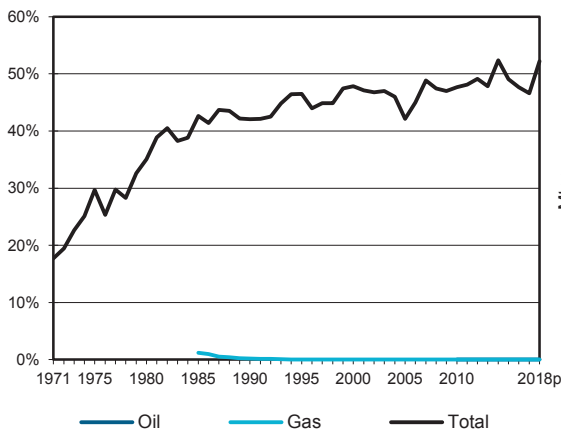


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

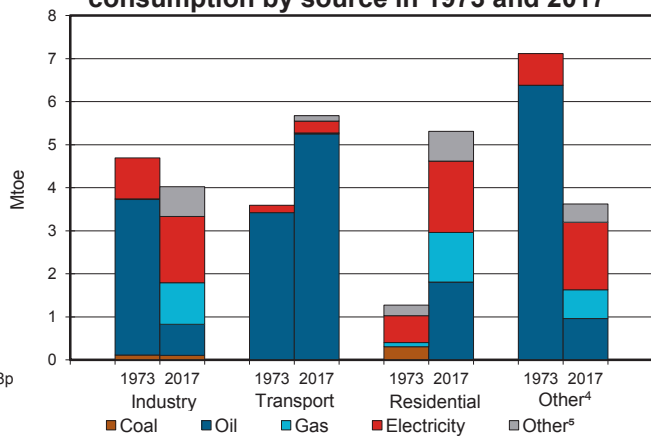


Figure 5. Electricity generation by source

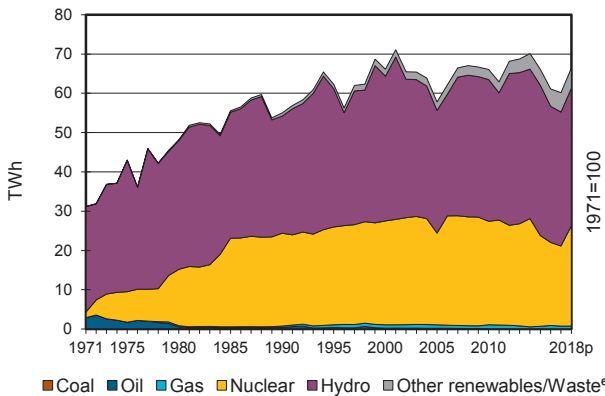
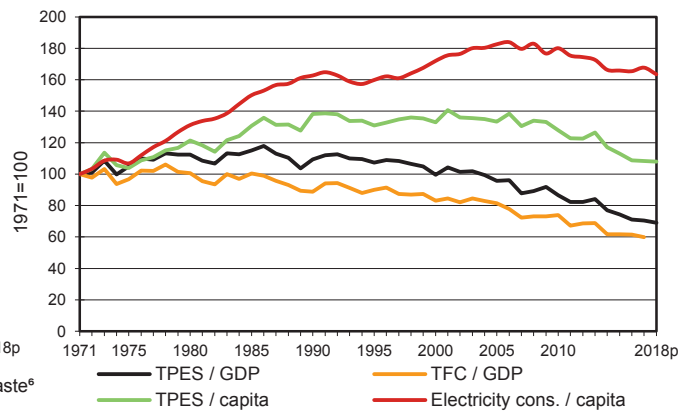


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Switzerland

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	5.34	2.93	0.22	2.55	-	0.00	11.04
Imports	0.11	2.98	7.87	3.01	-	-	-	0.18	3.14	-	17.30
Exports	-0.00	-	-0.37	-	-	-	-	-0.00	-2.66	-	-3.04
Intl. marine bunkers	-	-	-0.00	-	-	-	-	-	-	-	-0.00
Intl. aviation bunkers	-	-	-1.76	-	-	-	-	-	-	-	-1.76
Stock changes	0.00	0.01	0.14	-	-	-	-	-0.00	-	-	0.14
TPES	0.11	2.99	5.88	3.01	5.34	2.93	0.22	2.73	0.48	0.00	23.68
Transfers	-	-	0.00	-	-	-	-	-	-	-	0.00
Statistical differences	-0.00	-	0.06	-	-	-	-	-0.00	-0.00	-	0.06
Electricity plants	-	-	-0.00	-	-5.31	-2.93	-0.16	-0.00	4.84	-	-3.56
CHP plants	-	-	-0.00	-0.12	-0.03	-	-	-1.32	0.33	0.45	-0.69
Heat plants	-	-	-0.00	-0.09	-	-	-	-	-0.00	0.08	-0.01
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	0.03	-	-	-	-0.03	-	-	0.00
Coke/pat. fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-2.99	2.96	-	-	-	-	-	-	-	-0.03
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-0.00	-	-	-	-	-	-	-	-0.00
Energy industry own use	-	-	-0.15	-0.00	-	-	-	-	-0.23	-	-0.38
Losses	-	-	-	-0.01	-	-	-	-	-0.39	-0.04	-0.44
TFC	0.11	-	8.73	2.82	-	-	0.06	1.38	5.03	0.49	18.62
INDUSTRY	0.11	-	0.30	0.97	-	-	0.00	0.51	1.54	0.17	3.60
Iron and steel	0.01	-	0.00	0.09	-	-	-	0.00	0.12	-	0.23
Chemical and petrochemical	-	-	0.02	0.31	-	-	-	0.11	0.26	0.03	0.73
Non-ferrous metals	-	-	0.00	0.04	-	-	-	-	0.04	0.00	0.08
Non-metallic minerals	0.10	-	0.03	0.09	-	-	-	0.15	0.10	-	0.46
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	0.09	0.10	-	-	-	0.00	0.37	0.01	0.57
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	0.00	-	0.05	0.20	-	-	-	0.00	0.23	0.01	0.50
Paper, pulp and printing	-	-	0.01	0.06	-	-	-	0.04	0.15	0.06	0.33
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	0.05	0.02	-	-	-	0.07	0.04	0.00	0.18
Textile and leather	-	-	0.01	0.02	-	-	-	0.00	0.02	-	0.04
Non-specified	-	-	0.04	0.04	-	-	0.00	0.13	0.21	0.06	0.48
TRANSPORT	-	-	5.22	0.02	-	-	-	0.13	0.27	-	5.65
Domestic aviation	-	-	0.05	-	-	-	-	-	-	-	0.05
Road	-	-	5.13	0.01	-	-	-	0.13	-	-	5.27
Rail	-	-	0.01	-	-	-	-	-	0.27	-	0.28
Pipeline transport	-	-	-	0.01	-	-	-	-	-	-	0.01
Domestic navigation	-	-	0.03	-	-	-	-	-	-	-	0.03
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	0.00	-	2.77	1.83	-	-	0.06	0.74	3.22	0.32	8.92
Residential	0.00	-	1.81	1.15	-	-	0.05	0.46	1.65	0.19	5.31
Comm. and public services	-	-	0.78	0.63	-	-	0.01	0.27	1.48	0.13	3.29
Agriculture/forestry	-	-	-	-	-	-	0.00	0.02	0.08	-	0.10
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	0.18	0.05	-	-	-	-	-	-	0.22
NON-ENERGY USE	-	-	0.45	-	-	-	-	-	-	-	0.45
in industry/transf./energy	-	-	0.42	-	-	-	-	-	-	-	0.42
of which: chem./petrochem.	-	-	0.10	-	-	-	-	-	-	-	0.10
in transport	-	-	0.03	-	-	-	-	-	-	-	0.03
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - TWh	-	-	0.04	0.72	20.38	34.09	1.82	3.10	-	-	60.15
Electricity plants	-	-	0.01	-	20.38	34.09	1.82	0.00	-	-	56.30
CHP plants	-	-	0.02	0.72	-	-	-	3.10	-	-	3.85
Heat generated - PJ	-	-	0.22	4.21	1.32	-	-	16.54	-	0.10	22.39
CHP plants	-	-	0.04	1.09	1.32	-	-	16.54	-	-	18.99
Heat plants	-	-	0.17	3.13	-	-	-	-	-	0.10	3.40

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Switzerland

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	6.68	3.01	0.23	2.51	-	0.00	12.43
Imports	0.08	3.18	7.04	2.85	-	-	-	0.22	2.67	-	16.05
Exports	-0.00	-0.01	-0.41	-	-	-	-	-0.00	-2.80	-	-3.22
Intl. marine bunkers	-	-	-0.00	-	-	-	-	-	-	-	-0.00
Intl. aviation bunkers	-	-	-1.89	-	-	-	-	-	-	-	-1.89
Stock changes	-	0.00	0.46	-	-	-	-	-0.01	-	-	0.45
TPES	0.08	3.18	5.19	2.85	6.68	3.01	0.23	2.72	-0.14	0.00	23.81
Electricity and Heat Output											
Elec. generated - TWh	-	-	0.04	0.73	25.51	34.98	2.01	3.13	-	-	66.40
Heat generated - PJ	-	-	0.21	4.07	1.35	-	-	15.96	-	0.01	21.60

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	4.3	7.0	10.2	11.9	12.4	11.2	11.0	12.4
Net imports (Mtoe)	15.1	14.1	15.0	14.1	14.9	14.1	14.3	12.8
Total primary energy supply (Mtoe)	18.9	20.0	24.3	24.9	25.9	23.5	23.7	23.8
Net oil imports (Mtoe)	15.0	13.4	13.2	12.1	11.7	10.5	10.5	9.8
Oil supply (Mtoe)	14.5	12.5	12.3	11.0	10.4	8.8	8.9	8.4
Electricity consumption (TWh) ¹	31.6	37.9	50.0	56.4	64.0	62.6	64.1	63.1
GDP (billion 2010 USD)	339.2	346.9	432.1	487.2	583.8	644.2	654.6	671.2
GDP PPP (billion 2010 USD)	241.3	246.7	307.4	346.5	415.3	458.2	465.6	477.5
Population (millions)	6.44	6.39	6.80	7.25	7.86	8.37	8.45	8.53
Industrial production index (2010=100)	50.0	50.5	61.6	77.8	94.4	100.0	105.0	-
Total self-sufficiency ²	0.23	0.35	0.42	0.48	0.48	0.48	0.47	0.52
Coal self-sufficiency ²	-	-	-	-	-	-	-	-
Oil self-sufficiency ²	-	-	-	-	0.00	-	-	-
Natural gas self-sufficiency ²	-	-	0.00	-	-	-	-	-
TPES/GDP (toe per thousand 2010 USD)	0.06	0.06	0.06	0.05	0.04	0.04	0.04	0.04
TPES/GDP PPP (toe per thousand 2010 USD)	0.08	0.08	0.08	0.07	0.06	0.05	0.05	0.05
TPES/population (toe per capita)	2.94	3.14	3.57	3.44	3.30	2.81	2.80	2.79
Net oil imports/GDP (toe per thousand 2010 USD)	0.04	0.04	0.03	0.02	0.02	0.02	0.02	0.01
Oil supply/GDP (toe per thousand 2010 USD)	0.04	0.04	0.03	0.02	0.02	0.01	0.01	0.01
Oil supply/population (toe per capita)	2.24	1.96	1.80	1.52	1.32	1.04	1.05	0.98
Share of renewables in TPES	0.14	0.16	0.15	0.17	0.18	0.21	0.21	0.22
Share of renewables in electricity generation	0.76	0.69	0.55	0.57	0.57	0.62	0.63	0.59
TFC/GDP (toe per thousand 2010 USD)	0.05	0.05	0.04	0.04	0.04	0.03	0.03	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.07	0.07	0.06	0.06	0.05	0.04	0.04	..
TFC/population (toe per capita)	2.59	2.60	2.69	2.66	2.61	2.25	2.20	..
Elect. cons./GDP (kWh per 2010 USD)	0.09	0.11	0.12	0.12	0.11	0.10	0.10	0.09
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.13	0.15	0.16	0.16	0.15	0.14	0.14	0.13
Elect. cons./population (kWh per capita)	4906	5931	7357	7776	8142	7480	7582	7391
Industry cons. ³ /industrial production (2010=100)	203.3	191.4	140.0	119.5	100.0	86.2	83.1	..
Industry oil cons. ³ /industrial production (2010=100)	640.3	475.2	215.3	148.7	100.0	65.4	60.5	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

Turkey

Figure 1. Energy production

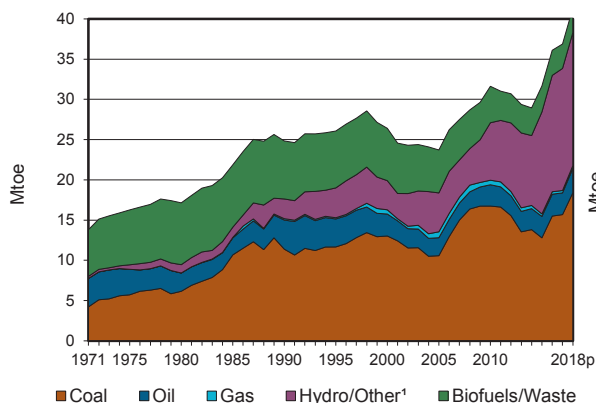


Figure 2. Total primary energy supply²

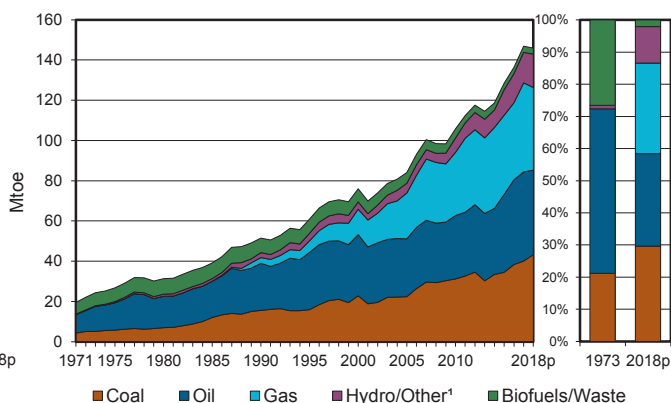


Figure 3. Energy self-sufficiency

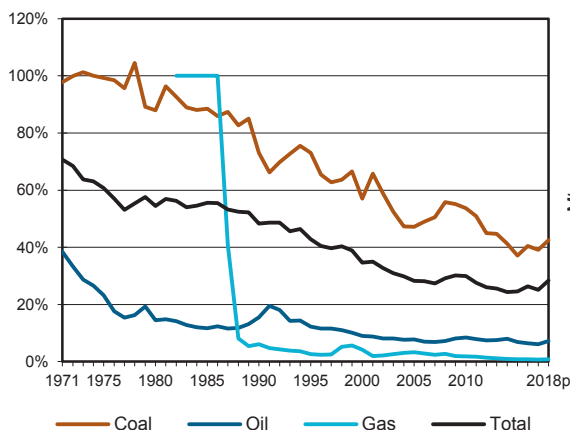


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

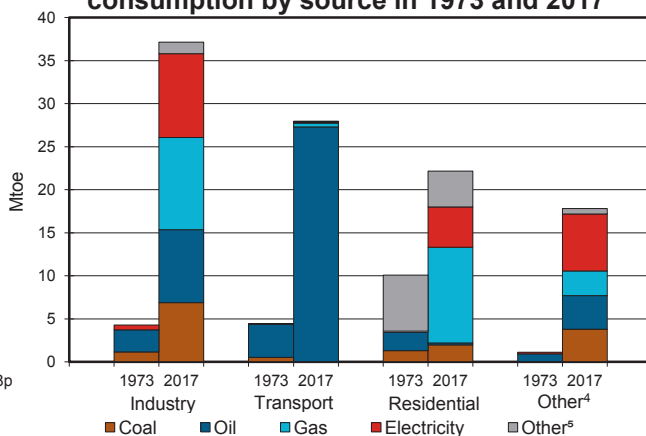


Figure 5. Electricity generation by source

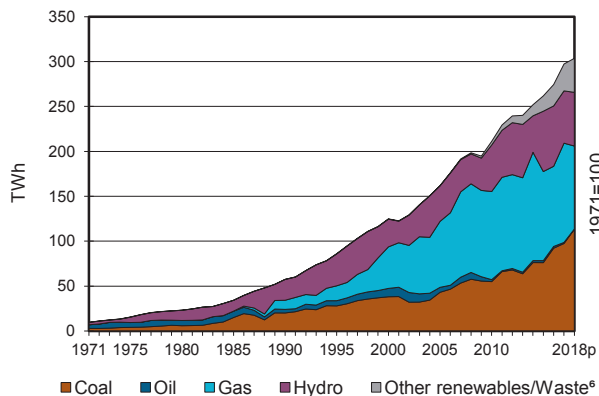
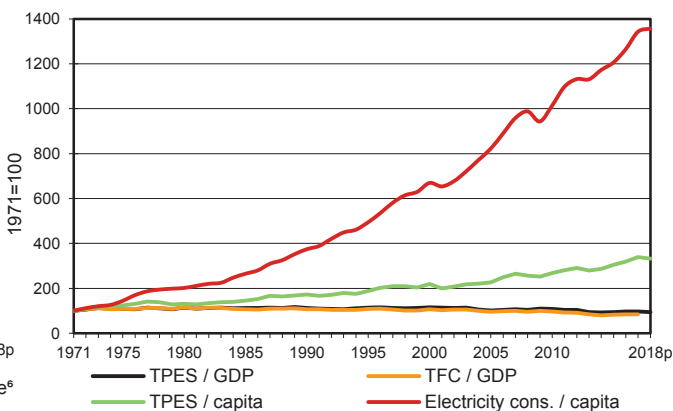


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Turkey

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	15.68	2.70	-	0.29	-	5.01	10.17	3.03	-	-	36.88
Imports	24.91	27.35	26.02	45.49	-	-	-	-	0.23	-	124.00
Exports	-0.17	-0.54	-6.27	-0.52	-	-	-	-	-0.28	-	-7.78
Intl. marine bunkers	-	-	-0.83	-	-	-	-	-	-	-	-0.83
Intl. aviation bunkers	-	-	-3.55	-	-	-	-	-	-	-	-3.55
Stock changes	-0.33	-0.30	-0.26	-1.03	-	-	-	-0.00	-	-	-1.92
TPES	40.09	29.21	15.11	44.23	-	5.01	10.17	3.03	-0.05	-	146.80
Transfers	-	2.44	-2.31	-	-	-	-	-	-	-	0.13
Statistical differences	-0.97	-0.40	-0.20	0.21	-	-	-	-	-	-	-1.35
Electricity plants	-22.64	-	-0.12	-15.45	-	-5.01	-7.13	-0.36	24.78	-	-25.92
CHP plants	-0.29	-	-0.11	-1.87	-	-	-	-0.20	0.78	1.03	-0.67
Heat plants	-	-	-	-	-	-	-0.34	-	-	0.34	-
Blast furnaces	-1.93 e	-	-	-	-	-	-	-	-	-	-1.93
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat. fuel/BKB/PB plants	-0.55	-	-	-	-	-	-	-	-	-	-0.55
Oil refineries	-	-33.78	32.26	-	-	-	-	-	-	-	-1.52
Petrochemical plants	-	2.03	-2.06	-	-	-	-	-	-	-	-0.02
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	0.49	-	-0.41	-	-	-	-	-	-0.34	-0.25
Energy industry own use	-1.04	-	-2.69	-1.57	-	-	-	-	-1.39	-	-6.68
Losses	-	-	-	-0.00	-	-	-	-	-2.98	-	-2.98
TFC	12.66	-	39.88	25.15	-	-	2.70	2.48	21.14	1.03	105.05
INDUSTRY	6.90	-	4.25	10.30	-	-	0.29	-	9.75	1.03	32.52
Iron and steel	1.62 e	-	0.02	1.25	-	-	-	-	2.19	-	5.09
Chemical and petrochemical	0.49	-	0.01	1.67	-	-	-	-	0.53	-	2.69
Non-ferrous metals	0.23	-	0.01	0.37	-	-	-	-	0.32	-	0.92
Non-metallic minerals	2.70	-	3.77	1.78	-	-	-	-	1.24	-	9.48
Transport equipment	0.01	-	0.01	0.14	-	-	-	-	-	-	0.16
Machinery	0.02	-	0.01	0.22	-	-	-	-	0.68	-	0.93
Mining and quarrying	0.09	-	0.16	0.12	-	-	-	-	0.12	-	0.49
Food and tobacco	0.81	-	0.03	1.02	-	-	-	-	0.64	-	2.50
Paper, pulp and printing	0.22	-	0.01	0.20	-	-	-	-	0.30	-	0.73
Wood and wood products	0.01	-	0.00	0.16	-	-	-	-	0.20	-	0.38
Construction	-	-	0.08	0.50	-	-	-	-	0.32	-	0.90
Textile and leather	0.69	-	0.01	0.93	-	-	-	-	1.46	-	3.10
Non-specified	-	-	0.15	1.93	-	-	0.29	-	1.74	1.03	5.15
TRANSPORT	-	-	27.07	0.44	-	-	-	0.11	0.11	-	27.73
Domestic aviation	-	-	1.23	-	-	-	-	-	-	-	1.23
Road	-	-	25.42	0.07	-	-	-	0.11	-	-	25.61
Rail	-	-	0.12	-	-	-	-	-	0.08	-	0.20
Pipeline transport	-	-	-	0.37	-	-	-	-	0.03	-	0.39
Domestic navigation	-	-	0.30	-	-	-	-	-	-	-	0.30
Non-specified	-	-	-	0.00	-	-	-	-	-	-	0.00
OTHER	5.77	-	4.12	14.01	-	-	2.41	2.36	11.29	-	39.95
Residential	1.96	-	0.24	11.13	-	-	1.80	2.36	4.66	-	22.15
Comm. and public services	3.80	-	0.91	2.79	-	-	-	-	6.04	-	13.54
Agriculture/forestry	-	-	2.89	0.06	-	-	0.61	-	0.57	-	4.12
Fishing	-	-	0.08	0.04	-	-	-	-	0.02	-	0.14
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	4.43	0.41	-	-	-	-	-	-	4.84
in industry/transf./energy	-	-	4.21	0.41	-	-	-	-	-	-	4.61
of which: chem./petrochem.	-	-	0.99	0.41	-	-	-	-	-	-	1.40
in transport	-	-	0.23	-	-	-	-	-	-	-	0.23
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - TWh	97.48	-	1.20	110.49	-	58.22	27.77	2.12	-	-	297.28
Electricity plants	96.40	-	0.69	103.59	-	58.22	27.77	1.54	-	-	288.21
CHP plants	1.08	-	0.51	6.90	-	-	-	0.59	-	-	9.07
Heat generated - PJ	2.22	-	1.65	35.23	-	-	14.16	4.20	-	-	57.46
CHP plants	2.22	-	1.65	35.23	-	-	-	4.20	-	-	43.30
Heat plants	-	-	-	-	-	-	14.16	-	-	-	14.16

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Turkey

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	18.39	3.01	-	0.35	-	5.14	11.40	3.04	-	-	41.33
Imports	25.08	22.27	26.84	41.46	-	-	-	-	0.21	-	115.87
Exports	-0.15	-0.36	-4.63	-0.55	-	-	-	-	-0.26	-	-5.96
Intl. marine bunkers	-	-	-0.78	-	-	-	-	-	-	-	-0.78
Intl. aviation bunkers	-	-	-3.76	-	-	-	-	-	-	-	-3.76
Stock changes	-0.06	-0.03	-0.57	-0.16	-	-	-	-	-	-	-0.82
TPES	43.26	24.90	17.11	41.10	-	5.14	11.40	3.04	-0.05	-	145.89
Electricity and Heat Output											
Elec. generated - TWh	113.25	-	0.33	92.43	-	59.75	35.20	2.66	-	-	303.62
Heat generated - PJ	2.91	-	1.46	30.00	-	-	14.50	5.55	-	-	54.43

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	15.5	17.1	24.8	26.4	31.6	36.1	36.9	41.3
Net imports (Mtoe)	8.9	14.4	27.8	50.7	75.9	105.7	116.2	109.9
Total primary energy supply (Mtoe)	24.4	31.5	51.4	76.3	105.7	136.7	146.8	145.9
Net oil imports (Mtoe)	8.8	13.7	21.2	29.3	30.6	44.3	46.6	44.1
Oil supply (Mtoe)	12.5	15.6	23.4	30.4	31.5	42.1	44.3	42.0
Electricity consumption (TWh) ¹	11.1	21.8	50.1	104.5	180.2	243.7	262.0	268.4
GDP (billion 2010 USD)	172.2	219.0	364.0	520.9	771.9	1122.5	1206.0	1237.0
GDP PPP (billion 2010 USD)	281.2	357.6	594.3	850.6	1260.4	1832.8	1969.2	2019.8
Population (millions)	38.07	44.44	55.12	64.27	73.14	79.28	80.31	81.41
Industrial production index (2010=100)	..	..	31.4	43.8	69.4	103.4	112.8	114.0
Total self-sufficiency ²	0.64	0.54	0.48	0.35	0.30	0.26	0.25	0.28
Coal self-sufficiency ²	1.01	0.88	0.73	0.57	0.54	0.40	0.39	0.43
Oil self-sufficiency ²	0.29	0.15	0.15	0.09	0.08	0.06	0.06	0.07
Natural gas self-sufficiency ²	-	-	0.06	0.04	0.02	0.01	0.01	0.01
TPES/GDP (toe per thousand 2010 USD)	0.14	0.14	0.14	0.15	0.14	0.12	0.12	0.12
TPES/GDP PPP (toe per thousand 2010 USD)	0.09	0.09	0.09	0.09	0.08	0.07	0.07	0.07
TPES/population (toe per capita)	0.64	0.71	0.93	1.19	1.45	1.72	1.83	1.79
Net oil imports/GDP (toe per thousand 2010 USD)	0.05	0.06	0.06	0.06	0.04	0.04	0.04	0.04
Oil supply/GDP (toe per thousand 2010 USD)	0.07	0.07	0.06	0.06	0.04	0.04	0.04	0.03
Oil supply/population (toe per capita)	0.33	0.35	0.42	0.47	0.43	0.53	0.55	0.52
Share of renewables in TPES	0.28	0.28	0.19	0.13	0.11	0.13	0.12	0.13
Share of renewables in electricity generation	0.23	0.49	0.40	0.25	0.26	0.33	0.29	0.32
TFC/GDP (toe per thousand 2010 USD)	0.12	0.12	0.11	0.11	0.10	0.09	0.09	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.07	0.07	0.07	0.07	0.06	0.05	0.05	..
TFC/population (toe per capita)	0.52	0.59	0.73	0.90	1.07	1.24	1.31	..
Elect. cons./GDP (kWh per 2010 USD)	0.06	0.10	0.14	0.20	0.23	0.22	0.22	0.22
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.04	0.06	0.08	0.12	0.14	0.13	0.13	0.13
Elect. cons./population (kWh per capita)	293	490	910	1626	2464	3074	3263	3297
Industry cons. ³ /industrial production (2010=100)	..	..	102.7	124.5	100.0	78.4	78.0	..
Industry oil cons. ³ /industrial production (2010=100)	..	..	179.9	169.4	100.0	71.2	70.1	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

United Kingdom

Figure 1. Energy production

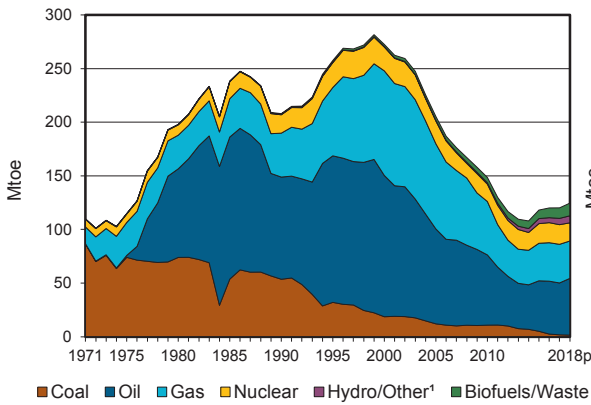


Figure 2. Total primary energy supply²

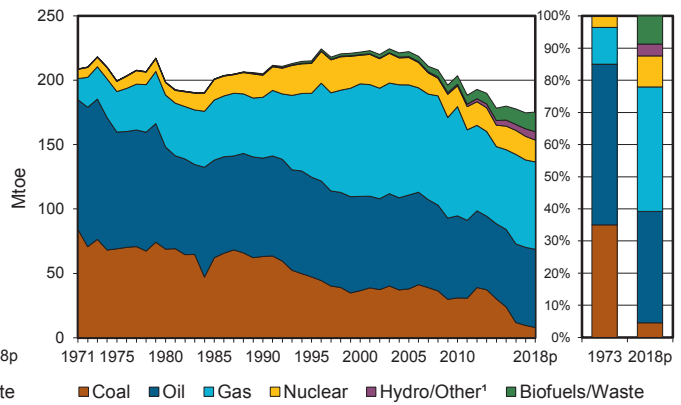


Figure 3. Energy self-sufficiency

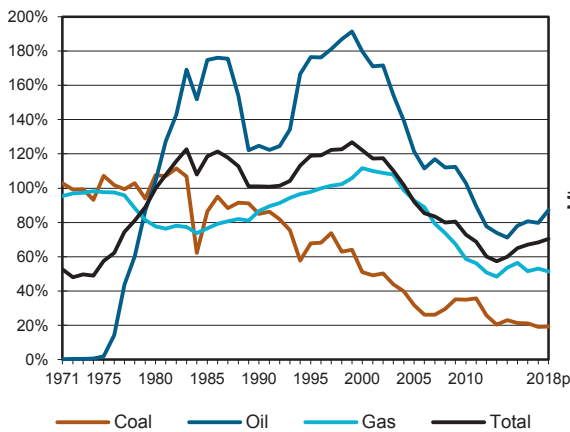


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

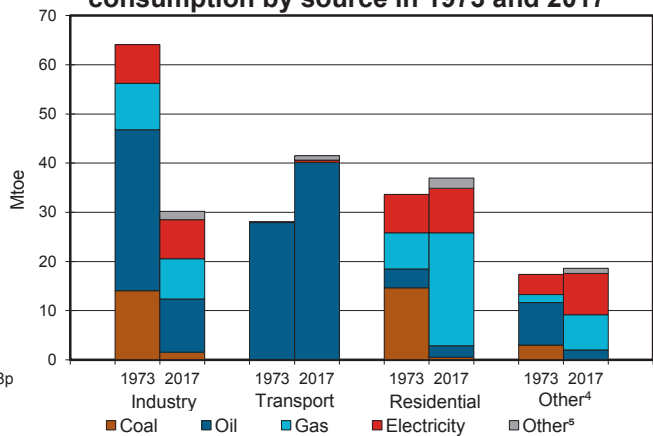


Figure 5. Electricity generation by source

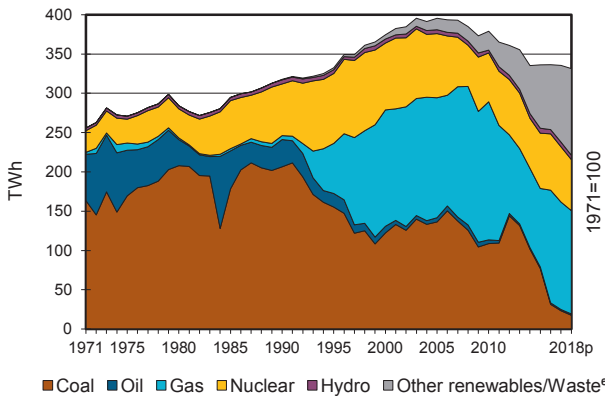
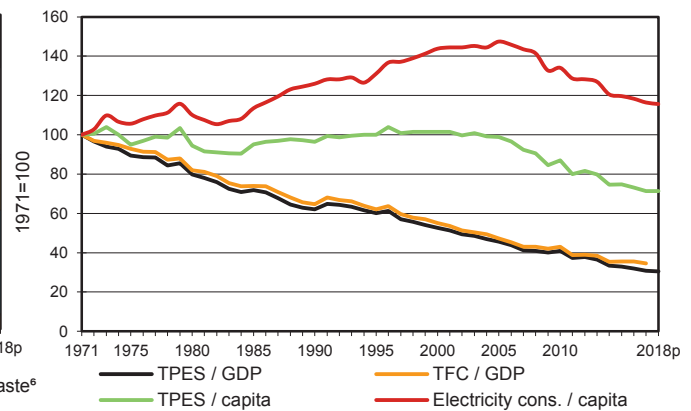


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

United Kingdom

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	1.82	48.32	-	36.02	18.33	0.51	5.34	9.81	-	-	120.15
Imports	6.16	55.23	33.87	40.18	-	-	-	3.00	1.56	-	140.01
Exports	-0.37	-39.85	-23.55	-9.28	-	-	-	-0.38	-0.29	-	-73.72
Intl. marine bunkers	-	-	-2.42	-	-	-	-	-	-	-	-2.42
Intl. aviation bunkers	-	-	-11.24	-	-	-	-	-	-	-	-11.24
Stock changes	1.95	0.36	-0.11	0.93	-	-	-	-0.01	-	-	3.11
TPES	9.56	64.07	-3.45	67.84	18.33	0.51	5.34	12.41	1.27	-	175.88
Transfers	-	-2.29	2.41	-	-	-	-	-	-	-	0.13
Statistical differences	-0.09	0.04	0.15	-0.35	-	-	-	0.00	-0.02	-	-0.27
Electricity plants	-5.47	-	-0.14	-19.67	-18.33	-0.51	-5.29	-6.75	27.04	-	-29.11
CHP plants	-0.02	-	-0.38	-2.46	-	-	-	-0.96	1.80	-	-2.02
Heat plants	-0.00	-	-0.05	-2.33	-	-	-	-0.17	-	1.66	-0.88
Blast furnaces	-1.26 e	-	-	-	-	-	-	-	-	-	-1.26
Gas works	-	-	-	0.21	-	-	-	-0.21	-	-	-0.00
Coke/pat. fuel/BKB/PB plants	-0.06	-	-0.06	-0.01	-	-	-	-	-	-	-0.13
Oil refineries	-	-62.25	61.44	-	-	-	-	-	-	-	-0.81
Petrochemical plants	-	0.43	-0.48	-	-	-	-	-	-	-	-0.05
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	0.01	-	-	-	-	-	-	-	-	-	0.01
Energy industry own use	-0.44	-	-4.16	-4.41	-	-	-	-	-1.99	-0.34	-11.34
Losses	-0.11	-	-	-0.52	-	-	-	-	-2.25	-	-2.88
TFC	2.12	-	55.29	38.30	-	-	0.05	4.33	25.85	1.33	127.27
INDUSTRY	1.49	-	3.99	7.77	-	-	-	0.97	7.97	0.72	22.91
Iron and steel	0.59 e	-	0.00	0.30	-	-	-	-	0.23	-	1.12
Chemical and petrochemical	0.04	-	0.11	1.57	-	-	-	0.00	1.34	0.29	3.35
Non-ferrous metals	0.02	-	0.01	0.24	-	-	-	-	0.37	-	0.63
Non-metallic minerals	0.42	-	0.16	1.10	-	-	-	0.16	0.52	-	2.37
Transport equipment	0.03	-	0.20	0.54	-	-	-	-	0.40	-	1.17
Machinery	0.01	-	-	1.13	-	-	-	0.00	1.07	-	2.20
Mining and quarrying	-	-	-	-	-	-	-	-	0.00	-	0.00
Food and tobacco	0.05	-	0.10	1.46	-	-	-	0.04	0.95	0.00	2.60
Paper, pulp and printing	0.07	-	0.03	0.35	-	-	-	0.44	0.93	-	1.82
Wood and wood products	-	-	0.04	0.04	-	-	-	0.08	0.05	-	0.21
Construction	0.00	-	0.18	0.36	-	-	-	-	0.12	-	0.67
Textile and leather	0.04	-	0.04	0.22	-	-	-	-	0.23	-	0.53
Non-specified	0.22	-	3.12	0.46	-	-	-	0.24	1.76	0.43	6.23
TRANSPORT	0.01	-	40.10	-	-	-	-	0.93	0.41	-	41.45
Domestic aviation	-	-	0.85	-	-	-	-	-	-	-	0.85
Road	-	-	37.76	-	-	-	-	0.93	0.01	-	38.71
Rail	0.01	-	0.62	-	-	-	-	-	0.40	-	1.03
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	0.87	-	-	-	-	-	-	-	0.87
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	0.57	-	4.20	30.15	-	-	0.05	2.42	17.48	0.60	55.48
Residential	0.54	-	2.30	22.99	-	-	0.05	1.73	9.06	0.27	36.95
Comm. and public services	0.02	-	1.17	6.28	-	-	0.00	0.26	8.04	0.33	16.10
Agriculture/forestry	-	-	0.34	0.10	-	-	-	0.44	0.28	-	1.16
Fishing	-	-	0.11	-	-	-	-	-	0.09	-	0.20
Non-specified	0.00	-	0.29	0.78	-	-	-	-	-	-	1.07
NON-ENERGY USE	0.05	-	7.00	0.38	-	-	-	-	-	-	7.43
in industry/transf./energy	0.05	-	6.85	0.38	-	-	-	-	-	-	7.28
of which: chem./petrochem.	-	-	4.61	0.38	-	-	-	-	-	-	5.00
in transport	-	-	0.06	-	-	-	-	-	-	-	0.06
in other	-	-	0.09	-	-	-	-	-	-	-	0.09
Electricity and Heat Output											
Electr. generated - TWh	23.28	-	1.61	136.75	70.34	5.93	61.53	36.02	-	-	335.46
Electricity plants	23.16	-	0.40	120.85	70.34	5.93	61.53	32.31	-	-	314.52
CHP plants	0.12	-	1.21	15.90	-	-	-	3.71	-	-	20.94
Heat generated - PJ	0.13	-	1.36	63.79	-	-	-	4.36	-	-	69.64
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	0.13	-	1.36	63.79	-	-	-	4.36	-	-	69.64

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

United Kingdom

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./ Solar/ etc.	Biofuels/ Waste	Electricity	Heat	Total
Production	1.55	52.85	-	34.85	16.95	0.47	6.08	11.78	-	-	124.53
Imports	6.99	54.75	35.92	39.75	-	-	-	3.66	1.83	-	142.90
Exports	-0.46	-46.57	-22.65	-6.27	-	-	-	-0.23	-0.19	-	-76.37
Intl. marine bunkers	-	-	-2.40	-	-	-	-	-	-	-	-2.40
Intl. aviation bunkers	-	-	-11.67	-	-	-	-	-	-	-	-11.67
Stock changes	-0.09	0.30	0.12	-0.45	-	-	-	0.01	-	-	-0.11
TPES	7.99	61.33	-0.68	67.89	16.95	0.47	6.08	15.22	1.64	-	176.88
Electricity and Heat Output											
Elec. generated - TWh	17.57	-	1.68	131.48	65.06	5.46	70.05	40.11	-	-	331.42
Heat generated - PJ	0.13	-	1.36	63.79	-	-	-	4.36	-	-	69.64

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	108.5	197.9	208.0	272.5	148.5	120.1	120.2	124.5
Net imports (Mtoe)	115.8	12.3	4.7	-40.4	62.6	68.1	66.3	66.5
Total primary energy supply (Mtoe)	218.1	198.4	205.9	223.0	203.7	179.2	175.9	176.9
Net oil imports (Mtoe)	116.0	1.9	-11.0	-46.7	10.9	25.3	25.7	21.5
Oil supply (Mtoe)	108.9	79.3	76.4	73.2	63.7	61.1	60.6	60.6
Electricity consumption (TWh) ¹	262.5	263.8	306.7	360.1	357.9	330.4	327.0	326.9
GDP (billion 2010 USD)	1141.8	1225.1	1634.6	2089.9	2452.9	2768.2	2818.7	2858.1
GDP PPP (billion 2010 USD)	1052.2	1128.9	1506.3	1925.9	2260.4	2551.0	2597.5	2633.8
Population (millions)	56.22	56.33	57.24	58.89	62.76	65.65	66.04	66.47
Industrial production index (2010=100)	84.1	82.7	98.7	113.5	101.4	101.0	102.1	103.1
Total self-sufficiency ²	0.50	1.00	1.01	1.22	0.73	0.67	0.68	0.70
Coal self-sufficiency ²	0.99	1.08	0.85	0.51	0.35	0.21	0.19	0.19
Oil self-sufficiency ²	0.01	1.04	1.25	1.80	1.03	0.81	0.80	0.87
Natural gas self-sufficiency ²	0.97	0.78	0.87	1.12	0.59	0.52	0.53	0.51
TPES/GDP (toe per thousand 2010 USD)	0.19	0.16	0.13	0.11	0.08	0.06	0.06	0.06
TPES/GDP PPP (toe per thousand 2010 USD)	0.21	0.18	0.14	0.12	0.09	0.07	0.07	0.07
TPES/population (toe per capita)	3.88	3.52	3.60	3.79	3.25	2.73	2.66	2.66
Net oil imports/GDP (toe per thousand 2010 USD)	0.10	0.00	-0.01	-0.02	0.00	0.01	0.01	0.01
Oil supply/GDP (toe per thousand 2010 USD)	0.10	0.06	0.05	0.04	0.03	0.02	0.02	0.02
Oil supply/population (toe per capita)	1.94	1.41	1.33	1.24	1.01	0.93	0.92	0.91
Share of renewables in TPES	0.00	0.00	0.01	0.01	0.04	0.09	0.10	0.12
Share of renewables in electricity generation	0.01	0.01	0.02	0.03	0.07	0.25	0.30	0.34
TFC/GDP (toe per thousand 2010 USD)	0.13	0.11	0.09	0.07	0.06	0.05	0.05	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.14	0.12	0.09	0.08	0.06	0.05	0.05	..
TFC/population (toe per capita)	2.55	2.33	2.41	2.56	2.20	1.96	1.93	..
Elect. cons./GDP (kWh per 2010 USD)	0.23	0.22	0.19	0.17	0.15	0.12	0.12	0.11
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.25	0.23	0.20	0.19	0.16	0.13	0.13	0.12
Elect. cons./population (kWh per capita)	4669	4683	5358	6115	5702	5033	4951	4918
Industry cons. ³ /industrial production (2010=100)	230.4	168.0	130.5	120.0	100.0	89.9	89.5	..
Industry oil cons. ³ /industrial production (2010=100)	329.8	193.0	130.6	118.5	100.0	91.6	89.9	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

United States

Figure 1. Energy production

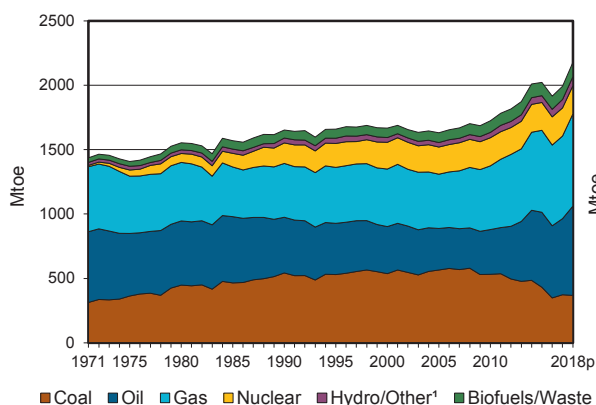


Figure 2. Total primary energy supply²

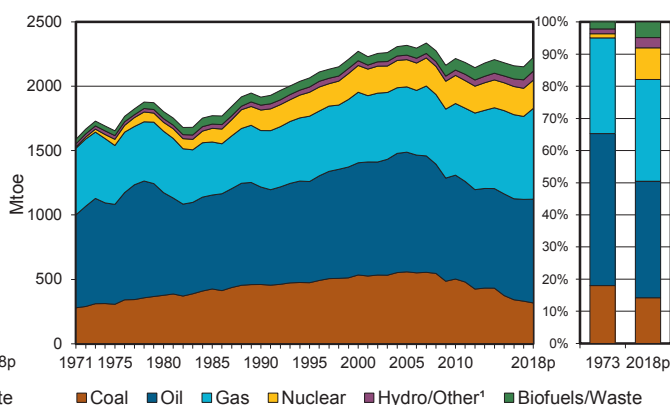


Figure 3. Energy self-sufficiency

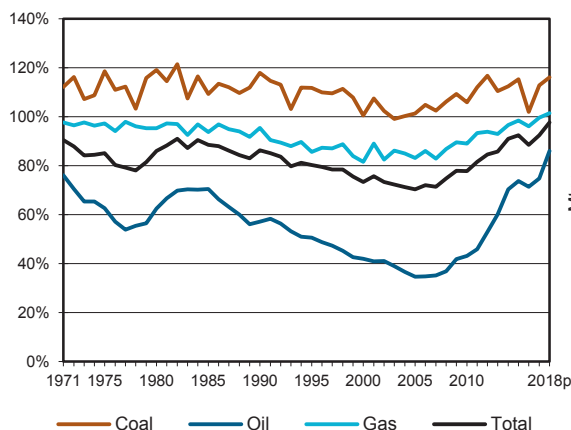


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

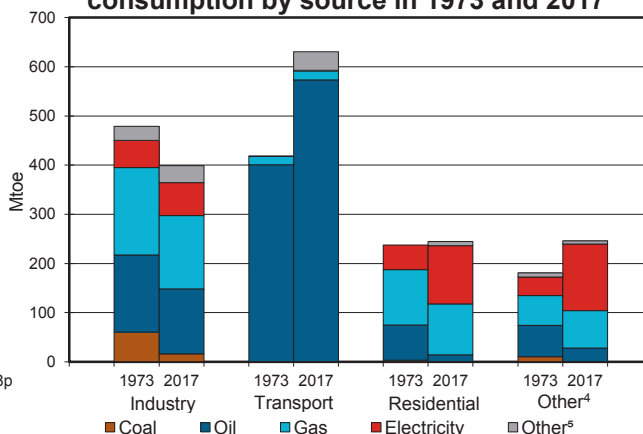


Figure 5. Electricity generation by source

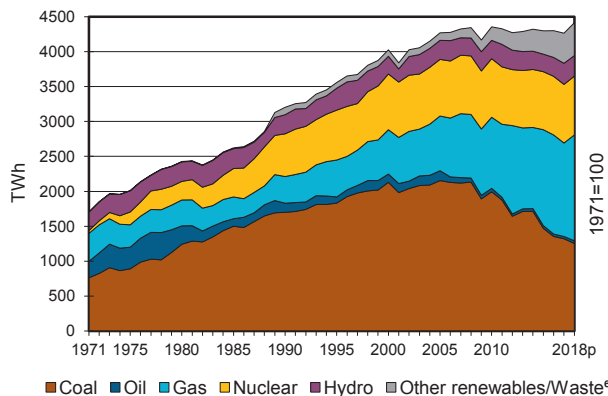
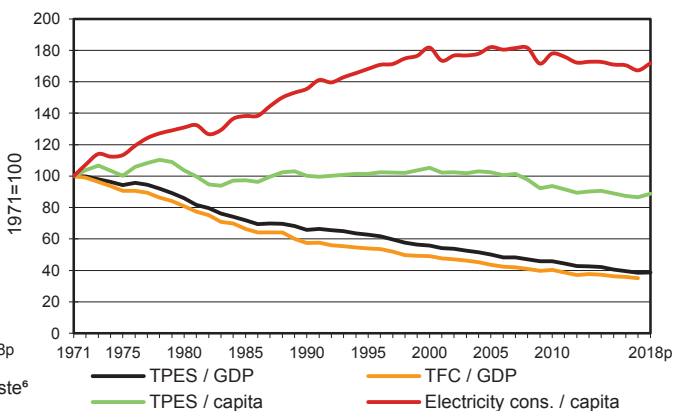


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

United States

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./ Solar/ etc.	Biofuels/ Waste	Electricity	Heat	Total
Production	373.18	590.85	-	641.68	218.57	26.00	39.70 e	102.60	-	-	1992.57
Imports	4.08	442.93	73.46	70.41	-	-	-	2.13	5.65	-	598.65
Exports	-57.55	-78.87	-209.45	-74.44	-	-	-	-3.47	-0.81	-	-424.58
Intl. marine bunkers	-	-	-23.18	-	-	-	-	-0.22 e	-	-	-23.41
Intl. aviation bunkers	-	-	-24.80	-	-	-	-	-	-	-	-24.80
Stock changes	11.04	14.27	5.07	6.29	-	-	-	0.12	-	-	36.79
TPES	330.75	969.17	-178.89	643.93	218.57	26.00	39.70 e	101.16	4.84	-	2155.23
Transfers	-	-89.95	93.13	-	-	-	-	-	-	-	3.18
Statistical differences	4.40	3.11	7.45	-4.94	-	-	-	0.16	-	-	10.17
Electricity plants	-302.46	-	-5.01	-193.21	-218.57	-26.00	-37.58 e	-14.23	340.45	-	-456.61
CHP plants	-6.02	-	-2.00	-38.32	-	-	-	-6.84	26.16	10.76	-16.27
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-3.66 e	-	-	-	-	-	-	-	-	-	-3.66
Gas works	-1.94	-	-	1.25	-	-	-	-	-	-	-0.70
Coke/pat. fuel/BKB/PB plants	-2.91	-	-	-	-	-	-	-	-	-	-2.91
Oil refineries	-	-882.96	860.16	-	-	-	-	-	-	-	-22.80
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	5.06	-	-4.50	-	-	-	-	-	-	0.56
Energy industry own use	-1.13	-	-31.65	-57.90	-	-	-	-0.13	-29.04	-3.61 e	-123.45
Losses	-	-	-	-	-	-	-	-	-20.99	-1.29 e	-22.28
TFC	17.01	4.43	743.19	346.31	-	-	2.12	80.12	321.42	5.86	1520.46
INDUSTRY	16.54	-	18.38	124.64	-	-	-	30.30	66.93	4.63	261.43
Iron and steel	3.81 e	-	0.21	8.43	-	-	-	0.00	4.68	0.17 e	17.30
Chemical and petrochemical	1.86	-	1.84	52.62	-	-	-	0.31	12.46	2.84 e	71.93
Non-ferrous metals	-	-	0.17	3.05	-	-	-	0.00	3.24	0.09 e	6.55
Non-metallic minerals	4.88	-	1.66	6.13	-	-	-	0.30	1.89	0.00 e	14.87
Transport equipment	0.00	-	0.23	3.74	-	-	-	0.00	3.57	0.11 e	7.66
Machinery	0.04	-	0.66	7.41	-	-	-	0.01	8.03	0.08 e	16.23
Mining and quarrying	-	-	2.84	1.76	-	-	-	0.10	3.88	-	8.57
Food and tobacco	3.08	-	0.42	17.15	-	-	-	0.68	6.83	0.51 e	28.68
Paper, pulp and printing	1.32	-	0.20	9.15	-	-	-	26.91	6.95	0.43 e	44.96
Wood and wood products	-	-	0.44	1.16	-	-	-	1.49	1.50	0.24 e	4.84
Construction	-	-	8.25	0.31	-	-	-	0.31	4.32	-	13.19
Textile and leather	0.06	-	-	1.12	-	-	-	-	1.23	0.14 e	2.54
Non-specified	1.50	-	1.45	12.61	-	-	-	0.18	8.34	0.02 e	24.10
TRANSPORT	-	-	568.29	18.10	-	-	-	38.03	0.95	-	625.38
Domestic aviation	-	-	58.36	-	-	-	-	-	-	-	58.36
Road	-	-	490.62	1.14	-	-	-	37.44	0.34	-	529.55
Rail	-	-	11.31	-	-	-	-	0.47	0.61	-	12.40
Pipeline transport	-	-	-	16.95	-	-	-	-	-	-	16.95
Domestic navigation	-	-	8.00	-	-	-	-	0.12	-	-	8.12
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	0.47	-	39.67	179.53	-	-	2.12	11.78	253.53	1.23	488.33
Residential	-	-	14.38	103.68	-	-	0.43	8.32	118.12	-	244.92
Comm. and public services	0.47	-	11.31	74.35	-	-	1.69	2.26	116.13	1.23 e	207.43
Agriculture/forestry	-	-	13.98	1.51	-	-	-	1.21	4.05	-	20.74
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	15.24 e	-	15.24
NON-ENERGY USE	-	4.43	116.85	24.04	-	-	-	-	-	-	145.33
in industry/transf./energy	-	4.43	109.27	24.04	-	-	-	-	-	-	137.74
of which: chem./petrochem.	-	4.43	78.00	24.04	-	-	-	-	-	-	106.47
in transport	-	-	5.05	-	-	-	-	-	-	-	5.05
in other	-	-	2.54	-	-	-	-	-	-	-	2.54
Electricity and Heat Output											
Electr. generated - TWh	1321.42	-	32.41	1337.70	838.86	302.36	352.40 e	78.52	-	-	4263.68
Electricity plants	1292.63	-	20.43	1115.38	838.86	302.36	348.68 e	41.05	-	-	3959.40
CHP plants	28.79	-	11.98	222.32	-	-	3.72	37.46	-	-	304.28
Heat generated - PJ	27.26	-	31.06	336.19	-	-	-	55.81	-	-	450.33
CHP plants	27.26	-	31.06	336.19	-	-	-	55.81	-	-	450.33
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

United States

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	367.92	692.71	-	715.91	219.22	25.29	44.91	110.64	-	-	2176.60
Imports	3.14	430.26	75.74	66.77	-	-	-	1.26	5.01	-	582.19
Exports	-68.91	-124.72	-218.72	-84.85	-	-	-	-4.25	-1.19	-	-502.64
Intl. marine bunkers	-	-	-23.34	-	-	-	-	-0.19	-	-	-23.53
Intl. aviation bunkers	-	-	-25.22	-	-	-	-	-	-	-	-25.22
Stock changes	14.74	-0.85	-0.28	7.54	-	-	-	-0.22	-	-	20.92
TPES	316.88	997.40	-191.83	705.38	219.22	25.29	44.91	107.25	3.82	-	2228.31
Electricity and Heat Output											
Elec. generated - TWh	1254.54	-	38.83	1513.41	841.33	294.12	393.97	77.21	-	-	4413.41
Heat generated - PJ	23.53	-	20.17	361.80	-	-	-	55.16	-	-	460.65

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	1456.4	1553.4	1652.6	1667.4	1724.5	1915.7	1992.6	2176.6
Net imports (Mtoe)	296.4	307.1	341.9	606.4	533.7	265.0	174.1	79.6
Total primary energy supply (Mtoe)	1730.1	1804.8	1915.0	2273.8	2216.9	2163.5	2155.2	2228.3
Net oil imports (Mtoe)	303.4	340.1	374.4	549.5	508.2	273.8	228.1	162.6
Oil supply (Mtoe)	817.5	796.9	756.8	871.2	806.5	784.3	790.3	805.6
Electricity consumption (TWh) ¹	1816.7	2241.0	2923.9	3857.5 e	4143.4	4147.5	4098.6	4235.3
GDP (billion 2010 USD)	5466.0	6496.3	9001.2	12620.3	14992.1	16972.4	17348.6	17844.3
GDP PPP (billion 2010 USD)	5466.0	6496.3	9001.2	12620.3	14992.1	16972.4	17348.6	17844.3
Population (millions)	211.94	227.73	250.18	282.40	309.79	323.67	325.98	328.01
Industrial production index (2010=100)	44.6	49.8	61.7	91.5	90.4	98.0	100.3	104.3
Total self-sufficiency ²	0.84	0.86	0.86	0.73	0.78	0.89	0.92	0.98
Coal self-sufficiency ²	1.07	1.19	1.18	1.01	1.06	1.02	1.13	1.16
Oil self-sufficiency ²	0.65	0.63	0.57	0.42	0.43	0.71	0.75	0.86
Natural gas self-sufficiency ²	0.98	0.95	0.95	0.82	0.89	0.96	1.00	1.01
TPES/GDP (toe per thousand 2010 USD)	0.32	0.28	0.21	0.18	0.15	0.13	0.12	0.12
TPES/GDP PPP (toe per thousand 2010 USD)	0.32	0.28	0.21	0.18	0.15	0.13	0.12	0.12
TPES/population (toe per capita)	8.16	7.93	7.65	8.05	7.16	6.68	6.61	6.79
Net oil imports/GDP (toe per thousand 2010 USD)	0.06	0.05	0.04	0.04	0.03	0.02	0.01	0.01
Oil supply/GDP (toe per thousand 2010 USD)	0.15	0.12	0.08	0.07	0.05	0.05	0.05	0.05
Oil supply/population (toe per capita)	3.86	3.50	3.03	3.08	2.60	2.42	2.42	2.46
Share of renewables in TPES	0.04	0.05	0.05	0.05 e	0.06 e	0.07 e	0.08 e	0.08
Share of renewables in electricity generation	0.14	0.12	0.12 e	0.08 e	0.10 e	0.15 e	0.17 e	0.17
TFC/GDP (toe per thousand 2010 USD)	0.24	0.20	0.14	0.12	0.10	0.09	0.09	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.24	0.20	0.14	0.12	0.10	0.09	0.09	..
TFC/population (toe per capita)	6.21	5.76	5.17	5.48	4.88	4.69	4.66	..
Elect. cons./GDP (kWh per 2010 USD)	0.33	0.35	0.32	0.31 e	0.28	0.24	0.24	0.24
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.33	0.35	0.33	0.31 e	0.28	0.24	0.24	0.24
Elect. cons./population (kWh per capita)	8572	9841	11687	13660 e	13375	12814	12573	12912
Industry cons. ³ /industrial production (2010=100)	239.4	217.4	143.9	117.1	100.0	89.9	88.7	..
Industry oil cons. ³ /industrial production (2010=100)	207.4	221.6	138.0	100.6	100.0	78.5	77.5	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES. Coal self-sufficiency also includes peat, when applicable.

3. Includes non-energy use.

ASSOCIATION COUNTRIES

Brazil

Figure 1. Energy production

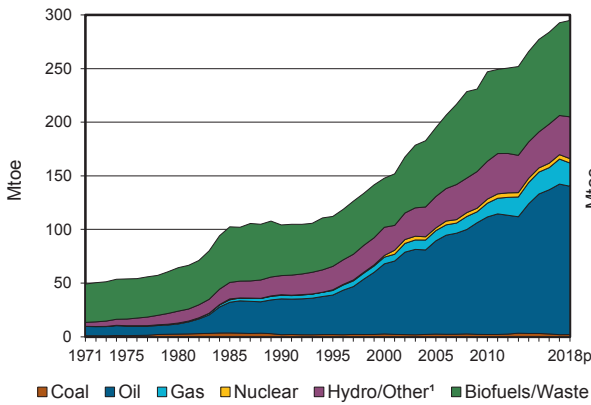


Figure 2. Total primary energy supply²

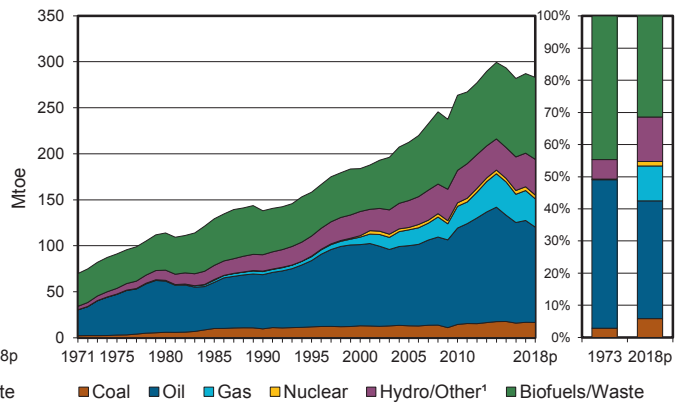


Figure 3. Energy self-sufficiency

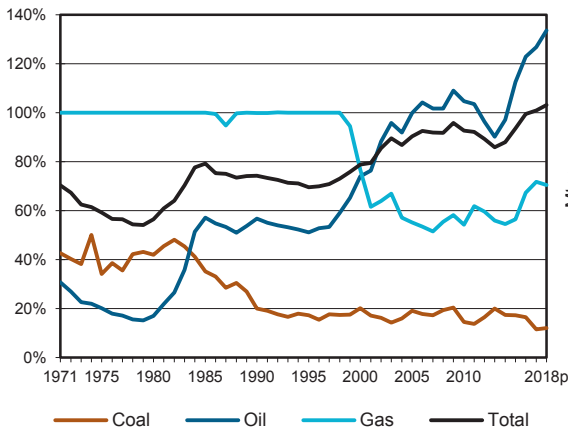


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

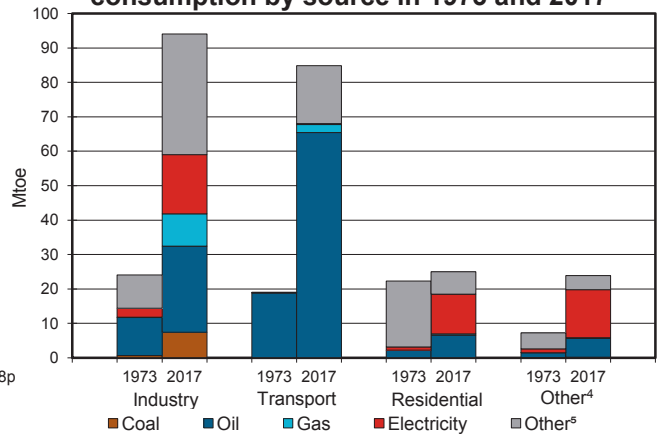


Figure 5. Electricity generation by source

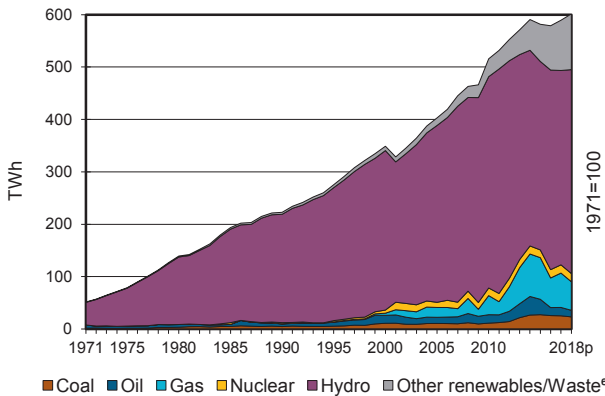
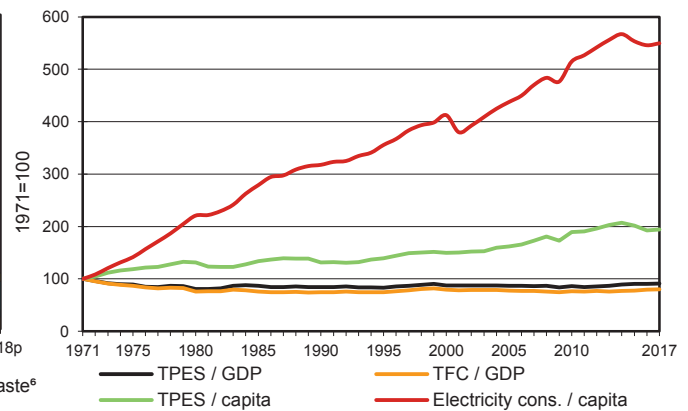


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Brazil

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	1.93	140.37	-	23.35	4.10	31.89	4.55	86.42	-	0.09	292.70
Imports	15.09	7.49	28.25	9.18	-	-	-	0.97	3.14	-	64.13
Exports	-0.00	-53.91	-5.89	-	-	-	-	-0.73	-0.01	-	-60.55
Intl. marine bunkers	-	-	-3.34	-	-	-	-	-	-	-	-3.34
Intl. aviation bunkers	-	-	-2.21	-	-	-	-	-	-	-	-2.21
Stock changes	-0.25	0.22	-0.27	-	-	-	-	-0.21	-	-	-0.50
TPES	16.78	94.18	16.54	32.53	4.10	31.89	4.55	86.45	3.13	0.09	290.24
Transfers	-	-2.76	2.85	-	-	-	-	-	-	-	0.09
Statistical differences	0.02	-0.12	-0.23	0.28	-	-	-	-0.10	-0.01	-	-0.16
Electricity plants	-3.55	-	-2.10	-10.07	-4.10	-31.89	-3.71	-0.33	43.90	-0.09	-11.95
CHP plants	-1.80	-	-1.15	-2.69	-	-	-	-9.08	6.78	-	-7.93
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-3.40	-	-	-	-	-	-	-0.05	-	-	-3.45
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat. fuel/BKB/PB plants	0.41	-	-0.89	-	-	-	-	-	-	-	-0.48
Oil refineries	-	-96.23	95.96	-	-	-	-	-	-	-	-0.26
Petrochemical plants	-	3.57	-3.57	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	1.35	-	-1.69	-	-	-	-3.22	-1.69	-	-3.56
Energy industry own use	-0.58	-	-4.81	-5.70	-	-	-	-11.93	-2.50	-	-25.52
Losses	-0.26	-	-0.10	-0.37	-	-	-	-0.05	-8.43	-	-9.22
TFC	7.63	-	102.50	12.28	-	-	0.83	61.70	42.86	-	227.81
INDUSTRY	7.48	-	10.89	8.75	-	-	-	35.05	17.17	-	79.34
Iron and steel	5.78	-	0.26	1.13	-	-	-	3.06	2.15	-	12.38
Chemical and petrochemical	0.14	-	2.69	2.10	-	-	-	0.06	1.90	-	6.90
Non-ferrous metals	0.95	-	1.77	0.57	-	-	-	0.01	2.35	-	5.65
Non-metallic minerals	0.15	-	3.37	1.29	-	-	-	2.40	0.84	-	8.06
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	0.29	-	0.88	0.41	-	-	-	-	1.07	-	2.65
Food and tobacco	0.05	-	0.64	0.83	-	-	-	19.40	2.36	-	23.28
Paper, pulp and printing	0.09	-	0.55	0.79	-	-	-	9.22	2.00	-	12.64
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	0.05	0.22	-	-	-	0.06	0.56	-	0.88
Non-specified	0.01	-	0.69	1.41	-	-	-	0.84	3.94	-	6.90
TRANSPORT	-	-	65.43	2.35	-	-	-	16.86	0.22	-	84.87
Domestic aviation	-	-	3.33	-	-	-	-	-	-	-	3.33
Road	-	-	60.22	1.69	-	-	-	16.86	-	-	78.77
Rail	-	-	1.03	-	-	-	-	-	0.18	-	1.21
Pipeline transport	-	-	-	0.66	-	-	-	-	0.05	-	0.71
Domestic navigation	-	-	0.84	-	-	-	-	-	-	-	0.84
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	12.15	0.50	-	-	0.83	9.79	25.47	-	48.74
Residential	-	-	6.61	0.37	-	-	-	6.47	11.52	-	24.96
Comm. and public services	-	-	0.69	0.13	-	-	-	0.17	11.48	-	12.48
Agriculture/forestry	-	-	4.85	-	-	-	-	3.15	2.47	-	10.46
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	0.83	-	-	-	0.83
NON-ENERGY USE	0.15	-	14.04	0.67	-	-	-	-	-	-	14.86
in industry/transf./energy	-	-	14.04	0.67	-	-	-	-	-	-	14.71
of which: chem./petrochem.	-	-	7.41	0.67	-	-	-	-	-	-	8.08
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	0.15	-	-	-	-	-	-	-	-	-	0.15
Electricity and Heat Output											
Electr. generated - TWh	25.34	-	15.92	65.59	15.74	370.91	43.21	52.25	-	0.45	589.40
Electricity plants	14.90	-	10.41	53.64	15.74	370.91	43.21	1.28	-	0.45	510.53
CHP plants	10.43	-	5.51	11.95	-	-	-	50.97	-	-	78.87
Heat generated - PJ	-	-	-	-	-	-	-	-	-	3.80	3.80
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	3.80	3.80

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Brazil

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	2.01	138.32	-	21.68	4.08	33.45	5.38	89.81	-	0.09	294.83
Imports	15.10	9.63	25.33	9.07	-	-	-	0.95	3.01	-	63.09
Exports	-0.00	-55.76	-8.51	-	-	-	-	-0.88	-0.00	-	-65.16
Intl. marine bunkers	-	-	-3.19	-	..	..	..	..	..	..	-3.19
Intl. aviation bunkers	-	-	-2.50	-	..	..	..	..	..	..	-2.50
Stock changes	-0.48	-0.15	0.38	-	-	-	-	-0.84	-	-	-1.09
TPES	16.63	92.04	11.52	30.75	4.08	33.45	5.38	89.04	3.01	0.09	285.99
Electricity and Heat Output											
Elec. generated - TWh	23.29	-	12.53	54.62	15.67	388.97	51.94	53.91	-	0.45	601.37
Heat generated - PJ	-	-	-	-	-	-	-	-	-	3.81	3.81

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	51.3	64.4	104.2	147.8	247.0	283.9	292.7	294.8
Net imports (Mtoe)	34.8	48.8	39.2	44.4	25.2	7.8	3.6	-2.1
Total primary energy supply (Mtoe)	82.0	113.9	140.3	187.7	266.5	285.4	290.2	286.0
Net oil imports (Mtoe)	33.4	45.3	28.5	28.5	0.2	-18.9	-24.1	-29.3
Oil supply (Mtoe)	37.9	55.6	58.9	88.2	104.7	109.3	110.7	103.6
Electricity consumption (TWh) ¹	56.7	122.7	217.7	331.6	464.7	520.0	527.7	538.3
GDP (billion 2010 USD)	637.8	1010.5	1192.9	1538.9	2208.9	2256.9	2278.9	..
GDP PPP (billion 2010 USD)	809.3	1282.3	1513.8	1952.9	2803.1	2864.0	2892.0	..
Population (millions)	102.58	121.16	149.35	175.29	196.80	207.65	209.29	..
Industrial production index (2010=100)	..	..	..	..	..	..	..	..
Total self-sufficiency ²	0.63	0.57	0.74	0.79	0.93	0.99	1.01	1.03
Coal self-sufficiency ²	0.38	0.42	0.20	0.20	0.15	0.17	0.12	0.12
Oil self-sufficiency ²	0.23	0.17	0.57	0.74	1.05	1.23	1.27	1.34
Natural gas self-sufficiency ²	1.00	1.00	1.00	0.77	0.54	0.67	0.72	0.71
TPES/GDP (toe per thousand 2010 USD)	0.13	0.11	0.12	0.12	0.12	0.13	0.13	..
TPES/GDP PPP (toe per thousand 2010 USD)	0.10	0.09	0.09	0.10	0.10	0.10	0.10	..
TPES/population (toe per capita)	0.80	0.94	0.94	1.07	1.35	1.37	1.39	..
Net oil imports/GDP (toe per thousand 2010 USD)	0.05	0.04	0.02	0.02	0.00	-0.01	-0.01	..
Oil supply/GDP (toe per thousand 2010 USD)	0.06	0.06	0.05	0.06	0.05	0.05	0.05	..
Oil supply/population (toe per capita)	0.37	0.46	0.39	0.50	0.53	0.53	0.53	..
Share of renewables in TPES	0.51	0.45	0.47	0.39	0.44	0.43	0.42	0.45
Share of renewables in electricity generation	0.91	0.94	0.95	0.90	0.85	0.80	0.79	0.82
TFC/GDP (toe per thousand 2010 USD)	0.11	0.10	0.09	0.10	0.10	0.10	0.10	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.09	0.08	0.07	0.08	0.08	0.08	0.08	..
TFC/population (toe per capita)	0.71	0.79	0.75	0.88	1.07	1.08	1.09	..
Elect. cons./GDP (kWh per 2010 USD)	0.09	0.12	0.18	0.22	0.21	0.23	0.23	..
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.07	0.10	0.14	0.17	0.17	0.18	0.18	..
Elect. cons./population (kWh per capita)	553	1013	1457	1892	2361	2504	2521	..
Industry cons. ³ /industrial production (2010=100)	..	..	..	..	..	..	..	..
Industry oil cons. ³ /industrial production (2010=100)	..	..	..	..	..	..	..	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

People's Republic of China

Figure 1. Energy production

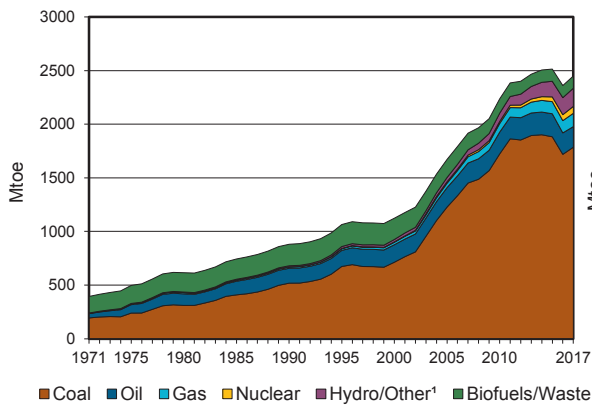


Figure 2. Total primary energy supply²

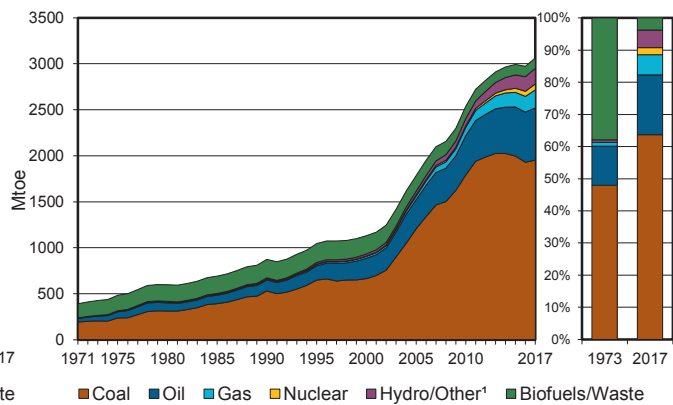


Figure 3. Energy self-sufficiency

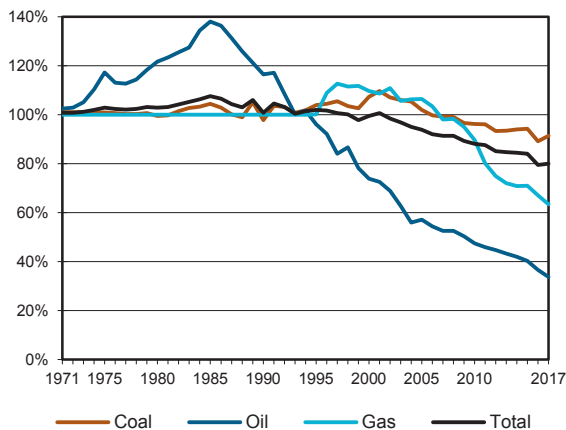


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

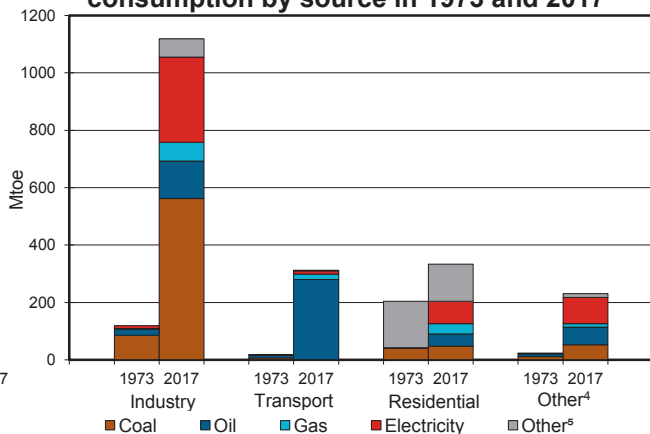


Figure 5. Electricity generation by source

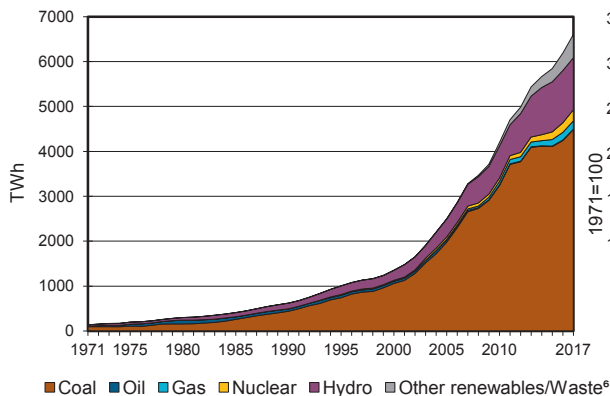
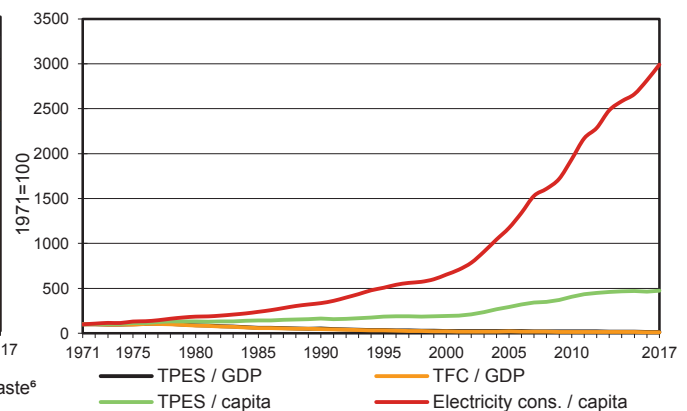


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

People's Republic of China

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	1785.87	191.73	-	123.89	64.64	99.49	70.02	113.84	-	-	2449.47
Imports	151.88	419.46	62.97	74.26	-	-	-	-	0.55	-	709.12
Exports	-10.41	-4.86	-57.36	-2.96	-	-	-	-	-1.67	-	-77.26
Intl. marine bunkers	-	-	-10.18	-	-	-	-	-	-	-	-10.18
Intl. aviation bunkers	-	-	-9.56	-	-	-	-	-	-	-	-9.56
Stock changes	25.96	-17.02	-7.10	-	-	-	-	-	-	-	1.84
TPES	1953.30	589.31	-21.23	195.19	64.64	99.49	70.02	113.84	-1.12	-	3063.43
Transfers	-1.23	-2.96	4.77	-	-	-	-	-	-	-	0.58
Statistical differences	17.43	-0.07	0.16	1.78	-	-	-	-0.01	-0.77	4.25	22.77
Electricity plants	-594.92	-0.14	-2.28	-18.70	-64.64	-99.49	-36.72	-31.93	409.17	-	-439.65
CHP plants	-477.64	-	-	-20.40	-	-	-	-	158.52	93.69	-245.83
Heat plants	-8.00	-	-4.07	-	-	-	-	-1.32	-	11.62	-1.76
Blast furnaces	-104.71	-	-	-	-	-	-	-	-	-	-104.71
Gas works	-9.36	-	-	1.85	-	-	-	-	-	-	-7.51
Coke/pat. fuel/BKB/PB plants	-58.64	-	-	-	-	-	-	-	-	-	-58.64
Oil refineries	-	-586.41	571.78	-	-	-	-	-	-	-	-14.63
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-7.96	4.38	-	-	-	-	-	-	-	-	-3.58
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-44.82	-2.98	-35.50	-25.85	-	-	-	-	-62.20	-12.69	-184.03
Losses	-	-0.46	-0.01	-2.29	-	-	-	-	-27.48	-1.15	-31.39
TFC	663.45	0.67	513.62	131.58	-	-	33.30	80.59	476.11	95.73	1995.06
INDUSTRY	517.61	0.67	50.55	56.17	-	-	0.44	-	296.57	63.92	985.92
Iron and steel	182.30	-	0.81	4.72	-	-	-	-	45.24	5.01	238.08
Chemical and petrochemical	92.76	-	15.72	14.57	-	-	-	-	50.84	33.23	207.12
Non-ferrous metals	15.80	-	0.80	3.95	-	-	-	-	51.62	4.37	76.54
Non-metallic minerals	145.01	-	5.44	8.12	-	-	-	-	28.42	0.33	187.32
Transport equipment	1.92	-	0.70	3.48	-	-	-	-	9.11	1.06	16.27
Machinery	7.45	-	1.50	6.49	-	-	-	-	39.88	0.89	56.21
Mining and quarrying	4.66	-	2.49	1.18	-	-	-	-	9.18	0.88	18.40
Food and tobacco	19.33	-	0.71	3.66	-	-	-	-	10.21	3.91	37.82
Paper, pulp and printing	7.69	-	0.28	1.74	-	-	-	-	7.17	5.13	22.01
Wood and wood products	1.08	-	0.20	0.33	-	-	-	-	2.96	0.23	4.78
Construction	3.87	-	7.58	0.15	-	-	-	-	6.79	0.25	18.65
Textile and leather	5.87	-	0.48	2.97	-	-	-	-	17.61	7.92	34.85
Non-specified	29.86	0.67	13.84	4.80	-	-	0.44	-	17.54	0.72	67.87
TRANSPORT	0.00	-	278.30	19.12	-	-	-	2.19	10.66	-	310.27
Domestic aviation	-	-	23.12	-	-	-	-	-	-	-	23.12
Road	-	-	225.59	18.73	-	-	-	2.19	3.87	-	250.38
Rail	-	-	3.11	-	-	-	-	-	6.79	-	9.89
Pipeline transport	-	-	0.00	0.39	-	-	-	-	-	-	0.39
Domestic navigation	-	-	24.45	-	-	-	-	-	-	-	24.45
Non-specified	0.00	-	2.03	-	-	-	-	-	-	-	2.04
OTHER	100.78	-	76.42	47.57	-	-	32.86	78.40	168.89	31.82	536.74
Residential	48.08	-	42.42	35.17	-	-	26.12	78.40	78.00	25.40	333.58
Comm. and public services	18.16	-	15.75	12.31	-	-	5.32	-	31.44	2.55	85.53
Agriculture/forestry	14.63	-	18.26	0.10	-	-	1.35	-	10.10	0.03	44.46
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	19.92	-	-	-	-	-	0.07	-	49.34	3.84	73.17
NON-ENERGY USE	45.05	-	108.35	8.72	-	-	-	-	-	-	162.13
in industry/transf./energy	45.05	-	79.23	8.72	-	-	-	-	-	-	133.00
of which: chem./petrochem.	-	-	65.06	8.72	-	-	-	-	-	-	73.77
in transport	-	-	1.90	-	-	-	-	-	-	-	1.90
in other	-	-	27.22	-	-	-	-	-	-	-	27.22
Electricity and Heat Output											
Electr. generated - TWh	4485.36	-	9.87	183.10	248.07	1157.09	425.85	92.82	-	-	6602.15
Electricity plants	2702.80	-	9.87	122.11	248.07	1157.09	425.85	92.82	-	-	4758.60
CHP plants	1782.56	-	-	60.99	-	-	-	-	-	-	1843.55
Heat generated - PJ	3738.11	-	144.68	486.09	-	-	-	40.37	-	-	4409.24
CHP plants	3436.66	-	-	486.09	-	-	-	-	-	-	3922.75
Heat plants	301.45	-	144.68	-	-	-	-	40.37	-	-	486.49

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

People's Republic of China

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	1864.63	188.09	..	128.33	76.70	106.12	43.79	..	..	..	..
Imports	156.69	..	..	99.46	-	-	..	..	..	..	..
Exports	-3.86	..	..	-2.88	-	-	..	..	..	..	..
Intl. marine bunkers	..	..	..	..	..	..	..	..	..	..	..
Intl. aviation bunkers	..	..	..	..	..	..	..	..	..	..	..
Stock changes	-47.89	..	..	..	-	-	..	..	..	..	..
TPES	1969.57	..	..	224.31	76.70	106.12	43.79	..	..	..	..
Electricity and Heat Output											
Elec. generated - TWh	..	..	..	..	294.36	1234.23	509.32	..	..	..	7111.77
Heat generated - PJ	..	..	..	..	..	..	..	..	..	..	..

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	431.4	615.5	880.9	1123.7	2235.4	2360.4	2449.5	..
Net imports (Mtoe)	-4.0	-20.6	-35.0	27.9	345.2	572.5	631.9	..
Total primary energy supply (Mtoe)	426.6	598.1	873.6	1129.9	2536.2	2971.1	3063.4	..
Net oil imports (Mtoe)	-1.8	-17.4	-24.2	74.7	252.9	380.2	420.2	..
Oil supply (Mtoe)	51.9	88.6	118.8	220.8	428.0	545.0	568.1	..
Electricity consumption (TWh) ¹	155.2	276.3	579.7	1253.7	3937.7	5898.9	6302.3	..
GDP (billion 2010 USD)	223.8	341.4	829.6	2237.1	6100.6	9505.2	10161.0	..
GDP PPP (billion 2010 USD)	457.9	698.6	1697.7	4578.2	12485.0	19452.4	20794.6	..
Population (millions)	881.94	981.24	1135.19	1262.65	1337.71	1378.67	1386.40	..
Industrial production index (2010=100)	..	..	..	..	..	..	..	..
Total self-sufficiency ²	1.01	1.03	1.01	0.99	0.88	0.79	0.80	..
Coal self-sufficiency ²	1.01	0.99	0.98	1.07	0.96	0.89	0.91	0.95
Oil self-sufficiency ²	1.05	1.22	1.16	0.74	0.47	0.37	0.34	..
Natural gas self-sufficiency ²	1.00	1.00	1.00	1.10	0.90	0.67	0.63	0.57
TPES/GDP (toe per thousand 2010 USD)	1.91	1.75	1.05	0.51	0.42	0.31	0.30	..
TPES/GDP PPP (toe per thousand 2010 USD)	0.93	0.86	0.51	0.25	0.20	0.15	0.15	..
TPES/population (toe per capita)	0.48	0.61	0.77	0.89	1.90	2.16	2.21	..
Net oil imports/GDP (toe per thousand 2010 USD)	-0.01	-0.05	-0.03	0.03	0.04	0.04	0.04	..
Oil supply/GDP (toe per thousand 2010 USD)	0.23	0.26	0.14	0.10	0.07	0.06	0.06	..
Oil supply/population (toe per capita)	0.06	0.09	0.10	0.17	0.32	0.40	0.41	..
Share of renewables in TPES	0.39	0.31	0.24	0.20	0.08	0.09	0.09	..
Share of renewables in electricity generation	0.23	0.19	0.20	0.17	0.19	0.25	0.25	..
TFC/GDP (toe per thousand 2010 USD)	1.63	1.43	0.79	0.35	0.27	0.21	0.20	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.79	0.70	0.39	0.17	0.13	0.10	0.10	..
TFC/population (toe per capita)	0.41	0.50	0.58	0.62	1.23	1.43	1.44	..
Elect. cons./GDP (kWh per 2010 USD)	0.69	0.81	0.70	0.56	0.65	0.62	0.62	..
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.34	0.40	0.34	0.27	0.32	0.30	0.30	..
Elect. cons./population (kWh per capita)	176	282	511	993	2944	4279	4546	..
Industry cons. ³ /industrial production (2010=100)	..	..	..	..	..	..	..	..
Industry oil cons. ³ /industrial production (2010=100)	..	..	..	..	..	..	..	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

India

Figure 1. Energy production

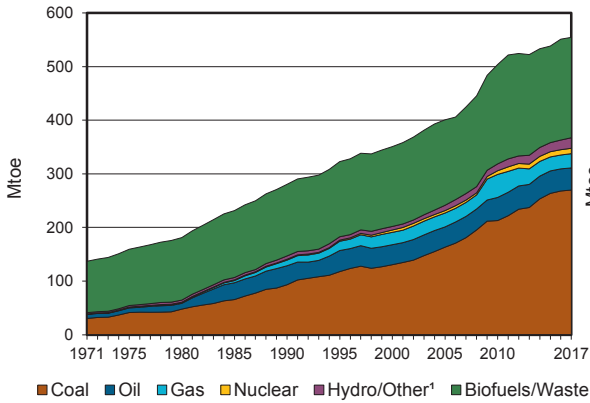


Figure 2. Total primary energy supply²

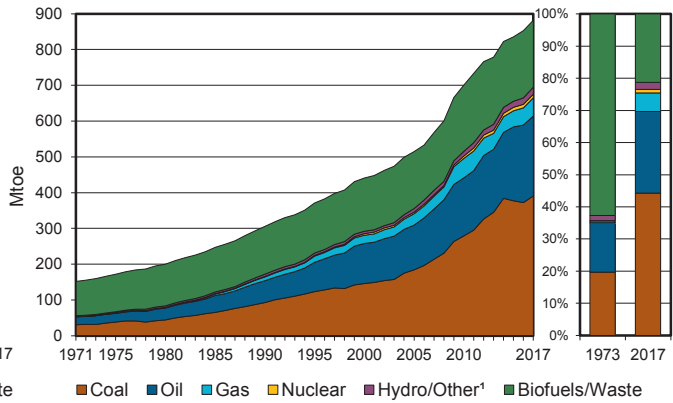


Figure 3. Energy self-sufficiency

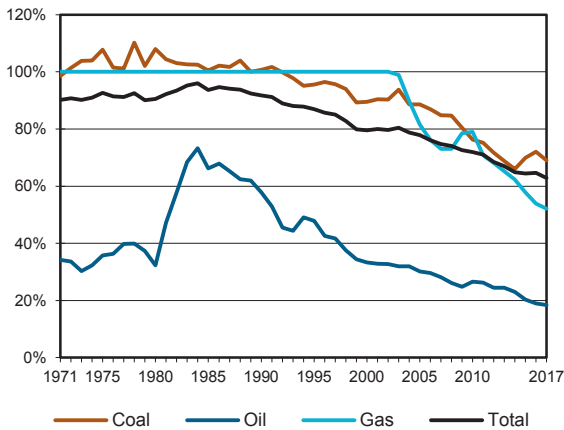


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

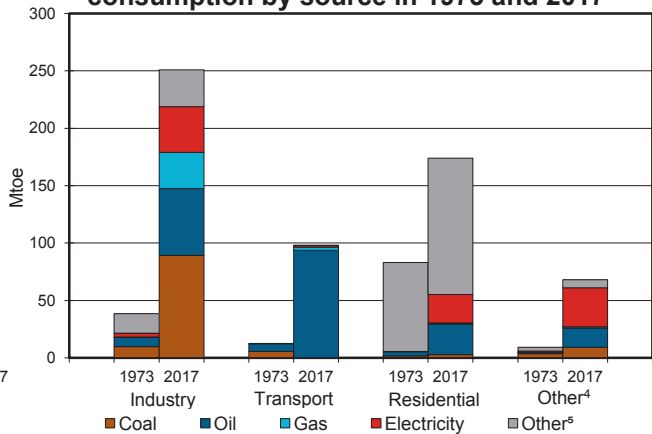


Figure 5. Electricity generation by source

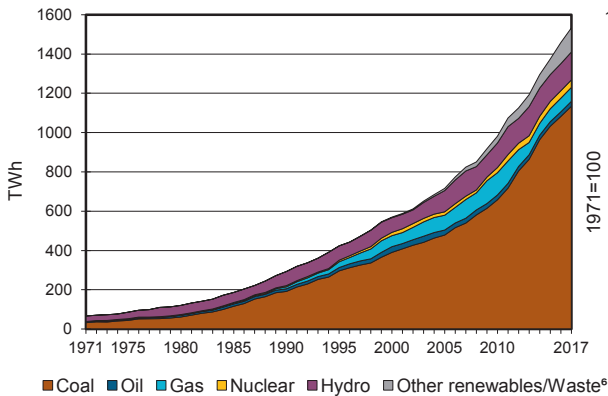
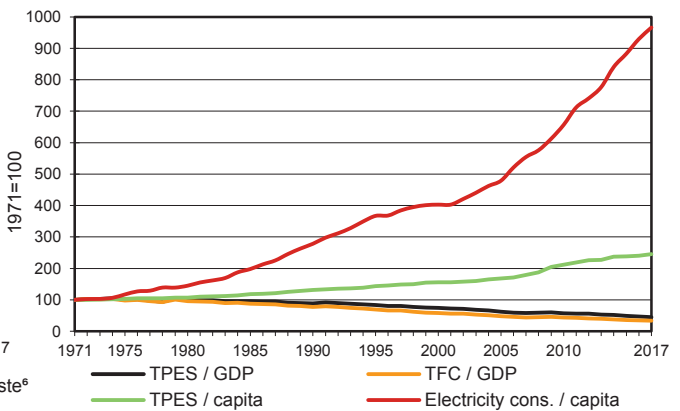


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

India

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	269.84	41.20	-	26.60	9.99	12.19	7.48	187.14	-	-	554.44
Imports	118.76	225.28	34.23	24.42	-	-	-	0.01	0.48	-	403.19
Exports	-0.64	-	-71.81	-	-	-	-	-0.01	-0.62	-	-73.07
Intl. marine bunkers	-	-	-1.55	-	-	-	-	-	-	-	-1.55
Intl. aviation bunkers	-	-	-4.04	-	-	-	-	-	-	-	-4.04
Stock changes	2.98	-0.72	0.72	-	-	-	-	-0.00	-	-	2.97
TPES	390.94	265.76	-42.45	51.02	9.99	12.19	7.48	187.14	-0.14	-	881.94
Transfers	-	3.31	-3.10	-	-	-	-	-	-	-	0.21
Statistical differences	-6.62	-3.55	-5.42	-	-	-	-	-0.06	-	-	-15.65
Electricity plants	-261.76	-	-8.31	-14.24	-9.99	-12.19	-6.63	-25.65	131.75	-	-207.02
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-13.97	-	-	-	-	-	-	-	-	-	-13.97
Gas works	-0.02	-	-	-	-	-	-	-	-	-	-0.02
Coke/pat. fuel/BKB/PB plants	-5.74	-	-	-	-	-	-	-	-	-	-5.74
Oil refineries	-	-265.52	266.08	-	-	-	-	-	-	-	0.56
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-3.90	-	-	-3.90
Energy industry own use	-1.68	-	-11.29	-0.69	-	-	-	-	-9.00	-	-22.66
Losses	-	-	-	-	-	-	-	-	-22.52	-	-22.52
TFC	101.15	-	195.52	36.10	-	-	0.85	157.53	100.09	-	591.23
INDUSTRY	89.27	-	31.72	11.95	-	-	0.05	31.95	40.07	-	205.01
Iron and steel	51.19	-	0.68	-	-	-	-	-	5.67	-	57.54
Chemical and petrochemical	1.38	-	4.46	-	-	-	-	-	1.49	-	7.33
Non-ferrous metals	2.40	-	0.12	-	-	-	-	-	1.14	-	3.66
Non-metallic minerals	14.26	-	6.69	-	-	-	-	-	0.15	-	21.10
Transport equipment	-	-	-	-	-	-	-	-	0.95	-	0.95
Machinery	-	-	0.37	-	-	-	-	-	0.54	-	0.92
Mining and quarrying	-	-	1.43	-	-	-	-	-	1.26	-	2.68
Food and tobacco	-	-	0.00	-	-	-	-	-	0.65	-	0.66
Paper, pulp and printing	0.74	-	-	-	-	-	-	-	0.90	-	1.64
Wood and wood products	-	-	-	-	-	-	-	-	0.32	-	0.32
Construction	0.09	-	0.45	-	-	-	-	-	0.04	-	0.59
Textile and leather	0.67	-	0.41	-	-	-	-	-	0.12	-	1.20
Non-specified	18.54	-	17.09	11.95	-	-	0.05	31.95	26.84	-	106.42
TRANSPORT	-	-	93.77	2.82	-	-	-	0.40	1.23	-	98.22
Domestic aviation	-	-	4.08	-	-	-	-	-	-	-	4.08
Road	-	-	85.67	2.39	-	-	-	0.40	-	-	88.47
Rail	-	-	2.73	-	-	-	-	-	1.23	-	3.96
Pipeline transport	-	-	-	0.43	-	-	-	-	-	-	0.43
Domestic navigation	-	-	1.24	-	-	-	-	-	-	-	1.24
Non-specified	-	-	0.04	-	-	-	-	-	-	-	0.04
OTHER	11.88	-	43.56	1.85	-	-	0.80	125.19	58.78	-	242.06
Residential	2.69	-	26.80	0.82	-	-	0.68	118.16	24.80	-	173.96
Comm. and public services	4.43	-	2.45	0.88	-	-	0.08	7.02	9.55	-	24.40
Agriculture/forestry	-	-	10.67	0.16	-	-	-	-	17.57	-	28.40
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	4.76	-	3.63	-	-	-	0.04	-	6.87	-	15.30
NON-ENERGY USE	-	-	26.48	19.47	-	-	-	-	-	-	45.94
in industry/transf./energy	-	-	26.48	19.47	-	-	-	-	-	-	45.94
of which: chem./petrochem.	-	-	12.52	19.47	-	-	-	-	-	-	31.99
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - TWh	1133.63	-	25.04	70.89	38.35	141.80	77.10	45.43	-	-	1532.23
Electricity plants	1133.63	-	25.04	70.89	38.35	141.80	77.10	45.43	-	-	1532.23
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - PJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

India

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	288.52	40.25	..	26.78	..	..	..	..	..	..	..
Imports	131.68	..	..	25.53	..	..	..	..	..	..	..
Exports	-0.52	..	..	..	..	..	..	..	..	..	..
Intl. marine bunkers	..	..	..	..	..	..	..	..	..	..	..
Intl. aviation bunkers	..	..	..	..	..	..	..	..	..	..	..
Stock changes	-10.35	..	..	..	..	..	..	..	..	..	..
TPES	409.33	..	..	53.39	..	..	..	..	..	..	..
Electricity and Heat Output											
Elec. generated - TWh	..	..	..	..	..	..	..	..	..	..	..
Heat generated - PJ	..	..	..	..	..	..	..	..	..	..	..

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	144.1	181.1	280.5	350.8	503.8	551.1	554.4	..
Net imports (Mtoe)	17.3	23.6	31.6	91.4	204.7	313.9	330.1	..
Total primary energy supply (Mtoe)	159.8	200.0	305.7	440.9	700.8	852.8	881.9	..
Net oil imports (Mtoe)	17.5	23.3	27.4	77.1	123.5	182.5	187.7	..
Oil supply (Mtoe)	24.3	33.2	61.1	112.0	162.1	216.7	223.3	..
Electricity consumption (TWh) ¹	59.9	99.1	237.6	415.9	792.5	1207.0	1268.7	..
GDP (billion 2010 USD)	211.0	271.7	466.5	802.8	1656.6	2466.2	2631.0	..
GDP PPP (billion 2010 USD)	676.6	871.3	1496.1	2574.3	5312.4	7908.5	8436.9	..
Population (millions)	593.06	696.78	870.13	1053.05	1230.98	1324.17	1339.18	..
Industrial production index (2010=100)	..	..	..	..	..	..	..	..
Total self-sufficiency ²	0.90	0.91	0.92	0.80	0.72	0.65	0.63	..
Coal self-sufficiency ²	1.04	1.08	1.01	0.90	0.76	0.72	0.69	0.70
Oil self-sufficiency ²	0.30	0.32	0.58	0.33	0.27	0.19	0.18	..
Natural gas self-sufficiency ²	1.00	1.00	1.00	1.00	0.79	0.54	0.52	0.50
TPES/GDP (toe per thousand 2010 USD)	0.76	0.74	0.66	0.55	0.42	0.35	0.34	..
TPES/GDP PPP (toe per thousand 2010 USD)	0.24	0.23	0.20	0.17	0.13	0.11	0.10	..
TPES/population (toe per capita)	0.27	0.29	0.35	0.42	0.57	0.64	0.66	..
Net oil imports/GDP (toe per thousand 2010 USD)	0.08	0.09	0.06	0.10	0.07	0.07	0.07	..
Oil supply/GDP (toe per thousand 2010 USD)	0.12	0.12	0.13	0.14	0.10	0.09	0.08	..
Oil supply/population (toe per capita)	0.04	0.05	0.07	0.11	0.13	0.16	0.17	..
Share of renewables in TPES	0.64	0.60	0.46	0.35	0.28	0.24	0.23	..
Share of renewables in electricity generation	0.40	0.39	0.25	0.14	0.16	0.17	0.17	..
TFC/GDP (toe per thousand 2010 USD)	0.68	0.64	0.52	0.39	0.29	0.23	0.23	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.21	0.20	0.16	0.12	0.09	0.07	0.07	..
TFC/population (toe per capita)	0.24	0.25	0.28	0.30	0.39	0.43	0.44	..
Elect. cons./GDP (kWh per 2010 USD)	0.28	0.36	0.51	0.52	0.48	0.49	0.48	..
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.09	0.11	0.16	0.16	0.15	0.15	0.15	..
Elect. cons./population (kWh per capita)	101	142	273	395	644	912	947	..
Industry cons. ³ /industrial production (2010=100)	..	..	..	..	..	..	..	..
Industry oil cons. ³ /industrial production (2010=100)	..	..	..	..	..	..	..	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

Indonesia

Figure 1. Energy production

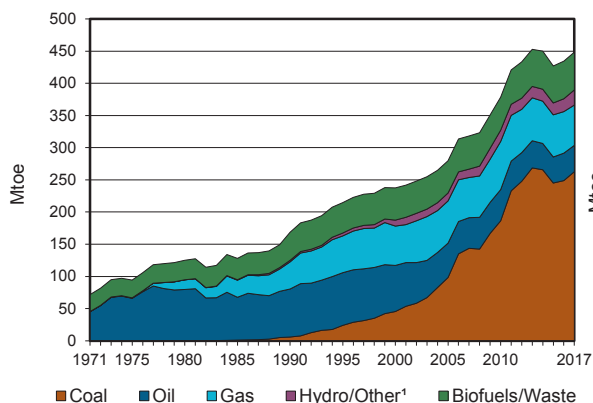


Figure 2. Total primary energy supply²

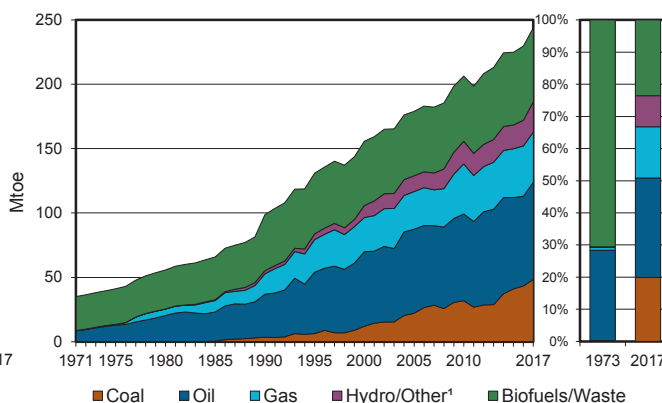


Figure 3. Energy self-sufficiency

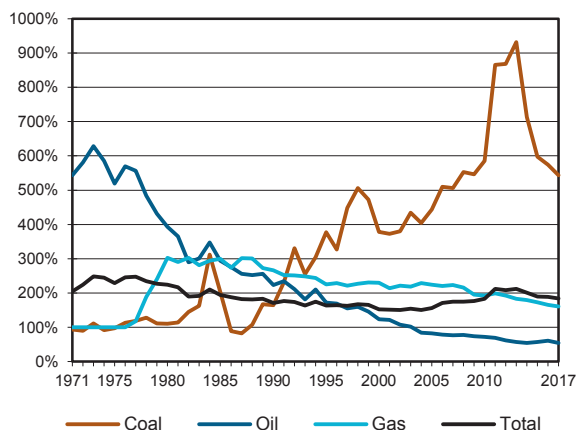


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

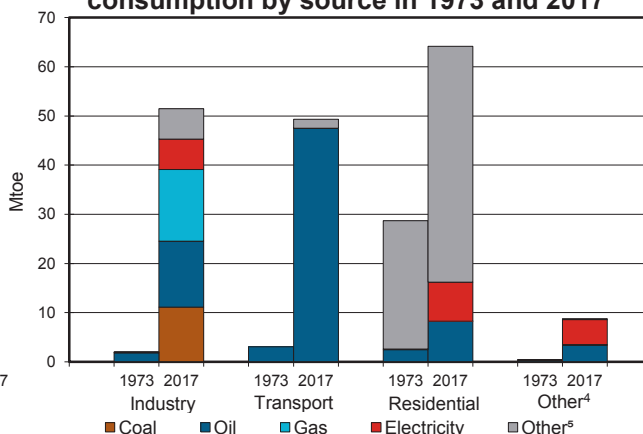


Figure 5. Electricity generation by source

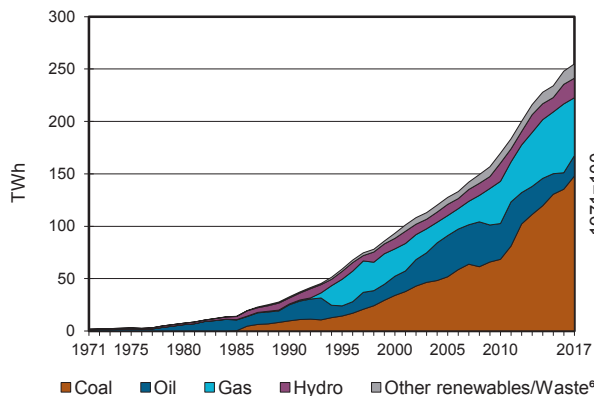
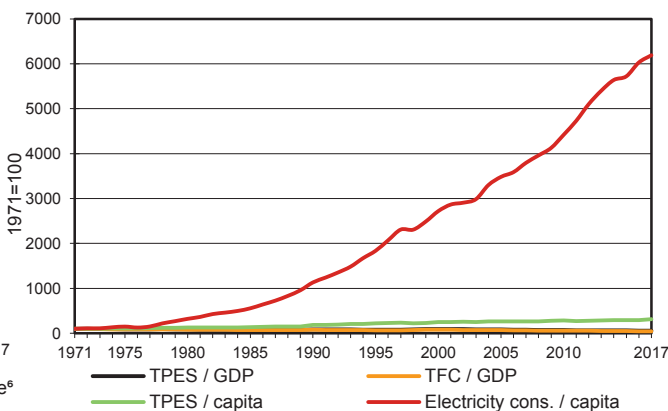


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Indonesia

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	262.71	40.85	-	62.66	-	1.60	21.95	58.60	-	-	448.37
Imports	3.05	26.31	28.28	-	-	-	-	-	0.10	-	57.74
Exports	-217.38	-13.93	-3.54	-23.76	-	-	-	-0.54	-	-	-259.15
Intl. marine bunkers	-	-	-0.26	-	-	-	-	-	-	-	-0.26
Intl. aviation bunkers	-	-	-1.62	-	-	-	-	-	-	-	-1.62
Stock changes	-	-0.16	-0.34	-	-	-	-	-0.51	-	-	-1.01
TPES	48.38	53.06	22.53	38.90	-	1.60	21.95	57.55	0.10	-	244.07
Transfers	-	-1.19	1.31	-	-	-	-	-	-	-	0.13
Statistical differences	0.00	0.44	6.03	-4.19	-	-	-	0.00	-0.11	-	2.17
Electricity plants	-37.23	-	-4.96	-12.84	-	-1.60	-21.95	-0.41	21.91	-	-57.09
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat. fuel/BKB/PB plants	-0.00	-	-	-	-	-	-	-	-	-	-0.00
Oil refineries	-	-51.12	48.73	-	-	-	-	-	-	-	-2.39
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-0.99	-	-	-0.99
Energy industry own use	-	-	-2.35	-6.91	-	-	-	-	-0.85	-	-10.11
Losses	-	-	-	-0.21	-	-	-	-	-1.85	-	-2.06
TFC	11.15	1.20	71.29	14.75	-	-	-	56.14	19.20	-	173.73
INDUSTRY	11.14	-	10.19	11.34	-	-	-	6.13	6.22	-	45.01
Iron and steel	1.20	-	0.64	0.09	-	-	-	-	-	-	1.93
Chemical and petrochemical	-	-	0.68	2.82	-	-	-	-	-	-	3.51
Non-ferrous metals	2.04	-	-	-	-	-	-	-	-	-	2.04
Non-metallic minerals	6.15	-	0.94	-	-	-	-	-	-	-	7.09
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	0.07	-	-	-	-	-	-	-	0.07
Mining and quarrying	-	-	0.98	-	-	-	-	-	-	-	0.98
Food and tobacco	-	-	0.62	-	-	-	-	-	-	-	0.62
Paper, pulp and printing	1.75	-	-	-	-	-	-	-	-	-	1.75
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	0.32	-	-	-	-	-	-	-	0.32
Textile and leather	-	-	1.10	-	-	-	-	-	-	-	1.10
Non-specified	0.01	-	4.84	8.42	-	-	-	6.13	6.22	-	25.62
TRANSPORT	-	-	47.47	0.01	-	-	-	1.85	-	-	49.34
Domestic aviation	-	-	2.92	-	-	-	-	-	-	-	2.92
Road	-	-	41.83	0.01	-	-	-	1.85	-	-	43.70
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	2.72	-	-	-	-	-	-	-	2.72
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	0.01	-	11.61	0.19	-	-	-	48.16	12.98	-	72.95
Residential	-	-	8.24	0.02	-	-	-	47.96	7.92	-	64.14
Comm. and public services	0.01	-	0.87	0.17	-	-	-	0.19	4.86	-	6.09
Agriculture/forestry	-	-	2.23	-	-	-	-	-	0.21	-	2.44
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	0.28	-	-	-	-	-	-	-	0.28
NON-ENERGY USE	-	1.20	2.02	3.21	-	-	-	-	-	-	6.43
in industry/transf./energy	-	1.20	2.02	3.21	-	-	-	-	-	-	6.43
of which: chem./petrochem.	-	1.20	1.51	3.21	-	-	-	-	-	-	5.91
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - TWh	147.88	-	19.41	55.32	-	18.63	12.80	0.83	-	-	254.87
Electricity plants	147.88	-	19.41	55.32	-	18.63	12.80	0.83	-	-	254.87
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - PJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Indonesia

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	291.43	39.23	..	63.04	..	1.45	0.02	..	..	..	..
Imports	3.68	..	..	-	..	-	..	..	..	..	..
Exports	-242.07	..	..	-23.50	..	-	..	..	..	..	..
Intl. marine bunkers	..	..	..	..	..	..	..	..	..	..	..
Intl. aviation bunkers	..	..	..	..	..	..	..	..	..	..	..
Stock changes	..	..	..	..	..	-	..	..	..	..	..
TPES	53.04	..	..	35.74	..	1.45	0.02	..	..	..	..
Electricity and Heat Output											
Elec. generated - TWh	..	..	..	..	..	16.83	0.19	..	..	..	267.12
Heat generated - PJ	..	..	..	..	..	..	..	..	..	..	..

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	94.9	125.1	168.6	237.5	378.4	434.4	448.4	..
Net imports (Mtoe)	-50.8	-68.1	-69.1	-81.3	-170.6	-203.3	-201.4	..
Total primary energy supply (Mtoe)	38.2	55.7	98.7	155.7	206.3	229.7	244.1	..
Net oil imports (Mtoe)	-50.8	-58.1	-40.4	-13.2	20.5	28.3	37.1	..
Oil supply (Mtoe)	10.7	20.2	33.4	57.9	67.4	69.6	75.6	..
Electricity consumption (TWh) ¹	2.0	6.8	29.5	82.6	153.8	225.9	234.5	..
GDP (billion 2010 USD)	109.8	181.5	309.8	453.4	755.1	1037.9	1090.5	..
GDP PPP (billion 2010 USD)	291.3	481.8	822.2	1203.3	2004.0	2754.4	2894.0	..
Population (millions)	124.24	147.49	181.44	211.54	242.52	261.12	263.99	..
Industrial production index (2010=100)	..	..	..	..	..	..	..	..
Total self-sufficiency ²	2.49	2.24	1.71	1.53	1.83	1.89	1.84	..
Coal self-sufficiency ²	1.11	1.10	1.65	3.79	5.85	5.75	5.43	5.49
Oil self-sufficiency ²	6.28	3.93	2.24	1.24	0.72	0.61	0.54	..
Natural gas self-sufficiency ²	1.00	3.02	2.66	2.30	1.93	1.65	1.61	1.76
TPES/GDP (toe per thousand 2010 USD)	0.35	0.31	0.32	0.34	0.27	0.22	0.22	..
TPES/GDP PPP (toe per thousand 2010 USD)	0.13	0.12	0.12	0.13	0.10	0.08	0.08	..
TPES/population (toe per capita)	0.31	0.38	0.54	0.74	0.85	0.88	0.92	..
Net oil imports/GDP (toe per thousand 2010 USD)	-0.46	-0.32	-0.13	-0.03	0.03	0.03	0.03	..
Oil supply/GDP (toe per thousand 2010 USD)	0.10	0.11	0.11	0.13	0.09	0.07	0.07	..
Oil supply/population (toe per capita)	0.09	0.14	0.18	0.27	0.28	0.27	0.29	..
Share of renewables in TPES	0.71	0.55	0.47	0.38	0.33	0.34	0.33	..
Share of renewables in electricity generation	0.44	0.18	0.21	0.16	0.16	0.13	0.13	..
TFC/GDP (toe per thousand 2010 USD)	0.31	0.27	0.26	0.27	0.19	0.16	0.16	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.12	0.10	0.10	0.10	0.07	0.06	0.06	..
TFC/population (toe per capita)	0.28	0.34	0.44	0.57	0.58	0.63	0.66	..
Elect. cons./GDP (kWh per 2010 USD)	0.02	0.04	0.10	0.18	0.20	0.22	0.22	..
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.01	0.01	0.04	0.07	0.08	0.08	0.08	..
Elect. cons./population (kWh per capita)	16	46	163	390	634	865	888	..
Industry cons. ³ /industrial production (2010=100)	..	..	..	..	..	..	..	..
Industry oil cons. ³ /industrial production (2010=100)	..	..	..	..	..	..	..	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

Morocco

Figure 1. Energy production

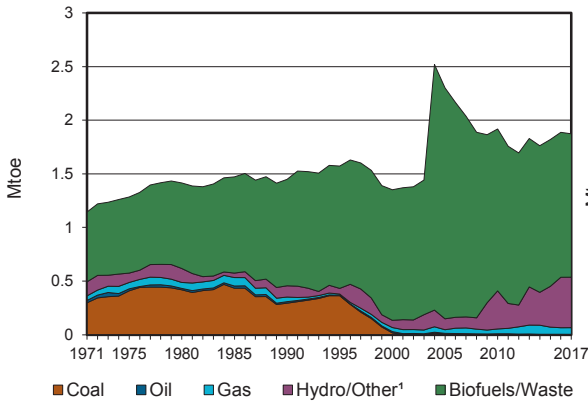


Figure 2. Total primary energy supply²

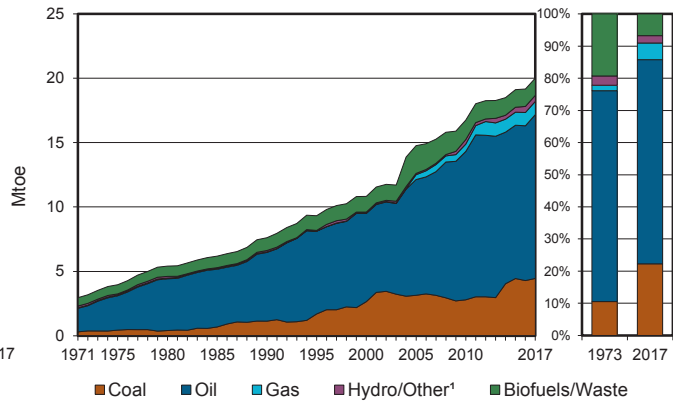


Figure 3. Energy self-sufficiency

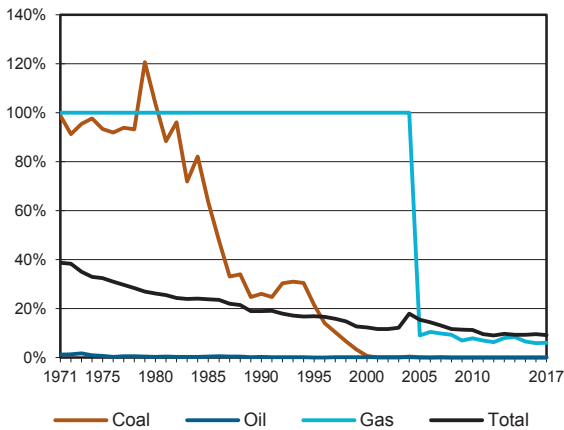


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

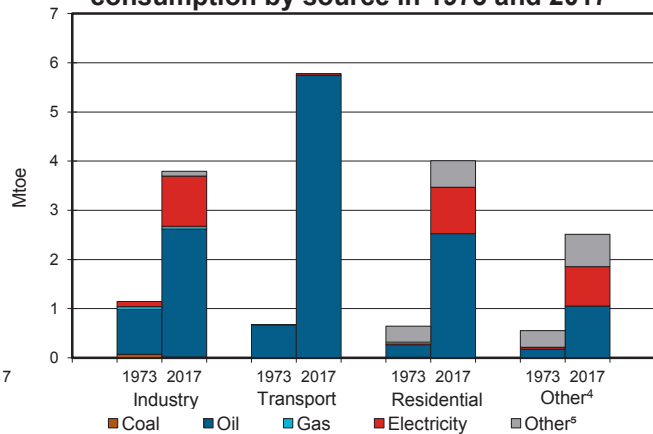


Figure 5. Electricity generation by source

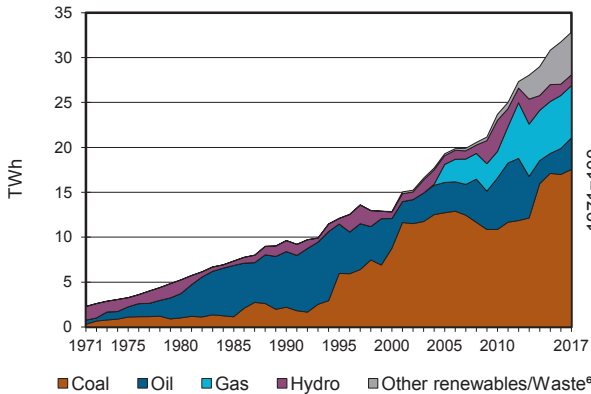
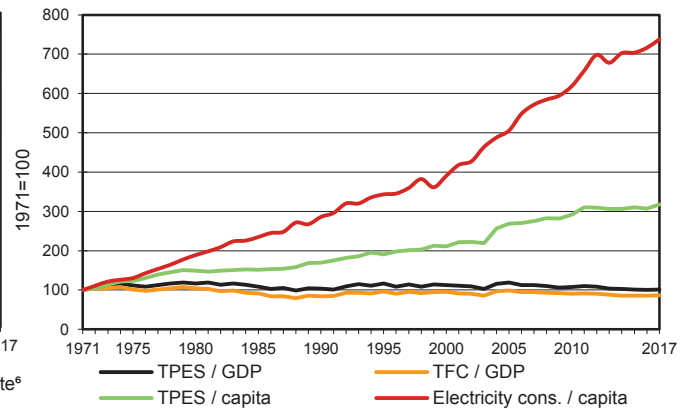


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Morocco

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	0.00	-	0.06	-	0.10	0.37	1.34	-	-	1.87
Imports	4.49	-	13.57	0.96	-	-	-	-	0.52	-	19.54
Exports	-	-	-	-	-	-	-	-	-0.01	-	-0.01
Intl. marine bunkers	-	-	-0.13	-	-	-	-	-	-	-	-0.13
Intl. aviation bunkers	-	-	-0.72	-	-	-	-	-	-	-	-0.72
Stock changes	-0.04	-	0.01	-	-	-	-	-	-	-	-0.03
TPES	4.45	0.00	12.72	1.03	-	0.10	0.37	1.34	0.51	-	20.51
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-0.00	0.03	-0.00	-	-	-	-	-	-	0.02
Electricity plants	-4.43	-	-0.84	-0.96	-	-0.10	-0.37	-	2.82	-	-3.88
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat. fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-0.03	-	-	-0.03
Energy industry own use	-	-	-	-	-	-	-	-	-0.02	-	-0.02
Losses	-	-	-	-	-	-	-	-	-0.52	-	-0.52
TFC	0.02	-	11.92	0.06	-	-	-	1.30	2.79	-	16.09
INDUSTRY	0.02	-	2.11	0.06	-	-	-	0.10	1.02	-	3.31
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	0.07	-	-	-	-	0.01	0.09	-	0.17
Non-ferrous metals	0.00	-	0.07	-	-	-	-	0.00	0.12	-	0.20
Non-metallic minerals	-	-	1.15	0.03	-	-	-	0.09	0.20	-	1.46
Transport equipment	-	-	0.00	-	-	-	-	-	0.02	-	0.02
Machinery	-	-	0.00	-	-	-	-	-	0.05	-	0.05
Mining and quarrying	-	-	0.41	0.02	-	-	-	-	0.24	-	0.68
Food and tobacco	0.02	-	0.23	-	-	-	-	0.00	0.15	-	0.40
Paper, pulp and printing	-	-	0.03	0.02	-	-	-	-	0.03	-	0.07
Wood and wood products	-	-	0.00	-	-	-	-	0.00	0.00	-	0.00
Construction	-	-	0.06	-	-	-	-	0.00	0.03	-	0.08
Textile and leather	-	-	0.06	-	-	-	-	0.00	0.07	-	0.13
Non-specified	-	-	0.02	-	-	-	-	-	0.02	-	0.04
TRANSPORT	-	-	5.74	-	-	-	-	-	0.03	-	5.78
Domestic aviation	-	-	0.03	-	-	-	-	-	-	-	0.03
Road	-	-	5.71	-	-	-	-	-	-	-	5.71
Rail	-	-	0.01	-	-	-	-	-	0.03	-	0.04
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	3.58	-	-	-	-	1.20	1.74	-	6.52
Residential	-	-	2.52	-	-	-	-	0.54	0.94	-	4.01
Comm. and public services	-	-	0.15	-	-	-	-	0.66	0.48	-	1.29
Agriculture/forestry	-	-	0.90	-	-	-	-	-	0.32	-	1.22
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	0.48	-	-	-	-	-	-	-	0.48
in industry/transf./energy	-	-	0.48	-	-	-	-	-	-	-	0.48
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - TWh	17.55	-	3.49	5.84	-	1.18	3.45	-	-	1.30	32.81
Electricity plants	17.55	-	3.49	5.84	-	1.18	3.45	-	-	1.30	32.81
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - PJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Morocco

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	..	0.00	..	0.06	..	..	..	..	..	..	..
Imports	5.01	..	..	0.97	..	..	..	..	..	..	..
Exports	..	..	..	..	..	..	..	..	..	..	..
Intl. marine bunkers	..	..	..	..	..	..	..	..	..	..	..
Intl. aviation bunkers	..	..	..	..	..	..	..	..	..	..	..
Stock changes	..	..	..	..	..	..	..	..	..	..	..
TPES	5.01	..	..	1.03	..	..	..	..	..	..	..
Electricity and Heat Output											
Elec. generated - TWh	..	..	..	..	..	..	..	..	..	..	..
Heat generated - PJ	..	..	..	..	..	..	..	..	..	..	..

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	1.2	1.4	1.5	1.4	1.9	1.9	1.9	..
Net imports (Mtoe)	2.4	4.0	6.5	9.9	16.4	18.6	19.5	..
Total primary energy supply (Mtoe)	3.5	5.4	7.6	11.0	17.1	19.6	20.5	..
Net oil imports (Mtoe)	2.4	4.0	5.7	7.1	12.7	12.7	13.6	..
Oil supply (Mtoe)	2.3	4.0	5.3	6.9	11.5	12.0	12.7	..
Electricity consumption (TWh) ¹	2.6	4.7	8.9	14.1	25.1	31.6	33.0	..
GDP (billion 2010 USD)	18.4	27.2	43.2	57.5	93.2	114.7	119.4	..
GDP PPP (billion 2010 USD)	40.9	60.6	96.2	128.1	207.6	255.4	265.8	..
Population (millions)	17.05	20.02	24.88	28.85	32.41	35.28	35.74	..
Industrial production index (2010=100)	..	..	..	..	..	..	..	..
Total self-sufficiency ²	0.35	0.26	0.19	0.12	0.11	0.10	0.09	..
Coal self-sufficiency ²	0.95	1.04	0.26	0.01	-	-	-	-
Oil self-sufficiency ²	0.02	0.00	0.00	0.00	0.00	0.00	0.00	..
Natural gas self-sufficiency ²	1.00	1.00	1.00	1.00	0.08	0.06	0.06	0.06
TPES/GDP (toe per thousand 2010 USD)	0.19	0.20	0.18	0.19	0.18	0.17	0.17	..
TPES/GDP PPP (toe per thousand 2010 USD)	0.09	0.09	0.08	0.09	0.08	0.08	0.08	..
TPES/population (toe per capita)	0.21	0.27	0.31	0.38	0.53	0.56	0.57	..
Net oil imports/GDP (toe per thousand 2010 USD)	0.13	0.15	0.13	0.12	0.14	0.11	0.11	..
Oil supply/GDP (toe per thousand 2010 USD)	0.13	0.15	0.12	0.12	0.12	0.10	0.11	..
Oil supply/population (toe per capita)	0.14	0.20	0.21	0.24	0.36	0.34	0.36	..
Share of renewables in TPES	0.22	0.17	0.14	0.12	0.11	0.09	0.09	..
Share of renewables in electricity generation	0.42	0.29	0.13	0.06	0.17	0.15	0.14	..
TFC/GDP (toe per thousand 2010 USD)	0.17	0.16	0.13	0.15	0.14	0.13	0.14	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.07	0.07	0.06	0.07	0.06	0.06	0.06	..
TFC/population (toe per capita)	0.18	0.22	0.23	0.30	0.41	0.44	0.45	..
Elect. cons./GDP (kWh per 2010 USD)	0.14	0.17	0.21	0.25	0.27	0.28	0.28	..
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.06	0.08	0.09	0.11	0.12	0.12	0.12	..
Elect. cons./population (kWh per capita)	152	237	358	489	774	897	924	..
Industry cons. ³ /industrial production (2010=100)	..	..	..	..	..	..	..	..
Industry oil cons. ³ /industrial production (2010=100)	..	..	..	..	..	..	..	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

Singapore

Figure 1. Energy production

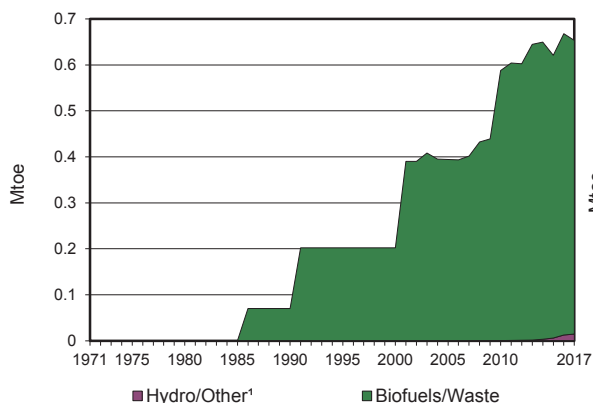


Figure 2. Total primary energy supply²

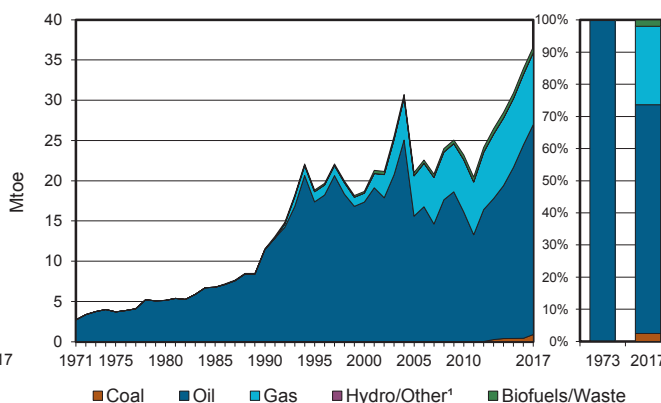


Figure 3. Energy self-sufficiency

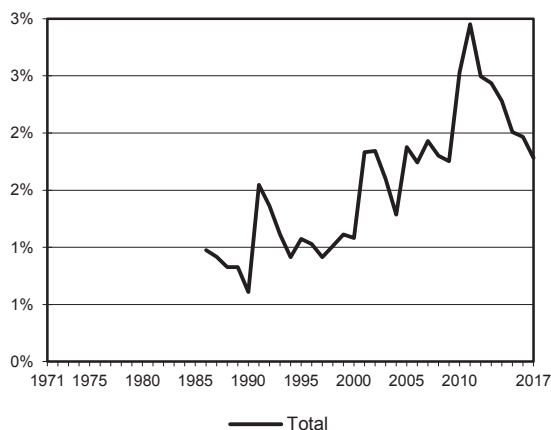


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

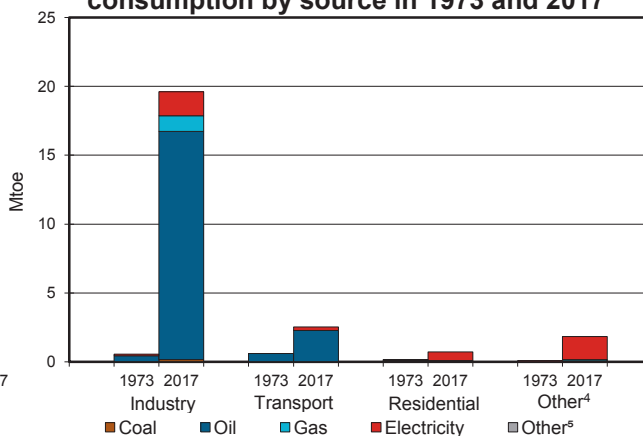


Figure 5. Electricity generation by source

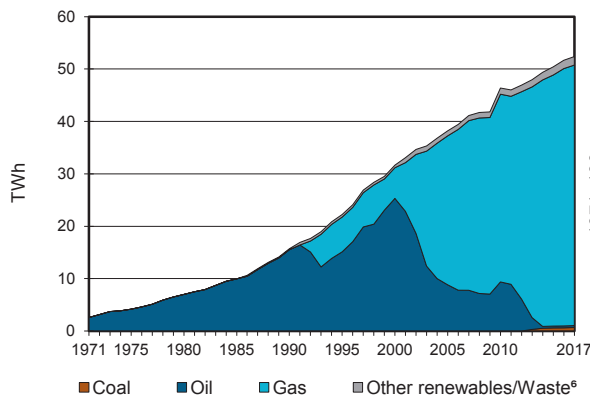
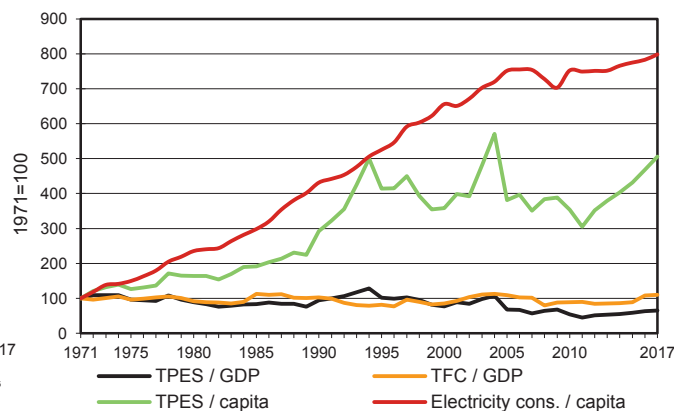


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Singapore

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	-	0.01	0.64	-	-	0.65
Imports	0.90	57.95	127.07	8.88	-	-	-	0.07	-	-	194.88
Exports	-	-0.79	-100.84	-	-	-	-	-	-	-	-101.63
Intl. marine bunkers	-	-	-48.77	-	-	-	-	-	-	-	-48.77
Intl. aviation bunkers	-	-	-8.30	-	-	-	-	-	-	-	-8.30
Stock changes	-	0.14	-0.37	0.05	-	-	-	-	-	-	-0.18
TPES	0.90	57.31	-31.21	8.93	-	-	0.01	0.71	-	-	36.66
Transfers	-	7.29	-7.09	-	-	-	-	-	-	-	0.20
Statistical differences	-0.43	-6.15	3.75	-0.05	-	-	-	-	-	-	-2.88
Electricity plants	-0.30	-	-0.17	-7.57	-	-	-0.01	-0.71	4.50	-	-4.26
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat. fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-58.45	55.84	-	-	-	-	-	-	-	-2.61
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-	-	-2.18	-0.01	-	-	-	-	-0.18	-	-2.37
Losses	-	-	-	-	-	-	-	-	-0.06	-	-0.06
TFC	0.17	-	18.94	1.29	-	-	-	-	4.27	-	24.67
INDUSTRY	0.17	-	3.79	1.15	-	-	-	-	1.73	-	6.84
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	2.99	-	-	-	-	-	-	-	2.99
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper, pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	0.01	-	-	-	-	0.04	-	0.05
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	0.17	-	0.79	1.14	-	-	-	-	1.69	-	3.80
TRANSPORT	-	-	2.28	0.01	-	-	-	-	0.24	-	2.53
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	2.21	0.01	-	-	-	-	-	-	2.21
Rail	-	-	-	-	-	-	-	-	0.24	-	0.24
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	0.08	-	-	-	-	-	-	-	0.08
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	0.10	0.14	-	-	-	-	2.30	-	2.54
Residential	-	-	0.03	0.06	-	-	-	-	0.63	-	0.71
Comm. and public services	-	-	0.08	0.08	-	-	-	-	1.65	-	1.81
Agriculture/forestry	-	-	-	-	-	-	-	-	-	-	-
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	0.00	-	-	-	-	0.02	-	0.03
NON-ENERGY USE	-	-	12.77	-	-	-	-	-	-	-	12.77
in industry/transf./energy	-	-	12.77	-	-	-	-	-	-	-	12.77
of which: chem./petrochem.	-	-	12.20	-	-	-	-	-	-	-	12.20
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - TWh	0.68	-	0.37	49.72	-	-	0.17	1.45	-	-	52.39
Electricity plants	0.68	-	0.37	49.72	-	-	0.17	1.45	-	-	52.39
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - PJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Singapore

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	..	-	..	-	..	..	..	..	..	..	..
Imports	0.66	..	..	10.87	..	..	..	..	..	..	..
Exports	..	..	..	-	..	..	..	..	..	..	..
Intl. marine bunkers	..	..	..	..	..	..	..	..	..	..	..
Intl. aviation bunkers	..	..	..	..	..	..	..	..	..	..	..
Stock changes	..	..	..	..	..	..	..	..	..	..	..
TPES	0.66	..	..	10.87	..	..	..	..	..	..	..
Electricity and Heat Output											
Elec. generated - TWh	0.68	-	0.37	50.16	-	-	0.23	..	-	-	52.90
Heat generated - PJ	-	-	-	-	..	..	..	..	..	..	-

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	-	-	0.1	0.2	0.6	0.7	0.7	..
Net imports (Mtoe)	12.3	8.0	24.5	40.8	67.2	87.2	93.3	..
Total primary energy supply (Mtoe)	3.8	5.1	11.5	18.7	23.2	33.9	36.7	..
Net oil imports (Mtoe)	12.2	8.0	24.5	39.7	60.7	78.0	83.4	..
Oil supply (Mtoe)	3.8	5.1	11.4	17.4	16.1	24.0	26.1	..
Electricity consumption (TWh) ¹	3.5	6.6	15.2	30.5	44.1	50.7	51.7	..
GDP (billion 2010 USD)	19.1	32.1	67.6	134.5	236.4	299.2	310.0	..
GDP PPP (billion 2010 USD)	29.0	48.7	102.5	204.1	358.7	453.9	470.3	..
Population (millions)	2.19	2.41	3.05	4.03	5.08	5.61	5.61	..
Industrial production index (2010=100)	..	..	..	..	..	..	..	..
Total self-sufficiency ²	-	-	0.01	0.01	0.03	0.02	0.02	..
Coal self-sufficiency ²	-	-	-	-	-	-	-	-
Oil self-sufficiency ²	-	-	-	-	-	-	-	-
Natural gas self-sufficiency ²	-	-	-	-	-	-	-	-
TPES/GDP (toe per thousand 2010 USD)	0.20	0.16	0.17	0.14	0.10	0.11	0.12	..
TPES/GDP PPP (toe per thousand 2010 USD)	0.13	0.11	0.11	0.09	0.06	0.07	0.08	..
TPES/population (toe per capita)	1.71	2.13	3.78	4.63	4.57	6.05	6.53	..
Net oil imports/GDP (toe per thousand 2010 USD)	0.64	0.25	0.36	0.30	0.26	0.26	0.27	..
Oil supply/GDP (toe per thousand 2010 USD)	0.20	0.16	0.17	0.13	0.07	0.08	0.08	..
Oil supply/population (toe per capita)	1.71	2.13	3.75	4.31	3.18	4.28	4.65	..
Share of renewables in TPES	0.00	0.00	0.00	0.01	0.01	0.01	0.01	..
Share of renewables in electricity generation	-	-	0.01	0.01	0.01	0.02	0.02	..
TFC/GDP (toe per thousand 2010 USD)	0.07	0.07	0.07	0.06	0.07	0.08	0.08	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.05	0.04	0.05	0.04	0.04	0.05	0.05	..
TFC/population (toe per capita)	0.64	0.88	1.64	2.06	3.01	4.17	4.40	..
Elect. cons./GDP (kWh per 2010 USD)	0.18	0.20	0.22	0.23	0.19	0.17	0.17	..
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.12	0.14	0.15	0.15	0.12	0.11	0.11	..
Elect. cons./population (kWh per capita)	1599	2718	4983	7575	8688	9041	9219	..
Industry cons. ³ /industrial production (2010=100)	..	..	..	..	..	..	..	..
Industry oil cons. ³ /industrial production (2010=100)	..	..	..	..	..	..	..	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

South Africa

Figure 1. Energy production

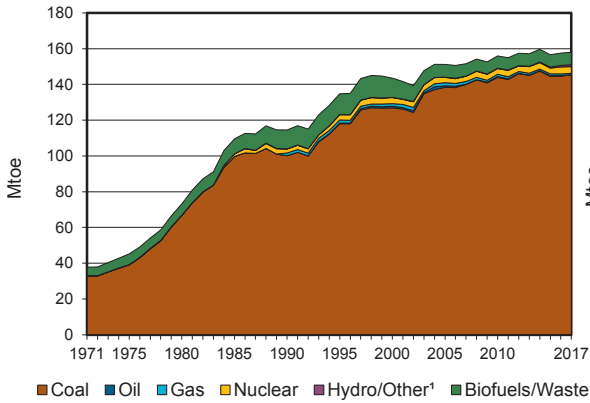


Figure 2. Total primary energy supply²

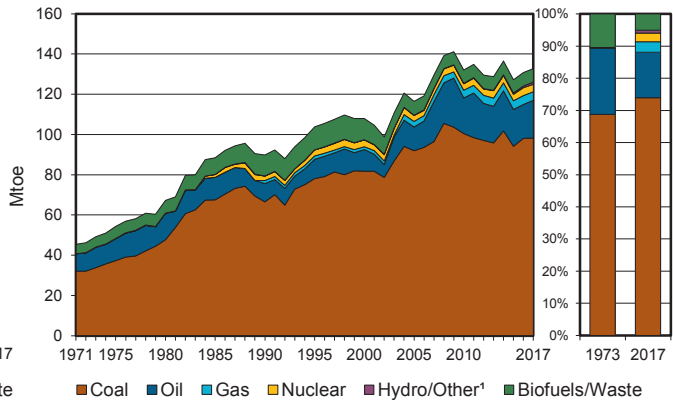


Figure 3. Energy self-sufficiency

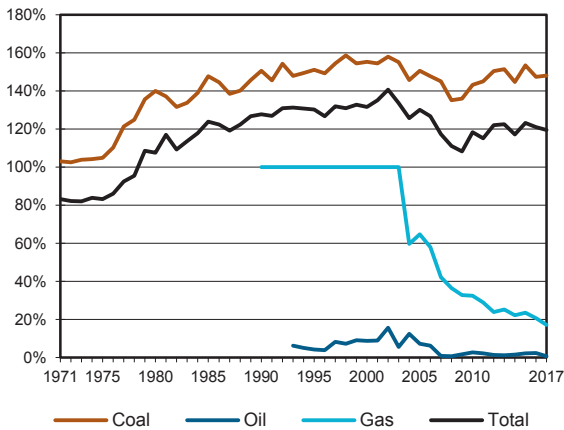


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

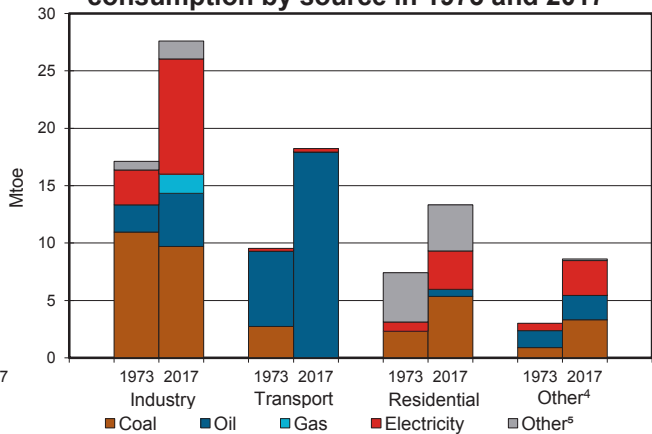


Figure 5. Electricity generation by source

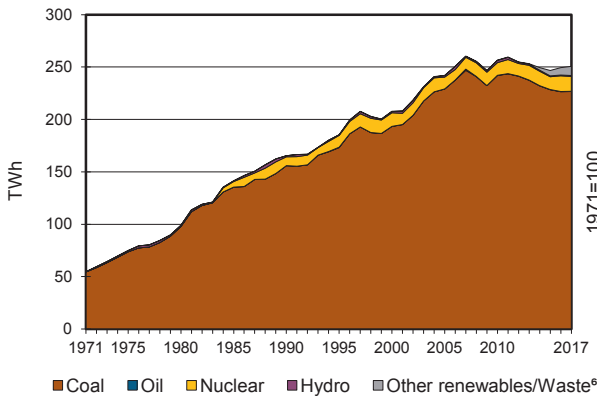
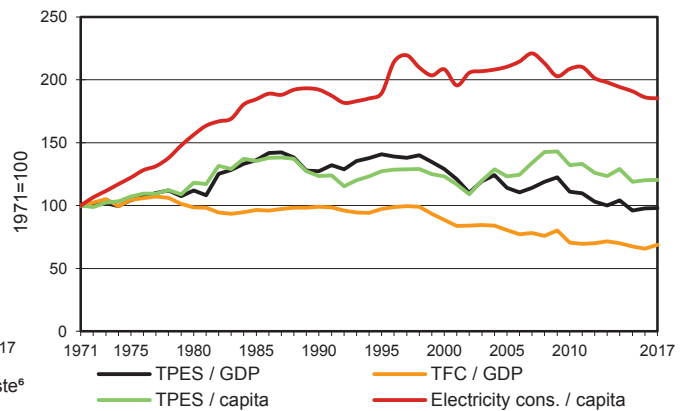


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

South Africa

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	145.39	0.13	-	0.74	3.70	0.07	1.00	6.96	-	-	157.99
Imports	0.43	16.68	9.72	3.53	-	-	-	-	0.74	-	31.09
Exports	-47.59	-	-3.97	-	-	-	-	-0.23	-1.31	-	-53.10
Intl. marine bunkers	-	-	-1.98	-	-	-	-	-	-	-	-1.98
Intl. aviation bunkers	-	-	-2.02	-	-	-	-	-	-	-	-2.02
Stock changes	-	0.21	-	-	-	-	-	-	-	-	0.21
TPES	98.23	17.02	1.75	4.26	3.70	0.07	1.00	6.73	-0.57	-	132.19
Transfers	-	-5.07	5.43	-	-	-	-	-	-	-	0.36
Statistical differences	-1.97	1.60	0.80	-	-	-	-	-	-0.19	-	0.24
Electricity plants	-56.90	-	-0.05	-	-3.70	-0.07	-0.84	-0.09	21.55	-	-40.09
CHP plants	-	-	-	-	-	-	-	-0.01	0.00	-	-0.00
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-0.74	-	-	-	-	-	-	-	-	-	-0.74
Gas works	-1.36	-	-	-	-	-	-	-	-	-	-1.36
Coke/pat. fuel/BKB/PB plants	-0.72	-	-	-	-	-	-	-	-	-	-0.72
Oil refineries	-	-18.62	18.27	-	-	-	-	-	-	-	-0.36
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-5.07	5.07	-	-2.60	-	-	-	-	-	-	-2.60
Other transformation	-	-	-	-	-	-	-	-1.04	-	-	-1.04
Energy industry own use	-13.09	-	-0.88	-	-	-	-0.00	-	-2.23	-	-16.21
Losses	-	-	-	-	-	-	-	-	-1.84	-	-1.84
TFC	18.37	-	25.31	1.67	-	-	0.16	5.59	16.72	-	67.81
INDUSTRY	8.53	-	2.10	1.66	-	-	-	1.57	10.04	-	23.90
Iron and steel	2.92	-	-	0.20	-	-	-	-	0.33	-	3.44
Chemical and petrochemical	0.12	-	-	0.93	-	-	-	-	0.97	-	2.02
Non-ferrous metals	1.13	-	-	0.01	-	-	-	-	1.48	-	2.62
Non-metallic minerals	1.06	-	-	0.32	-	-	-	-	0.22	-	1.60
Transport equipment	-	-	-	0.01	-	-	-	-	0.00	-	0.02
Machinery	0.01	-	-	0.02	-	-	-	-	0.00	-	0.04
Mining and quarrying	0.04	-	1.58	-	-	-	-	-	2.62	-	4.24
Food and tobacco	0.02	-	-	0.06	-	-	-	0.05	0.06	-	0.20
Paper, pulp and printing	0.08	-	-	0.02	-	-	-	-	0.14	-	0.23
Wood and wood products	-	-	-	-	-	-	-	-	0.02	-	0.02
Construction	-	-	0.10	-	-	-	-	-	0.01	-	0.11
Textile and leather	-	-	-	0.00	-	-	-	-	0.01	-	0.01
Non-specified	3.15	-	0.42	0.09	-	-	-	1.52	4.18	-	9.35
TRANSPORT	-	-	17.92	0.00	-	-	-	-	0.32	-	18.25
Domestic aviation	-	-	0.75	-	-	-	-	-	-	-	0.75
Road	-	-	17.03	0.00	-	-	-	-	0.00	-	17.03
Rail	-	-	0.14	-	-	-	-	-	0.27	-	0.42
Pipeline transport	-	-	-	-	-	-	-	-	0.01	-	0.01
Domestic navigation	-	-	0.00	-	-	-	-	-	-	-	0.00
Non-specified	-	-	-	-	-	-	-	-	0.04	-	0.04
OTHER	8.66	-	2.75	0.00	-	-	0.16	4.02	6.36	-	21.95
Residential	5.35	-	0.63	-	-	-	-	4.02	3.32	-	13.33
Comm. and public services	2.66	-	0.15	0.00	-	-	-	-	2.42	-	5.23
Agriculture/forestry	0.52	-	1.15	-	-	-	-	-	0.49	-	2.16
Fishing	-	-	0.06	-	-	-	-	-	-	-	0.06
Non-specified	0.12	-	0.77	-	-	-	0.16	-	0.13	-	1.18
NON-ENERGY USE	1.18	-	2.53	-	-	-	-	-	-	-	3.71
in industry/transf./energy	1.18	-	2.53	-	-	-	-	-	-	-	3.71
of which: chem./petrochem.	1.18	-	-	-	-	-	-	-	-	-	1.18
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - TWh	226.71	-	0.18	-	14.19	0.87	8.40	0.30	-	-	250.66
Electricity plants	226.71	-	0.18	-	14.19	0.87	8.40	0.26	-	-	250.62
CHP plants	-	-	-	-	-	-	-	0.04	-	-	0.04
Heat generated - PJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

South Africa

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	146.57	0.13	..	0.74	..	..	..	..	..	..	..
Imports	..	..	..	3.52	..	..	..	..	..	..	..
Exports	-46.42	..	..	..	..	..	..	..	..	..	..
Intl. marine bunkers	..	..	..	..	..	..	..	..	..	..	..
Intl. aviation bunkers	..	..	..	..	..	..	..	..	..	..	..
Stock changes	..	..	..	..	..	..	..	..	..	..	..
TPES	100.15	..	..	4.29	..	..	..	..	..	..	..
Electricity and Heat Output											
Elec. generated - TWh	..	..	..	..	..	..	..	..	..	..	..
Heat generated - PJ	..	..	..	..	..	..	..	..	..	..	..

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	40.4	73.2	114.5	143.5	155.9	157.5	158.0	..
Net imports (Mtoe)	11.7	-3.2	-22.6	-31.8	-18.3	-22.9	-22.0	..
Total primary energy supply (Mtoe)	49.2	68.0	89.7	109.0	131.8	130.3	132.2	..
Net oil imports (Mtoe)	13.0	15.1	11.3	13.4	23.0	20.8	22.4	..
Oil supply (Mtoe)	10.1	13.2	9.1	10.8	17.7	16.8	18.8	..
Electricity consumption (TWh) ¹	59.9	100.5	156.0	206.0	232.7	225.4	227.1	..
GDP (billion 2010 USD)	152.8	192.0	223.0	267.0	375.4	421.3	426.8	..
GDP PPP (billion 2010 USD)	244.5	307.3	357.0	427.4	600.8	674.3	683.2	..
Population (millions)	24.83	29.76	37.56	45.73	51.59	56.02	56.72	..
Industrial production index (2010=100)	..	..	..	..	..	..	..	..
Total self-sufficiency ²	0.82	1.08	1.28	1.32	1.18	1.21	1.20	..
Coal self-sufficiency ²	1.04	1.40	1.51	1.55	1.43	1.47	1.48	1.46
Oil self-sufficiency ²	-	-	-	0.09	0.03	0.02	0.01	..
Natural gas self-sufficiency ²	-	-	1.00	1.00	0.33	0.21	0.17	0.17
TPES/GDP (toe per thousand 2010 USD)	0.32	0.35	0.40	0.41	0.35	0.31	0.31	..
TPES/GDP PPP (toe per thousand 2010 USD)	0.20	0.22	0.25	0.26	0.22	0.19	0.19	..
TPES/population (toe per capita)	1.98	2.29	2.39	2.38	2.56	2.33	2.33	..
Net oil imports/GDP (toe per thousand 2010 USD)	0.09	0.08	0.05	0.05	0.06	0.05	0.05	..
Oil supply/GDP (toe per thousand 2010 USD)	0.07	0.07	0.04	0.04	0.05	0.04	0.04	..
Oil supply/population (toe per capita)	0.41	0.44	0.24	0.24	0.34	0.30	0.33	..
Share of renewables in TPES	0.11	0.09	0.12	0.10	0.05	0.06	0.06	..
Share of renewables in electricity generation	0.02	0.01	0.01	0.01	0.01	0.03	0.04	..
TFC/GDP (toe per thousand 2010 USD)	0.24	0.23	0.23	0.20	0.16	0.15	0.16	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.15	0.14	0.14	0.13	0.10	0.10	0.10	..
TFC/population (toe per capita)	1.49	1.47	1.36	1.19	1.18	1.14	1.20	..
Elect. cons./GDP (kWh per 2010 USD)	0.39	0.52	0.70	0.77	0.62	0.53	0.53	..
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.25	0.33	0.44	0.48	0.39	0.33	0.33	..
Elect. cons./population (kWh per capita)	2411	3377	4153	4504	4510	4023	4004	..
Industry cons. ³ /industrial production (2010=100)	..	..	..	..	..	..	..	..
Industry oil cons. ³ /industrial production (2010=100)	..	..	..	..	..	..	..	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

Thailand

Figure 1. Energy production

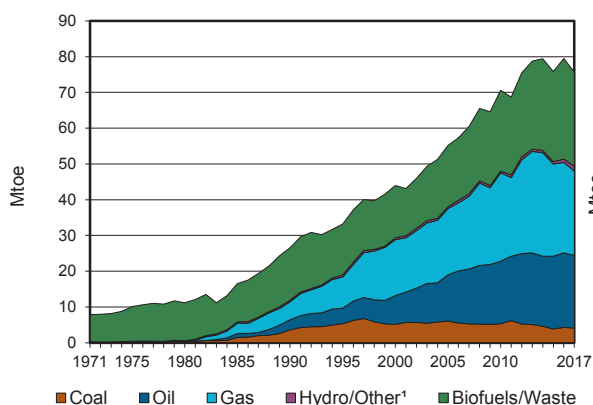


Figure 2. Total primary energy supply²

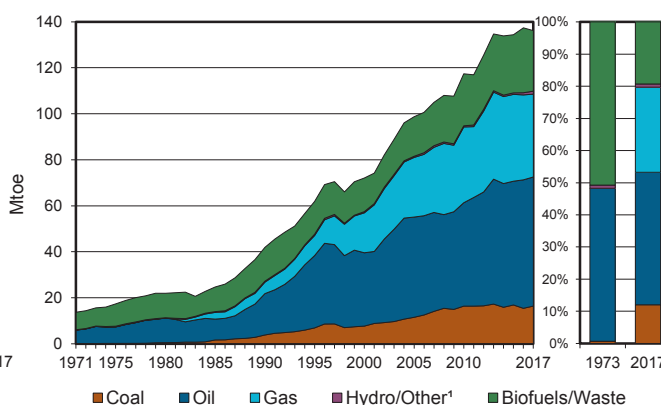


Figure 3. Energy self-sufficiency

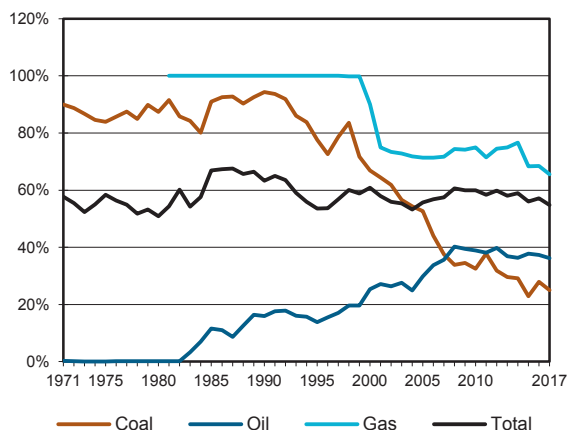


Figure 4. Breakdown of sectoral final consumption by source in 1973 and 2017³

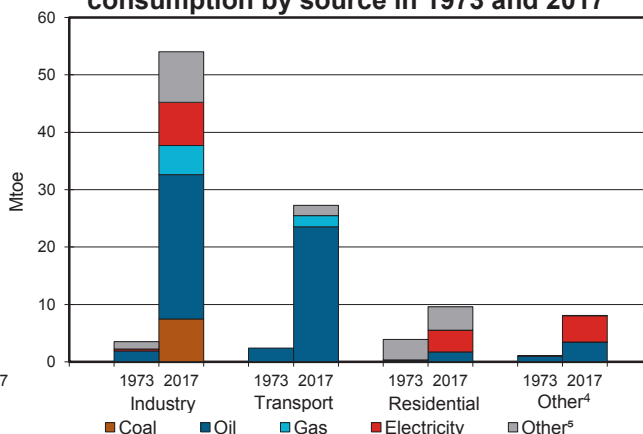


Figure 5. Electricity generation by source

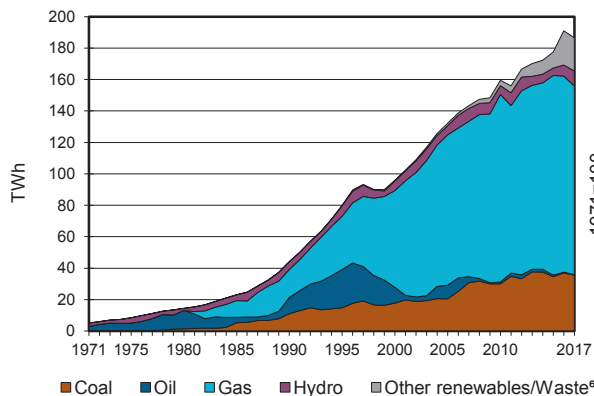
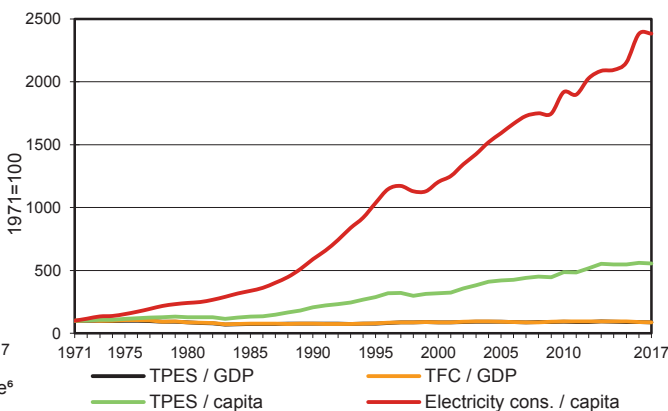


Figure 6. Selected indicators



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Includes non-energy use.
4. Includes commercial and public services, agriculture/forestry, fishing and non-specified.
5. Includes biofuels and waste, direct use of geothermal/solar thermal and heat produced in CHP/heat plants.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.

Thailand

2017

Million tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	4.11	20.32	-	23.62	-	0.82	0.50	26.29	-	-	75.65
Imports	14.77	46.67	6.99	12.39	-	-	-	0.07	2.10	-	83.00
Exports	-0.03	-1.72	-12.33	-	-	-	-	-0.02	-0.10	-	-14.19
Intl. marine bunkers	-	-	-1.18	-	-	-	-	-	-	-	-1.18
Intl. aviation bunkers	-	-	-4.42	-	-	-	-	-	-	-	-4.42
Stock changes	-2.46	6.36	-4.57	-	-	-	-	-0.04	-	-	-0.71
TPES	16.39	71.63	-15.51	36.01	-	0.82	0.50	26.30	2.01	-	138.15
Transfers	-	-7.58	7.88	-	-	-	-	-	-	-	0.29
Statistical differences	-0.01	-0.06	0.06	-1.08	-	-	-	-	-0.83	-	-1.92
Electricity plants	-8.87	-	-0.10	-21.99	-	-0.82	-0.49	-8.36	16.04	-	-24.59
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-0.01	-	-	-	-	-	-	-	-	-	-0.01
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat. fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-63.19	61.74	-	-	-	-	-	-	-	-1.46
Petrochemical plants	-	-0.00	-	-	-	-	-	-	-	-	-0.00
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-3.29	-	-	-3.29
Energy industry own use	-	-	-0.83	-5.91	-	-	-	-	-0.26	-	-7.00
Losses	-	-0.20	-	-	-	-	-	-	-1.02	-	-1.23
TFC	7.49	0.59	53.23	7.03	-	-	0.01	14.65	15.93	-	98.94
INDUSTRY	7.49	-	4.06	3.32	-	-	-	8.79	7.55	-	31.20
Iron and steel	0.02	-	0.37	0.35	-	-	-	-	0.77	-	1.51
Chemical and petrochemical	0.00	-	0.46	0.76	-	-	-	-	1.20	-	2.42
Non-ferrous metals	0.02	-	-	-	-	-	-	-	-	-	0.02
Non-metallic minerals	6.31	-	0.27	0.93	-	-	-	-	0.77	-	8.29
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	0.29	0.12	-	-	-	-	1.81	-	2.22
Mining and quarrying	-	-	0.02	-	-	-	-	-	-	-	0.02
Food and tobacco	0.39	-	0.91	0.14	-	-	-	4.41	1.51	-	7.35
Paper, pulp and printing	0.01	-	0.14	0.92	-	-	-	-	0.27	-	1.34
Wood and wood products	-	-	0.11	0.02	-	-	-	-	0.20	-	0.33
Construction	-	-	0.12	-	-	-	-	-	-	-	0.12
Textile and leather	0.00	-	0.17	0.03	-	-	-	-	0.77	-	0.97
Non-specified	0.73	-	1.21	0.05	-	-	-	4.38	0.25	-	6.62
TRANSPORT	-	-	23.52	1.96	-	-	-	1.78	0.02	-	27.27
Domestic aviation	-	-	0.96	-	-	-	-	-	-	-	0.96
Road	-	-	22.29	1.96	-	-	-	1.78	-	-	26.03
Rail	-	-	0.07	-	-	-	-	-	0.02	-	0.09
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	0.19	-	-	-	-	-	-	-	0.19
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	5.18	0.00	-	-	0.01	4.08	8.37	-	17.65
Residential	-	-	1.71	-	-	-	-	4.08	3.82	-	9.61
Comm. and public services	-	-	0.82	0.00	-	-	0.01	-	3.89	-	4.72
Agriculture/forestry	-	-	2.65	-	-	-	-	-	0.03	-	2.68
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	0.63	-	0.63
NON-ENERGY USE	-	0.59	20.48	1.75	-	-	-	-	-	-	22.81
in industry/transf./energy	-	0.59	20.48	1.75	-	-	-	-	-	-	22.81
of which: chem./petrochem.	-	0.59	16.98	1.75	-	-	-	-	-	-	19.32
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - TWh	35.60	-	0.30	120.01	-	9.53	5.65	15.44	-	-	186.55
Electricity plants	35.60	-	0.30	120.01	-	9.53	5.65	15.44	-	-	186.55
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - PJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Thailand

Provisional energy supply for 2018

Million tonnes of oil equivalent											
SUPPLY	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	3.72	19.37	..	23.00	..	..	..	..	..	..	..
Imports	15.64	..	..	12.63	..	..	..	..	..	..	..
Exports	-0.05	..	..	..	..	..	..	..	..	..	..
Intl. marine bunkers	..	..	..	..	..	..	..	..	..	..	..
Intl. aviation bunkers	..	..	..	..	..	..	..	..	..	..	..
Stock changes	-4.99	..	..	..	..	..	..	..	..	..	..
TPES	14.31	..	..	34.83	..	..	..	..	..	..	..
Electricity and Heat Output											
Elec. generated - TWh	..	..	..	..	..	..	..	..	..	..	..
Heat generated - PJ	..	..	..	..	..	..	..	..	..	..	..

For information on sources for provisional data, please refer to section 'Country notes and sources'.

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Key indicators

	1973	1980	1990	2000	2010	2016	2017	2018p
Energy production (Mtoe)	8.2	11.2	26.6	44.0	70.6	79.5	75.7	..
Net imports (Mtoe)	8.3	12.3	17.9	32.1	51.5	65.8	68.8	..
Total primary energy supply (Mtoe)	15.6	22.0	42.0	72.3	117.9	139.0	138.2	..
Net oil imports (Mtoe)	8.3	12.2	17.6	27.5	32.0	38.3	39.6	..
Oil supply (Mtoe)	7.4	10.7	18.0	31.9	45.0	55.9	56.1	..
Electricity consumption (TWh) ¹	6.5	13.8	40.1	91.2	155.1	197.3	198.0	..
GDP (billion 2010 USD)	41.3	66.5	141.6	217.7	341.1	407.0	422.9	..
GDP PPP (billion 2010 USD)	107.6	173.2	368.7	566.8	888.1	1059.7	1101.1	..
Population (millions)	40.17	47.39	56.58	62.96	67.21	68.86	69.04	..
Industrial production index (2010=100)	..	..	..	..	..	..	..	..
Total self-sufficiency ²	0.52	0.51	0.63	0.61	0.60	0.57	0.55	..
Coal self-sufficiency ²	0.87	0.87	0.94	0.67	0.33	0.28	0.25	0.26
Oil self-sufficiency ²	0.00	0.00	0.16	0.25	0.39	0.37	0.36	..
Natural gas self-sufficiency ²	-	-	1.00	0.90	0.75	0.68	0.66	0.66
TPES/GDP (toe per thousand 2010 USD)	0.38	0.33	0.30	0.33	0.35	0.34	0.33	..
TPES/GDP PPP (toe per thousand 2010 USD)	0.15	0.13	0.11	0.13	0.13	0.13	0.13	..
TPES/population (toe per capita)	0.39	0.46	0.74	1.15	1.75	2.02	2.00	..
Net oil imports/GDP (toe per thousand 2010 USD)	0.20	0.18	0.12	0.13	0.09	0.09	0.09	..
Oil supply/GDP (toe per thousand 2010 USD)	0.18	0.16	0.13	0.15	0.13	0.14	0.13	..
Oil supply/population (toe per capita)	0.18	0.23	0.32	0.51	0.67	0.81	0.81	..
Share of renewables in TPES	0.52	0.49	0.36	0.21	0.20	0.21	0.20	..
Share of renewables in electricity generation	0.27	0.09	0.11	0.07	0.06	0.15	0.16	..
TFC/GDP (toe per thousand 2010 USD)	0.26	0.23	0.20	0.23	0.25	0.24	0.23	..
TFC/GDP PPP (toe per thousand 2010 USD)	0.10	0.09	0.08	0.09	0.10	0.09	0.09	..
TFC/population (toe per capita)	0.27	0.32	0.51	0.80	1.26	1.41	1.43	..
Elect. cons./GDP (kWh per 2010 USD)	0.16	0.21	0.28	0.42	0.45	0.48	0.47	..
Elect. cons./GDP PPP (kWh per 2010 USD PPP)	0.06	0.08	0.11	0.16	0.18	0.19	0.18	..
Elect. cons./population (kWh per capita)	162	291	709	1448	2307	2864	2868	..
Industry cons. ³ /industrial production (2010=100)	..	..	..	..	..	..	..	..
Industry oil cons. ³ /industrial production (2010=100)	..	..	..	..	..	..	..	..

1. Electricity consumption equals domestic supply less losses.

2. Production divided by TPES.

3. Includes non-energy use.

OTHER NON-OECD COUNTRIES

Albania

Figure 1. Energy production

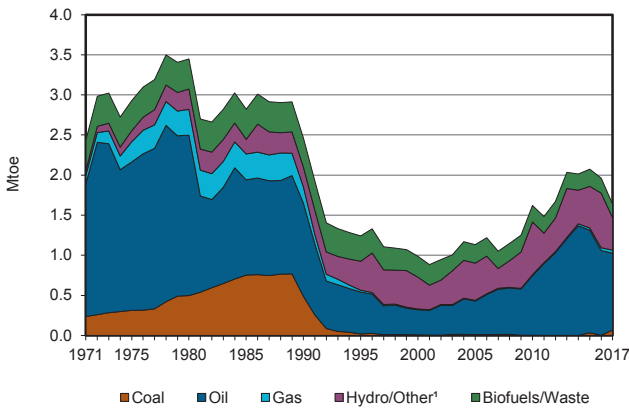


Figure 2. Total primary energy supply²

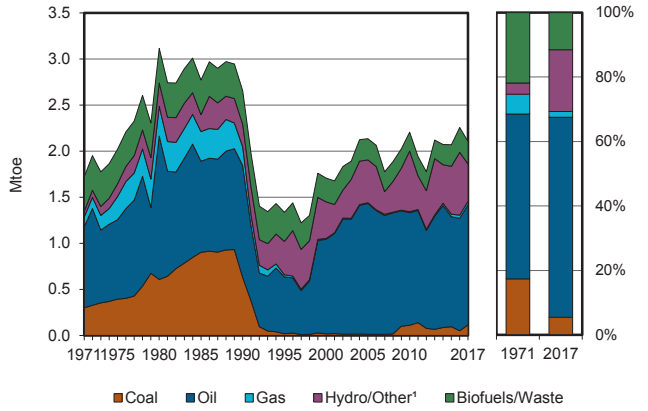


Figure 3. Energy self-sufficiency³

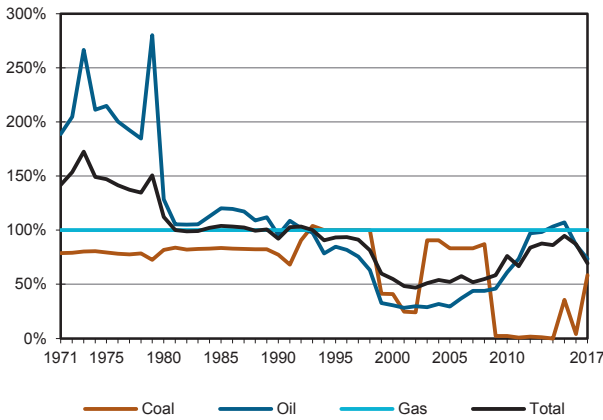


Figure 4. Oil products demand⁴

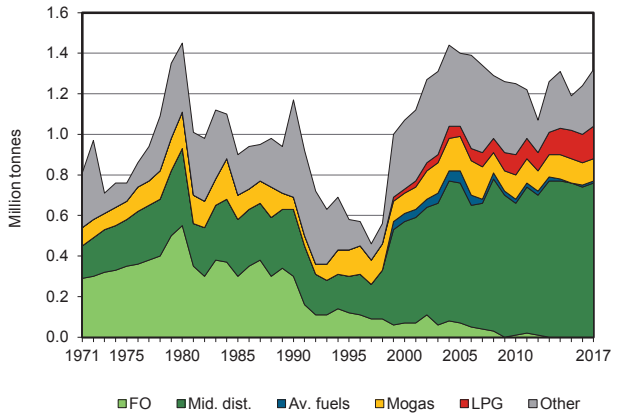


Figure 5. Electricity generation by source

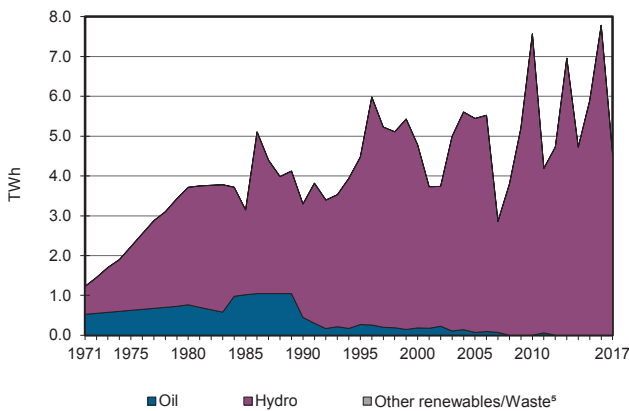
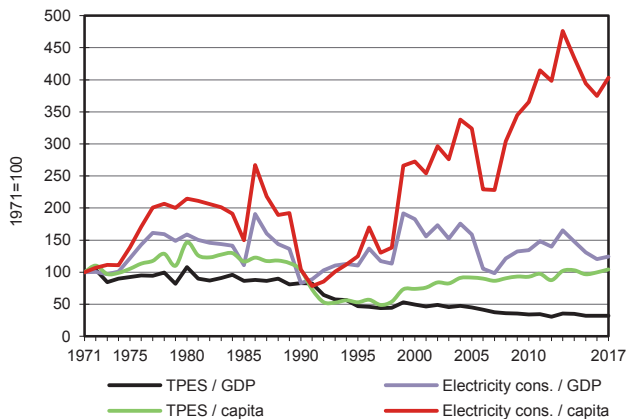


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Albania

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	68	959	-	37	-	389	13	168	-	-	1634
Imports	48	-	1168	-	-	-	-	93	251	-	1560
Exports	-	-488	-145	-	-	-	-	-17	-	-	-650
Intl. marine bunkers	-	-	-37	-	-	-	-	-	-	-	-37
Intl. aviation bunkers	-	-	-7	-	-	-	-	-	-	-	-7
Stock changes	-	42	-188	-	-	-	-	-	-	-	-146
TPES	116	513	791	37	-	389	13	243	251	-	2354
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	-4	-	-	-	-	-	-0	-	-4
Electricity plants	-	-	-	-	-	-389	-0	-	389	-	-0
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-513	477	-	-	-	-	-	-	-	-37
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-0	-	-	-	-	-3	-	-	-3
Energy industry own use	-	-	-61	-25	-	-	-	-	-18	-	-103
Losses	-	-	-2	-	-	-	-	-	-110	-	-112
TFC	116	-	1200	12	-	-	13	240	512	-	2094
INDUSTRY	113	-	155	12	-	-	1	7	108	-	396
Iron and steel	-	-	4	-	-	-	-	-	15	-	20
Chemical and petrochemical	-	-	8	-	-	-	-	-	8	-	15
Non-ferrous metals	-	-	0	-	-	-	-	-	7	-	7
Non-metallic minerals	113	-	106	-	-	-	-	-	9	-	227
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	9	-	9
Food and tobacco	-	-	19	6	-	-	1	7	25	-	59
Paper pulp and printing	-	-	1	-	-	-	-	-	10	-	12
Wood and wood products	-	-	-	-	-	-	-	-	1	-	1
Construction	-	-	1	-	-	-	-	-	7	-	8
Textile and leather	-	-	2	-	-	-	-	-	12	-	14
Non-specified	-	-	13	6	-	-	-	-	4	-	23
TRANSPORT	-	-	750	-	-	-	-	77	-	-	827
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	712	-	-	-	-	77	-	-	789
Rail	-	-	2	-	-	-	-	-	-	-	2
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	36	-	-	-	-	-	-	-	36
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	3	-	259	-	-	-	12	156	404	-	836
Residential	-	-	104	-	-	-	8	125	252	-	490
Comm. and public services	3	-	59	-	-	-	5	19	125	-	211
Agriculture/forestry	-	-	57	-	-	-	-	12	7	-	75
Fishing	-	-	39	-	-	-	-	-	-	-	39
Non-specified	-	-	-	-	-	-	-	-	20	-	20
NON-ENERGY USE	-	-	35	-	-	-	-	-	-	-	35
in industry/transf./energy	-	-	35	-	-	-	-	-	-	-	35
of which: chem./petrochem.	-	-	0	-	-	-	-	-	-	-	0
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	-	-	-	4525	1	-	-	-	4526
Electricity plants	-	-	-	-	-	4525	1	-	-	-	4526
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Algeria

Figure 1. Energy production

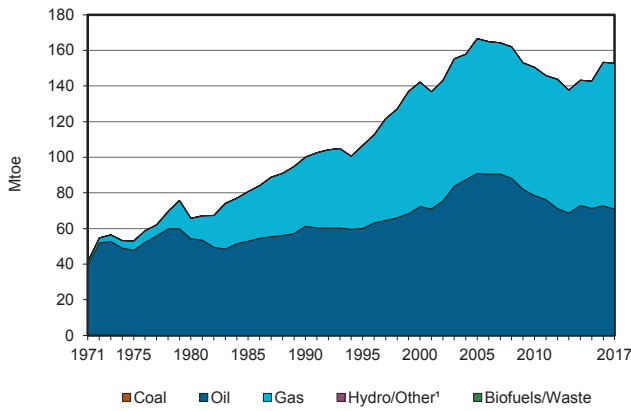


Figure 2. Total primary energy supply²

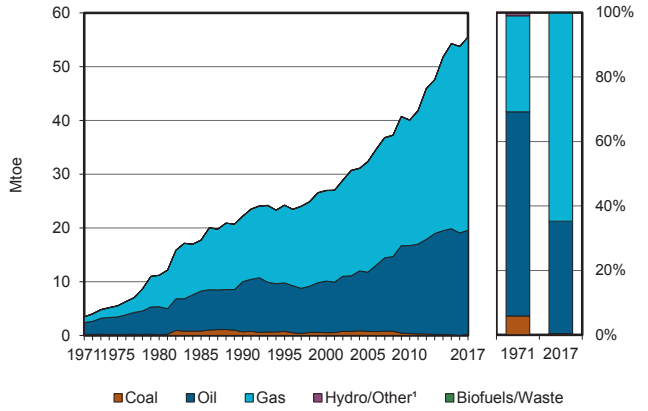


Figure 3. Energy self-sufficiency³

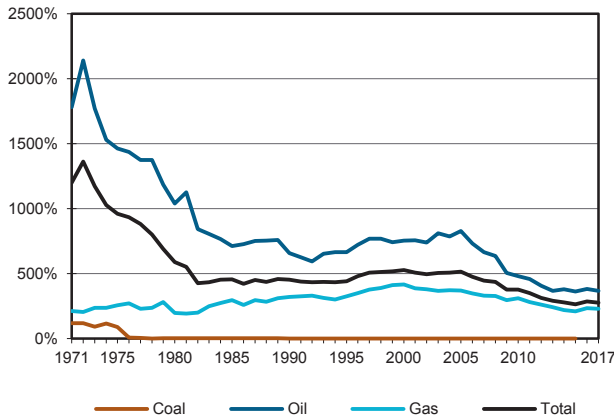


Figure 4. Oil products demand⁴

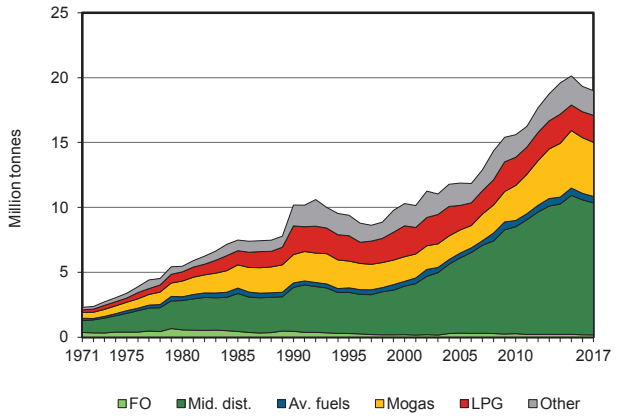


Figure 5. Electricity generation by source

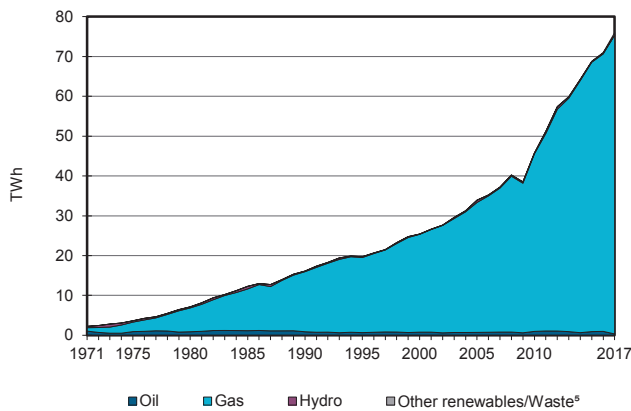
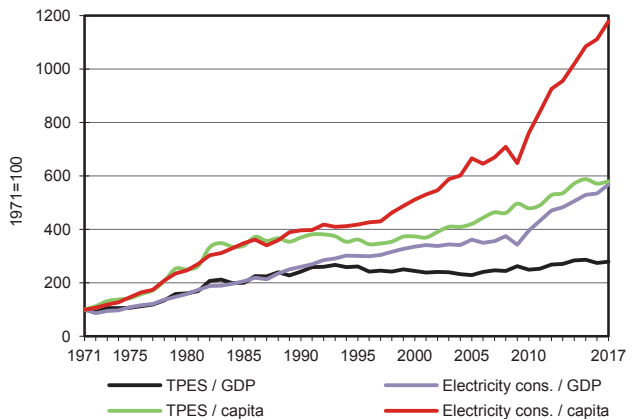


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Algeria

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	70953	-	81833	-	5	50	10	-	-	152851
Imports	203	225	3582	-	-	-	-	-	46	-	4056
Exports	-	-30204	-24313	-45931	-	-	-	-	-76	-	-100523
Intl. marine bunkers	-	-	-231	-	-	-	-	-	-	-	-231
Intl. aviation bunkers	-	-	-425	-	-	-	-	-	-	-	-425
Stock changes	17	-368	143	-	-	-	-	-	-	-	-208
TPES	220	40606	-21244	35903	-	5	50	10	-29	-	55520
Transfers	-	-9514	10048	-	-	-	-	-	-	-	534
Statistical differences	1	348	-199	-75	-	-	-	-	-33	-	43
Electricity plants	-	-	-235	-15757	-	-5	-50	-	6536	-	-9510
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-96	-	-	-	-	-	-	-	-	-	-96
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-30400	29756	-	-	-	-	-	-	-	-644
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-	-467	-393	-3350	-	-	-	-	-692	-	-4902
Losses	-58	-573	-30	-984	-	-	-	-	-935	-	-2580
TFC	67	-	17702	15737	-	-	-	10	4848	-	38364
INDUSTRY	67	-	751	3937	-	-	-	7	1735	-	6498
Iron and steel	67	-	-	232	-	-	-	-	38	-	337
Chemical and petrochemical	-	-	4	43	-	-	-	-	95	-	142
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	9	1852	-	-	-	-	246	-	2107
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	497	-	-	-	-	167	-	664
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	356	1160	-	-	-	-	151	-	1667
Textile and leather	-	-	-	32	-	-	-	-	32	-	64
Non-specified	-	-	382	122	-	-	-	7	1007	-	1517
TRANSPORT	-	-	14222	753	-	-	-	-	92	-	15067
Domestic aviation	-	-	106	-	-	-	-	-	-	-	106
Road	-	-	14015	-	-	-	-	-	-	-	14015
Rail	-	-	101	-	-	-	-	-	59	-	160
Pipeline transport	-	-	-	753	-	-	-	-	33	-	787
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	2240	8341	-	-	-	3	3020	-	13605
Residential	-	-	1669	7385	-	-	-	3	1872	-	10929
Comm. and public services	-	-	-	273	-	-	-	-	305	-	578
Agriculture/forestry	-	-	32	45	-	-	-	-	131	-	208
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	540	638	-	-	-	-	712	-	1889
NON-ENERGY USE	-	-	488	2706	-	-	-	-	-	-	3194
in industry/transf./energy	-	-	488	2706	-	-	-	-	-	-	3194
of which: chem./petrochem.	-	-	60	2706	-	-	-	-	-	-	2766
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	321	75062	-	56	579	-	-	-	76018
Electricity plants	-	-	321	75062	-	56	579	-	-	-	76018
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Angola

Figure 1. Energy production

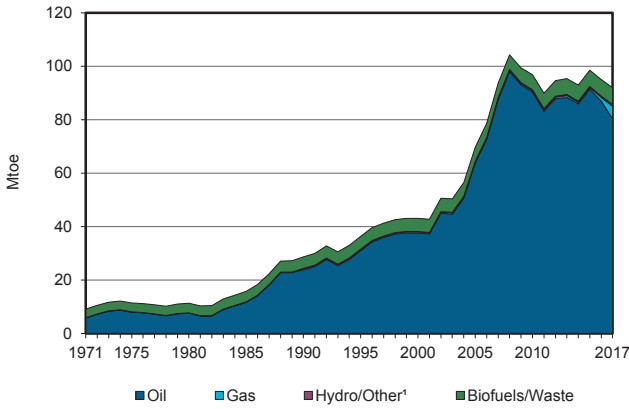


Figure 2. Total primary energy supply²

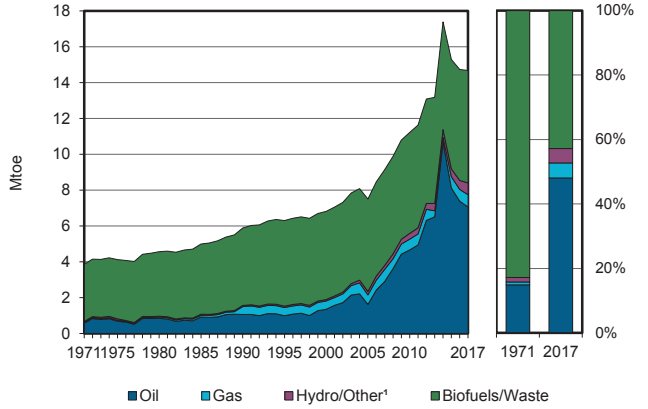


Figure 3. Energy self-sufficiency³

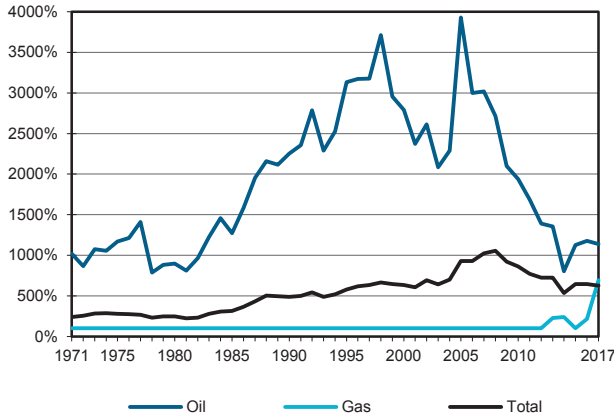


Figure 4. Oil products demand⁴

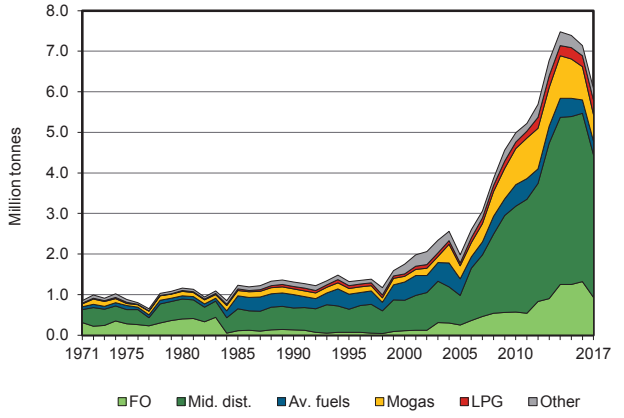


Figure 5. Electricity generation by source

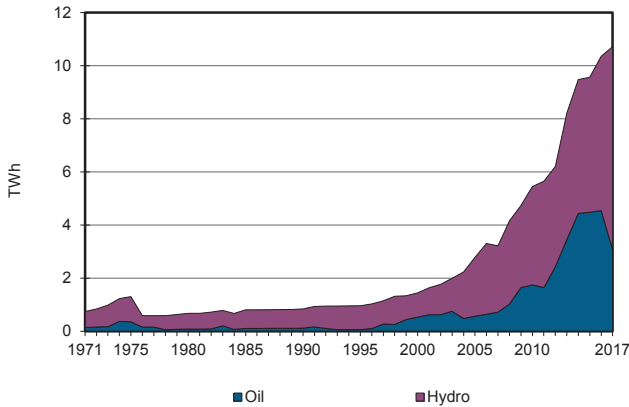
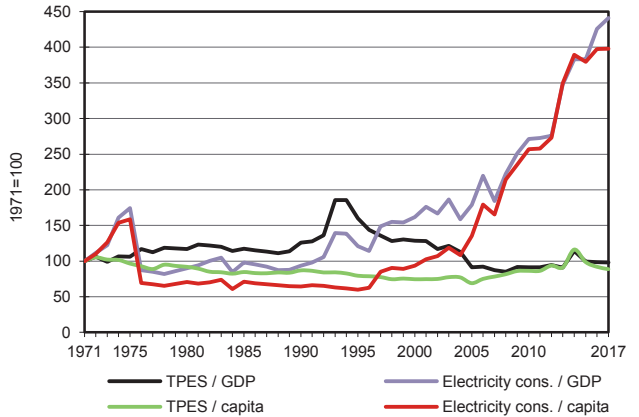


Figure 6. Selected indicators⁵



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. GDP in 2010 USD.

Angola

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	80233	-	4738	-	658	-	6277	-	-	91906
Imports	-	-	5174	-	-	-	-	-	-	-	5174
Exports	-	-76340	-1112	-4052	-	-	-	-	-	-	-81504
Intl. marine bunkers	-	-	-328	-	-	-	-	-	-	-	-328
Intl. aviation bunkers	-	-	-320	-	-	-	-	-	-	-	-320
Stock changes	-	-251	-	-	-	-	-	-	-	-	-251
TPES	-	3642	3414	686	-	658	-	6277	-	-	14678
Transfers	-	-1200	1356	-	-	-	-	-	-	-	156
Statistical differences	-	84	-1635	-	-	-	-	-	-	-	-1551
Electricity plants	-	-	-1701	-	-	-658	-	-	922	-	-1437
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-2525	2477	-	-	-	-	-	-	-	-49
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-1516	-	-	-1516
Energy industry own use	-	-	-85	-352	-	-	-	-	-23	-	-460
Losses	-	-	-	-	-	-	-	-	-104	-	-104
TFC	-	-	3826	334	-	-	-	4761	795	-	9716
INDUSTRY	-	-	196	334	-	-	-	111	268	-	909
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	103	-	-	-	-	-	-	-	103
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	94	334	-	-	-	111	268	-	806
TRANSPORT	-	-	2209	-	-	-	-	-	-	-	2209
Domestic aviation	-	-	43	-	-	-	-	-	-	-	43
Road	-	-	2153	-	-	-	-	-	-	-	2153
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	13	-	-	-	-	-	-	-	13
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	1194	-	-	-	-	4650	527	-	6372
Residential	-	-	557	-	-	-	-	4650	527	-	5734
Comm. and public services	-	-	626	-	-	-	-	-	-	-	626
Agriculture/forestry	-	-	6	-	-	-	-	-	-	-	6
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	5	-	-	-	-	-	-	-	5
NON-ENERGY USE	-	-	226	-	-	-	-	-	-	-	226
in industry/transf./energy	-	-	226	-	-	-	-	-	-	-	226
of which: chem./petrochem.	-	-	34	-	-	-	-	-	-	-	34
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	3066	-	-	7653	-	-	-	-	10719
Electricity plants	-	-	3066	-	-	7653	-	-	-	-	10719
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Argentina

Figure 1. Energy production

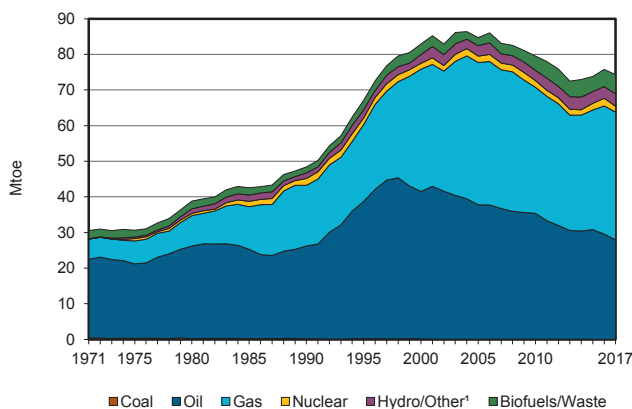


Figure 2. Total primary energy supply²

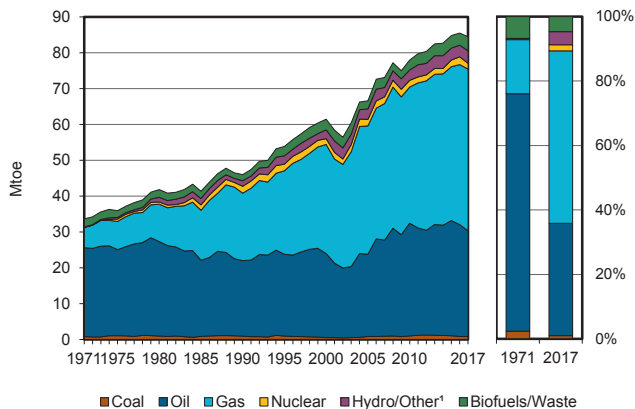


Figure 3. Energy self-sufficiency³

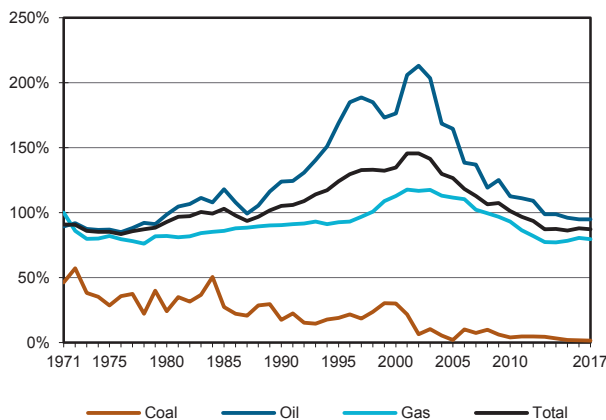


Figure 4. Oil products demand⁴

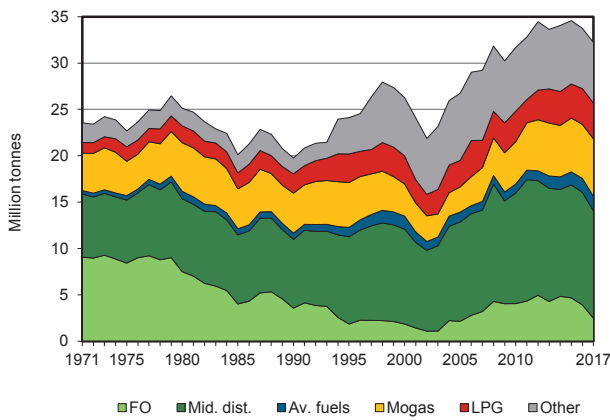


Figure 5. Electricity generation by source

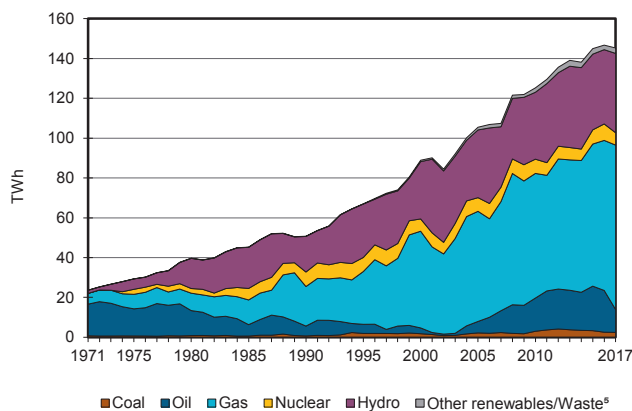
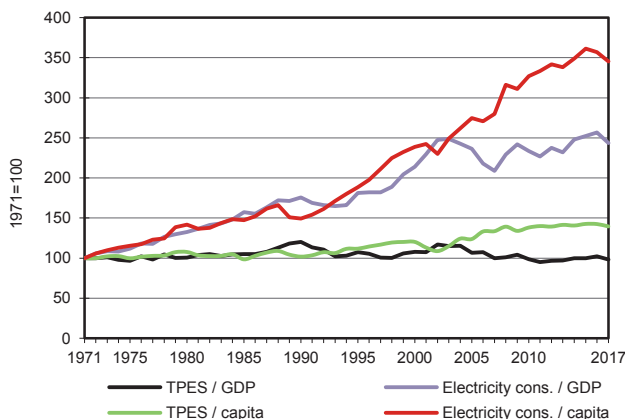


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Argentina

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	12	27938	-	35863	1619	3427	54	5376	-	-	74289
Imports	728	1117	5453	9277	-	-	-	-	906	-	17480
Exports	-33	-1481	-1892	-13	-	-	-	-1469	-6	-	-4894
Intl. marine bunkers	-	-	-798	-	-	-	-	-	-	-	-798
Intl. aviation bunkers	-	-	-1035	-	-	-	-	-	-	-	-1035
Stock changes	118	-78	266	-	-	-	-	-	-	-	306
TPES	825	27495	1994	45127	1619	3427	54	3908	900	-	85348
Transfers	-	350	159	-	-	-	-	-	-	-	509
Statistical differences	29	962	-459	-1168	-	-	-	-53	-0	-	-690
Electricity plants	-623	-	-2740	-16727	-1619	-3427	-54	-699	12492	-	-13397
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-215	-	-	-	-	-	-	-	-	-	-215
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	228	-	-625	-	-	-	-	-	-	-	-396
Oil refineries	-	-29302	29041	-	-	-	-	-	-	-	-261
Petrochemical plants	-	605	-	-	-	-	-	-	-	-	605
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-136	-	-	-136
Energy industry own use	-	-109	-1412	-6259	-	-	-	-	-322	-	-8102
Losses	-	-	-	-258	-	-	-	-	-1976	-	-2235
TFC	244	-	25957	20715	-	-	-	3020	11094	-	61030
INDUSTRY	244	-	3736	6954	-	-	-	1031	4332	-	16296
Iron and steel	218	-	-	1781	-	-	-	-	514	-	2513
Chemical and petrochemical	-	-	-	-	-	-	-	-	1049	-	1049
Non-ferrous metals	-	-	-	104	-	-	-	-	429	-	532
Non-metallic minerals	-	-	-	1034	-	-	-	-	403	-	1437
Transport equipment	-	-	-	41	-	-	-	-	169	-	210
Machinery	-	-	-	-	-	-	-	-	50	-	50
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	1812	-	-	-	-	1072	-	2884
Paper pulp and printing	-	-	-	292	-	-	-	-	270	-	562
Wood and wood products	-	-	-	12	-	-	-	-	42	-	54
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	91	-	-	-	-	246	-	336
Non-specified	26	-	3736	1786	-	-	-	1031	89	-	6668
TRANSPORT	-	-	13177	2974	-	-	-	1442	57	-	17650
Domestic aviation	-	-	563	-	-	-	-	-	-	-	563
Road	-	-	12310	2135	-	-	-	1442	-	-	15888
Rail	-	-	-	-	-	-	-	-	57	-	57
Pipeline transport	-	-	-	839	-	-	-	-	-	-	839
Domestic navigation	-	-	304	-	-	-	-	-	-	-	304
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	5485	9104	-	-	-	547	6705	-	21841
Residential	-	-	1296	8040	-	-	-	256	3850	-	13443
Comm. and public services	-	-	341	1064	-	-	-	157	2774	-	4336
Agriculture/forestry	-	-	3848	-	-	-	-	134	81	-	4063
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	3559	1683	-	-	-	-	-	-	5242
in industry/transf./energy	-	-	3559	1683	-	-	-	-	-	-	5242
of which: chem./petrochem.	-	-	2462	1683	-	-	-	-	-	-	4145
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	2436	-	11460	82597	6213	39852	632	2095	-	-	145286
Electricity plants	2436	-	11460	82597	6213	39852	632	2095	-	-	145286
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Armenia

Figure 1. Energy production

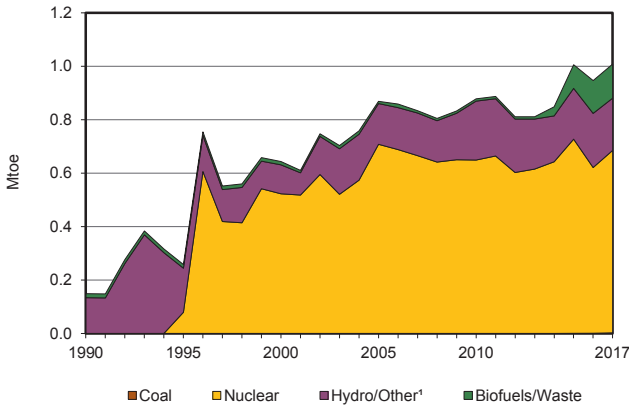


Figure 2. Total primary energy supply²

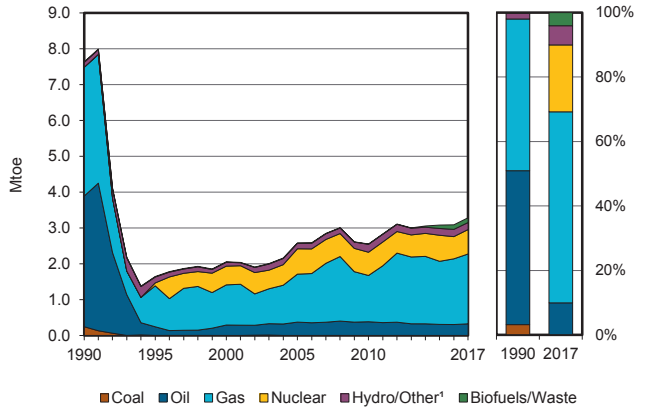


Figure 3. Energy self-sufficiency³

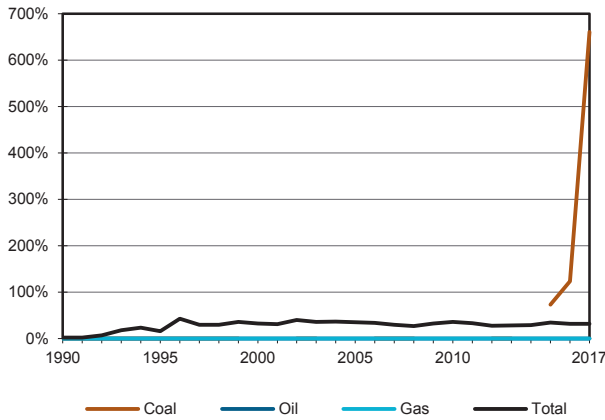


Figure 4. Oil products demand⁴

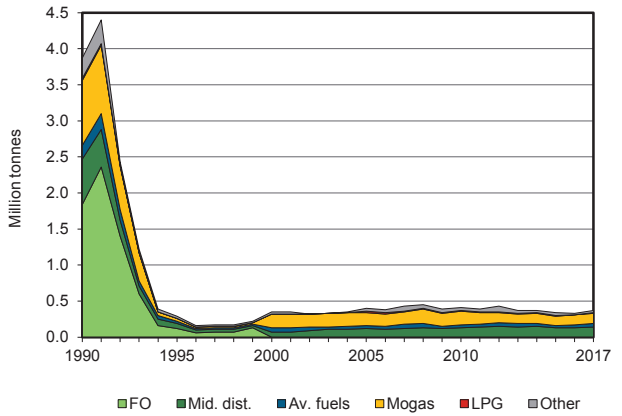


Figure 5. Electricity generation by source

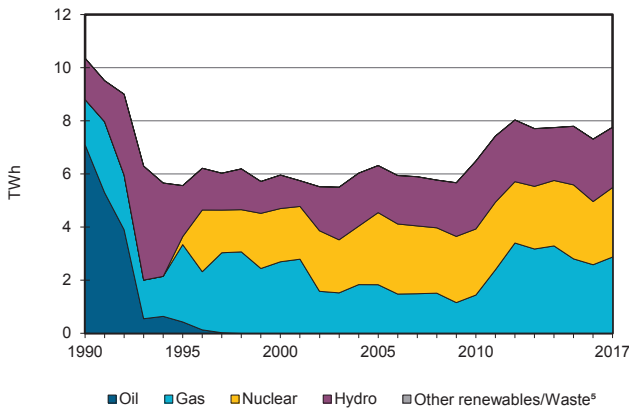
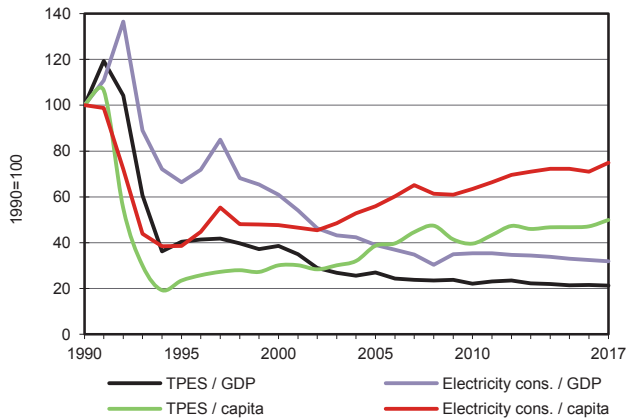


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Armenia

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	2	-	-	-	683	195	0	127	-	-	1008
Imports	0	-	393	1968	-	-	-	5	27	-	2394
Exports	-2	-	-0	-	-	-	-	-0	-124	-	-126
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-56	-	-	-	-	-	-	-	-56
Stock changes	-	-	-12	-19	-	-	-	-	-	-	-32
TPES	0	-	324	1949	683	195	0	133	-96	-	3188
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	0	0	-	-	-	-	-0	-	1
Electricity plants	-	-	-	-523	-683	-195	-0	-	666	-	-735
CHP plants	-	-	-	-4	-	-	-	-	2	1	-2
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-	-	-	-7	-	-	-	-	-30	-0	-37
Losses	-	-	-	-123	-	-	-	-	-57	-0	-181
TFC	0	-	325	1291	-	-	-	133	483	0	2233
INDUSTRY	-	-	20	166	-	-	-	0	142	-	328
Iron and steel	-	-	0	12	-	-	-	-	6	-	18
Chemical and petrochemical	-	-	0	2	-	-	-	-	1	-	3
Non-ferrous metals	-	-	5	20	-	-	-	0	21	-	46
Non-metallic minerals	-	-	1	72	-	-	-	-	12	-	84
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	0	1	-	-	-	0	2	-	3
Mining and quarrying	-	-	14	7	-	-	-	-	68	-	90
Food and tobacco	-	-	0	44	-	-	-	-	22	-	66
Paper pulp and printing	-	-	-	4	-	-	-	-	2	-	5
Wood and wood products	-	-	-	0	-	-	-	-	0	-	0
Construction	-	-	0	3	-	-	-	-	3	-	6
Textile and leather	-	-	-	0	-	-	-	0	1	-	1
Non-specified	-	-	0	1	-	-	-	-	4	-	5
TRANSPORT	-	-	251	395	-	-	-	-	9	-	655
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	251	395	-	-	-	-	1	-	646
Rail	-	-	-	-	-	-	-	-	6	-	6
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	2	-	2
OTHER	0	-	22	730	-	-	-	133	332	0	1218
Residential	0	-	1	514	-	-	-	133	164	0	812
Comm. and public services	0	-	1	140	-	-	-	-	86	-	227
Agriculture/forestry	-	-	20	-	-	-	-	-	14	-	34
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	76	-	-	-	-	69	-	145
NON-ENERGY USE	-	-	32	-	-	-	-	-	-	-	32
in industry/transf./energy	-	-	18	-	-	-	-	-	-	-	18
of which: chem./petrochem.	-	-	0	-	-	-	-	-	-	-	0
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	14	-	-	-	-	-	-	-	14
Electricity and Heat Output											
Electr. generated - GWh	-	-	-	2872	2620	2269	5	-	-	-	7765
Electricity plants	-	-	-	2853	2620	2269	5	-	-	-	7747
CHP plants	-	-	-	19	-	-	-	-	-	-	19
Heat generated - TJ	-	-	-	31	-	-	-	-	-	-	31
CHP plants	-	-	-	31	-	-	-	-	-	-	31
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes peat.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Azerbaijan

Figure 1. Energy production

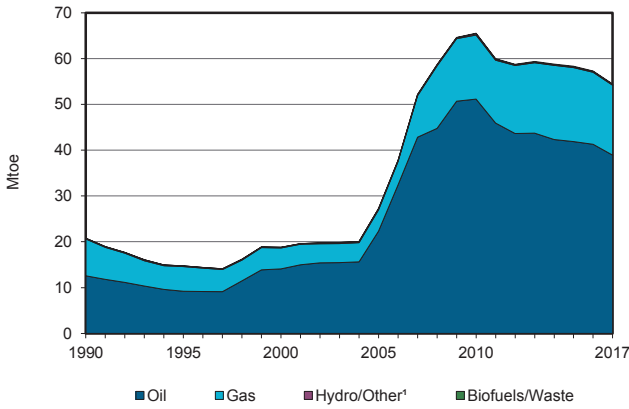


Figure 2. Total primary energy supply²

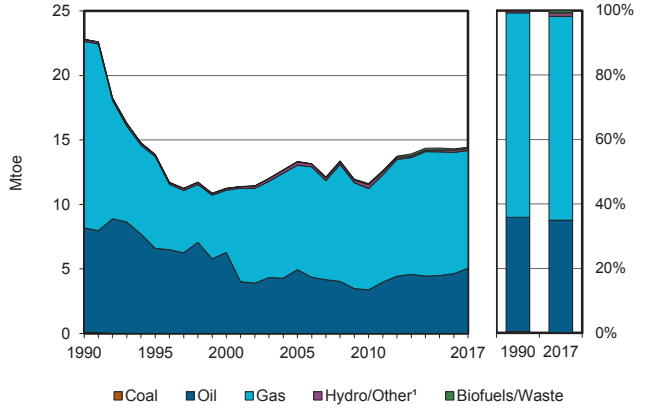


Figure 3. Energy self-sufficiency³

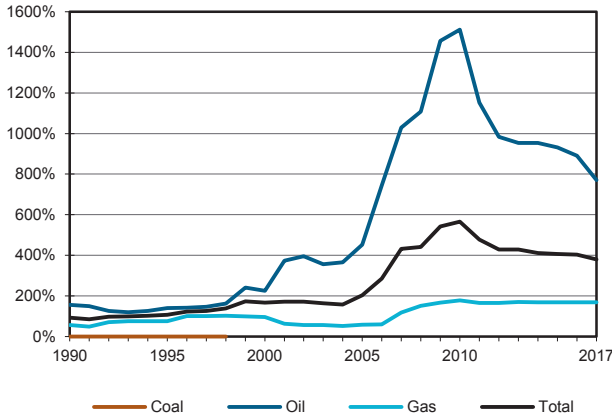


Figure 4. Oil products demand⁴

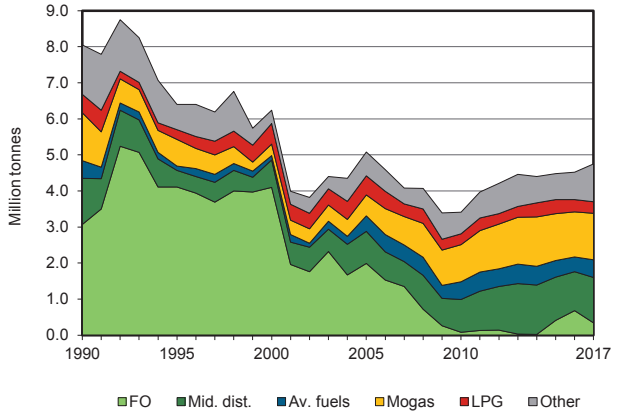


Figure 5. Electricity generation by source

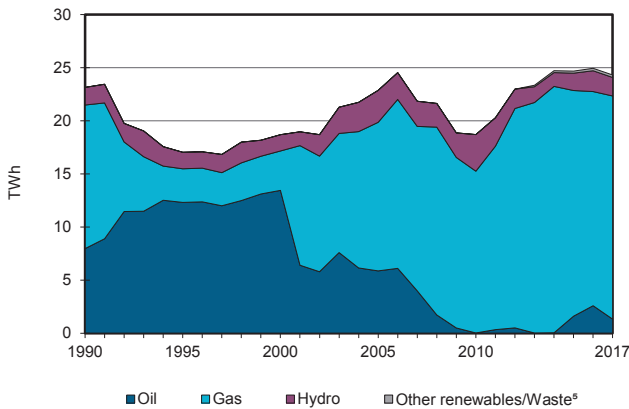
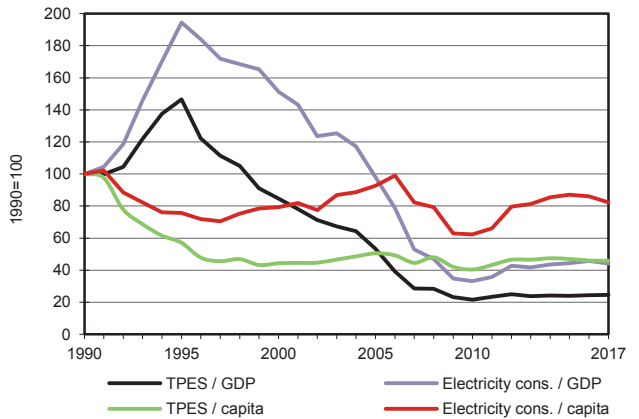


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Azerbaijan

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	38903	-	15270	-	150	5	103	-	-	54431
Imports	-	63	464	1772	-	-	-	-	9	-	2308
Exports	-	-33000	-1137	-7437	-	-	-	-	-110	-	-41684
Intl. marine bunkers	-	-	-45	-	-	-	-	-	-	-	-45
Intl. aviation bunkers	-	-	-163	-	-	-	-	-	-	-	-163
Stock changes	-	23	-56	-476	-	-	-	-0	-	-	-510
TPES	-	5989	-937	9129	-	150	5	103	-101	-	14337
Transfers	-	-32	34	-	-	-	-	-	-	-	2
Statistical differences	-	-	-35	-25	-	-	-	-	-3	-	-63
Electricity plants	-	-	-30	-2750	-	-150	-5	-66	1331	-	-1671
CHP plants	-	-	-279	-1835	-	-	-	-	760	14	-1339
Heat plants	-	-	-0	-170	-	-	-	-	-	143	-27
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-5957	5586	-	-	-	-	-	-	-	-371
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-0	-	-	-0
Energy industry own use	-	-	-382	-416	-	-	-	-	-325	-1	-1124
Losses	-	-	-	-646	-	-	-	-	-194	-19	-858
TFC	-	-	3957	3287	-	-	-	36	1469	137	8886
INDUSTRY	-	-	85	629	-	-	-	1	311	-	1027
Iron and steel	-	-	-	26	-	-	-	-	31	-	57
Chemical and petrochemical	-	-	2	147	-	-	-	-	25	-	173
Non-ferrous metals	-	-	-	1	-	-	-	-	64	-	65
Non-metallic minerals	-	-	2	256	-	-	-	-	31	-	288
Transport equipment	-	-	0	0	-	-	-	-	1	-	2
Machinery	-	-	3	11	-	-	-	-	16	-	30
Mining and quarrying	-	-	2	7	-	-	-	-	8	-	18
Food and tobacco	-	-	10	143	-	-	-	1	51	-	205
Paper pulp and printing	-	-	-	0	-	-	-	-	4	-	4
Wood and wood products	-	-	-	0	-	-	-	-	4	-	4
Construction	-	-	66	21	-	-	-	0	52	-	139
Textile and leather	-	-	0	7	-	-	-	-	14	-	21
Non-specified	-	-	0	10	-	-	-	-	9	-	19
TRANSPORT	-	-	2549	1	-	-	-	0	34	-	2584
Domestic aviation	-	-	332	-	-	-	-	-	-	-	332
Road	-	-	2160	-	-	-	-	-	-	-	2160
Rail	-	-	9	-	-	-	-	0	28	-	37
Pipeline transport	-	-	-	1	-	-	-	-	6	-	7
Domestic navigation	-	-	48	-	-	-	-	-	-	-	48
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	321	2635	-	-	-	34	1124	137	4252
Residential	-	-	16	2373	-	-	-	13	613	113	3129
Comm. and public services	-	-	8	211	-	-	-	19	423	24	686
Agriculture/forestry	-	-	297	51	-	-	-	2	88	-	438
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	1001	21	-	-	-	-	-	-	1023
in industry/transf./energy	-	-	952	21	-	-	-	-	-	-	973
of which: chem./petrochem.	-	-	723	21	-	-	-	-	-	-	745
in transport	-	-	49	-	-	-	-	-	-	-	49
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	1325	21020	-	1746	59	170	-	-	24321
Electricity plants	-	-	99	13403	-	1746	59	170	-	-	15477
CHP plants	-	-	1226	7618	-	-	-	-	-	-	8844
Heat generated - TJ	-	-	15	6566	-	-	-	-	-	-	6580
CHP plants	-	-	3	595	-	-	-	-	-	-	598
Heat plants	-	-	11	5971	-	-	-	-	-	-	5982

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Bahrain

Figure 1. Energy production

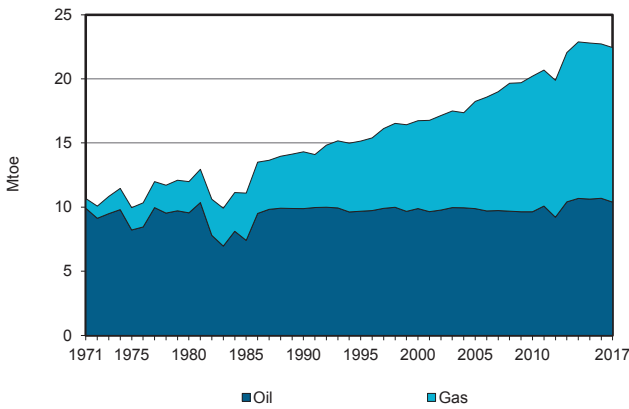


Figure 2. Total primary energy supply¹

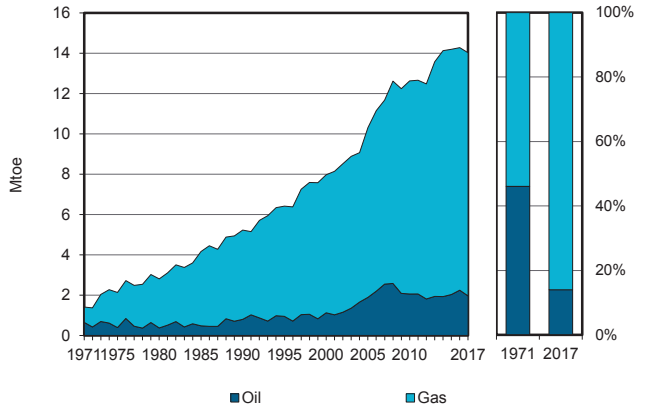


Figure 3. Energy self-sufficiency²

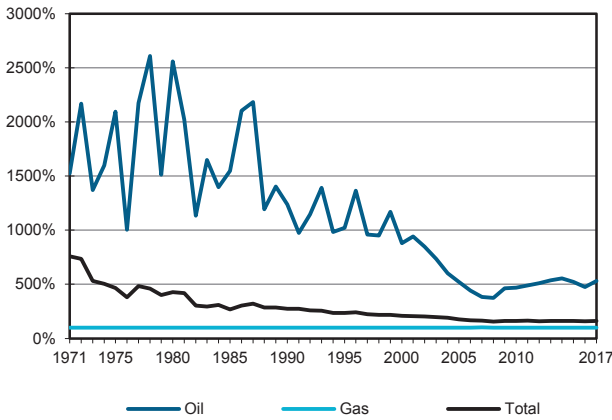


Figure 4. Oil products demand³

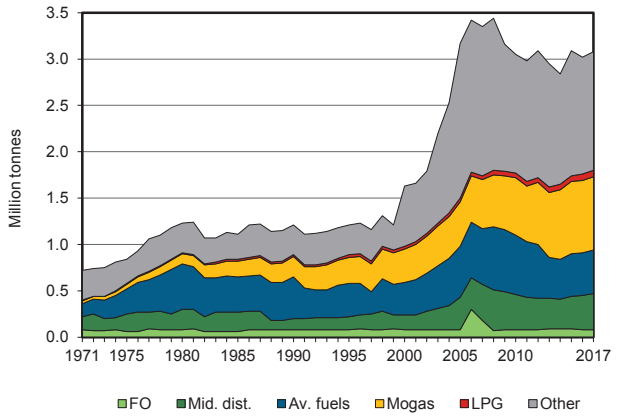


Figure 5. Electricity generation by source

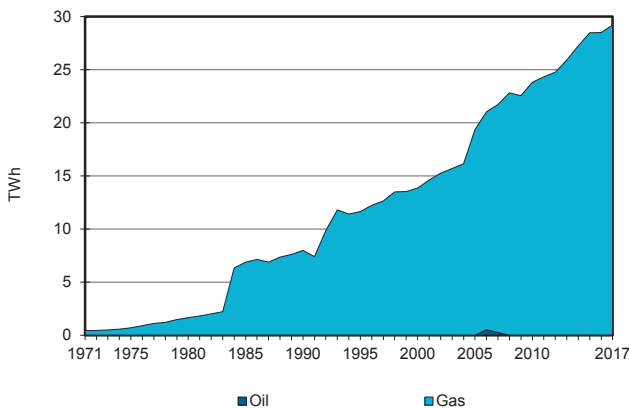
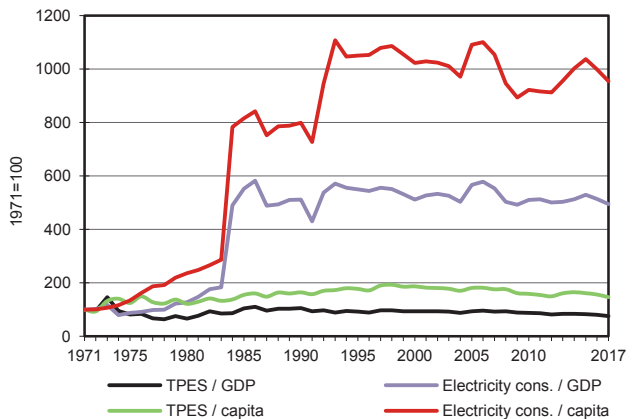


Figure 6. Selected indicators⁴



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Excluding electricity trade.
2. Production divided by TPES. 100% represents full self-sufficiency.
3. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
4. GDP in 2010 USD.

Bahrain

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	10390	-	12047	-	-	-	-	-	-	22436
Imports	-	3386	641	-	-	-	-	-	48	-	4075
Exports	-	-	-12341	-	-	-	-	-	-44	-	-12385
Intl. marine bunkers	-	-	-80	-	-	-	-	-	-	-	-80
Intl. aviation bunkers	-	-	-466	-	-	-	-	-	-	-	-466
Stock changes	-	-	434	14	-	-	-	-	-	-	447
TPES	-	13776	-11813	12060	-	-	-	-	4	-	14026
Transfers	-	-799	702	-	-	-	-	-	-	-	-97
Statistical differences	-	-	159	-	-	-	-	-	-10	-	150
Electricity plants	-	-	-1	-8681	-	-	-	-	2513	-	-6169
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-13413	13491	-	-	-	-	-	-	-	78
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	436	-549	-	-	-	-	-	-	-	-113
Energy industry own use	-	-	-205	-1269	-	-	-	-	-	-	-1474
Losses	-	-	-	-	-	-	-	-	-122	-	-122
TFC	-	-	1785	2110	-	-	-	-	2385	-	6280
INDUSTRY	-	-	-	828	-	-	-	-	1194	-	2022
Iron and steel	-	-	-	399	-	-	-	-	-	-	399
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	961	-	961
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	429	-	-	-	-	233	-	662
TRANSPORT	-	-	1260	-	-	-	-	-	-	-	1260
Domestic aviation	-	-	29	-	-	-	-	-	-	-	29
Road	-	-	1231	-	-	-	-	-	-	-	1231
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	98	-	-	-	-	-	1191	-	1289
Residential	-	-	98	-	-	-	-	-	720	-	818
Comm. and public services	-	-	-	-	-	-	-	-	465	-	465
Agriculture/forestry	-	-	-	-	-	-	-	-	5	-	5
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	427	1282	-	-	-	-	-	-	1709
in industry/transf./energy	-	-	427	1282	-	-	-	-	-	-	1709
of which: chem./petrochem.	-	-	-	1049	-	-	-	-	-	-	1049
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	2	29223	-	-	-	-	-	-	29225
Electricity plants	-	-	2	29223	-	-	-	-	-	-	29225
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Bangladesh

Figure 1. Energy production

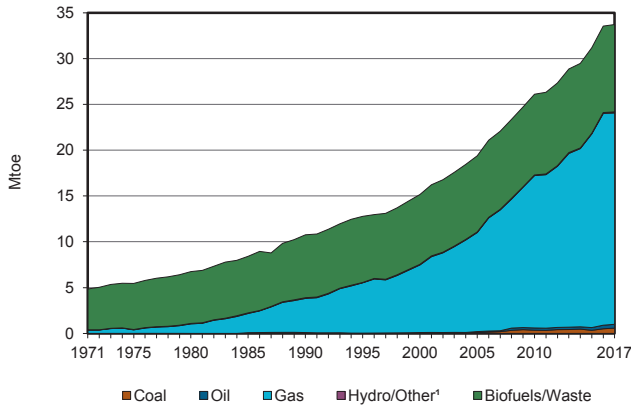


Figure 2. Total primary energy supply²

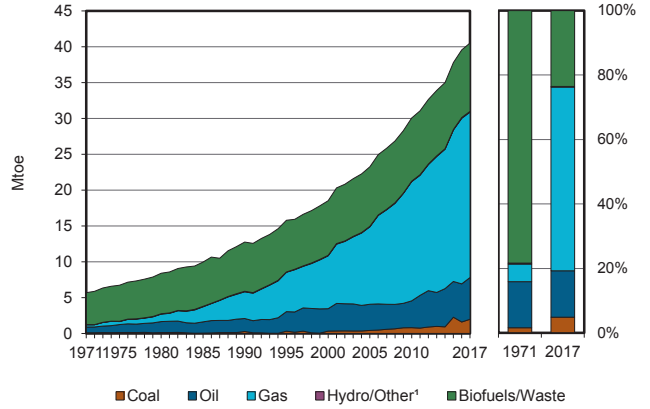


Figure 3. Energy self-sufficiency³

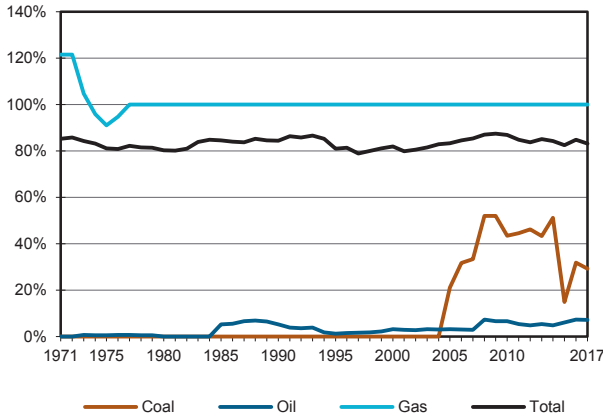


Figure 4. Oil products demand⁴

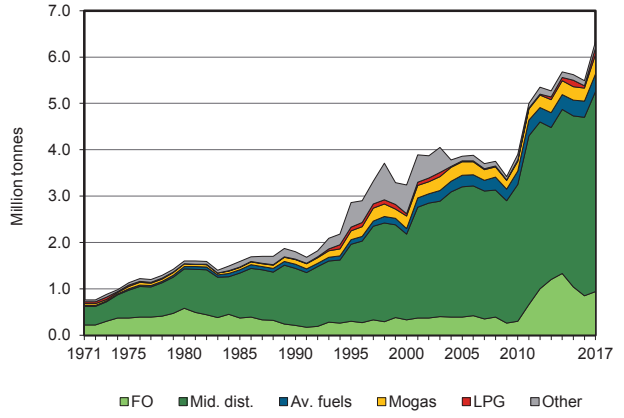


Figure 5. Electricity generation by source

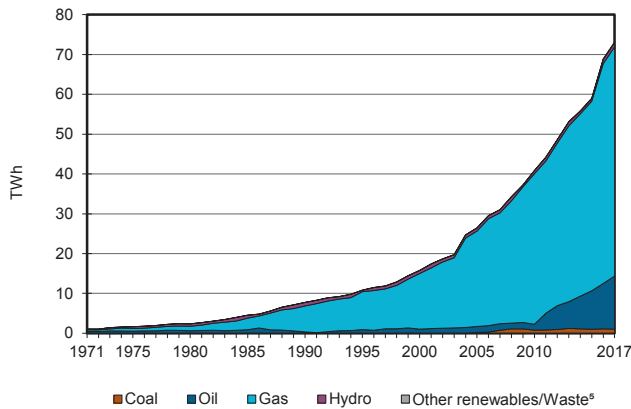
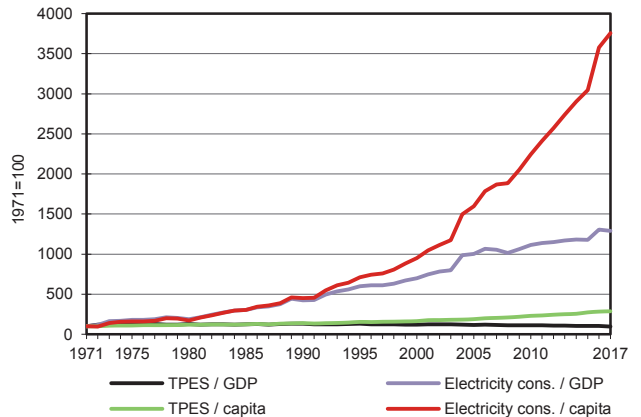


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Bangladesh

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	580	417	-	23071	-	90	16	9534	-	-	33708
Imports	1404	1174	4799	-	-	-	-	-	-	-	7377
Exports	-	-	-43	-	-	-	-	-	-	-	-43
Intl. marine bunkers	-	-	-117	-	-	-	-	-	-	-	-117
Intl. aviation bunkers	-	-	-401	-	-	-	-	-	-	-	-401
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	1984	1591	4237	23071	-	90	16	9534	-	-	40523
Transfers	-	-156	163	-	-	-	-	-	-	-	6
Statistical differences	-	201	136	803	-	-	-	-	-158	-	982
Electricity plants	-270	-	-1361	-13395	-	-90	-16	-	6290	-	-8841
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-1636	1452	-	-	-	-	-	-	-	-184
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-174	-	-	-174
Energy industry own use	-12	-	-50	-	-	-	-	-	-353	-	-415
Losses	-	-	-	-475	-	-	-	-	-605	-	-1080
TFC	1702	-	4576	10005	-	-	-	9360	5174	-	30817
INDUSTRY	1702	-	456	3873	-	-	-	-	2880	-	8911
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	1702	-	-	-	-	-	-	-	-	-	1702
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	456	3873	-	-	-	-	2880	-	7209
TRANSPORT	-	-	2712	1116	-	-	-	-	-	-	3828
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	1896	1116	-	-	-	-	-	-	3012
Rail	-	-	342	-	-	-	-	-	-	-	342
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	474	-	-	-	-	-	-	-	474
Non-specified	-	-	0	-	-	-	-	-	-	-	0
OTHER	-	-	1292	3850	-	-	-	9360	2294	-	16796
Residential	-	-	208	3619	-	-	-	9360	1747	-	14934
Comm. and public services	-	-	-	207	-	-	-	-	338	-	545
Agriculture/forestry	-	-	1083	24	-	-	-	-	154	-	1260
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	1	-	-	-	-	-	55	-	56
NON-ENERGY USE	-	-	117	1166	-	-	-	-	-	-	1283
in industry/transf./energy	-	-	117	1166	-	-	-	-	-	-	1283
of which: chem./petrochem.	-	-	-	1166	-	-	-	-	-	-	1166
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	1031	-	13332	57572	-	1041	182	-	-	-	73157
Electricity plants	1031	-	13332	57572	-	1041	182	-	-	-	73157
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Belarus

Figure 1. Energy production

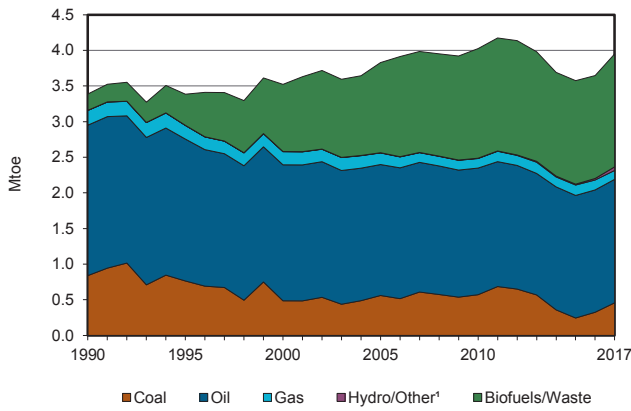


Figure 2. Total primary energy supply²

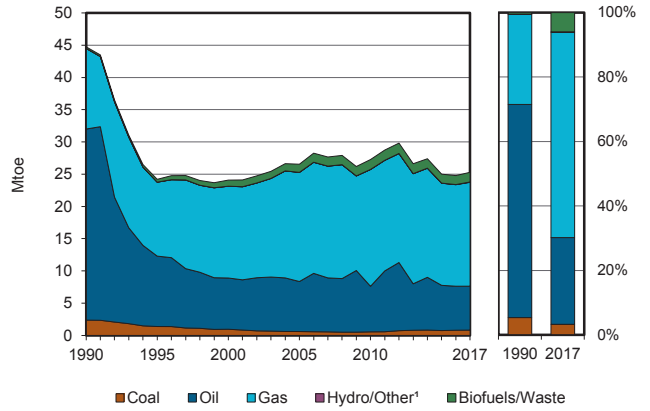


Figure 3. Energy self-sufficiency³

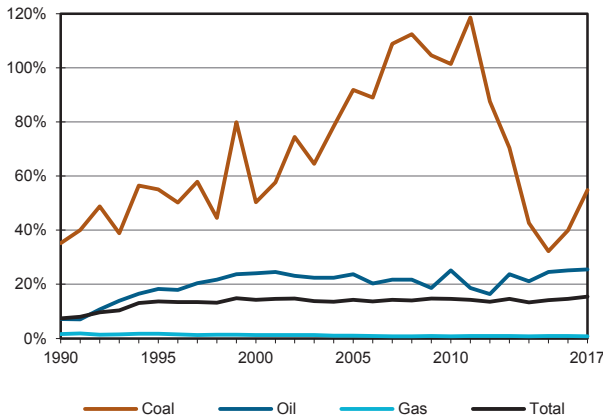


Figure 4. Oil products demand⁴

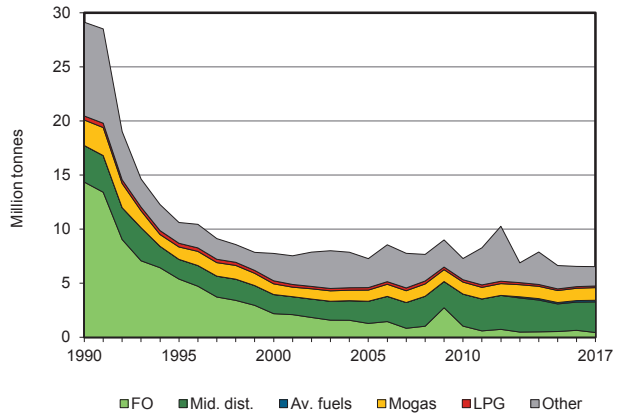


Figure 5. Electricity generation by source

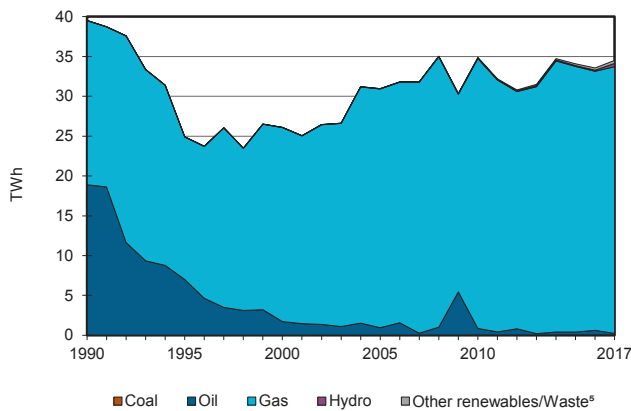
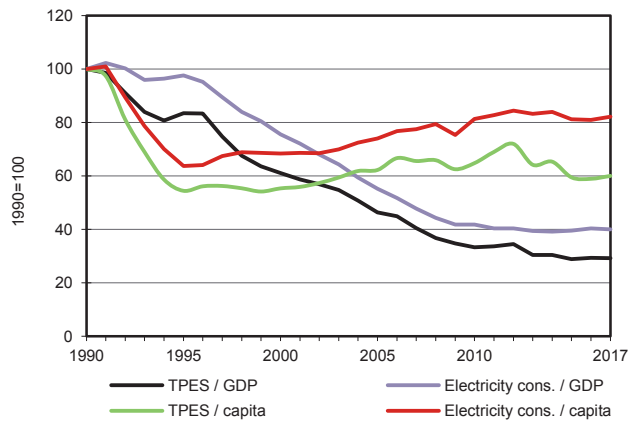


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Belarus

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	458	1732	-	125	-	35	16	1584	-	-	3950
Imports	486	18783	1236	15786	-	-	-	1	515	-	36807
Exports	-136	-1629	-12982	-	-	-	-	-86	-293	-	-15126
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-129	-	-	-	-	-	-	-	-129
Stock changes	27	31	-239	193	-	-	-	-	-	-	13
TPES	835	18917	-12114	16104	-	35	16	1498	222	-	25513
Transfers	-	-74	81	-	-	-	-	-	-	-	7
Statistical differences	-0	10	-	-	-	-	-	-	-	-	10
Electricity plants	-	-	-	-2579	-	-35	-16	-1	1205	-	-1426
CHP plants	-34	-	-121	-6844	-	-	-	-136	1763	3764	-1609
Heat plants	-69	-	-106	-1952	-	-	-	-642	-	2287	-482
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-7	-	-	-	-	-	-	-1	-	-	-7
Oil refineries	-	-18853	18574	-	-	-	-	-	-	-	-279
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-4	-	-	-4
Energy industry own use	-9	-	-904	-227	-	-	-	-18	-368	-523	-2049
Losses	-21	-	-1	-46	-	-	-	-	-247	-467	-782
TFC	695	-	5409	4455	-	-	-	696	2575	5061	18891
INDUSTRY	492	-	156	907	-	-	-	68	1080	1418	4121
Iron and steel	8	-	4	122	-	-	-	0	166	7	308
Chemical and petrochemical	-	-	9	184	-	-	-	1	310	519	1023
Non-ferrous metals	-	-	-	7	-	-	-	-	3	0	10
Non-metallic minerals	470	-	5	358	-	-	-	2	109	60	1004
Transport equipment	3	-	3	17	-	-	-	1	34	36	95
Machinery	9	-	6	70	-	-	-	4	122	85	295
Mining and quarrying	-	-	3	10	-	-	-	0	18	3	35
Food and tobacco	0	-	18	90	-	-	-	4	141	442	695
Paper pulp and printing	-	-	1	6	-	-	-	0	27	52	86
Wood and wood products	-	-	4	15	-	-	-	43	51	85	198
Construction	1	-	94	18	-	-	-	4	22	-	138
Textile and leather	-	-	4	6	-	-	-	0	32	56	98
Non-specified	-	-	5	5	-	-	-	9	45	72	136
TRANSPORT	6	-	3379	448	-	-	-	3	105	-	3941
Domestic aviation	-	-	23	-	-	-	-	-	-	-	23
Road	-	-	3175	7	-	-	-	3	14	-	3198
Rail	6	-	180	-	-	-	-	-	53	-	239
Pipeline transport	-	-	-	442	-	-	-	-	38	-	480
Domestic navigation	-	-	1	-	-	-	-	-	-	-	1
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	161	-	759	1766	-	-	-	626	1390	3643	8345
Residential	129	-	59	1616	-	-	-	466	567	2331	5168
Comm. and public services	30	-	44	50	-	-	-	105	688	1140	2056
Agriculture/forestry	2	-	656	99	-	-	-	55	135	172	1120
Fishing	-	-	-	-	-	-	-	0	1	0	1
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	36	-	1114	1334	-	-	-	-	-	-	2484
in industry/transf./energy	36	-	1114	1334	-	-	-	-	-	-	2484
of which: chem./petrochem.	-	-	-	1334	-	-	-	-	-	-	1334
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	27	-	195	33507	-	405	186	195	-	-	34515
Electricity plants	-	-	1	13419	-	405	186	3	-	-	14014
CHP plants	27	-	194	20088	-	-	-	192	-	-	20501
Heat generated - TJ	3146	-	6573	220852	-	-	-	22794	-	-	253365
CHP plants	1052	-	3038	149738	-	-	-	3769	-	-	157597
Heat plants	2094	-	3535	71114	-	-	-	19025	-	-	95768

1. Includes peat.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Benin

Figure 1. Energy production

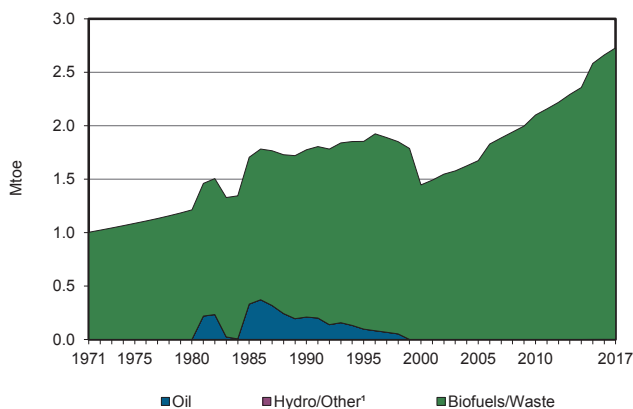


Figure 2. Total primary energy supply²

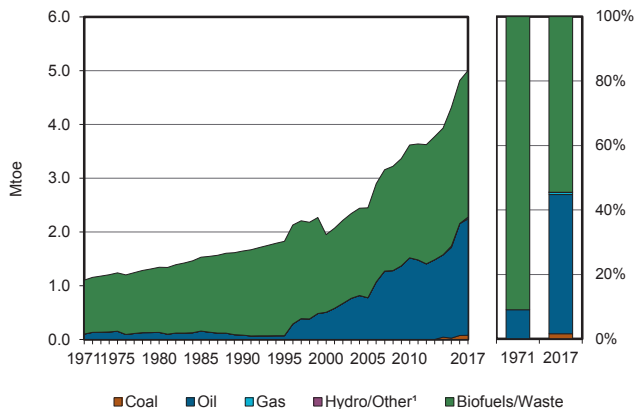


Figure 3. Energy self-sufficiency³

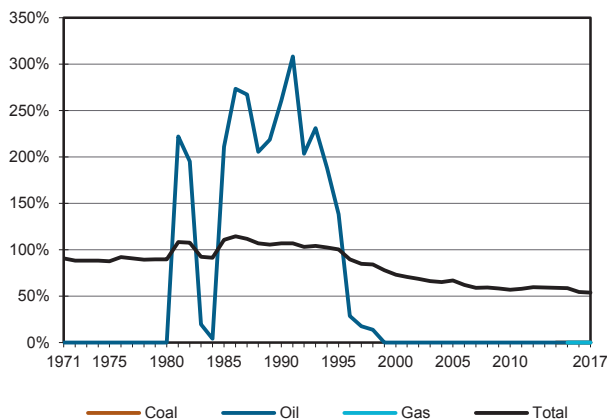


Figure 4. Oil products demand⁴

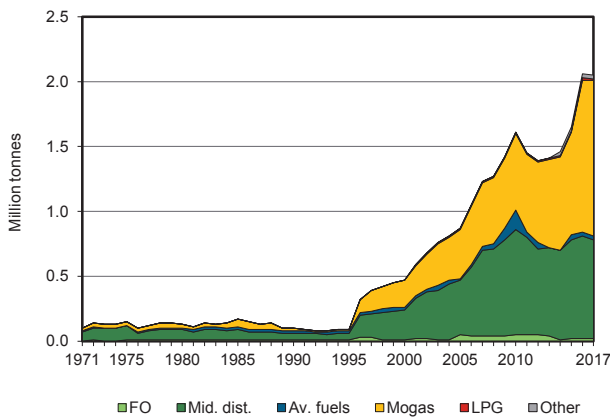


Figure 5. Electricity generation by source

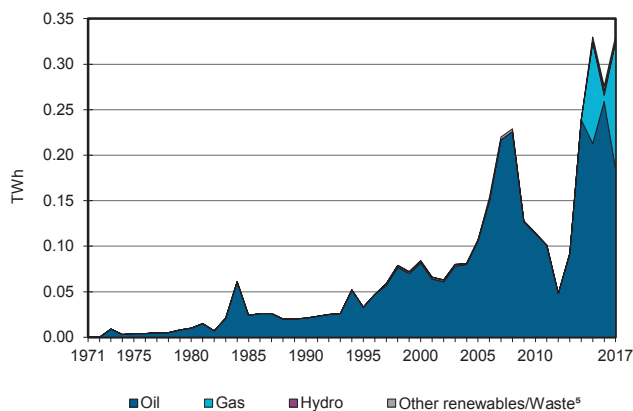
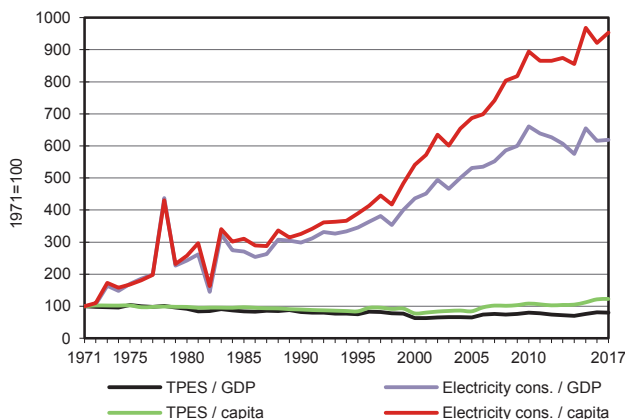


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Benin

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	0	0	2727	-	-	2728
Imports	78	-	2161	33	-	-	-	-	96	-	2367
Exports	-	-	-	-	-	-	-	-	-	-	-
Intl. marine bunkers	-	-	-1	-	-	-	-	-	-	-	-1
Intl. aviation bunkers	-	-	-31	-	-	-	-	-	-	-	-31
Stock changes	-	-	36	-	-	-	-	-	-	-	36
TPES	78	-	2165	33	-	0	0	2727	96	-	5099
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	-30	-	-	-	-	-	-0	-	-31
Electricity plants	-	-	-40	-33	-	-0	-0	-	28	-	-45
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-827	-	-	-827
Energy industry own use	-	-	-	-	-	-	-	-	-	-	-
Losses	-	-	-0	-	-	-	-	-	-26	-	-26
TFC	78	-	2094	-	-	-	-	1900	98	-	4170
INDUSTRY	78	-	32	-	-	-	-	12	22	-	143
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	23	-	-	-	-	12	12	-	47
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	3	-	-	-	-	-	2	-	5
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	78	-	5	-	-	-	-	-	8	-	92
TRANSPORT	-	-	2014	-	-	-	-	-	-	-	2014
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	2013	-	-	-	-	-	-	-	2013
Rail	-	-	1	-	-	-	-	-	-	-	1
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	48	-	-	-	-	1889	76	-	2013
Residential	-	-	33	-	-	-	-	1574	32	-	1639
Comm. and public services	-	-	2	-	-	-	-	315	43	-	360
Agriculture/forestry	-	-	13	-	-	-	-	-	1	-	14
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	-	-	-	-	-	-	-	-	-
in industry/transf./energy	-	-	-	-	-	-	-	-	-	-	-
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	185	140	-	1	5	-	-	-	331
Electricity plants	-	-	185	140	-	1	5	-	-	-	331
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Bolivia

Figure 1. Energy production

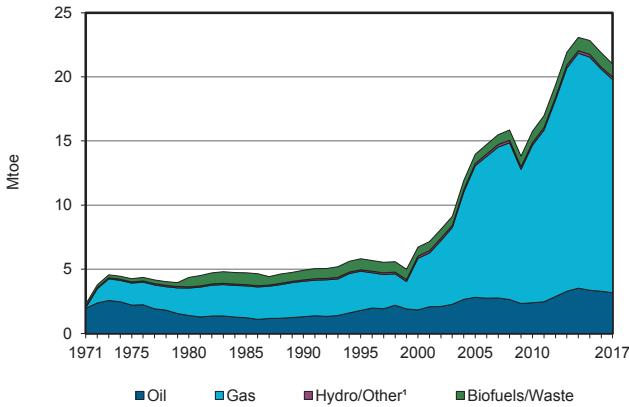


Figure 2. Total primary energy supply²

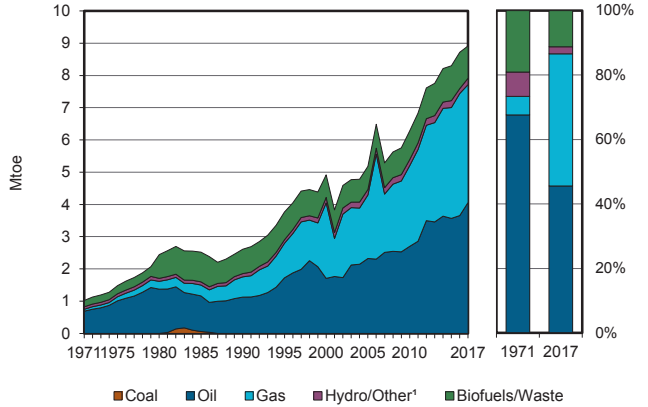


Figure 3. Energy self-sufficiency³

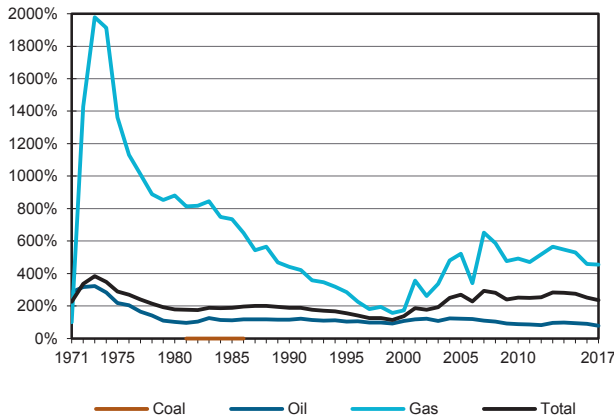


Figure 4. Oil products demand⁴

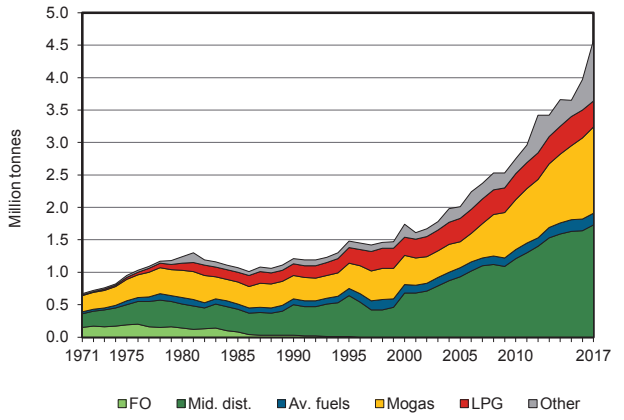


Figure 5. Electricity generation by source

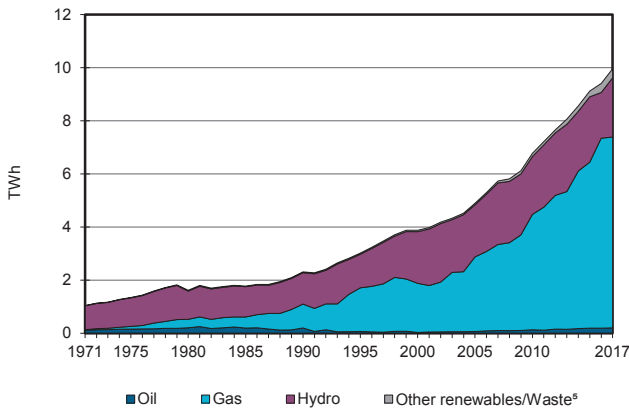
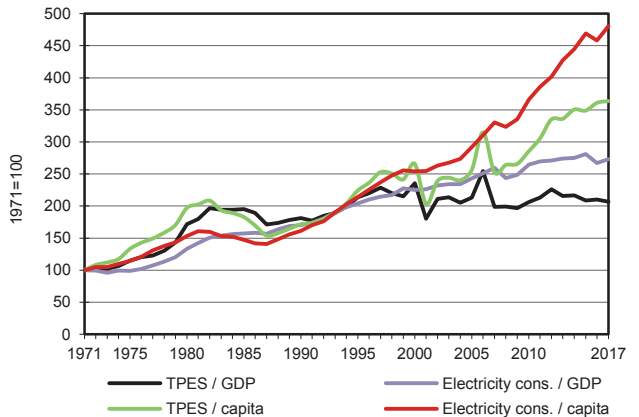


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Bolivia

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	3174	-	16621	-	192	6	1001	-	-	20994
Imports	-	-	1225	-	-	-	-	-	-	-	1225
Exports	-	-	-303	-12965	-	-	-	-	-	-	-13267
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-84	-	-	-	-	-	-	-	-84
Stock changes	-	3	45	-	-	-	-	-	-	-	48
TPES	-	3177	883	3656	-	192	6	1001	-	-	8916
Transfers	-	-409	446	-	-	-	-	-	-	-	37
Statistical differences	-	585	133	-44	-	-	-	-	-20	-	655
Electricity plants	-	-	-62	-1753	-	-192	-6	-154	857	-	-1310
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-3354	3243	-	-	-	-	-	-	-	-111
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-2	-	-	-2
Energy industry own use	-	-	-159	-292	-	-	-	-38	-16	-	-505
Losses	-	-	-130	-16	-	-	-	-	-103	-	-248
TFC	-	-	4355	1552	-	-	-	807	719	-	7433
INDUSTRY	-	-	110	753	-	-	-	610	185	-	1658
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	110	753	-	-	-	610	185	-	1658
TRANSPORT	-	-	2391	617	-	-	-	-	-	-	3008
Domestic aviation	-	-	111	-	-	-	-	-	-	-	111
Road	-	-	2280	617	-	-	-	-	-	-	2897
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	1812	182	-	-	-	197	534	-	2725
Residential	-	-	413	133	-	-	-	197	277	-	1020
Comm. and public services	-	-	6	49	-	-	-	-	179	-	233
Agriculture/forestry	-	-	669	-	-	-	-	-	78	-	747
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	725	-	-	-	-	-	-	-	725
NON-ENERGY USE	-	-	42	-	-	-	-	-	-	-	42
in industry/transf./energy	-	-	42	-	-	-	-	-	-	-	42
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	202	7189	-	2234	72	268	-	-	9965
Electricity plants	-	-	202	7189	-	2234	72	268	-	-	9965
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Bosnia and Herzegovina

Figure 1. Energy production

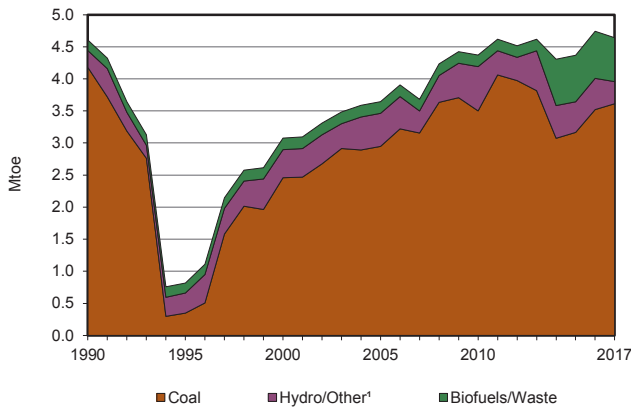


Figure 2. Total primary energy supply²

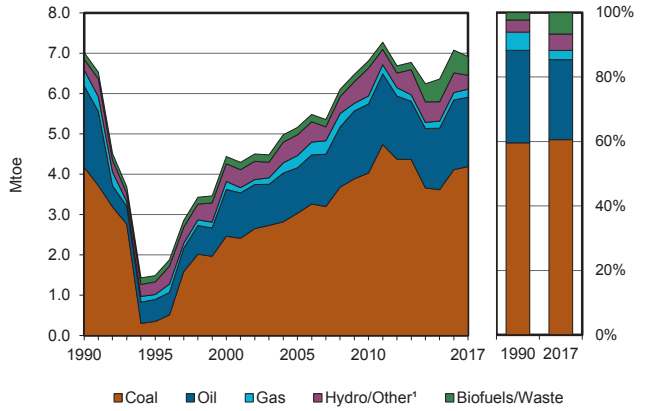


Figure 3. Energy self-sufficiency³

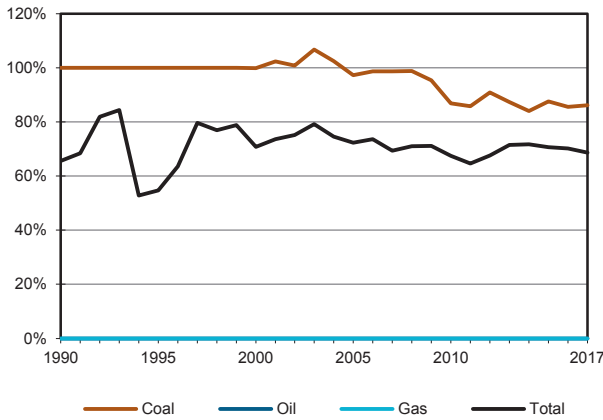


Figure 4. Oil products demand⁴

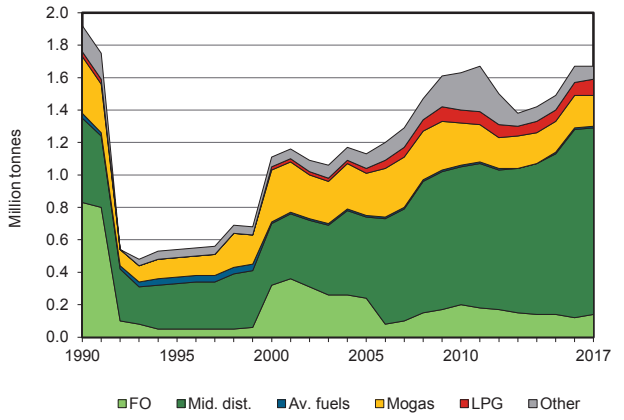


Figure 5. Electricity generation by source

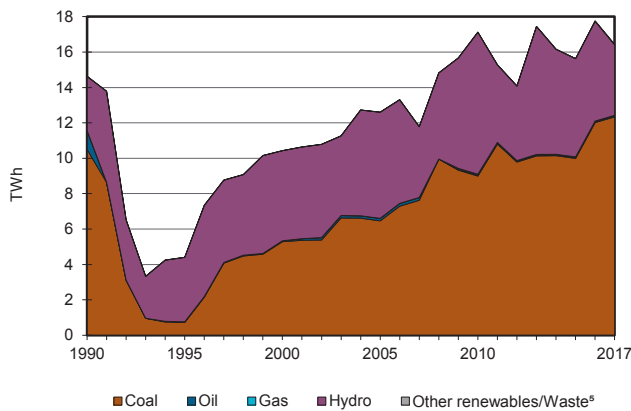
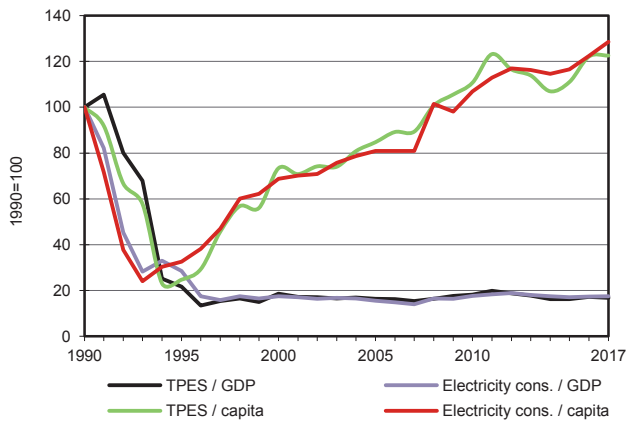


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Bosnia and Herzegovina

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	3612	-	-	-	-	343	2	685	-	-	4641
Imports	1009	874	1114	200	-	-	-	6	288	-	3491
Exports	-270	-	-252	-	-	-	-	-227	-446	-	-1195
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-10	-	-	-	-	-	-	-	-10
Stock changes	-163	22	-28	-	-	-	-	-	-	-	-168
TPES	4189	896	824	200	-	343	2	464	-158	-	6758
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-0	-	-2	-	-	-	-	0	-	-	-2
Electricity plants	-3270	-	-15	-6	-	-343	-2	-2	1394	-	-2244
CHP plants	-88	-	-	-	-	-	-	-5	20	43	-29
Heat plants	-55	-	-14	-44	-	-	-	-15	-	95	-33
Blast furnaces	-166	-	-	-	-	-	-	-	-	-	-166
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-97	-	-	-	-	-	-	-	-	-	-97
Oil refineries	-	-896	867	-	-	-	-	-	-	-	-30
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-41	-	-	-41
Energy industry own use	-143	-	-128	-	-	-	-	-	-158	-1	-430
Losses	-5	-	-	-0	-	-	-	-	-116	-10	-131
TFC	365	-	1530	149	-	-	-	402	981	127	3555
INDUSTRY	215	-	136	86	-	-	-	17	375	1	830
Iron and steel	100	-	-	17	-	-	-	-	72	-	189
Chemical and petrochemical	-	-	3	1	-	-	-	-	12	-	16
Non-ferrous metals	35	-	1	56	-	-	-	-	149	-	240
Non-metallic minerals	72	-	11	1	-	-	-	-	14	-	99
Transport equipment	-	-	2	0	-	-	-	-	5	-	7
Machinery	1	-	7	0	-	-	-	-	25	0	34
Mining and quarrying	1	-	26	0	-	-	-	-	8	0	35
Food and tobacco	5	-	23	7	-	-	-	-	23	0	57
Paper pulp and printing	-	-	15	0	-	-	-	-	20	-	35
Wood and wood products	-	-	7	1	-	-	-	-	15	0	23
Construction	-	-	34	-	-	-	-	-	5	0	39
Textile and leather	1	-	4	1	-	-	-	-	15	-	22
Non-specified	0	-	2	0	-	-	-	17	13	-	32
TRANSPORT	-	-	1235	1	-	-	-	-	7	-	1243
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	1235	1	-	-	-	-	-	-	1236
Rail	-	-	-	-	-	-	-	-	7	-	7
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	150	-	97	62	-	-	-	385	600	127	1420
Residential	104	-	44	38	-	-	-	355	409	95	1046
Comm. and public services	45	-	38	25	-	-	-	30	187	31	356
Agriculture/forestry	0	-	14	-	-	-	-	-	4	-	19
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	63	-	-	-	-	-	-	-	63
in industry/transf./energy	-	-	63	-	-	-	-	-	-	-	63
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	12339	-	62	23	-	3987	21	6	-	-	16438
Electricity plants	12111	-	62	23	-	3987	21	5	-	-	16209
CHP plants	228	-	-	-	-	-	-	1	-	-	229
Heat generated - TJ	2996	-	513	1612	-	-	-	672	-	-	5793
CHP plants	1639	-	-	-	-	-	-	178	-	-	1817
Heat plants	1357	-	513	1612	-	-	-	494	-	-	3976

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Botswana

Figure 1. Energy production

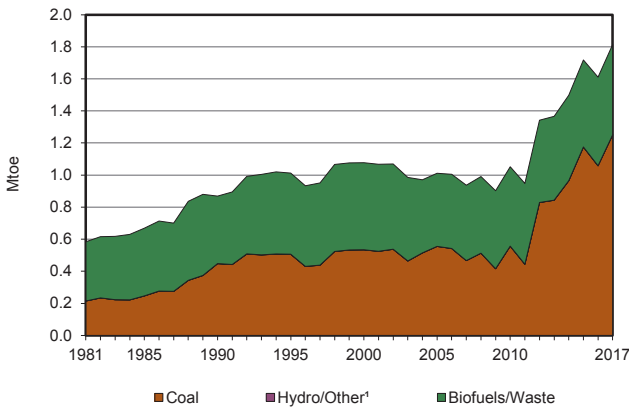


Figure 2. Total primary energy supply²

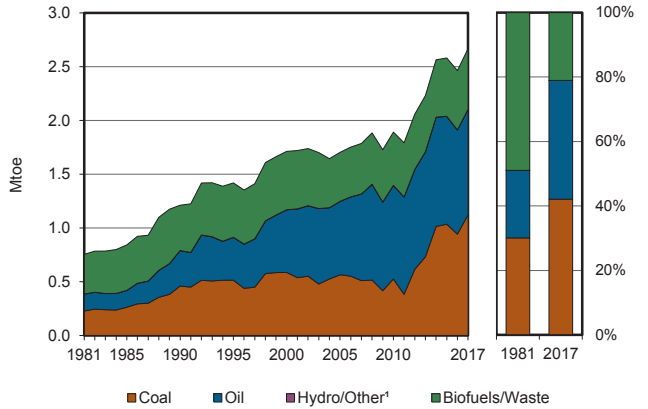


Figure 3. Energy self-sufficiency³

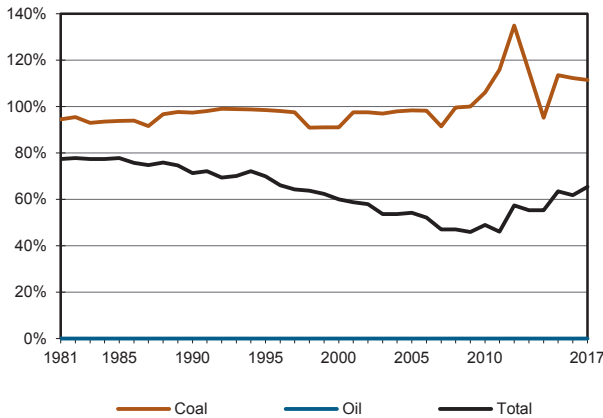


Figure 4. Oil products demand⁴

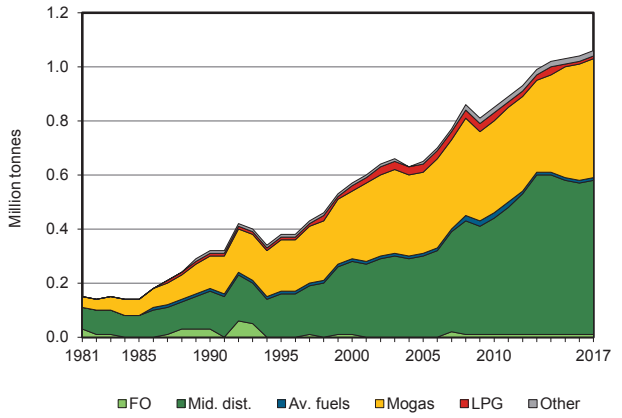


Figure 5. Electricity generation by source

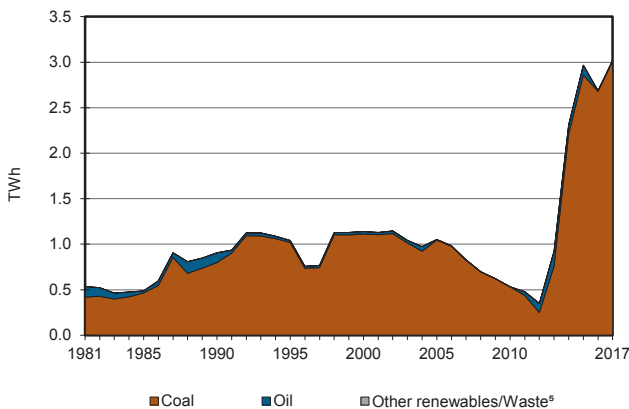
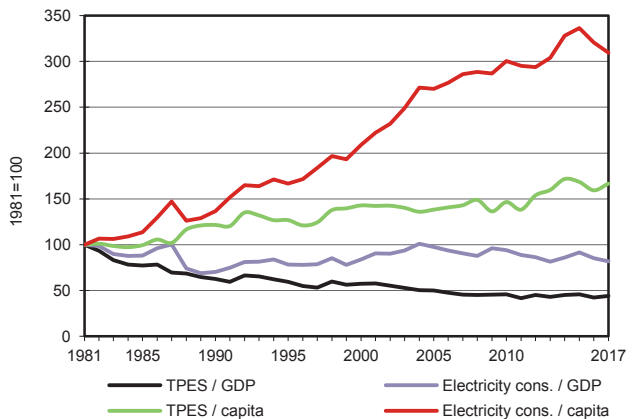


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Botswana

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	1251	-	-	-	-	-	0	563	-	-	1814
Imports	-	-	995	-	-	-	-	-	111	-	1105
Exports	-129	-	-	-	-	-	-	-	-	-	-129
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-12	-	-	-	-	-	-	-	-12
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	1122	-	983	-	-	-	0	563	111	-	2779
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	126	-	-	-	-	-	-1	-	125
Electricity plants	-1080	-	-3	-	-	-	-0	-	260	-	-823
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-	-	-	-	-	-	-	-	-38	-	-38
Losses	-	-	-	-	-	-	-	-	-50	-	-50
TFC	42	-	1106	-	-	-	-	563	282	-	1993
INDUSTRY	38	-	189	-	-	-	-	-	94	-	321
Iron and steel	-	-	-	-	-	-	-	-	1	-	1
Chemical and petrochemical	-	-	-	-	-	-	-	-	2	-	2
Non-ferrous metals	-	-	-	-	-	-	-	-	2	-	2
Non-metallic minerals	-	-	-	-	-	-	-	-	2	-	2
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	38	-	140	-	-	-	-	-	72	-	251
Food and tobacco	-	-	4	-	-	-	-	-	8	-	11
Paper pulp and printing	-	-	1	-	-	-	-	-	1	-	2
Wood and wood products	-	-	-	-	-	-	-	-	1	-	1
Construction	-	-	22	-	-	-	-	-	0	-	23
Textile and leather	-	-	1	-	-	-	-	-	2	-	4
Non-specified	-	-	20	-	-	-	-	-	3	-	23
TRANSPORT	-	-	851	-	-	-	-	-	-	-	851
Domestic aviation	-	-	2	-	-	-	-	-	-	-	2
Road	-	-	837	-	-	-	-	-	-	-	837
Rail	-	-	11	-	-	-	-	-	-	-	11
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	4	-	44	-	-	-	-	563	188	-	800
Residential	-	-	12	-	-	-	-	563	88	-	663
Comm. and public services	1	-	20	-	-	-	-	-	73	-	95
Agriculture/forestry	3	-	11	-	-	-	-	-	16	-	30
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	1	-	-	-	-	-	11	-	12
NON-ENERGY USE	-	-	22	-	-	-	-	-	-	-	22
in industry/transf./energy	-	-	15	-	-	-	-	-	-	-	15
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	7	-	-	-	-	-	-	-	7
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	3012	-	8	-	-	-	2	-	-	-	3021
Electricity plants	3012	-	8	-	-	-	2	-	-	-	3021
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Brunei Darussalam

Figure 1. Energy production

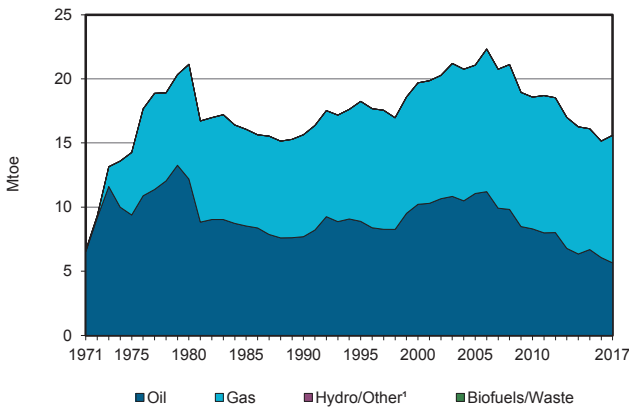


Figure 2. Total primary energy supply²

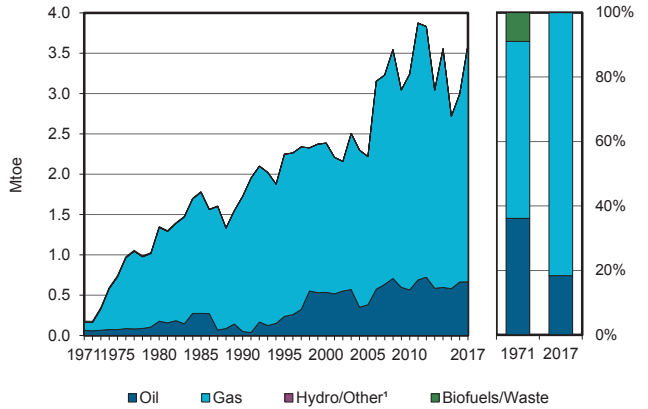


Figure 3. Energy self-sufficiency³

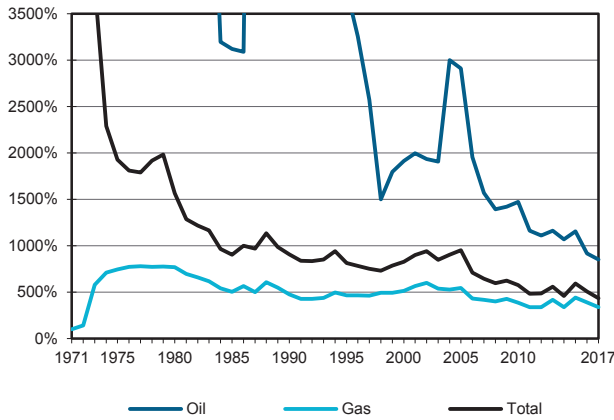


Figure 4. Oil products demand⁴

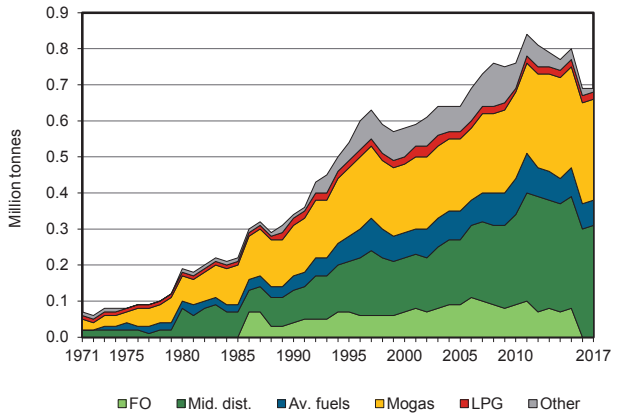


Figure 5. Electricity generation by source

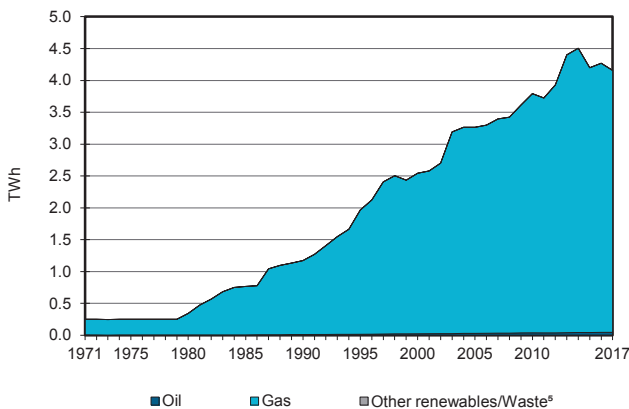
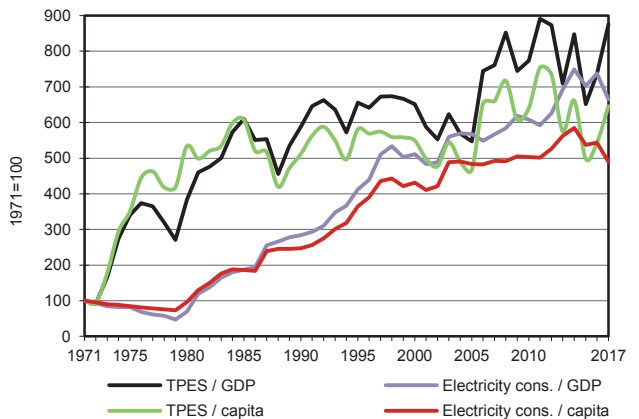


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency. Maximum scale refers to values greater than or equal to 3500%.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Brunei Darussalam

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	5655	-	9946	-	-	0	-	-	-	15601
Imports	-	4	463	-	-	-	-	-	-	-	466
Exports	-	-5446	-	-7074	-	-	-	-	-	-	-12520
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-76	-	-	-	-	-	-	-	-76
Stock changes	-	77	-11	75	-	-	-	-	-	-	141
TPES	-	289	376	2947	-	-	0	-	-	-	3611
Transfers	-	-18	20	-	-	-	-	-	-	-	2
Statistical differences	-	20	15	-318	-	-	-	-	0	-	-282
Electricity plants	-	-	-13	-974	-	-	-0	-	320	-	-667
CHP plants	-	-	-	-135	-	-	-	-	37	-	-98
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-291	244	-	-	-	-	-	-	-	-47
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-	-	-3	-908	-	-	-	-	-46	-	-958
Losses	-	-	-	-191	-	-	-	-	-41	-	-232
TFC	-	-	638	421	-	-	-	-	270	-	1329
INDUSTRY	-	-	137	-	-	-	-	-	14	-	151
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	0	-	-	-	-	-	2	-	3
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	137	-	-	-	-	-	12	-	148
TRANSPORT	-	-	448	-	-	-	-	-	-	-	448
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	448	-	-	-	-	-	-	-	448
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	44	18	-	-	-	-	256	-	318
Residential	-	-	19	18	-	-	-	-	110	-	147
Comm. and public services	-	-	-	-	-	-	-	-	146	-	146
Agriculture/forestry	-	-	0	-	-	-	-	-	-	-	0
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	25	-	-	-	-	-	-	-	25
NON-ENERGY USE	-	-	9	403	-	-	-	-	-	-	412
in industry/transf./energy	-	-	8	403	-	-	-	-	-	-	411
of which: chem./petrochem.	-	-	-	403	-	-	-	-	-	-	403
in transport	-	-	1	-	-	-	-	-	-	-	1
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	45	4110	-	-	2	-	-	-	4157
Electricity plants	-	-	45	3677	-	-	2	-	-	-	3724
CHP plants	-	-	-	433	-	-	-	-	-	-	433
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Bulgaria

Figure 1. Energy production

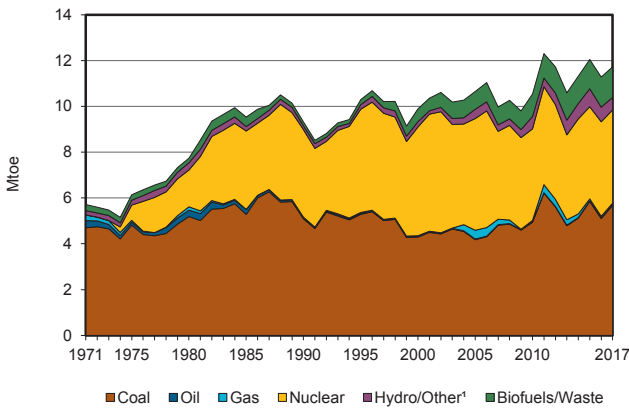


Figure 2. Total primary energy supply²

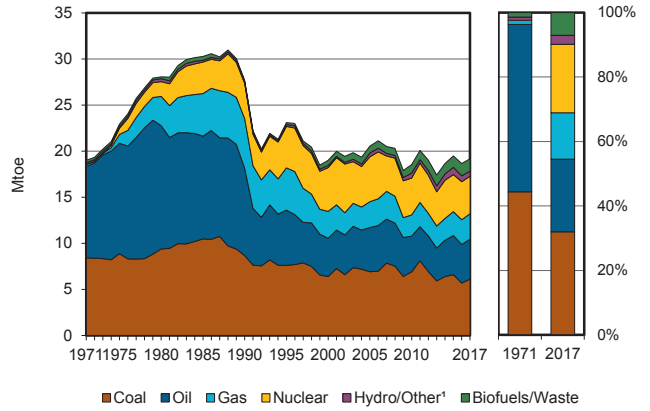


Figure 3. Energy self-sufficiency³

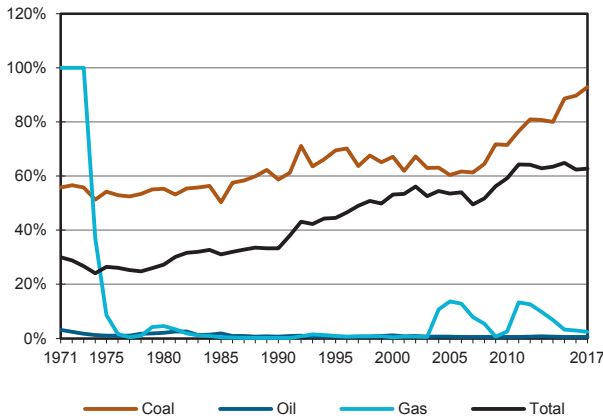


Figure 4. Oil products demand⁴

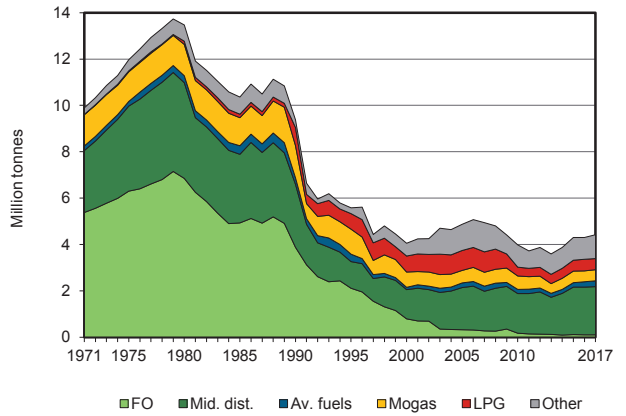


Figure 5. Electricity generation by source

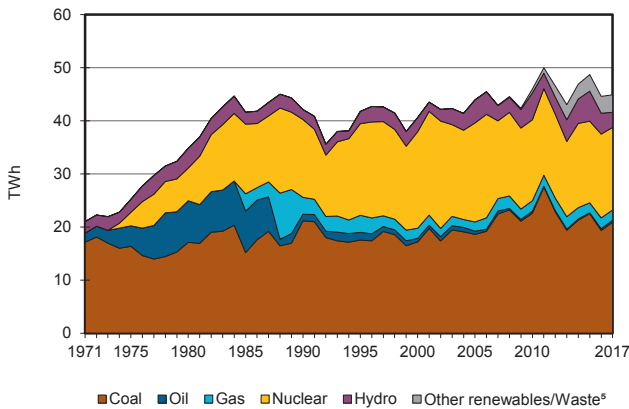
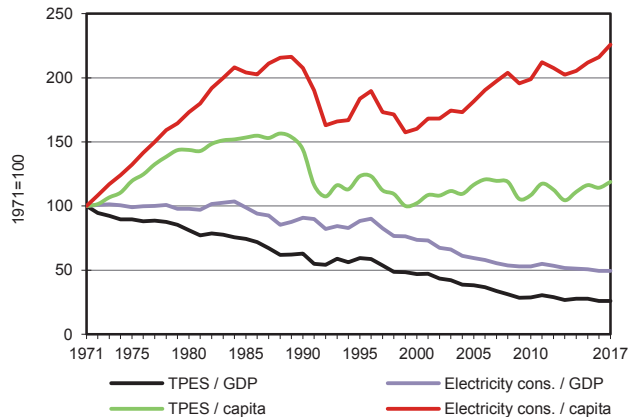


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Bulgaria

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	5686	23	-	66	4067	243	308	1332	-	44	11770
Imports	583	7281	2342	2723	-	-	-	98	319	-	13346
Exports	-9	-	-4893	-27	-	-	-	-107	-790	-	-5826
Intl. marine bunkers	-	-	-80	-	-	-	-	-	-	-	-80
Intl. aviation bunkers	-	-	-238	-	-	-	-	-	-	-	-238
Stock changes	-137	-136	26	-0	-	-	-	21	-	-	-226
TPES	6122	7169	-2844	2762	4067	243	308	1344	-471	44	18745
Transfers	-	351	-335	-	-	-	-	-	-	-	17
Statistical differences	-3	-14	-3	-32	-	-	-	5	-4	-12	-62
Electricity plants	-5079	-	-39	-22	-4051	-243	-250	-15	3543	-13	-6169
CHP plants	-556	-	-129	-572	-17	-	-	-64	322	778	-237
Heat plants	-6	-	-2	-242	-	-	-	-5	-	233	-22
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-52	-	-	-	-	-	-	-	-	-	-52
Oil refineries	-	-7694	7324	-	-	-	-	-	-	-	-371
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	188	-	-220	-	-	-	-1	-	-	-33
Energy industry own use	-1	-	-423	-34	-	-	-	-1	-519	-202	-1180
Losses	-5	-	-2	-11	-	-	-	-	-299	-169	-486
TFC	420	-	3547	1631	-	-	58	1264	2572	659	10149
INDUSTRY	200	-	321	929	-	-	-	273	809	198	2729
Iron and steel	0	-	0	51	-	-	-	0	68	-	119
Chemical and petrochemical	138	-	173	308	-	-	-	14	99	155	887
Non-ferrous metals	1	-	12	39	-	-	-	-	90	20	162
Non-metallic minerals	55	-	88	278	-	-	-	67	80	0	569
Transport equipment	0	-	1	8	-	-	-	0	10	-	19
Machinery	0	-	7	42	-	-	-	0	89	1	139
Mining and quarrying	0	-	5	22	-	-	-	0	95	-	122
Food and tobacco	1	-	10	89	-	-	-	9	108	10	228
Paper pulp and printing	1	-	1	42	-	-	-	138	38	0	220
Wood and wood products	0	-	1	4	-	-	-	38	20	0	62
Construction	0	-	20	13	-	-	-	0	22	1	56
Textile and leather	1	-	2	20	-	-	-	2	31	11	67
Non-specified	0	-	1	14	-	-	-	4	59	0	78
TRANSPORT	-	-	2894	246	-	-	-	162	32	-	3334
Domestic aviation	-	-	21	-	-	-	-	-	-	-	21
Road	-	-	2860	75	-	-	-	162	5	-	3101
Rail	-	-	14	-	-	-	-	-	26	-	40
Pipeline transport	-	-	-	171	-	-	-	-	2	-	173
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	172	-	178	178	-	-	58	828	1731	461	3605
Residential	159	-	25	68	-	-	10	760	958	340	2319
Comm. and public services	4	-	35	95	-	-	48	61	754	116	1112
Agriculture/forestry	10	-	118	15	-	-	-	8	19	5	174
Fishing	-	-	0	0	-	-	-	-	0	0	0
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	48	-	154	278	-	-	-	-	-	-	480
in industry/transf./energy	48	-	154	278	-	-	-	-	-	-	480
of which: chem./petrochem.	-	-	39	278	-	-	-	-	-	-	317
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	20914	-	401	1922	15545	2828	2907	396	-	34	44948
Electricity plants	19592	-	117	70	15545	2828	2907	107	-	34	41200
CHP plants	1322	-	284	1853	-	-	-	289	-	-	3748
Heat generated - TJ	14237	-	374	22918	696	-	-	726	-	1844	44167
CHP plants	14076	-	3665	13570	696	-	-	553	-	-	32560
Heat plants	161	-	82	9347	-	-	-	173	-	1844	11607

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Cambodia

Figure 1. Energy production

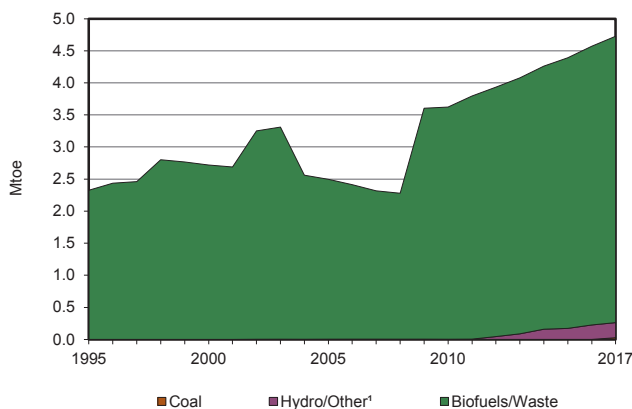


Figure 2. Total primary energy supply²

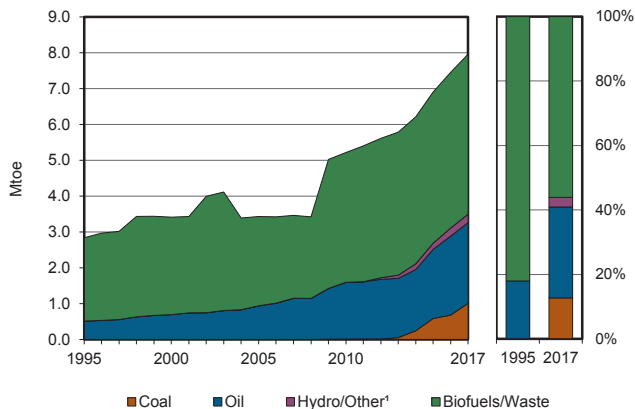


Figure 3. Energy self-sufficiency³

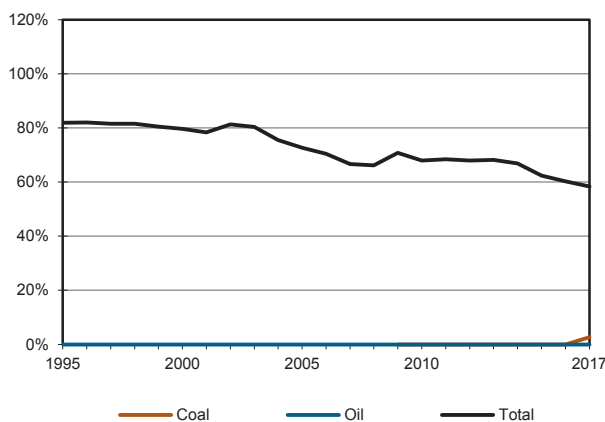


Figure 4. Oil products demand⁴

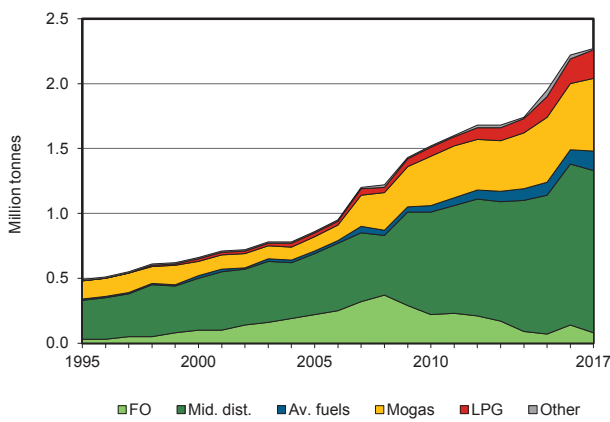


Figure 5. Electricity generation by source

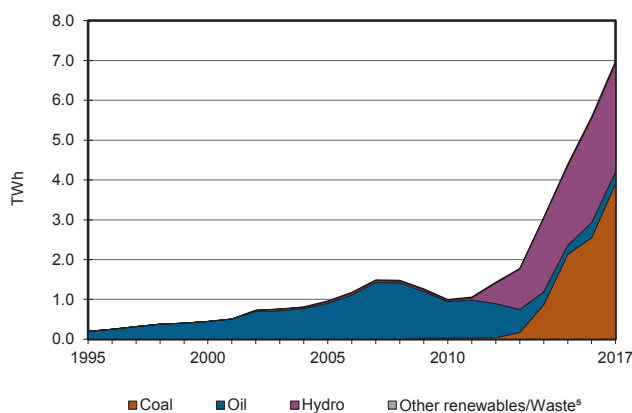
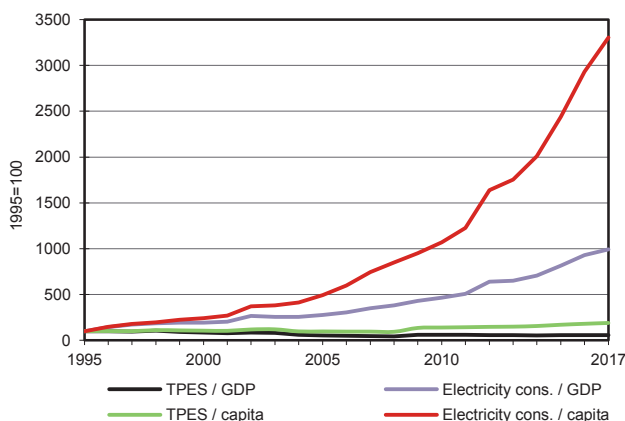


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Cambodia

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	27	-	-	-	-	235	0	4464	-	-	4726
Imports	928	2	2368	-	-	-	-	-	127	-	3425
Exports	-	-	-	-	-	-	-	-	-	-	-
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-111	-	-	-	-	-	-	-	-111
Stock changes	54	-	-7	-	-	-	-	-	-	-	47
TPES	1009	2	2250	-	-	235	0	4464	127	-	8088
Transfers	-	-2	2	-	-	-	-	-	-	-	0
Statistical differences	-3	-	-	-	-	-	-	-	-	-	-3
Electricity plants	-958	-	-89	-	-	-235	-0	-27	602	-	-708
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-606	-	-	-606
Energy industry own use	-	-	-	-	-	-	-	-	-32	-	-32
Losses	-	-	-	-	-	-	-	-	-115	-	-115
TFC	48	-	2163	-	-	-	-	3831	582	-	6625
INDUSTRY	48	-	152	-	-	-	-	1014	133	-	1347
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	43	-	-	-	-	-	-	-	-	-	43
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	5	-	152	-	-	-	-	1014	133	-	1303
TRANSPORT	-	-	1744	-	-	-	-	-	-	-	1744
Domestic aviation	-	-	39	-	-	-	-	-	-	-	39
Road	-	-	1484	-	-	-	-	-	-	-	1484
Rail	-	-	175	-	-	-	-	-	-	-	175
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	46	-	-	-	-	-	-	-	46
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	253	-	-	-	-	2817	450	-	3520
Residential	-	-	66	-	-	-	-	2817	232	-	3115
Comm. and public services	-	-	144	-	-	-	-	-	218	-	362
Agriculture/forestry	-	-	-	-	-	-	-	-	-	-	-
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	43	-	-	-	-	-	-	-	43
NON-ENERGY USE	-	-	14	-	-	-	-	-	-	-	14
in industry/transf./energy	-	-	2	-	-	-	-	-	-	-	2
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	12	-	-	-	-	-	-	-	12
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	3911	-	297	-	-	2733	5	52	-	-	6998
Electricity plants	3911	-	297	-	-	2733	5	52	-	-	6998
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Cameroon

Figure 1. Energy production

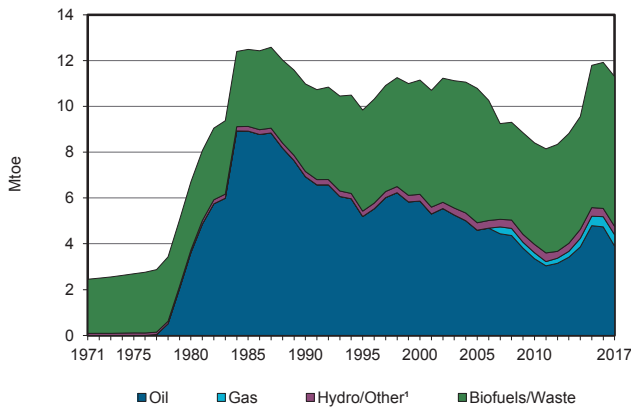


Figure 2. Total primary energy supply²

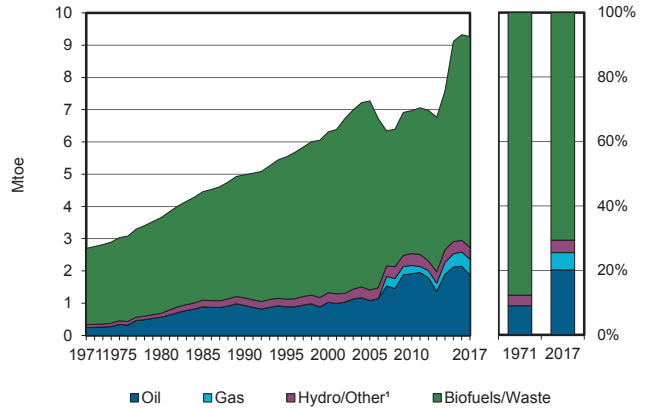


Figure 3. Energy self-sufficiency³

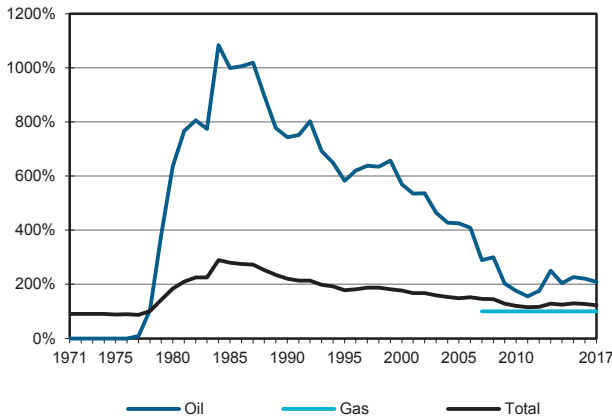


Figure 4. Oil products demand⁴

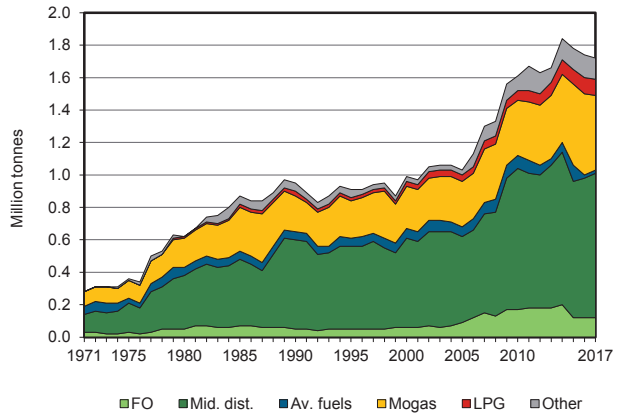


Figure 5. Electricity generation by source

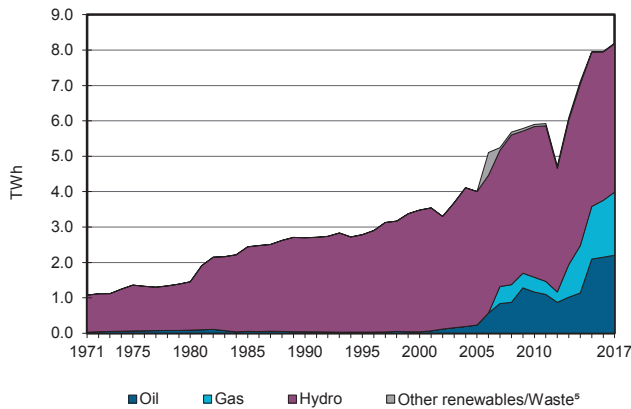
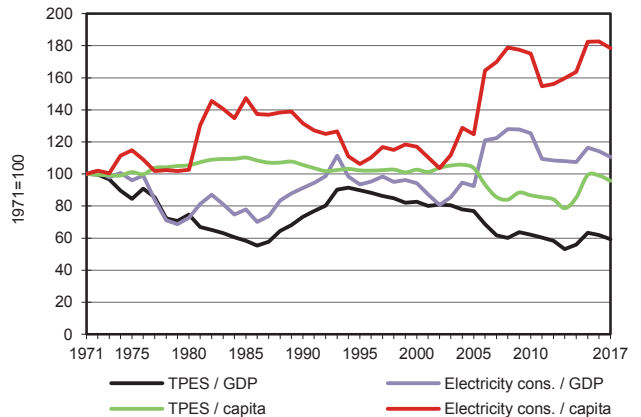


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Cameroon

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	3899	-	495	-	361	1	6540	-	-	11295
Imports	-	1130	743	-	-	-	-	-	4	-	1877
Exports	-	-3523	-373	-	-	-	-	-	-	-	-3896
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-18	-	-	-	-	-	-	-	-18
Stock changes	-	-	10	-	-	-	-	-	-	-	10
TPES	-	1506	363	495	-	361	1	6540	4	-	9269
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	55	-5	-	-	-	-44	-	-	6
Electricity plants	-	-	-336	-489	-	-361	-1	-1	705	-	-482
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-1506	1352	-	-	-	-	-	-	-	-155
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-995	-	-	-995
Energy industry own use	-	-	-23	-	-	-	-	-	-21	-	-43
Losses	-	-	-41	-	-	-	-	-	-147	-	-188
TFC	-	-	1370	-	-	-	-	5501	541	-	7411
INDUSTRY	-	-	73	-	-	-	-	-	308	-	382
Iron and steel	-	-	-	-	-	-	-	-	8	-	8
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	135	-	135
Non-metallic minerals	-	-	4	-	-	-	-	-	13	-	17
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	55	-	55
Food and tobacco	-	-	-	-	-	-	-	-	18	-	18
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	3	-	3
Non-specified	-	-	70	-	-	-	-	-	77	-	147
TRANSPORT	-	-	1024	-	-	-	-	-	-	-	1024
Domestic aviation	-	-	2	-	-	-	-	-	-	-	2
Road	-	-	1022	-	-	-	-	-	-	-	1022
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	208	-	-	-	-	5501	232	-	5941
Residential	-	-	172	-	-	-	-	4436	112	-	4720
Comm. and public services	-	-	-	-	-	-	-	1065	41	-	1106
Agriculture/forestry	-	-	-	-	-	-	-	-	5	-	5
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	36	-	-	-	-	0	74	-	110
NON-ENERGY USE	-	-	65	-	-	-	-	-	-	-	65
in industry/transf./energy	-	-	5	-	-	-	-	-	-	-	5
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	24	-	-	-	-	-	-	-	24
in other	-	-	36	-	-	-	-	-	-	-	36
Electricity and Heat Output											
Electr. generated - GWh	-	-	2205	1783	-	4193	12	3	-	-	8196
Electricity plants	-	-	2205	1783	-	4193	12	3	-	-	8196
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Colombia

Figure 1. Energy production

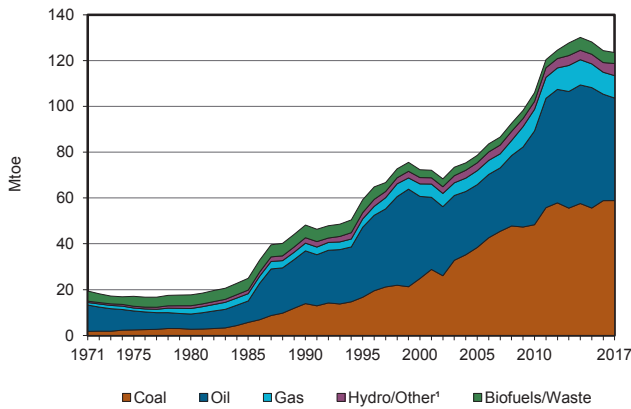


Figure 2. Total primary energy supply²

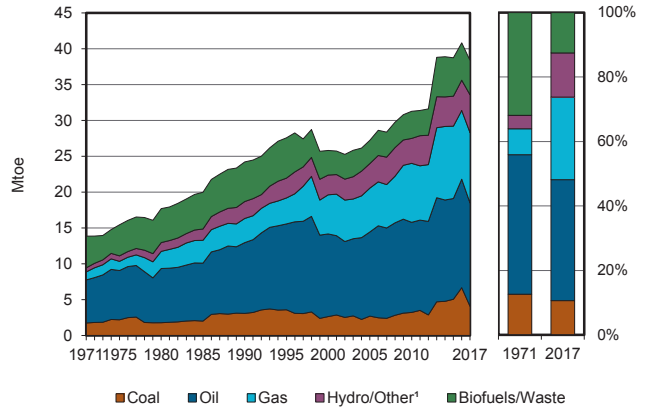


Figure 3. Energy self-sufficiency³

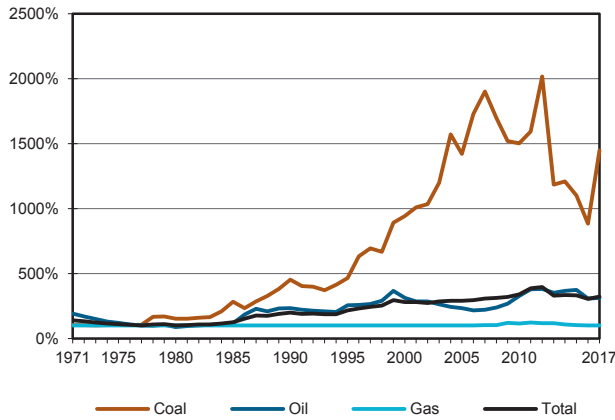


Figure 4. Oil products demand⁴

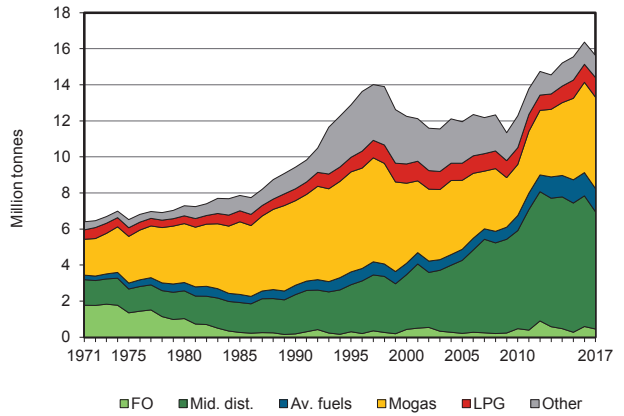


Figure 5. Electricity generation by source

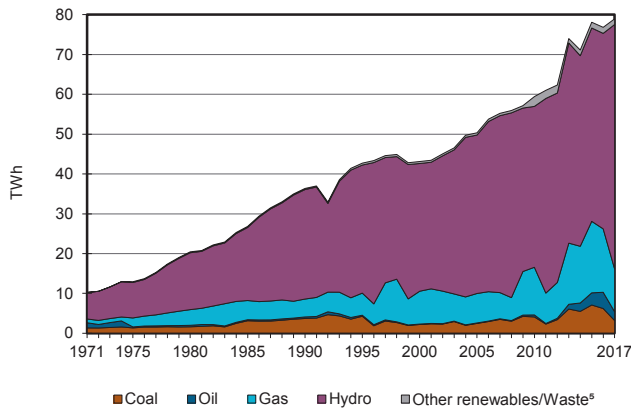
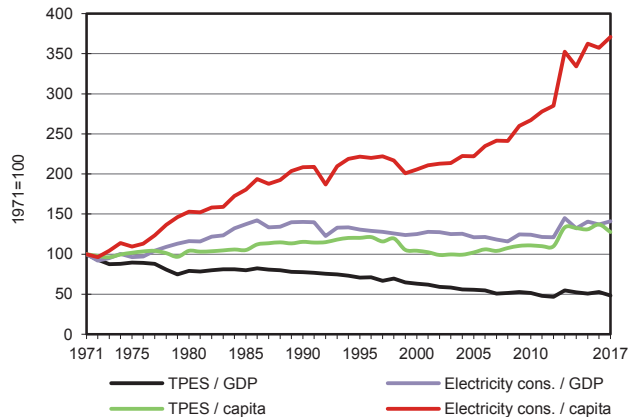


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Colombia

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	58856	44747	-	9807	-	5282	0	4790	-	-	123484
Imports	-	-	2799	11	-	-	-	-	7	-	2816
Exports	-67958	-32759	-3823	-	-	-	-	-7	-1	-	-104548
Intl. marine bunkers	-	-	-263	-	-	-	-	-	-	-	-263
Intl. aviation bunkers	-	-	-1342	-	-	-	-	-	-	-	-1342
Stock changes	13164	4967	78	-	-	-	-	-	-	-	18209
TPES	4063	16956	-2551	9818	-	5282	0	4783	6	-	38357
Transfers	-	-906	925	-	-	-	-	-	-	-	19
Statistical differences	-294	-	197	-1668	-	-	-	-115	-344	-	-2224
Electricity plants	-785	-271	-339	-2354	-	-5282	-0	-362	6790	-	-2603
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-37	-	-	-	-	-	-	-	-	-	-37
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-317	-	-	-	-	-	-	-	-	-	-317
Oil refineries	-	-15560	15552	-	-	-	-	-	-	-	-8
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-26	-	-	-26
Energy industry own use	-18	-210	-625	-1733	-	-	-	-	-680	-	-3265
Losses	-3	-	-	-	-	-	-	-	-478	-	-481
TFC	2610	10	13159	4063	-	-	-	4280	5295	-	29415
INDUSTRY	2546	10	887	1464	-	-	-	1674	1688	-	8269
Iron and steel	449	1	12	260	-	-	-	0	226	-	947
Chemical and petrochemical	78	0	327	164	-	-	-	22	282	-	873
Non-ferrous metals	-	-	3	16	-	-	-	0	22	-	41
Non-metallic minerals	834	1	34	269	-	-	-	5	167	-	1311
Transport equipment	1	-	1	7	-	-	-	-	10	-	19
Machinery	0	0	1	12	-	-	-	-	23	-	37
Mining and quarrying	-	-	401	205	-	-	-	-	365	-	971
Food and tobacco	572	0	35	291	-	-	-	1478	348	-	2724
Paper pulp and printing	258	8	4	130	-	-	-	165	113	-	677
Wood and wood products	0	-	3	3	-	-	-	1	14	-	21
Construction	-	-	61	2	-	-	-	-	14	-	77
Textile and leather	301	0	3	97	-	-	-	3	82	-	485
Non-specified	54	-	1	10	-	-	-	-	21	-	86
TRANSPORT	-	-	10113	448	-	-	-	31	8	-	10601
Domestic aviation	-	-	24	-	-	-	-	-	-	-	24
Road	-	-	10079	448	-	-	-	31	-	-	10558
Rail	-	-	-	-	-	-	-	-	8	-	8
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	10	-	-	-	-	-	-	-	10
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	64	-	1807	2151	-	-	-	2575	3598	-	10195
Residential	64	-	351	1055	-	-	-	2469	1993	-	5931
Comm. and public services	-	-	49	349	-	-	-	-	1367	-	1765
Agriculture/forestry	-	-	144	-	-	-	-	89	53	-	287
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	1263	747	-	-	-	17	185	-	2212
NON-ENERGY USE	-	-	351	-	-	-	-	-	-	-	351
in industry/transf./energy	-	-	351	-	-	-	-	-	-	-	351
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	3182	-	2214	10717	-	61434	3	1423	-	-	78973
Electricity plants	3182	-	2214	10717	-	61434	3	1423	-	-	78973
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Congo

Figure 1. Energy production

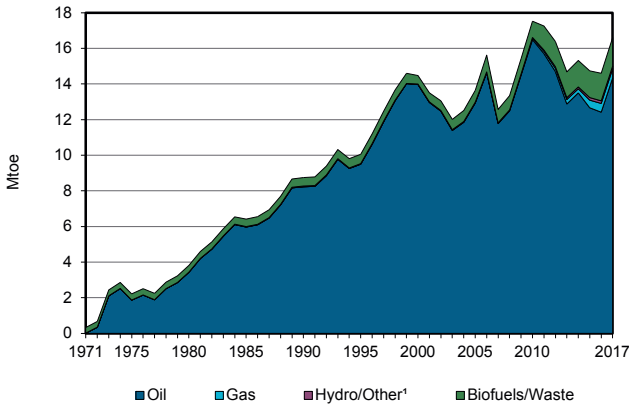


Figure 2. Total primary energy supply²

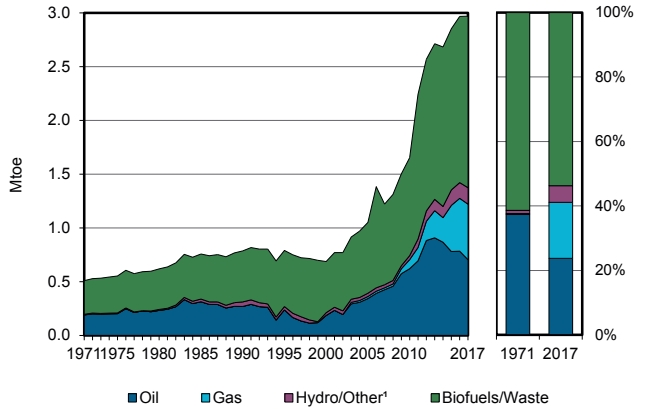


Figure 3. Energy self-sufficiency³

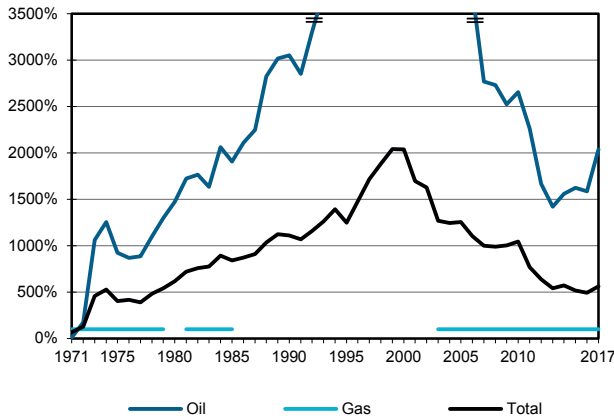


Figure 4. Oil products demand⁴

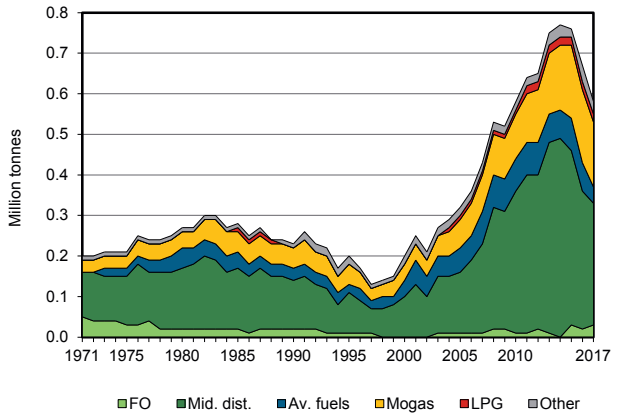


Figure 5. Electricity generation by source

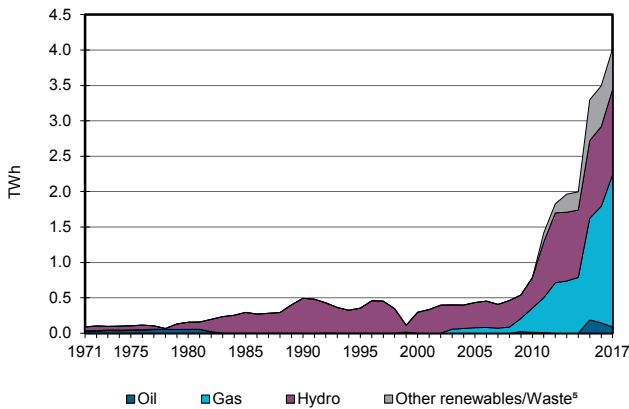
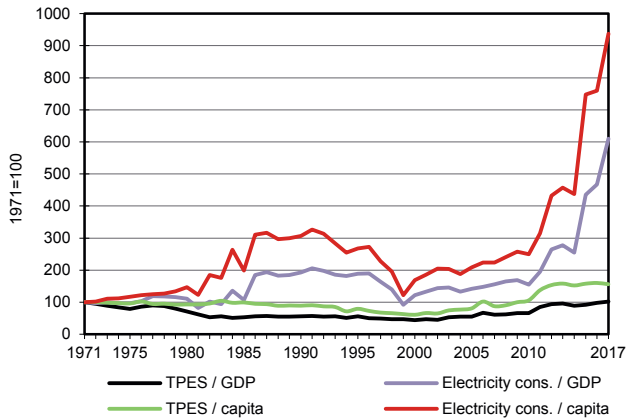


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency. Maximum scale refers to values greater than or equal to 3500%.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Congo

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	14335	-	517	-	103	50	1596	-	-	16601
Imports	-	-	206	-	-	-	-	-	2	-	208
Exports	-	-13476	-329	-	-	-	-	-	-2	-	-13806
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-33	-	-	-	-	-	-	-	-33
Stock changes	-	0	-	-	-	-	-	-	-	-	0
TPES	-	860	-156	517	-	103	50	1596	-0	-	2969
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	11	-	-	-	-	1	-59	-	-47
Electricity plants	-	-	-39	-517	-	-103	-50	-	346	-	-363
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-860	717	-	-	-	-	-	-	-	-143
Petrochemical plants	-	-	-15	-	-	-	-	-	-	-	-15
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-315	-	-	-315
Energy industry own use	-	-	-	-	-	-	-	-	-39	-	-39
Losses	-	-	-	-	-	-	-	-	-114	-	-114
TFC	-	-	518	-	-	-	-	1282	134	-	1934
INDUSTRY	-	-	36	-	-	-	-	30	9	-	75
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	18	-	-	-	-	30	-	-	48
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	3	-	3
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	18	-	-	-	-	-	6	-	24
TRANSPORT	-	-	436	-	-	-	-	-	-	-	436
Domestic aviation	-	-	14	-	-	-	-	-	-	-	14
Road	-	-	398	-	-	-	-	-	-	-	398
Rail	-	-	15	-	-	-	-	-	-	-	15
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	9	-	-	-	-	-	-	-	9
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	27	-	-	-	-	1252	125	-	1404
Residential	-	-	20	-	-	-	-	1051	58	-	1129
Comm. and public services	-	-	7	-	-	-	-	201	67	-	275
Agriculture/forestry	-	-	-	-	-	-	-	-	-	-	-
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	19	-	-	-	-	-	-	-	19
in industry/transf./energy	-	-	19	-	-	-	-	-	-	-	19
of which: chem./petrochem.	-	-	10	-	-	-	-	-	-	-	10
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	88	2155	-	1203	576	-	-	-	4022
Electricity plants	-	-	88	2155	-	1203	576	-	-	-	4022
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Costa Rica

Figure 1. Energy production

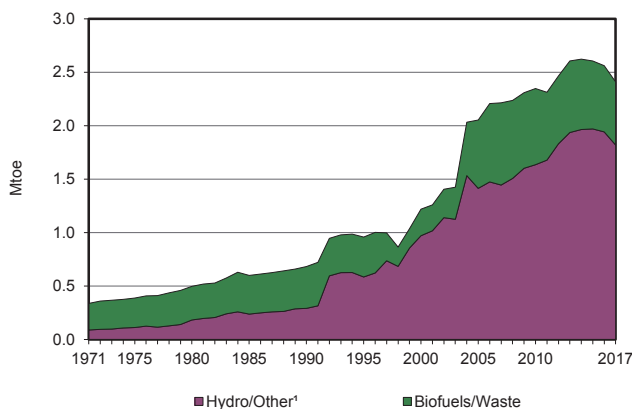


Figure 2. Total primary energy supply²

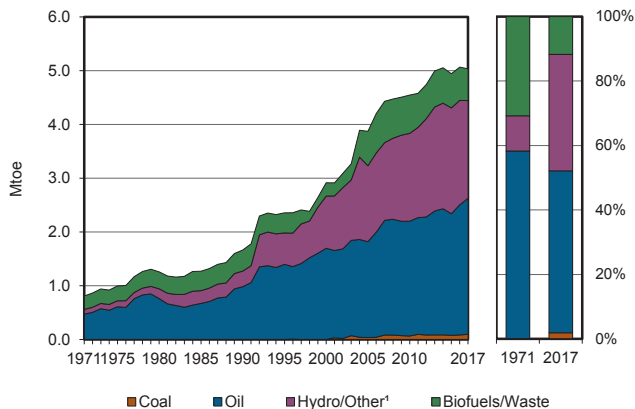


Figure 3. Energy self-sufficiency³

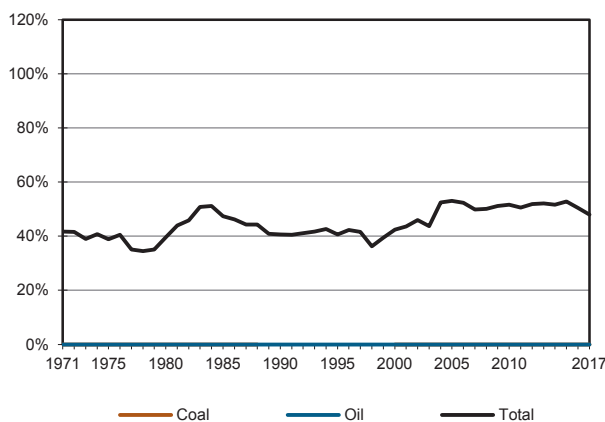


Figure 4. Oil products demand⁴

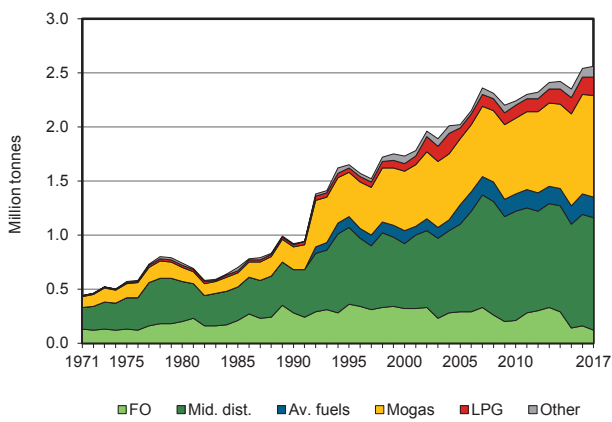


Figure 5. Electricity generation by source

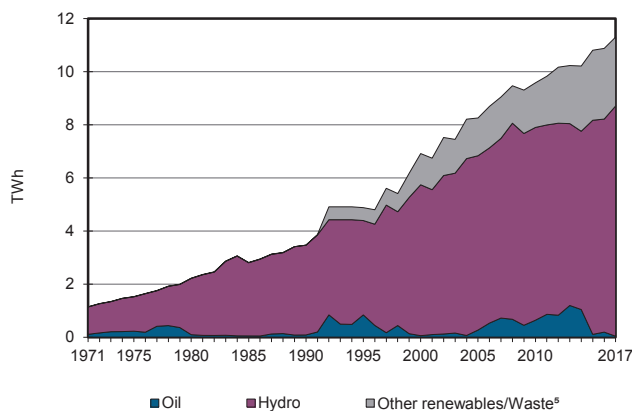
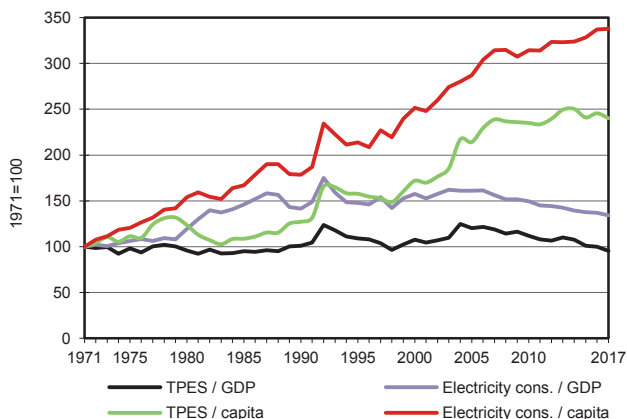


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Costa Rica

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	746	1072	590	-	-	2408
Imports	96	-	2773	-	-	-	-	0	47	-	2916
Exports	-	-	-	-	-	-	-	-0	-64	-	-64
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-199	-	-	-	-	-	-	-	-199
Stock changes	-	-	-44	-	-	-	-	-	-	-	-44
TPES	96	-	2530	-	-	746	1072	590	-16	-	5017
Transfers	-	-	5	-	-	-	-	-	-	-	5
Statistical differences	-0	-	-41	-	-	-	-	1	1	-	-40
Electricity plants	-	-	-8	-	-	-746	-1072	-3	957	-	-872
CHP plants	-	-	-	-	-	-	-	-29	15	-	-14
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-2	-	-	-2
Energy industry own use	-	-	-9	-	-	-	-	-	-11	-	-20
Losses	-	-	-	-	-	-	-	-	-94	-	-94
TFC	96	-	2476	-	-	-	-	558	851	-	3980
INDUSTRY	5	-	248	-	-	-	-	432	174	-	859
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	14	-	-	-	-	-	35	-	49
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	5	-	-	-	-	-	-	-	-	-	5
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	128	-	-	-	-	297	58	-	482
Paper pulp and printing	-	-	11	-	-	-	-	10	11	-	32
Wood and wood products	-	-	6	-	-	-	-	113	3	-	122
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	14	-	-	-	-	-	6	-	21
Non-specified	-	-	75	-	-	-	-	12	61	-	147
TRANSPORT	-	-	1932	-	-	-	-	-	-	-	1932
Domestic aviation	-	-	4	-	-	-	-	-	-	-	4
Road	-	-	1927	-	-	-	-	-	-	-	1927
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	2	-	-	-	-	-	-	-	2
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	90	-	198	-	-	-	-	126	677	-	1091
Residential	-	-	70	-	-	-	-	98	325	-	493
Comm. and public services	90	-	42	-	-	-	-	28	316	-	477
Agriculture/forestry	-	-	56	-	-	-	-	-	30	-	86
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	29	-	-	-	-	-	6	-	36
NON-ENERGY USE	-	-	98	-	-	-	-	-	-	-	98
in industry/transf./energy	-	-	98	-	-	-	-	-	-	-	98
of which: chem./petrochem.	-	-	0	-	-	-	-	-	-	-	0
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	37	-	-	8677	2410	185	-	-	11309
Electricity plants	-	-	37	-	-	8677	2410	10	-	-	11134
CHP plants	-	-	-	-	-	-	-	174	-	-	174
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Côte d'Ivoire

Figure 1. Energy production

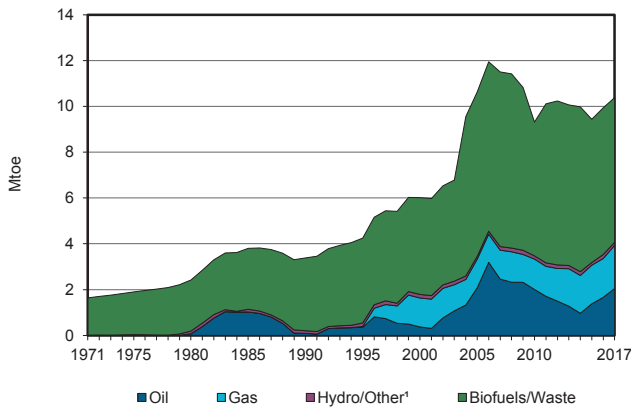


Figure 2. Total primary energy supply²

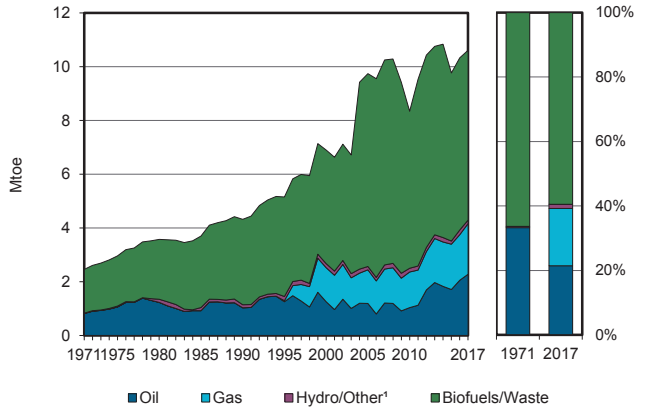


Figure 3. Energy self-sufficiency³

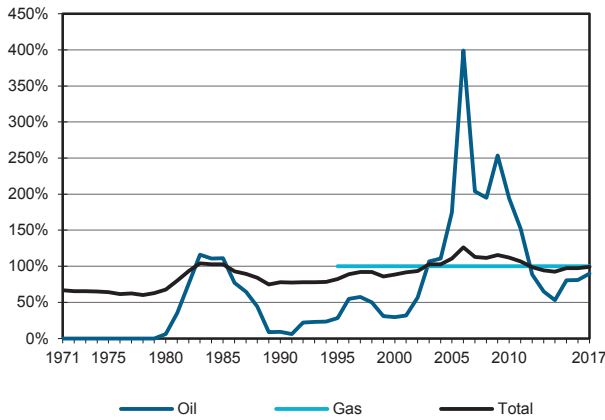


Figure 4. Oil products demand⁴

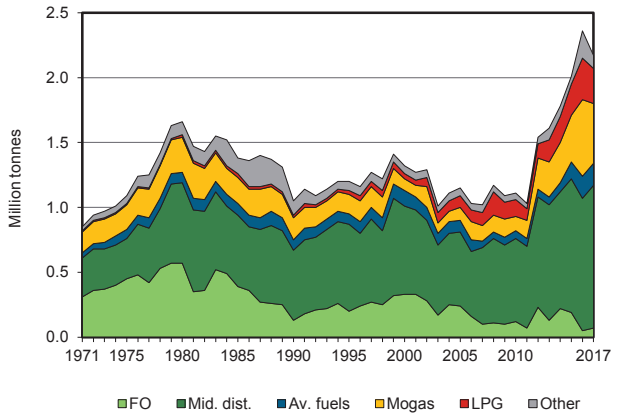


Figure 5. Electricity generation by source

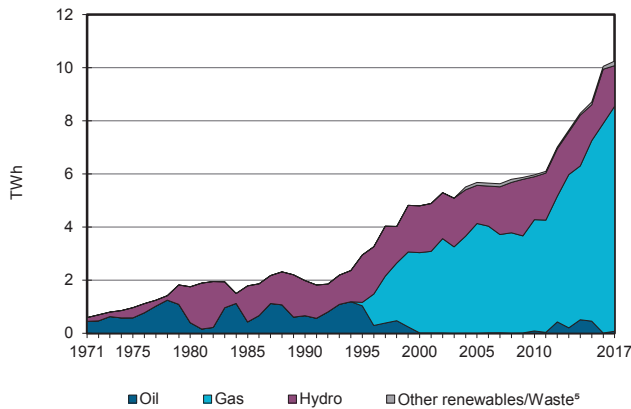
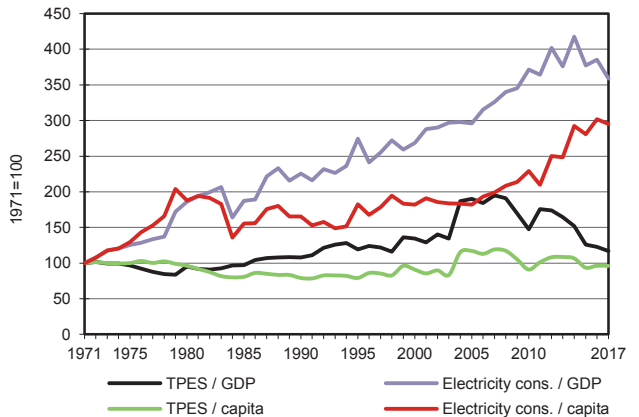


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Côte d'Ivoire

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	2050	-	1885	-	131	-	6315	-	-	10381
Imports	-	3483	280	-	-	-	-	-	2	-	3765
Exports	-	-1903	-1384	-	-	-	-	-	-161	-	-3448
Intl. marine bunkers	-	-	-78	-	-	-	-	-	-	-	-78
Intl. aviation bunkers	-	-	-170	-	-	-	-	-	-	-	-170
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	-	3630	-1351	1885	-	131	-	6315	-160	-	10450
Transfers	-	-6	8	-	-	-	-	-	-	-	2
Statistical differences	-	-268	64	-0	-	-	-	-0	31	-	-173
Electricity plants	-	-	-24	-1579	-	-131	-	-46	882	-	-898
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-3355	3308	-	-	-	-	-	-	-	-48
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-1844	-	-	-1844
Energy industry own use	-	-	-44	-	-	-	-	-	-44	-	-88
Losses	-	-	-	-	-	-	-	-32	-140	-	-172
TFC	-	-	1961	306	-	-	-	4393	569	-	7229
INDUSTRY	-	-	231	306	-	-	-	-	187	-	724
Iron and steel	-	-	-	-	-	-	-	-	9	-	9
Chemical and petrochemical	-	-	-	-	-	-	-	-	9	-	9
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	17	306	-	-	-	-	68	-	391
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	45	-	45
Construction	-	-	-	-	-	-	-	-	5	-	5
Textile and leather	-	-	-	-	-	-	-	-	13	-	13
Non-specified	-	-	214	-	-	-	-	-	37	-	251
TRANSPORT	-	-	1188	-	-	-	-	-	-	-	1188
Domestic aviation	-	-	8	-	-	-	-	-	-	-	8
Road	-	-	1064	-	-	-	-	-	-	-	1064
Rail	-	-	16	-	-	-	-	-	-	-	16
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	100	-	-	-	-	-	-	-	100
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	466	-	-	-	-	4393	382	-	5240
Residential	-	-	198	-	-	-	-	3908	180	-	4286
Comm. and public services	-	-	128	-	-	-	-	485	201	-	813
Agriculture/forestry	-	-	141	-	-	-	-	-	-	-	141
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	1	-	1
NON-ENERGY USE	-	-	77	-	-	-	-	-	-	-	77
in industry/transf./energy	-	-	77	-	-	-	-	-	-	-	77
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	74	8478	-	1529	-	173	-	-	10253
Electricity plants	-	-	74	8478	-	1529	-	173	-	-	10253
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Croatia

Figure 1. Energy production

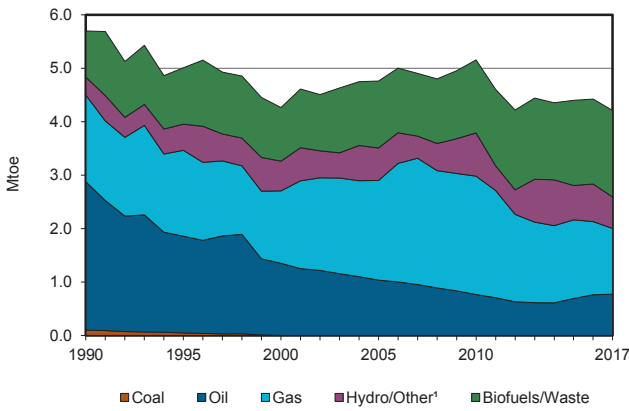


Figure 2. Total primary energy supply²

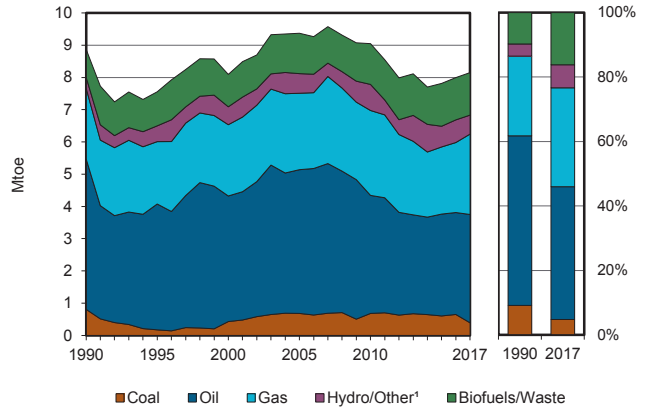


Figure 3. Energy self-sufficiency³

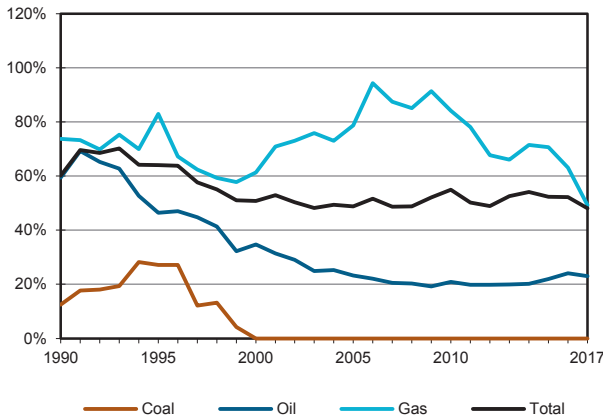


Figure 4. Oil products demand⁴

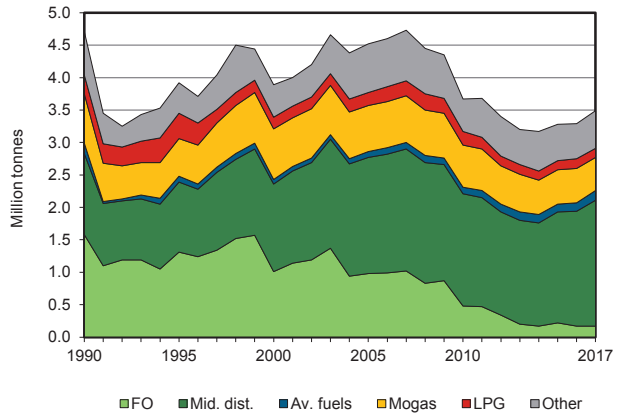


Figure 5. Electricity generation by source

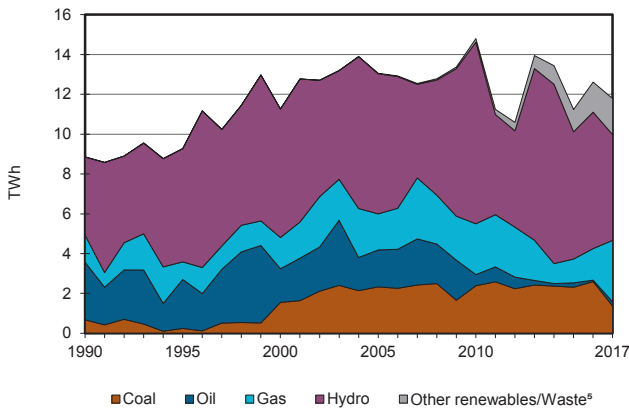
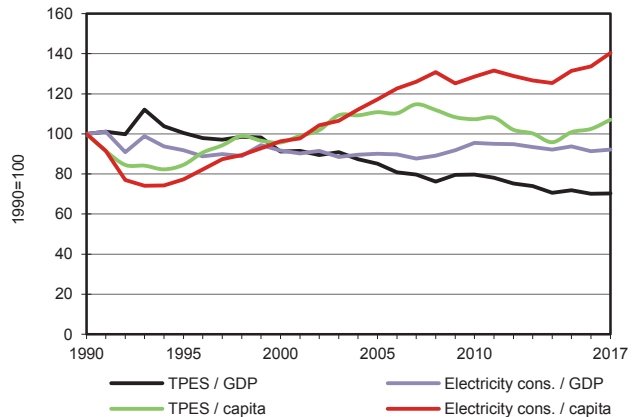


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Croatia

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	772	-	1230	-	456	131	1618	-	-	4207
Imports	395	3223	2017	1507	-	-	-	37	1045	-	8225
Exports	-	-	-2525	-166	-	-	-	-334	-447	-	-3472
Intl. marine bunkers	-	-	-6	-	-	-	-	-	-	-	-6
Intl. aviation bunkers	-	-	-145	-	-	-	-	-	-	-	-145
Stock changes	-3	1	22	-78	-	-	-	-4	-	-	-61
TPES	392	3996	-637	2493	-	456	131	1318	598	-	8748
Transfers	-	-46	46	-	-	-	-	-	-	-	-0
Statistical differences	1	9	-	-	-	-	-	-	-	-	10
Electricity plants	-313	-	-1	-4	-	-456	-110	-7	687	-	-206
CHP plants	-4	-	-46	-681	-	-	-	-157	327	255	-307
Heat plants	-	-	-7	-45	-	-	-	-0	-	42	-10
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-4037	3975	-	-	-	-	-	-	-	-62
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	78	-	-81	-	-	-	-9	-	-	-12
Energy industry own use	-	-	-343	-164	-	-	-	-1	-85	-29	-623
Losses	-	-	-	-27	-	-	-	-	-152	-37	-215
TFC	76	-	2986	1491	-	-	21	1144	1374	231	7322
INDUSTRY	72	-	300	386	-	-	-	44	310	72	1184
Iron and steel	0	-	0	2	-	-	-	-	5	-	7
Chemical and petrochemical	-	-	3	121	-	-	-	-	26	16	166
Non-ferrous metals	-	-	1	8	-	-	-	0	7	-	16
Non-metallic minerals	57	-	162	87	-	-	-	14	58	-	378
Transport equipment	-	-	1	3	-	-	-	0	8	-	12
Machinery	0	-	7	21	-	-	-	0	39	9	77
Mining and quarrying	-	-	12	-	-	-	-	-	3	-	15
Food and tobacco	15	-	17	90	-	-	-	4	60	13	199
Paper pulp and printing	-	-	4	35	-	-	-	1	28	1	69
Wood and wood products	-	-	0	1	-	-	-	16	27	29	74
Construction	-	-	89	-	-	-	-	-	7	-	95
Textile and leather	-	-	1	10	-	-	-	0	13	1	26
Non-specified	-	-	2	9	-	-	-	8	29	3	50
TRANSPORT	-	-	2149	4	-	-	-	0	23	-	2176
Domestic aviation	-	-	10	-	-	-	-	-	-	-	10
Road	-	-	2075	4	-	-	-	0	-	-	2080
Rail	-	-	18	-	-	-	-	-	20	-	38
Pipeline transport	-	-	-	-	-	-	-	-	3	-	3
Domestic navigation	-	-	45	-	-	-	-	-	-	-	45
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	4	-	391	691	-	-	21	1100	1041	159	3406
Residential	4	-	137	479	-	-	9	1092	539	117	2376
Comm. and public services	0	-	58	192	-	-	8	8	497	37	800
Agriculture/forestry	-	-	170	20	-	-	4	-	5	6	204
Fishing	-	-	26	-	-	-	-	-	-	-	26
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	147	409	-	-	-	-	-	-	556
in industry/transf./energy	-	-	124	409	-	-	-	-	-	-	533
of which: chem./petrochem.	-	-	10	409	-	-	-	-	-	-	419
in transport	-	-	22	-	-	-	-	-	-	-	22
in other	-	-	2	-	-	-	-	-	-	-	2
Electricity and Heat Output											
Electr. generated - GWh	1367	-	210	3090	-	5307	1283	526	-	-	11783
Electricity plants	1349	-	6	18	-	5307	1283	24	-	-	7986
CHP plants	18	-	205	3073	-	-	-	502	-	-	3797
Heat generated - TJ	-	-	749	9857	-	-	-	1825	-	-	12430
CHP plants	-	-	525	8311	-	-	-	1822	-	-	10658
Heat plants	-	-	223	1546	-	-	-	2	-	-	1772

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Cuba

Figure 1. Energy production

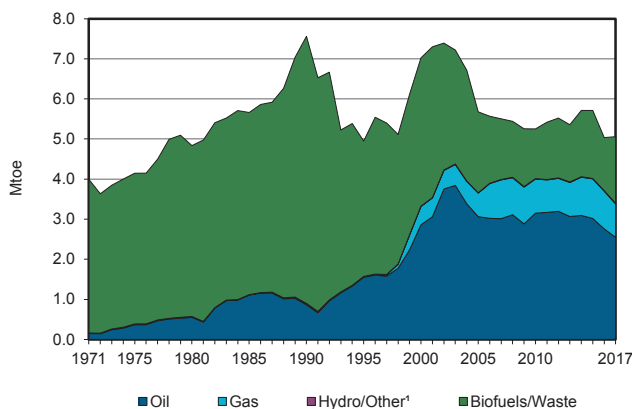


Figure 2. Total primary energy supply²

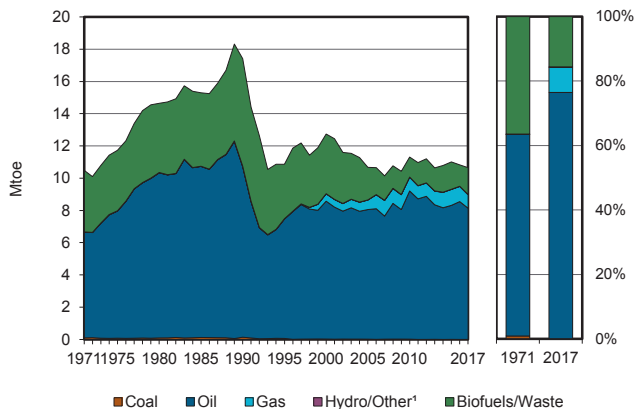


Figure 3. Energy self-sufficiency³

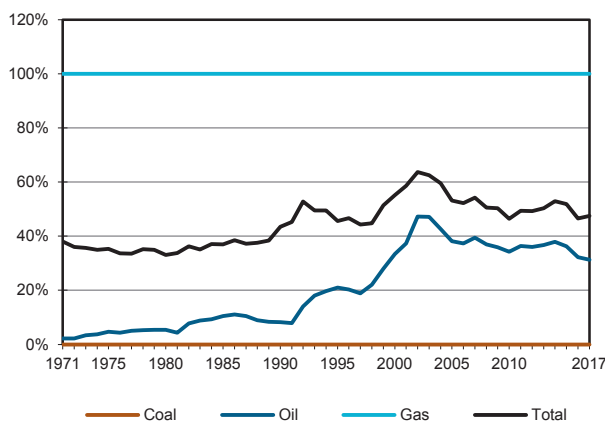


Figure 4. Oil products demand⁴

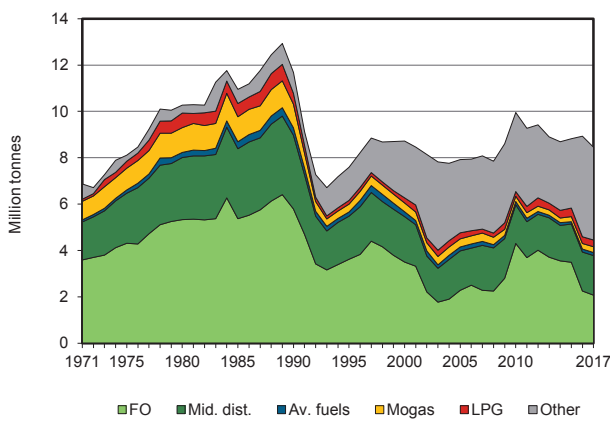


Figure 5. Electricity generation by source

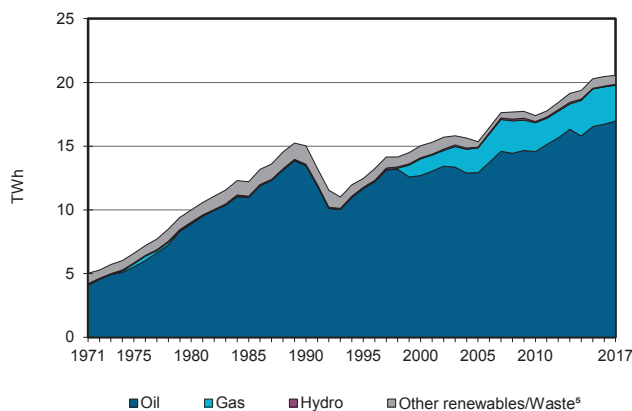
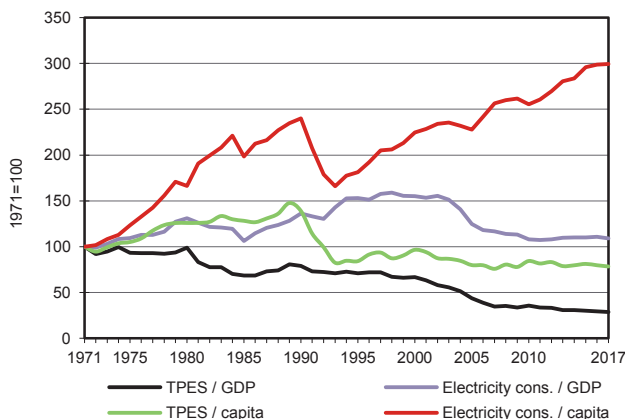


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Cuba

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	2545	-	835	-	7	7	1663	-	-	5057
Imports	2	3473	2842	-	-	-	-	-	-	-	6317
Exports	-	-	-189	-	-	-	-	-	-	-	-189
Intl. marine bunkers	-	-	-396	-	-	-	-	-	-	-	-396
Intl. aviation bunkers	-	-	-137	-	-	-	-	-	-	-	-137
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	2	6018	2119	835	-	7	7	1663	-	-	10651
Transfers	-	-88	96	-	-	-	-	-	-	-	8
Statistical differences	-	-	-0	-	-	-	-	6	0	-	6
Electricity plants	-	-1697	-1206	-602	-	-7	-7	-307	1768	-	-2059
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-0	-	-	-	-	-	-	-	-	-	-0
Gas works	-	-	-16	14	-	-	-	-	-	-	-2
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-2065	1932	-	-	-	-	-	-	-	-133
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-58	-	-	-58
Energy industry own use	-	-	-150	-	-	-	-	-	-163	-	-312
Losses	-	-	-	-	-	-	-	-	-273	-	-273
TFC	2	2167	2776	247	-	-	-	1304	1332	-	7828
INDUSTRY	2	2167	1097	196	-	-	-	989	264	-	4715
Iron and steel	0	-	-	-	-	-	-	-	-	-	0
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	14	-	-	-	-	-	-	-	14
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	100	-	-	-	-	0	9	-	109
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	2	2167	984	196	-	-	-	989	255	-	4593
TRANSPORT	-	-	511	-	-	-	-	-	25	-	536
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	503	-	-	-	-	-	-	-	503
Rail	-	-	-	-	-	-	-	-	25	-	25
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	8	-	-	-	-	-	-	-	8
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	989	51	-	-	-	315	1043	-	2398
Residential	-	-	180	47	-	-	-	219	765	-	1212
Comm. and public services	-	-	9	-	-	-	-	12	252	-	273
Agriculture/forestry	-	-	144	-	-	-	-	43	26	-	213
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	655	4	-	-	-	41	-	-	700
NON-ENERGY USE	-	-	178	-	-	-	-	-	-	-	178
in industry/transf./energy	-	-	154	-	-	-	-	-	-	-	154
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	24	-	-	-	-	-	-	-	24
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	4935	12035	2802	-	83	81	622	-	-	20558
Electricity plants	-	4935	12035	2802	-	83	81	622	-	-	20558
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Curaçao¹

Figure 1. Energy production

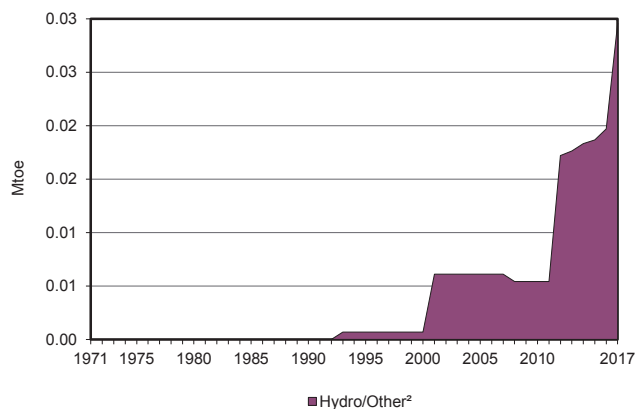


Figure 2. Total primary energy supply³

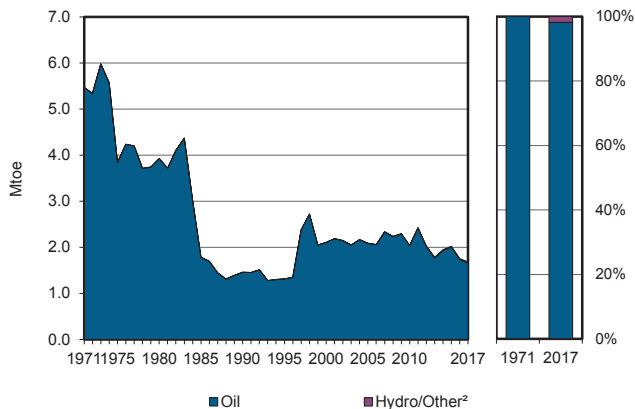


Figure 3. Energy self-sufficiency⁴

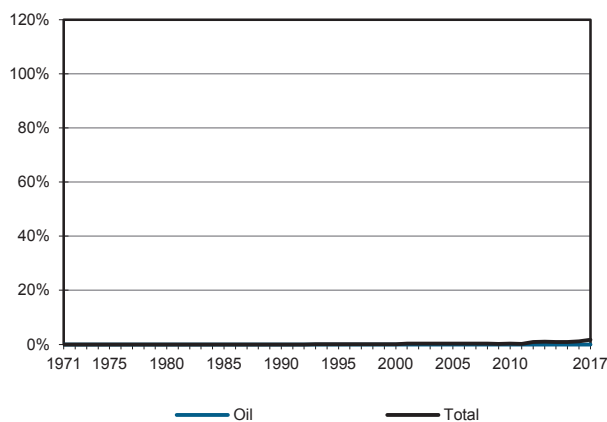


Figure 4. Oil products demand⁵

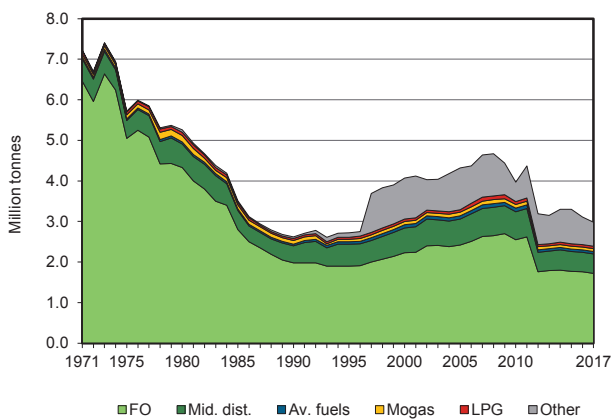


Figure 5. Electricity generation by source

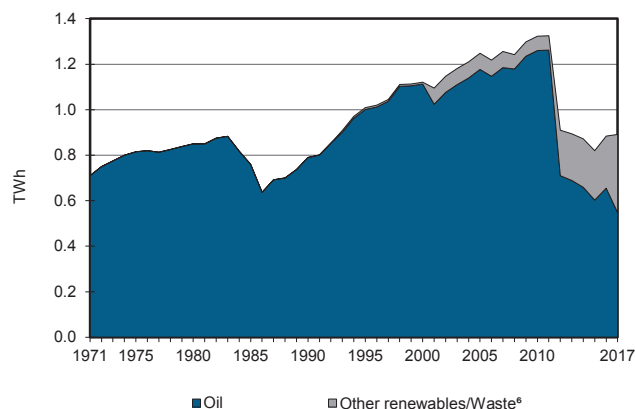
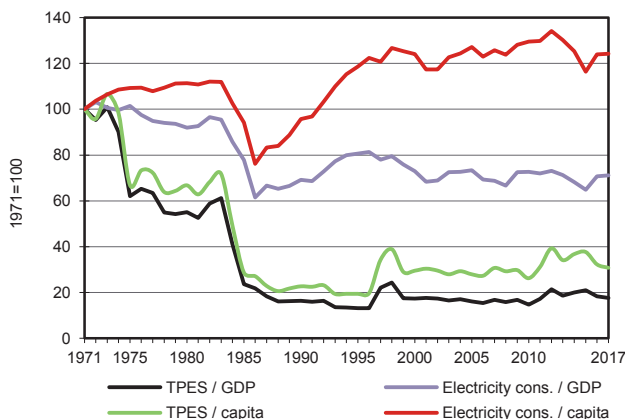


Figure 6. Selected indicators⁷



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Please refer to section 'Geographical coverage'.
2. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
3. Excluding electricity trade.
4. Production divided by TPES. 100% represents full self-sufficiency.
5. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
7. GDP in 2010 USD.

Curaçao¹

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	-	30	-	-	-	30
Imports	-	7292	2310	-	-	-	-	-	-	-	9601
Exports	-	-	-6331	-	-	-	-	-	-	-	-6331
Intl. marine bunkers	-	-	-1554	-	-	-	-	-	-	-	-1554
Intl. aviation bunkers	-	-	-62	-	-	-	-	-	-	-	-62
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	-	7292	-5637	-	-	-	30	-	-	-	1684
Transfers	-	-44	48	-	-	-	-	-	-	-	5
Statistical differences	-	-	7	-	-	-	-	-	-	-	7
Electricity plants	-	-	-116	-	-	-	-30	-	77	-	-69
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-7248	6887	-	-	-	-	-	-	-	-360
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-	-	-556	-	-	-	-	-	-7	-	-563
Losses	-	-	-	-	-	-	-	-	-12	-	-12
TFC	-	-	634	-	-	-	-	-	57	-	691
INDUSTRY	-	-	123	-	-	-	-	-	31	-	154
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	123	-	-	-	-	-	31	-	154
TRANSPORT	-	-	357	-	-	-	-	-	-	-	357
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	357	-	-	-	-	-	-	-	357
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	56	-	-	-	-	-	26	-	82
Residential	-	-	56	-	-	-	-	-	-	-	56
Comm. and public services	-	-	-	-	-	-	-	-	-	-	-
Agriculture/forestry	-	-	-	-	-	-	-	-	-	-	-
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	26	-	26
NON-ENERGY USE	-	-	98	-	-	-	-	-	-	-	98
in industry/transf./energy	-	-	98	-	-	-	-	-	-	-	98
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	547	-	-	-	344	-	-	-	891
Electricity plants	-	-	547	-	-	-	344	-	-	-	891
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Please refer to section 'Geographical coverage'.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Cyprus¹

Figure 1. Energy production

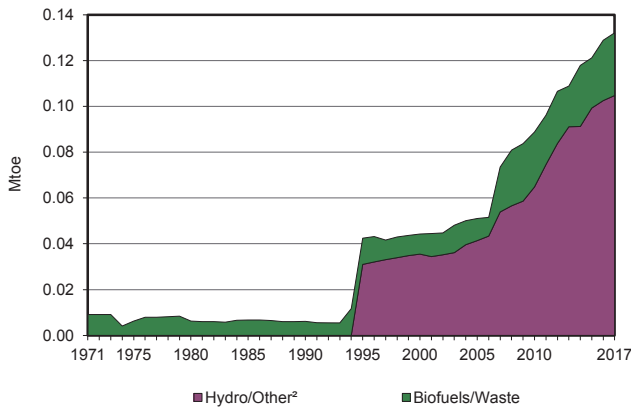


Figure 2. Total primary energy supply³

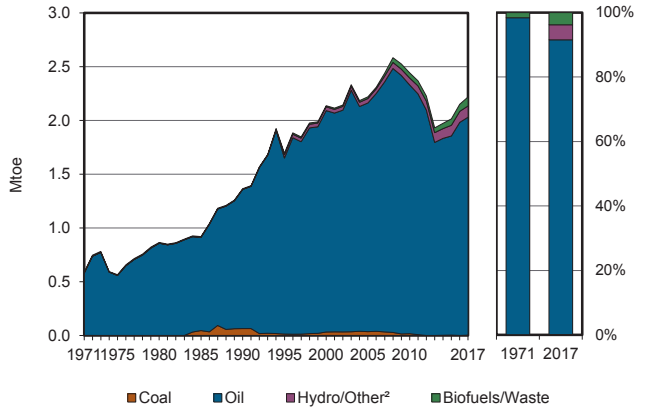


Figure 3. Energy self-sufficiency⁴

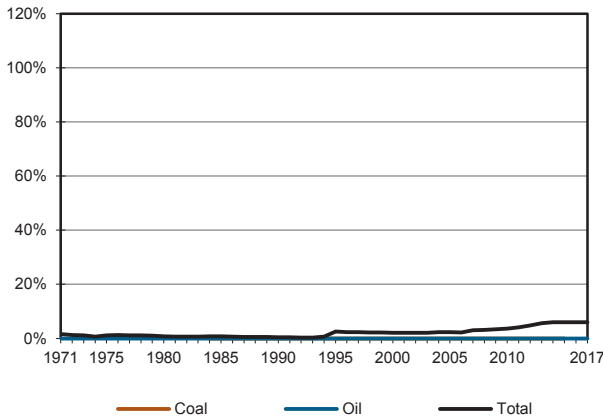


Figure 4. Oil products demand⁵

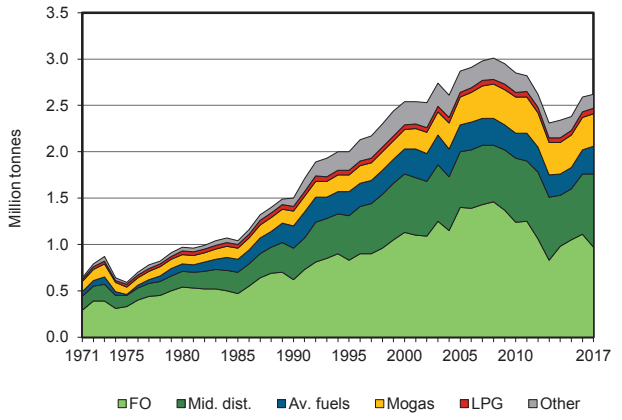


Figure 5. Electricity generation by source

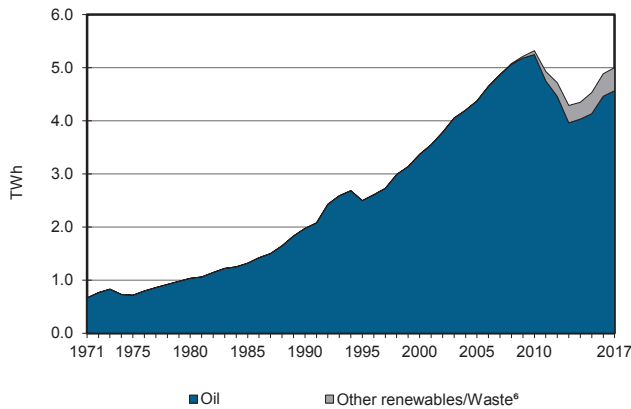
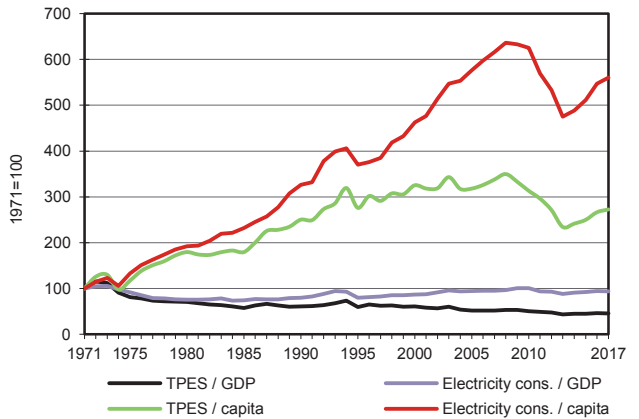


Figure 6. Selected indicators⁷



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Please refer to section 'Geographical coverage'.
2. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
3. Excluding electricity trade.
4. Production divided by TPES. 100% represents full self-sufficiency.
5. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
6. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
7. GDP in 2010 USD.

Cyprus¹

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	-	105	27	-	-	132
Imports	10	-	2614	-	-	-	-	54	-	-	2678
Exports	-	-	-	-	-	-	-	-	-	-	-
Intl. marine bunkers	-	-	-250	-	-	-	-	-	-	-	-250
Intl. aviation bunkers	-	-	-307	-	-	-	-	-	-	-	-307
Stock changes	-7	-	-29	-	-	-	-	2	-	-	-34
TPES	3	-	2027	-	-	-	105	83	-	-	2218
Transfers	-	-	5	-	-	-	-	-	-	-	5
Statistical differences	-	-	-1	-	-	-	-	-0	-0	-	-2
Electricity plants	-	-	-1005	-	-	-	-33	426	-	-	-612
CHP plants	-	-	-1	-	-	-	-	-8	5	1	-2
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-2	-	-	-2
Energy industry own use	-	-	-	-	-	-	-	-	-20	-	-20
Losses	-	-	-	-	-	-	-	-	-20	-	-20
TFC	3	-	1026	-	-	-	72	73	391	1	1566
INDUSTRY	3	-	137	-	-	-	-	43	45	-	228
Iron and steel	-	-	-	-	-	-	-	-	0	-	0
Chemical and petrochemical	-	-	2	-	-	-	-	1	4	-	6
Non-ferrous metals	-	-	1	-	-	-	-	-	-	-	1
Non-metallic minerals	3	-	94	-	-	-	-	42	15	-	154
Transport equipment	-	-	-	-	-	-	-	-	0	-	0
Machinery	-	-	0	-	-	-	-	-	2	-	2
Mining and quarrying	-	-	3	-	-	-	-	-	3	-	6
Food and tobacco	-	-	22	-	-	-	-	1	15	-	38
Paper pulp and printing	-	-	1	-	-	-	-	-	1	-	2
Wood and wood products	-	-	-	-	-	-	-	-	1	-	1
Construction	-	-	14	-	-	-	-	-	0	-	15
Textile and leather	-	-	-	-	-	-	-	-	0	-	0
Non-specified	-	-	1	-	-	-	-	-	3	-	4
TRANSPORT	-	-	664	-	-	-	-	9	-	-	672
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	664	-	-	-	-	9	-	-	672
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	187	-	-	-	72	21	346	1	628
Residential	-	-	120	-	-	-	61	10	143	-	335
Comm. and public services	-	-	31	-	-	-	11	7	180	-	229
Agriculture/forestry	-	-	25	-	-	-	-	4	14	1	45
Fishing	-	-	2	-	-	-	-	-	0	-	2
Non-specified	-	-	9	-	-	-	-	-	8	-	17
NON-ENERGY USE	-	-	38	-	-	-	-	-	-	-	38
in industry/transf./energy	-	-	37	-	-	-	-	-	-	-	37
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	1	-	-	-	-	-	-	-	1
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	4569	-	-	-	383	52	-	-	5004
Electricity plants	-	-	4565	-	-	-	383	-	-	-	4949
CHP plants	-	-	4	-	-	-	-	52	-	-	55
Heat generated - TJ	-	-	-	-	-	-	-	54	-	-	54
CHP plants	-	-	-	-	-	-	-	54	-	-	54
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Please refer to section 'Geographical coverage'.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Democratic People's Republic of Korea

Figure 1. Energy production

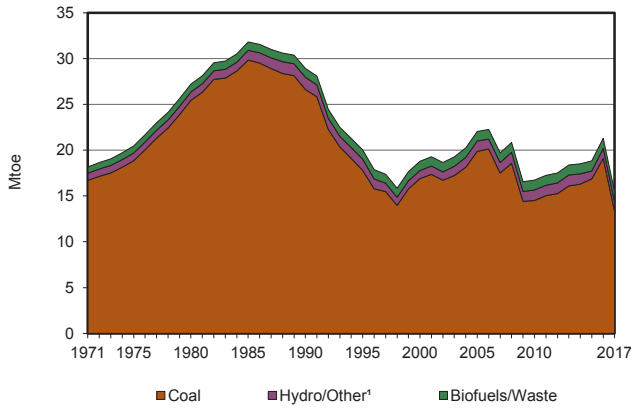


Figure 2. Total primary energy supply²

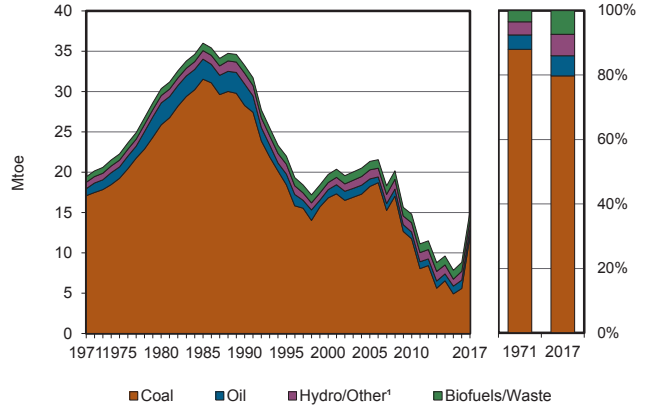


Figure 3. Energy self-sufficiency³

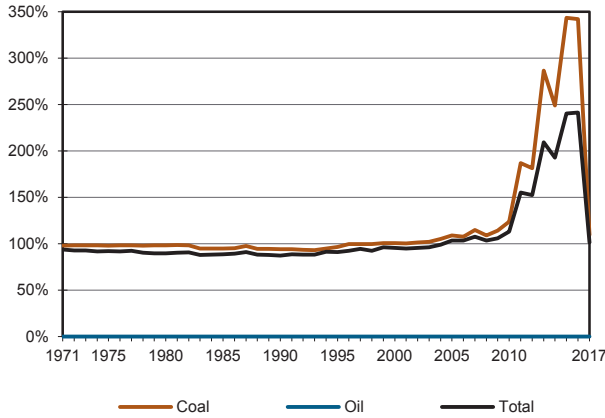


Figure 4. Oil products demand⁴

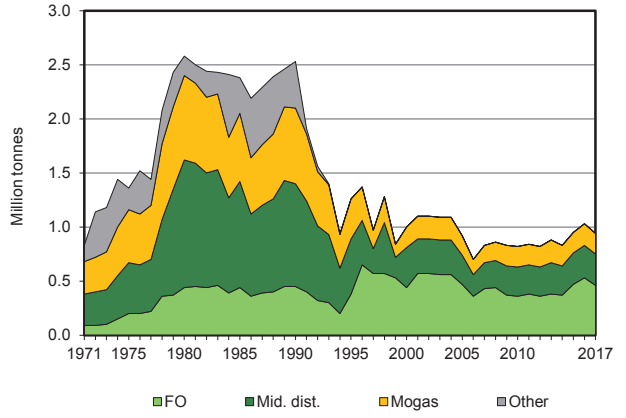


Figure 5. Electricity generation by source

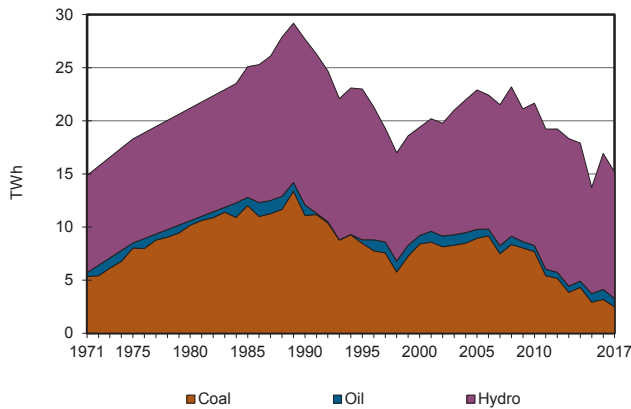
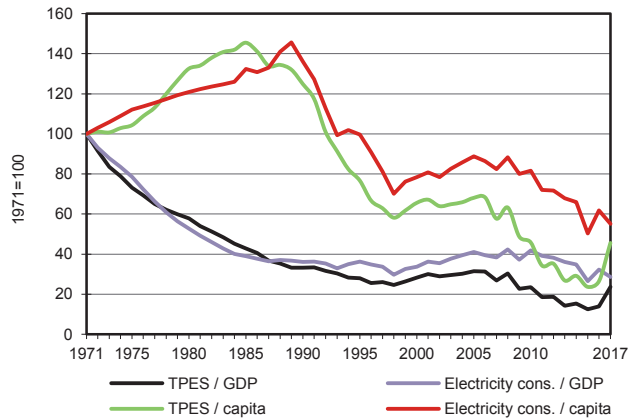


Figure 6. Selected indicators⁵



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. GDP in 2010 USD.

Democratic People's Republic of Korea

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	13296	-	-	-	-	1023	-	1113	-	-	15433
Imports	556	536	413	-	-	-	-	-	-	-	1504
Exports	-1703	-	-	-	-	-	-	-	-	-	-1703
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-	-	-	-	-	-	-	-	-
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	12149	536	413	-	-	1023	-	1113	-	-	15234
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-7971	-	-	-	-	-	-	-	-	-	-7971
Electricity plants	-546	-	-336	-	-	-1023	-	-	1304	-	-601
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-62	-	-	-	-	-	-	-	-	-	-62
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-536	532	-	-	-	-	-	-	-	-4
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-226	-	-	-226
Energy industry own use	-	-	-15	-	-	-	-	-	-124	-	-139
Losses	-	-	-	-	-	-	-	-	-206	-	-206
TFC	3570	-	593	-	-	-	-	887	974	-	6024
INDUSTRY	2727	-	89	-	-	-	-	-	487	-	3304
Iron and steel	57	-	-	-	-	-	-	-	-	-	57
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	2670	-	89	-	-	-	-	-	487	-	3246
TRANSPORT	-	-	464	-	-	-	-	-	-	-	464
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	464	-	-	-	-	-	-	-	464
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	843	-	40	-	-	-	-	887	487	-	2256
Residential	-	-	40	-	-	-	-	122	-	-	162
Comm. and public services	-	-	-	-	-	-	-	-	-	-	-
Agriculture/forestry	-	-	-	-	-	-	-	-	-	-	-
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	843	-	-	-	-	-	-	765	487	-	2094
NON-ENERGY USE	-	-	-	-	-	-	-	-	-	-	-
in industry/transf./energy	-	-	-	-	-	-	-	-	-	-	-
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	2482	-	781	-	-	11900	-	-	-	-	15164
Electricity plants	2482	-	781	-	-	11900	-	-	-	-	15164
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Democratic Republic of the Congo

Figure 1. Energy production

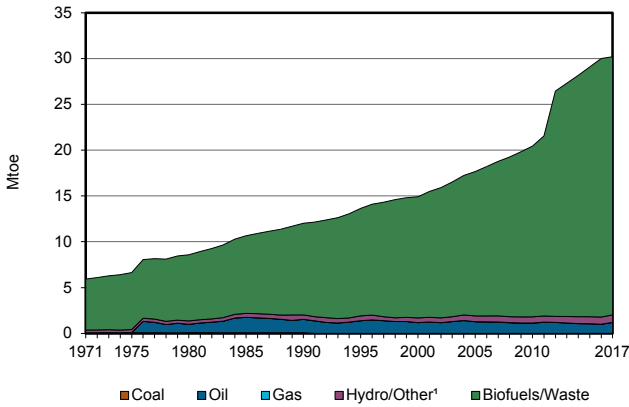


Figure 2. Total primary energy supply²

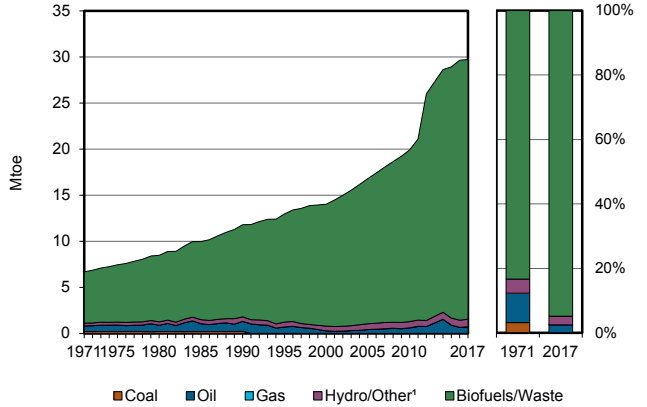


Figure 3. Energy self-sufficiency³

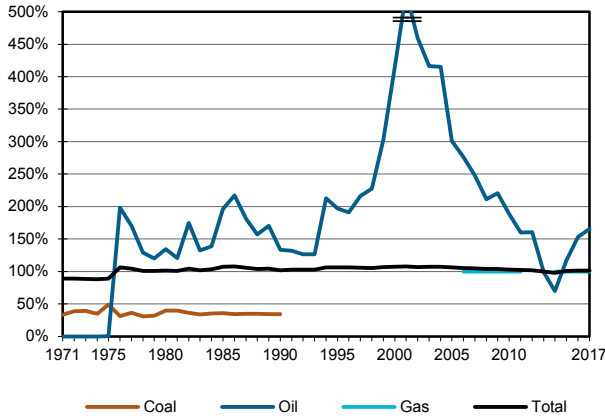


Figure 4. Oil products demand⁴

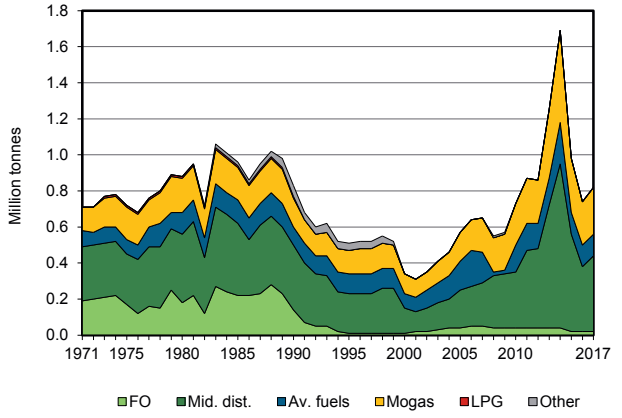


Figure 5. Electricity generation by source

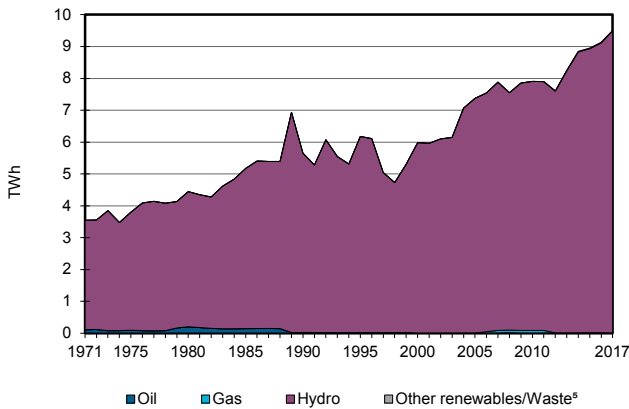
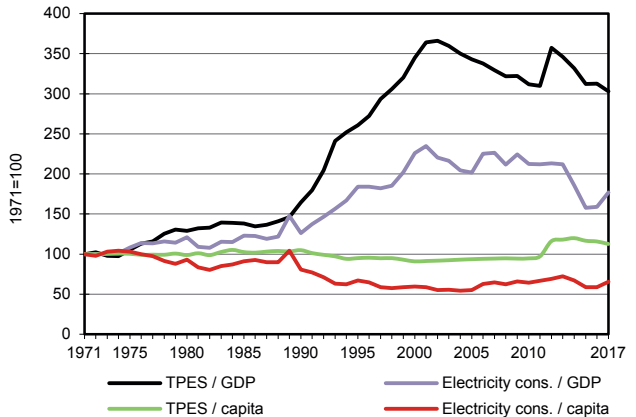


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Democratic Republic of the Congo

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	1207	-	0	-	815	-	28173	-	-	30195
Imports	-	-	854	-	-	-	-	-	57	-	911
Exports	-	-1207	-	-	-	-	-	-	-5	-	-1212
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-125	-	-	-	-	-	-	-	-125
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	-	-	729	0	-	815	-	28173	52	-	29769
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	2	-	-	-	-	195	-64	-	132
Electricity plants	-	-	-2	-0	-	-815	-	-72	818	-	-72
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-4416	-	-	-4416
Energy industry own use	-	-	-	-	-	-	-	-	-61	-	-61
Losses	-	-	-	-	-	-	-	-	-124	-	-124
TFC	-	-	729	-	-	-	-	23879	621	-	25229
INDUSTRY	-	-	16	-	-	-	-	3582	399	-	3997
Iron and steel	-	-	-	-	-	-	-	-	1	-	1
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	16	-	-	-	-	-	9	-	24
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	248	-	248
Food and tobacco	-	-	-	-	-	-	-	-	2	-	2
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	3582	139	-	3721
TRANSPORT	-	-	708	-	-	-	-	-	1	-	709
Domestic aviation	-	-	0	-	-	-	-	-	-	-	0
Road	-	-	600	-	-	-	-	-	-	-	600
Rail	-	-	-	-	-	-	-	-	1	-	1
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	108	-	-	-	-	-	-	-	108
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	1	-	-	-	-	20297	221	-	20519
Residential	-	-	1	-	-	-	-	20102	135	-	20238
Comm. and public services	-	-	-	-	-	-	-	-	86	-	86
Agriculture/forestry	-	-	-	-	-	-	-	195	-	-	195
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	4	-	-	-	-	-	-	-	4
in industry/transf./energy	-	-	4	-	-	-	-	-	-	-	4
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	6	2	-	9482	-	20	-	-	9510
Electricity plants	-	-	6	2	-	9482	-	20	-	-	9510
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Dominican Republic

Figure 1. Energy production

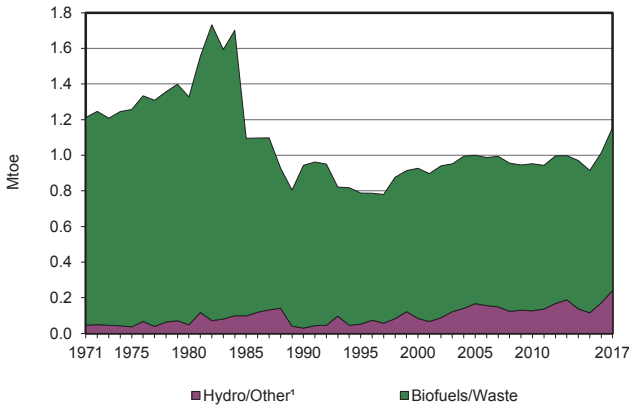


Figure 2. Total primary energy supply²

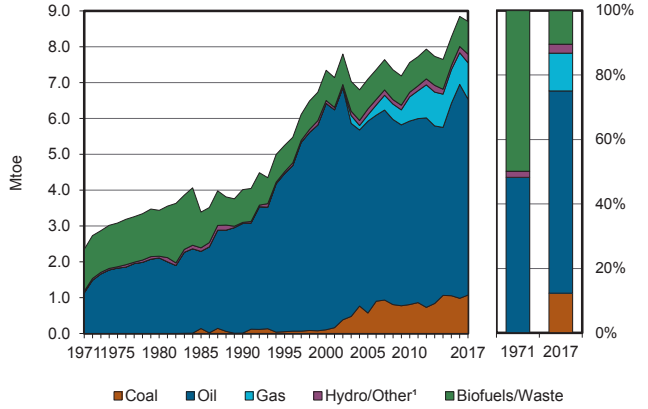


Figure 3. Energy self-sufficiency³

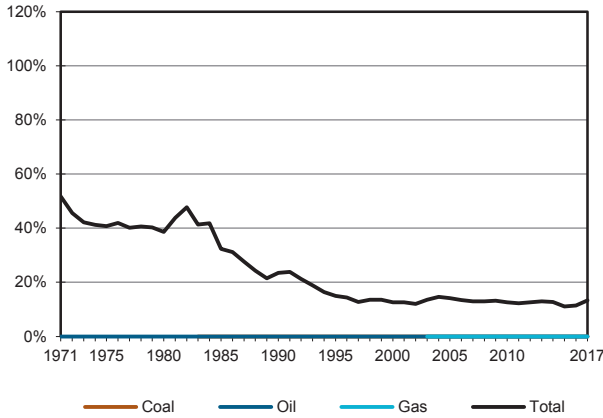


Figure 4. Oil products demand⁴

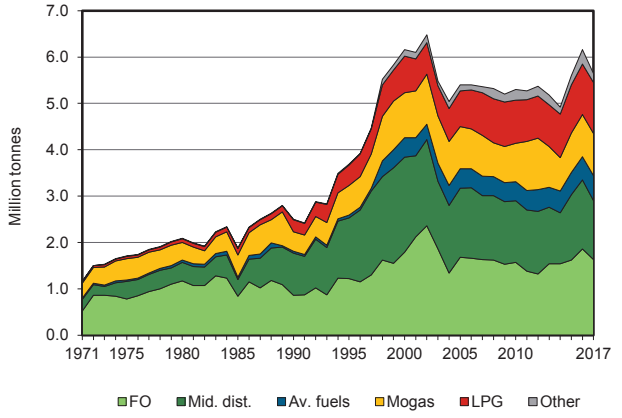


Figure 5. Electricity generation by source

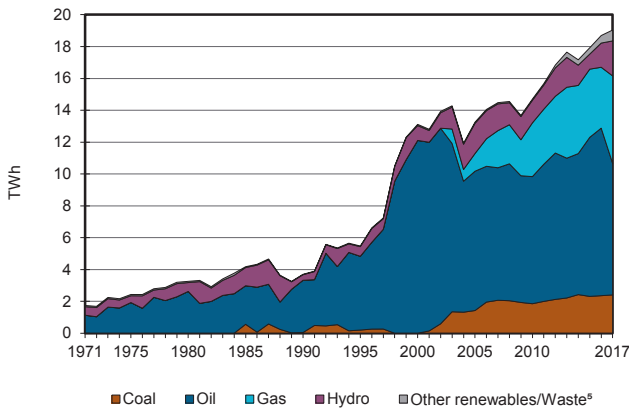
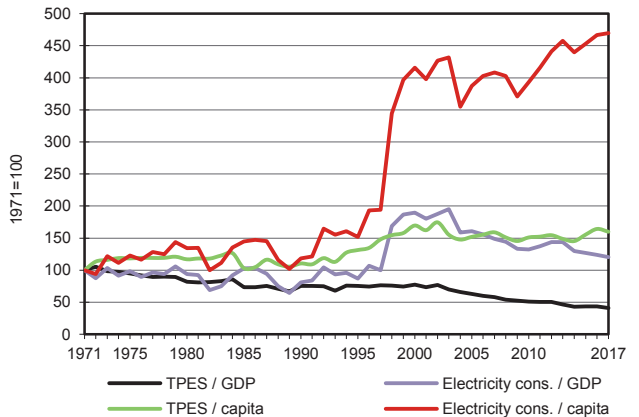


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Dominican Republic

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	189	53	915	-	-	1157
Imports	1069	1035	4975	1050	-	-	-	-	-	-	8129
Exports	-	-	-	-34	-	-	-	-3	-	-	-36
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-562	-	-	-	-	-	-	-	-562
Stock changes	3	45	-29	-2	-	-	-	-	-	-	17
TPES	1072	1081	4383	1015	-	189	53	912	-	-	8704
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-62	-82	-8	0	-	-	-	3	-1	-	-150
Electricity plants	-632	-	-1638	-916	-	-189	-46	-60	1637	-	-1843
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-999	909	-	-	-	-	-	-	-	-89
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-59	-	-	-59
Energy industry own use	-	-	-37	-	-	-	-	-	-57	-	-94
Losses	-11	-	-	-	-	-	-	-	-213	-	-224
TFC	367	-	3610	99	-	-	7	796	1366	-	6245
INDUSTRY	367	-	452	84	-	-	-	287	483	-	1673
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	29	16	-	-	-	-	59	-	104
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	363	-	120	10	-	-	-	-	139	-	631
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	4	-	145	30	-	-	-	287	140	-	605
Paper pulp and printing	-	-	32	-	-	-	-	-	20	-	52
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	42	-	-	-	-	-	-	-	42
Textile and leather	-	-	21	1	-	-	-	-	16	-	38
Non-specified	-	-	65	27	-	-	-	-	108	-	201
TRANSPORT	-	-	2207	15	-	-	-	-	4	-	2226
Domestic aviation	-	-	11	-	-	-	-	-	-	-	11
Road	-	-	1708	15	-	-	-	-	-	-	1723
Rail	-	-	1	-	-	-	-	-	4	-	5
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	486	-	-	-	-	-	-	-	486
OTHER	-	-	641	-	-	-	7	509	879	-	2036
Residential	-	-	492	-	-	-	7	506	436	-	1441
Comm. and public services	-	-	87	-	-	-	0	2	355	-	444
Agriculture/forestry	-	-	62	-	-	-	-	-	88	-	151
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	310	-	-	-	-	-	-	-	310
in industry/transf./energy	-	-	310	-	-	-	-	-	-	-	310
of which: chem./petrochem.	-	-	134	-	-	-	-	-	-	-	134
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	2407	-	8253	5499	-	2196	530	153	-	-	19037
Electricity plants	2407	-	8253	5499	-	2196	530	153	-	-	19037
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Ecuador

Figure 1. Energy production

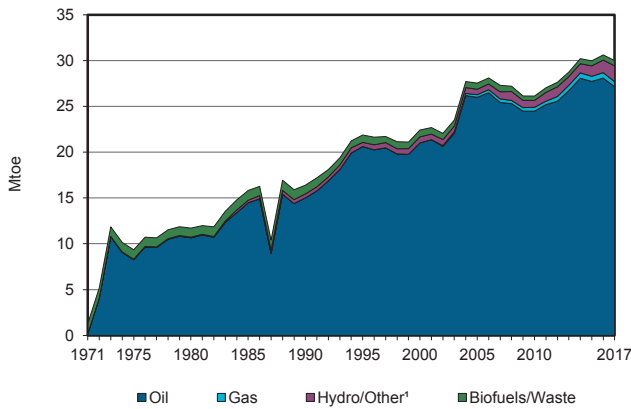


Figure 2. Total primary energy supply²

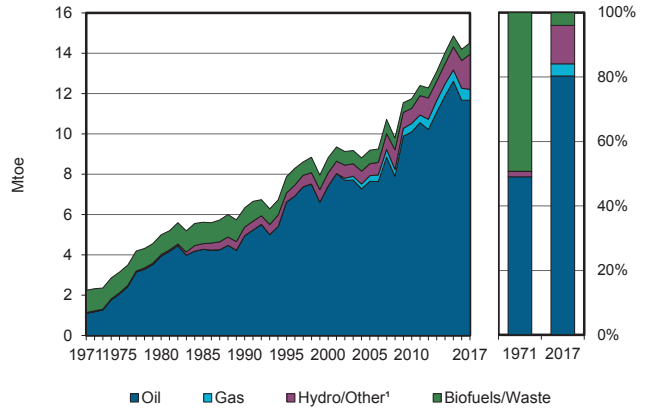


Figure 3. Energy self-sufficiency³

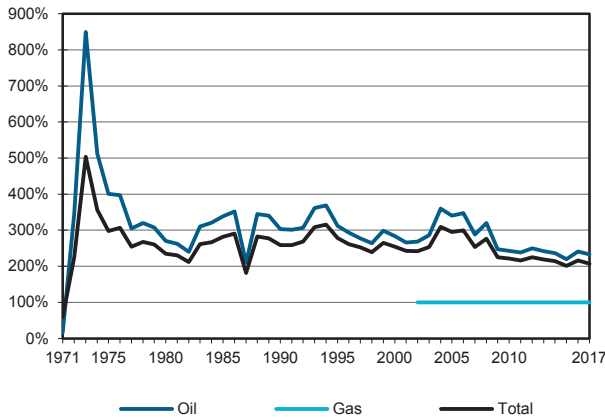


Figure 4. Oil products demand⁴

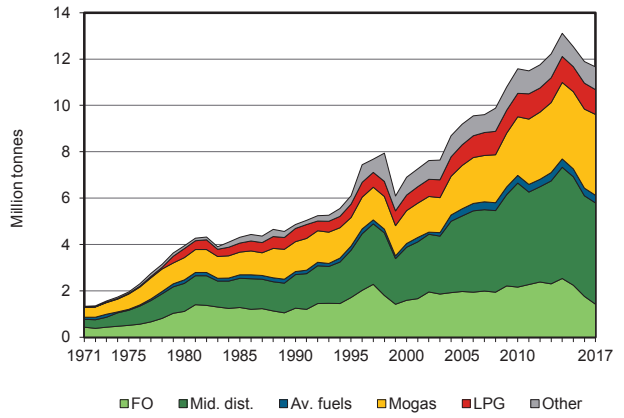


Figure 5. Electricity generation by source

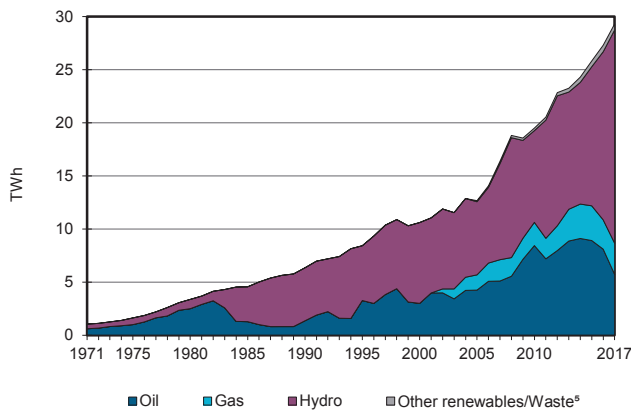
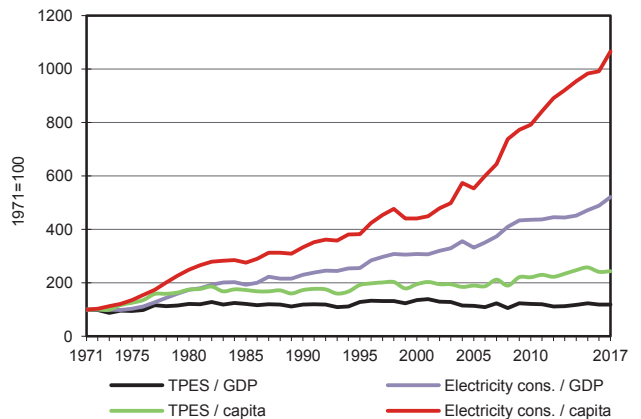


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Ecuador

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	27139	-	544	-	1727	12	573	-	-	29996
Imports	-	-	6119	-	-	-	-	-	2	-	6120
Exports	-	-18541	-3024	-	-	-	-	-	-18	-	-21584
Intl. marine bunkers	-	-	-369	-	-	-	-	-	-	-	-369
Intl. aviation bunkers	-	-	-264	-	-	-	-	-	-	-	-264
Stock changes	-	564	41	-	-	-	-	-	-	-	605
TPES	-	9162	2503	544	-	1727	12	573	-17	-	14505
Transfers	-	-185	202	-	-	-	-	-	-	-	16
Statistical differences	-	36	3	-1	-	-	-	-	-33	-	5
Electricity plants	-	-336	-958	-498	-	-1727	-10	-81	2522	-	-1088
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-8437	8218	-	-	-	-	-	-	-	-219
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-	-144	-352	-	-	-	-	-	-42	-	-538
Losses	-	-96	-	-	-	-	-	-	-302	-	-398
TFC	-	-	9616	46	-	-	2	492	2128	-	12283
INDUSTRY	-	-	796	45	-	-	-	278	881	-	2000
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	87	-	-	-	-	-	-	-	87
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	709	45	-	-	-	278	881	-	1913
TRANSPORT	-	-	6288	-	-	-	-	14	1	-	6303
Domestic aviation	-	-	92	-	-	-	-	-	-	-	92
Road	-	-	5887	-	-	-	-	14	1	-	5902
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	308	-	-	-	-	-	-	-	308
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	2156	0	-	-	2	200	1246	-	3605
Residential	-	-	902	0	-	-	-	200	628	-	1730
Comm. and public services	-	-	404	-	-	-	2	-	435	-	841
Agriculture/forestry	-	-	133	-	-	-	-	-	-	-	133
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	717	-	-	-	-	-	184	-	901
NON-ENERGY USE	-	-	376	-	-	-	-	-	-	-	376
in industry/transf./energy	-	-	376	-	-	-	-	-	-	-	376
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	5731	2936	-	20089	111	459	-	-	29325
Electricity plants	-	-	5731	2936	-	20089	111	459	-	-	29325
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Egypt

Figure 1. Energy production

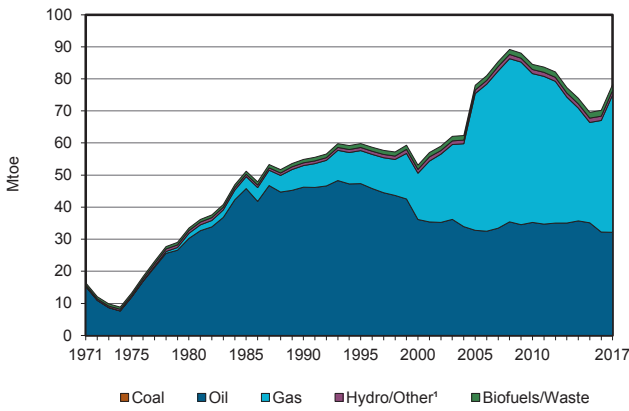


Figure 2. Total primary energy supply²

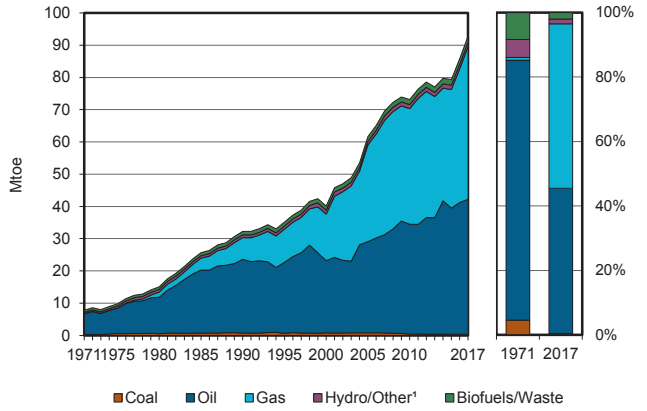


Figure 3. Energy self-sufficiency³

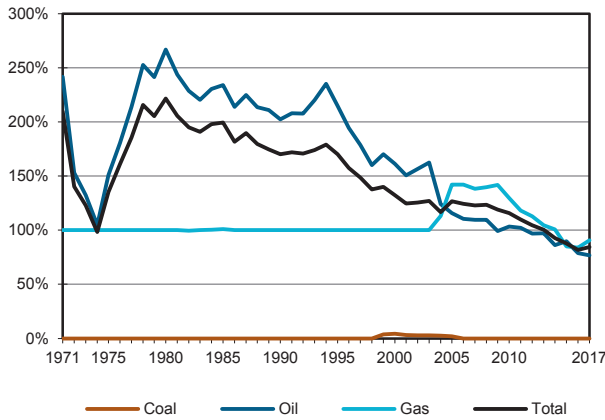


Figure 4. Oil products demand⁴

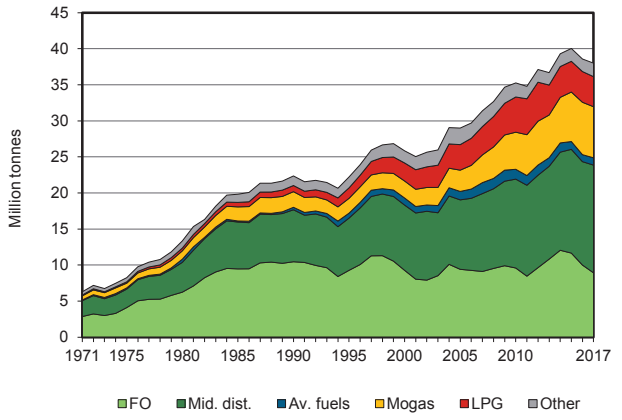


Figure 5. Electricity generation by source

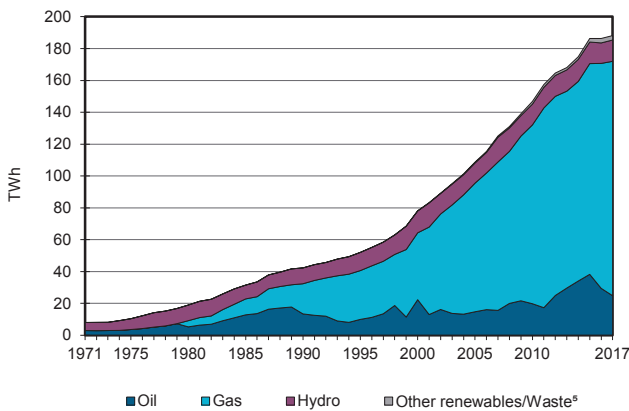
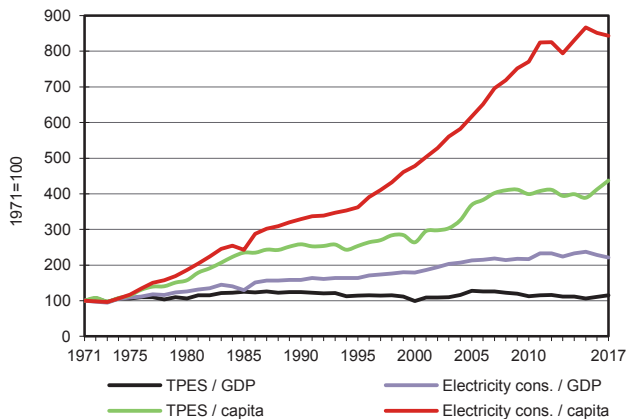


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
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3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Egypt

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	32153	-	42876	-	1152	239	1850	-	-	78270
Imports	467	6384	15256	6445	-	-	-	1	6	-	28560
Exports	-100	-9747	-1542	-1950	-	-	-	-28	-30	-	-13397
Intl. marine bunkers	-	-	-186	-	-	-	-	-	-	-	-186
Intl. aviation bunkers	-	-	-483	-	-	-	-	-	-	-	-483
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	367	28790	13046	47372	-	1152	239	1823	-24	-	92764
Transfers	-	-1181	1318	-	-	-	-	-	-	-	137
Statistical differences	-	-68	71	-2182	-	-	-	-	44	-	-2135
Electricity plants	-	-	-6465	-26507	-	-1152	-239	-	16179	-	-18184
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-148	-	-	-	-	-	-	-	-	-	-148
Gas works	-4	-	-	-	-	-	-	-	-	-	-4
Coke/pat.fuel/BKB/PB plants	-25	-	-	-	-	-	-	-	-	-	-25
Oil refineries	-	-27541	24656	-	-	-	-	-	-	-	-2885
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-	-	-963	-5202	-	-	-	-	-576	-	-6741
Losses	-	-	-	-	-	-	-	-	-1922	-	-1922
TFC	191	-	31662	13481	-	-	-	1823	13701	-	60858
INDUSTRY	188	-	5273	6094	-	-	-	-	3716	-	15271
Iron and steel	188	-	-	-	-	-	-	-	-	-	188
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	5273	6094	-	-	-	-	3716	-	15083
TRANSPORT	-	-	19076	323	-	-	-	-	52	-	19451
Domestic aviation	-	-	620	-	-	-	-	-	-	-	620
Road	-	-	18188	323	-	-	-	-	-	-	18511
Rail	-	-	-	-	-	-	-	-	52	-	52
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	268	-	-	-	-	-	-	-	268
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	3	-	5705	1956	-	-	-	1823	9933	-	19420
Residential	3	-	4696	1956	-	-	-	893	5744	-	13292
Comm. and public services	-	-	-	-	-	-	-	-	3511	-	3511
Agriculture/forestry	-	-	1009	-	-	-	-	-	678	-	1687
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	931	-	-	931
NON-ENERGY USE	-	-	1607	5108	-	-	-	-	-	-	6716
in industry/transf./energy	-	-	1607	5108	-	-	-	-	-	-	6716
of which: chem./petrochem.	-	-	2	5108	-	-	-	-	-	-	5110
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	24813	147173	-	13392	2780	-	-	-	188159
Electricity plants	-	-	24813	147173	-	13392	2780	-	-	-	188159
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

El Salvador

Figure 1. Energy production

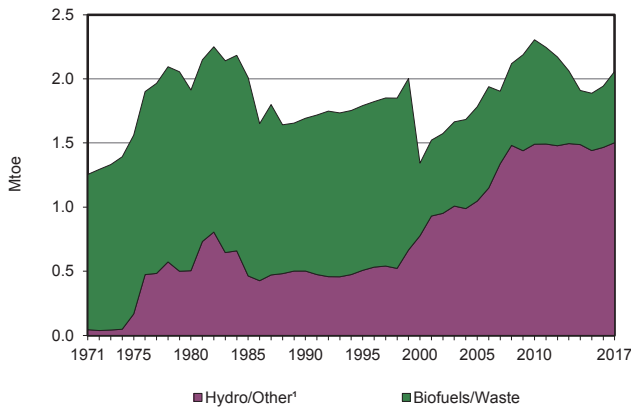


Figure 2. Total primary energy supply²

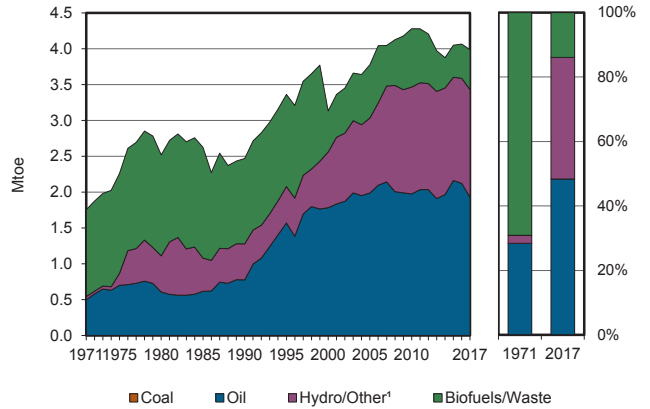


Figure 3. Energy self-sufficiency³

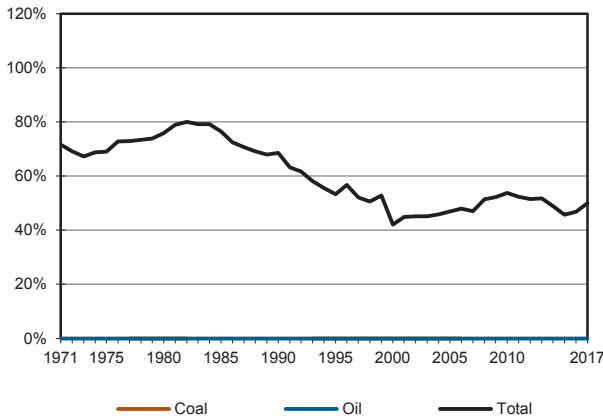


Figure 4. Oil products demand⁴

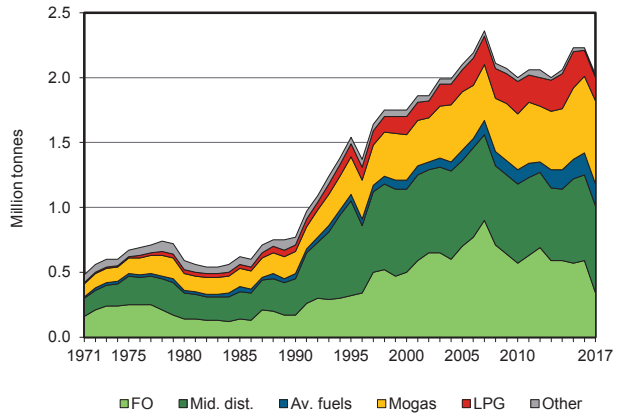


Figure 5. Electricity generation by source

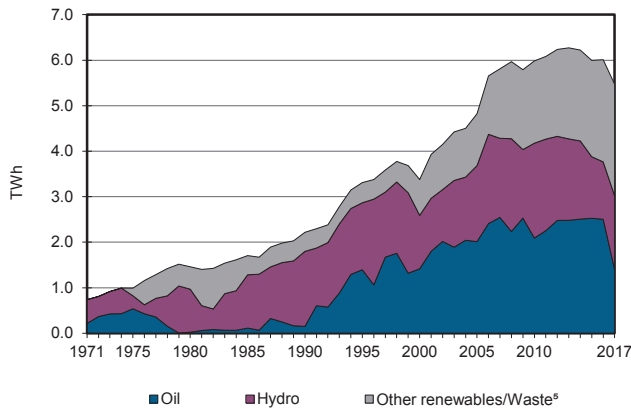
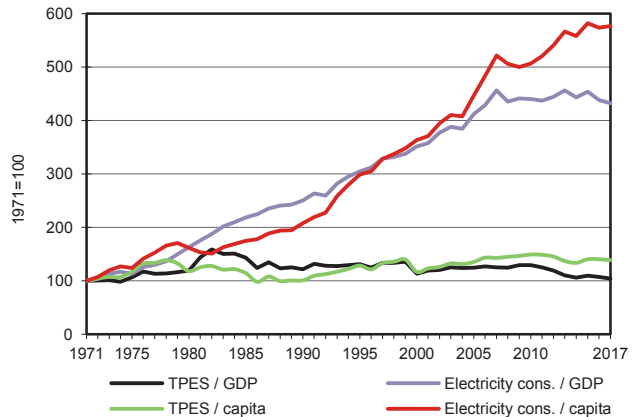


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

El Salvador

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	139	1363	556	-	-	2058
Imports	-	-	2290	-	-	-	-	-	144	-	2434
Exports	-	-	-187	-	-	-	-	-	-8	-	-195
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-177	-	-	-	-	-	-	-	-177
Stock changes	-	-	-0	-	-	-	-	-	-	-	-0
TPES	-	-	1927	-	-	139	1363	556	136	-	4121
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	0	-	-	-	-	-0	13	-	13
Electricity plants	-	-	-274	-	-	-139	-1363	-348	470	-	-1655
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-0	-	-	-0
Energy industry own use	-	-	-	-	-	-	-	-	-21	-	-21
Losses	-	-	-	-	-	-	-	-	-70	-	-70
TFC	-	-	1653	-	-	-	-	207	529	-	2388
INDUSTRY	-	-	366	-	-	-	-	-	177	-	543
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	0	-	0
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	366	-	-	-	-	-	177	-	543
TRANSPORT	-	-	1129	-	-	-	-	-	-	-	1129
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	1129	-	-	-	-	-	-	-	1129
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	139	-	-	-	-	207	352	-	698
Residential	-	-	133	-	-	-	-	207	161	-	502
Comm. and public services	-	-	6	-	-	-	-	-	153	-	159
Agriculture/forestry	-	-	-	-	-	-	-	-	-	-	-
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	38	-	38
NON-ENERGY USE	-	-	18	-	-	-	-	-	-	-	18
in industry/transf./energy	-	-	17	-	-	-	-	-	-	-	17
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	1	-	-	-	-	-	-	-	1
Electricity and Heat Output											
Electr. generated - GWh	-	-	1399	-	-	1619	1733	717	-	-	5468
Electricity plants	-	-	1399	-	-	1619	1733	717	-	-	5468
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Eritrea

Figure 1. Energy production

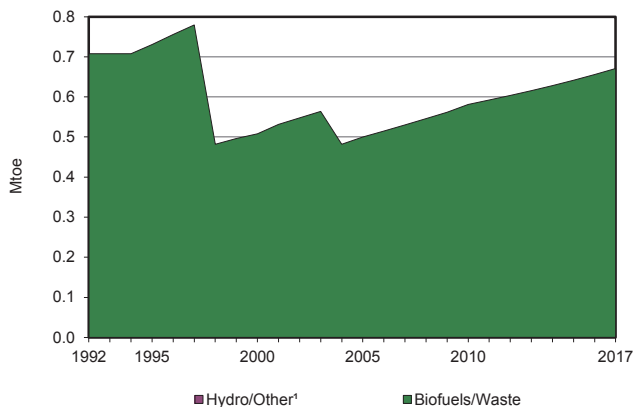


Figure 2. Total primary energy supply²

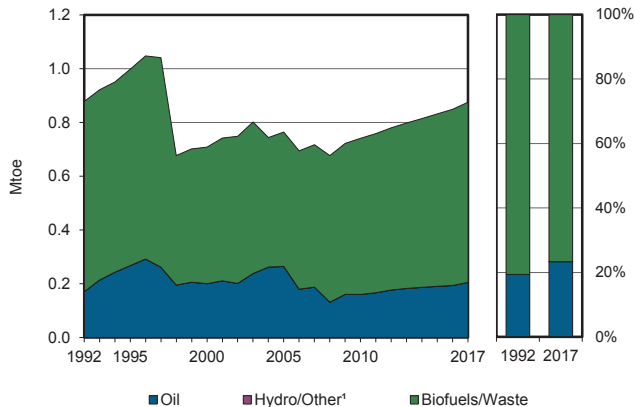


Figure 3. Energy self-sufficiency³

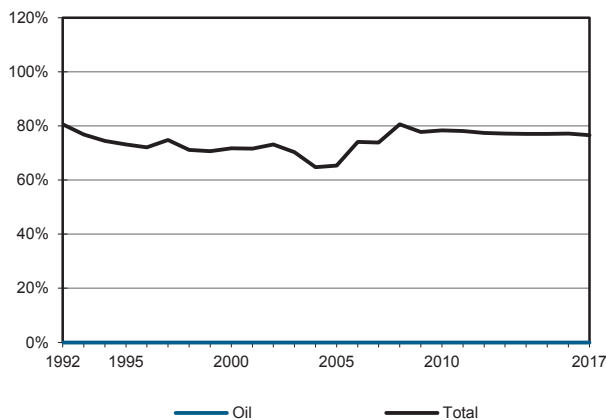


Figure 4. Oil products demand⁴

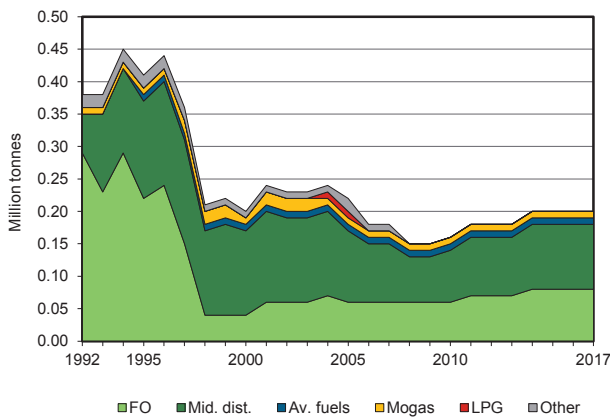


Figure 5. Electricity generation by source

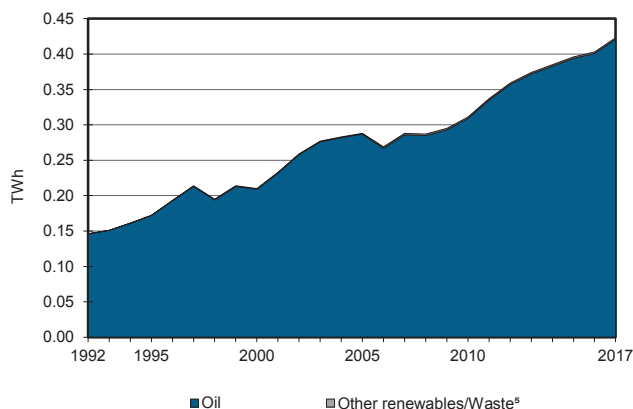
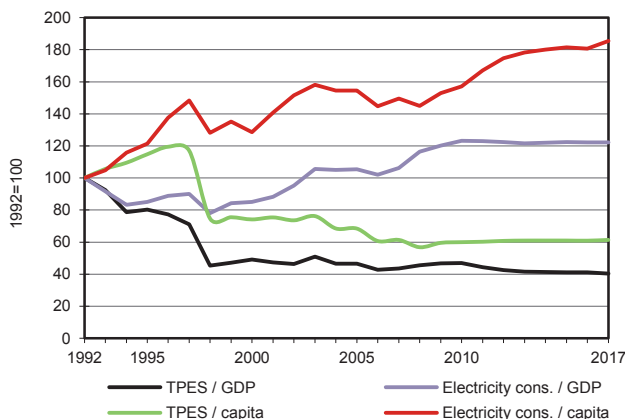


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Eritrea

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	-	0	671	-	-	671
Imports	-	-	213	-	-	-	-	-	-	-	213
Exports	-	-	-	-	-	-	-	-	-	-	-
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-9	-	-	-	-	-	-	-	-9
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	-	-	204	-	-	-	0	671	-	-	875
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	-	-	-	-	-	-	-2	-	-2
Electricity plants	-	-	-114	-	-	-	-0	-	36	-	-78
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-250	-	-	-250
Energy industry own use	-	-	-	-	-	-	-	-	-2	-	-2
Losses	-	-	-	-	-	-	-	-	-5	-	-5
TFC	-	-	91	-	-	-	-	421	28	-	540
INDUSTRY	-	-	6	-	-	-	-	-	8	-	14
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	6	-	-	-	-	-	8	-	14
TRANSPORT	-	-	62	-	-	-	-	-	-	-	62
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	62	-	-	-	-	-	-	-	62
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	19	-	-	-	-	421	20	-	461
Residential	-	-	17	-	-	-	-	398	11	-	426
Comm. and public services	-	-	3	-	-	-	-	23	9	-	35
Agriculture/forestry	-	-	-	-	-	-	-	-	-	-	-
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	3	-	-	-	-	-	-	-	3
in industry/transf./energy	-	-	3	-	-	-	-	-	-	-	3
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	421	-	-	-	2	-	-	-	423
Electricity plants	-	-	421	-	-	-	2	-	-	-	423
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Ethiopia

Figure 1. Energy production

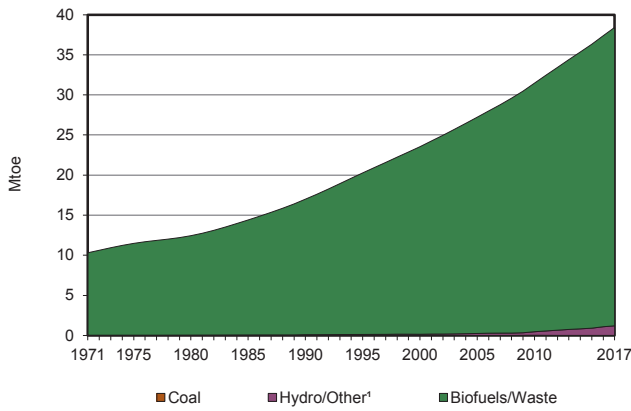


Figure 2. Total primary energy supply²

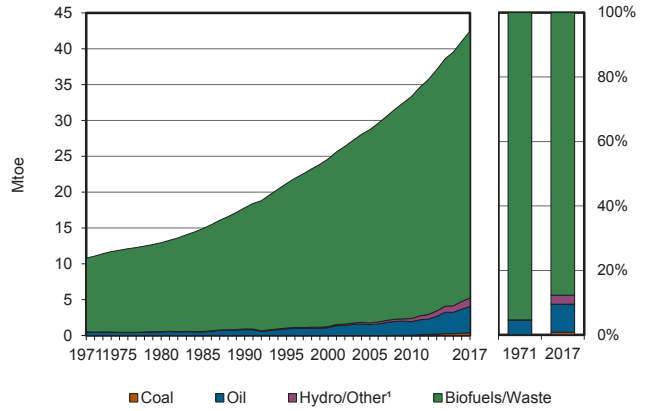


Figure 3. Energy self-sufficiency³

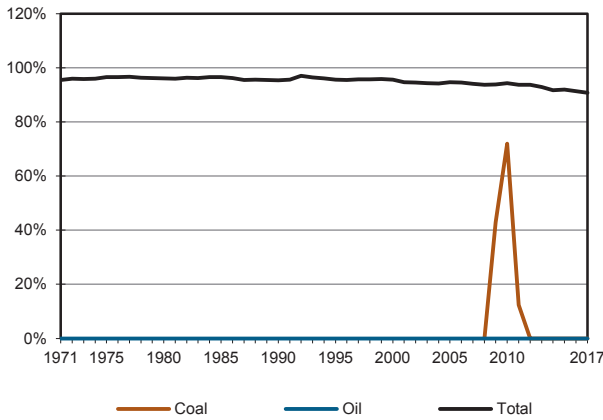


Figure 4. Oil products demand⁴

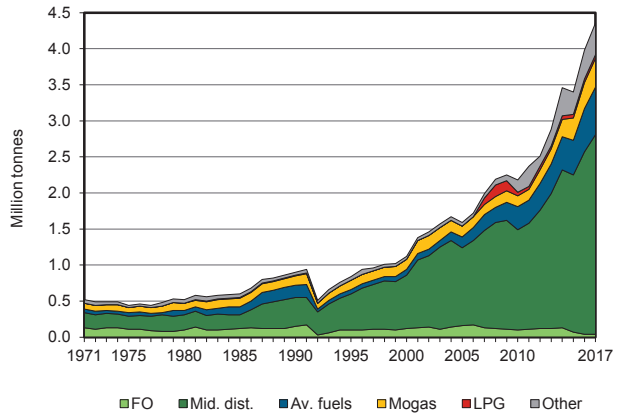


Figure 5. Electricity generation by source

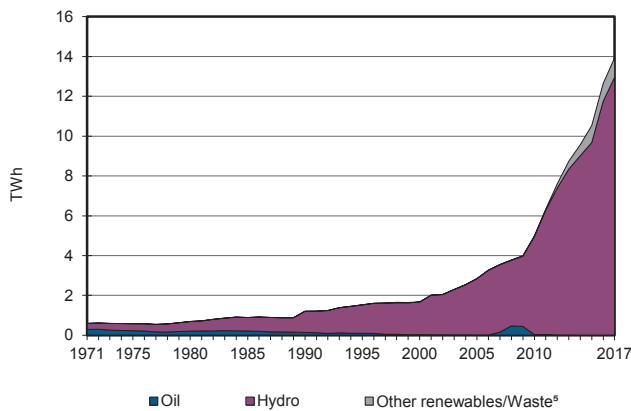
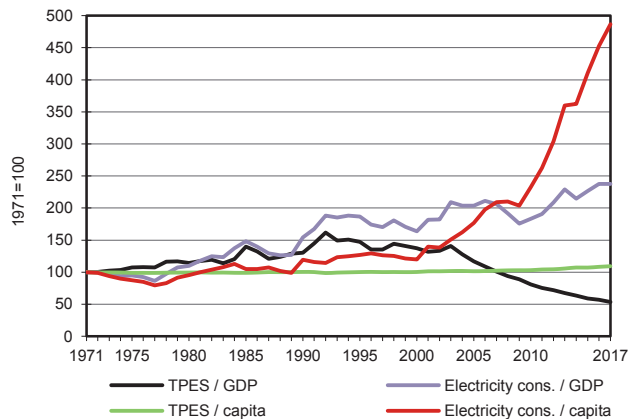


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Ethiopia

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	1114	84	37215	-	-	38414
Imports	357	-	4320	-	-	-	-	-	-	-	4677
Exports	-	-	-	-	-	-	-	-	-124	-	-124
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-642	-	-	-	-	-	-	-	-642
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	357	-	3678	-	-	1114	84	37215	-124	-	42325
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	126	-	-	-	-	-1	-11	-	114
Electricity plants	-	-	-1	-	-	-1114	-84	-	1199	-	-1
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-2323	-	-	-2323
Energy industry own use	-	-	-	-	-	-	-	-	-5	-	-5
Losses	-	-	-	-	-	-	-	-	-246	-	-246
TFC	357	-	3802	-	-	-	-	34891	814	-	39865
INDUSTRY	357	-	980	-	-	-	-	-	293	-	1631
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	357	-	259	-	-	-	-	-	-	-	616
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	722	-	-	-	-	-	293	-	1015
TRANSPORT	-	-	2114	-	-	-	-	4	-	-	2118
Domestic aviation	-	-	57	-	-	-	-	-	-	-	57
Road	-	-	2057	-	-	-	-	4	-	-	2061
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	611	-	-	-	-	34888	521	-	36020
Residential	-	-	186	-	-	-	-	34585	338	-	35109
Comm. and public services	-	-	74	-	-	-	-	303	183	-	560
Agriculture/forestry	-	-	176	-	-	-	-	-	-	-	176
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	176	-	-	-	-	-	-	-	176
NON-ENERGY USE	-	-	97	-	-	-	-	-	-	-	97
in industry/transf./energy	-	-	97	-	-	-	-	-	-	-	97
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	4	-	-	12957	980	-	-	-	13942
Electricity plants	-	-	4	-	-	12957	980	-	-	-	13942
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Gabon

Figure 1. Energy production

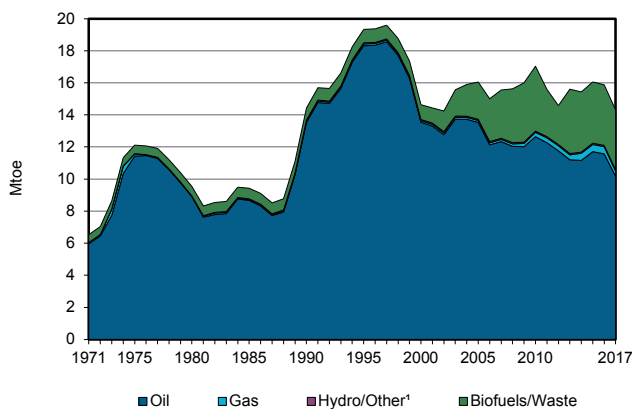


Figure 2. Total primary energy supply²

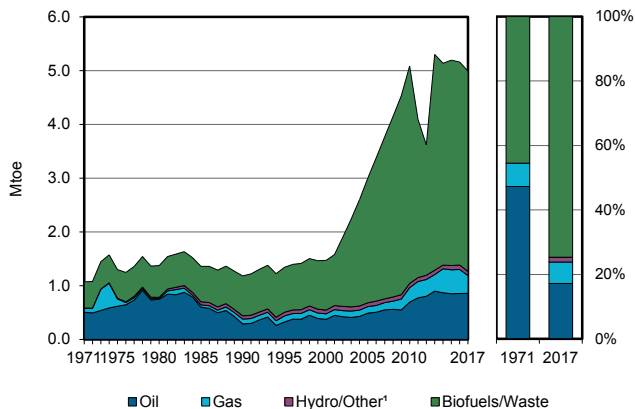


Figure 3. Energy self-sufficiency³

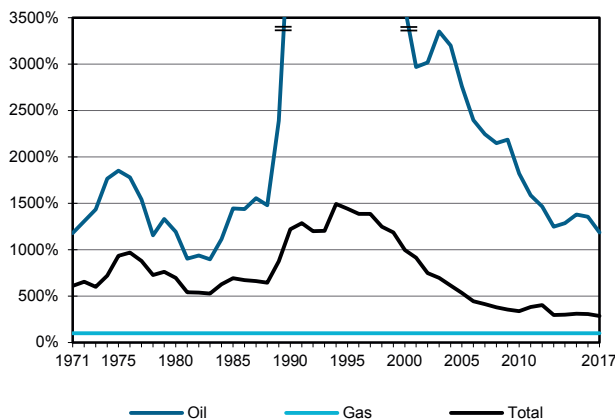


Figure 4. Oil products demand⁴

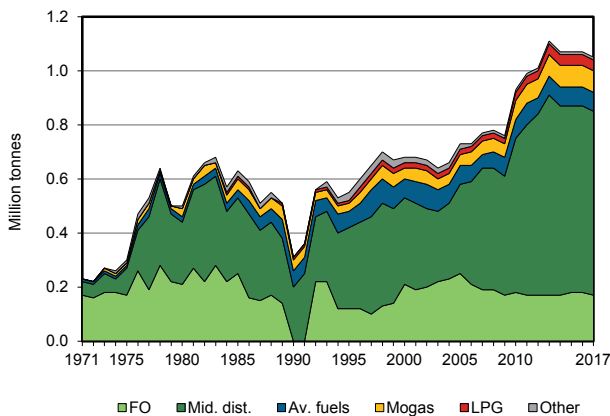


Figure 5. Electricity generation by source

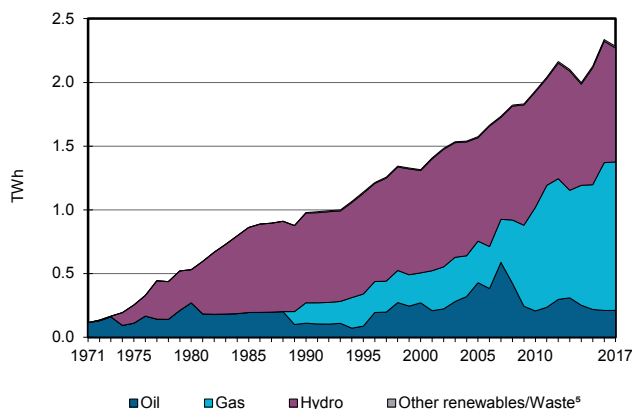
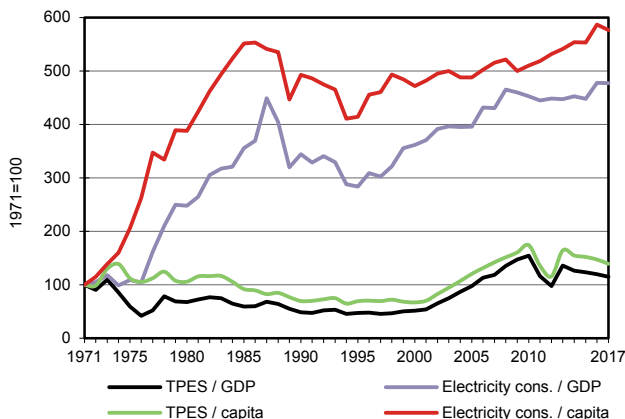


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency. Maximum scale refers to values greater than or equal to 3500%.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Gabon

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	10166	-	330	-	77	0	3725	-	-	14298
Imports	-	-	514	-	-	-	-	-	30	-	544
Exports	-	-9347	-251	-	-	-	-	-	-	-	-9598
Intl. marine bunkers	-	-	-157	-	-	-	-	-	-	-	-157
Intl. aviation bunkers	-	-	-69	-	-	-	-	-	-	-	-69
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	-	819	38	330	-	77	0	3725	30	-	5019
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	-	17	-	-	-	-	-	-	17
Electricity plants	-	-	-63	-325	-	-77	-0	-8	196	-	-277
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-819	808	-	-	-	-	-	-	-	-12
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-	-	-	-19	-	-	-	-	-13	-	-32
Losses	-	-	-	-	-	-	-	-	-39	-	-39
TFC	-	-	782	3	-	-	-	3717	174	-	4676
INDUSTRY	-	-	377	3	-	-	-	2582	47	-	3009
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	0	-	0
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	7	-	7
Food and tobacco	-	-	-	1	-	-	-	-	13	-	15
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	1	-	-	-	-	17	-	18
Construction	-	-	-	-	-	-	-	-	8	-	8
Textile and leather	-	-	-	-	-	-	-	-	0	-	0
Non-specified	-	-	377	-	-	-	-	2582	2	-	2961
TRANSPORT	-	-	271	-	-	-	-	-	1	-	272
Domestic aviation	-	-	3	-	-	-	-	-	-	-	3
Road	-	-	268	-	-	-	-	-	-	-	268
Rail	-	-	-	-	-	-	-	-	1	-	1
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	122	-	-	-	-	1135	126	-	1383
Residential	-	-	65	-	-	-	-	1135	91	-	1291
Comm. and public services	-	-	40	-	-	-	-	-	26	-	67
Agriculture/forestry	-	-	17	-	-	-	-	-	-	-	17
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	10	-	10
NON-ENERGY USE	-	-	12	-	-	-	-	-	-	-	12
in industry/transf./energy	-	-	12	-	-	-	-	-	-	-	12
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	210	1166	-	894	2	11	-	-	2282
Electricity plants	-	-	210	1166	-	894	2	11	-	-	2282
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Georgia

Figure 1. Energy production

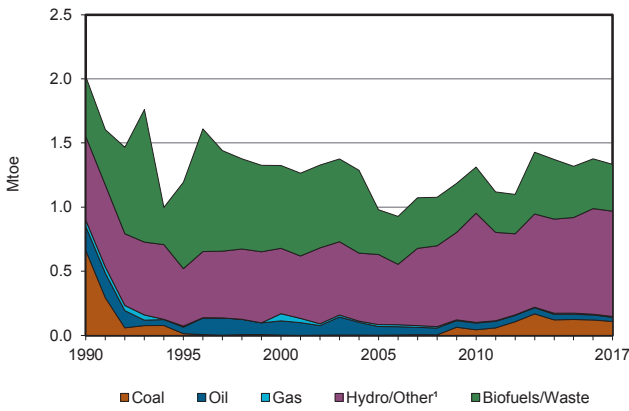


Figure 2. Total primary energy supply²

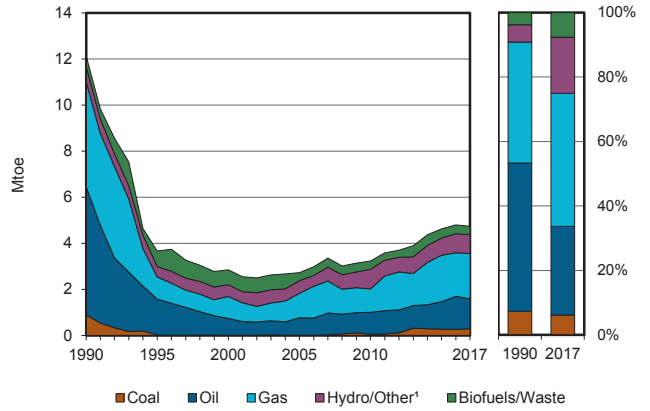


Figure 3. Energy self-sufficiency³

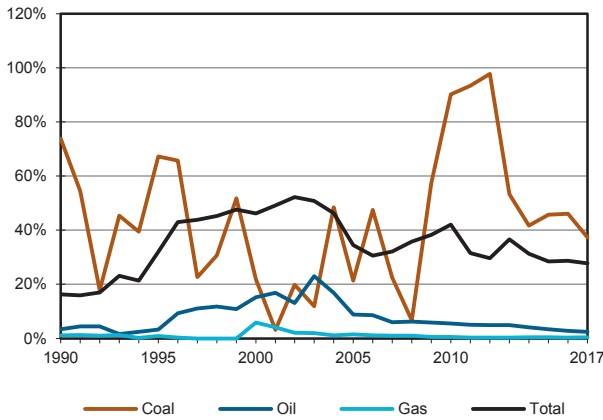


Figure 4. Oil products demand⁴

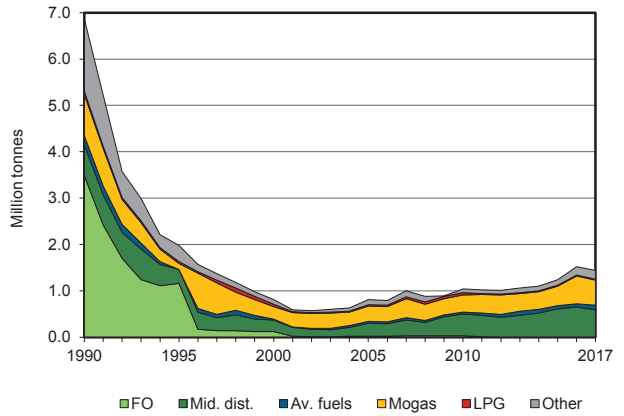


Figure 5. Electricity generation by source

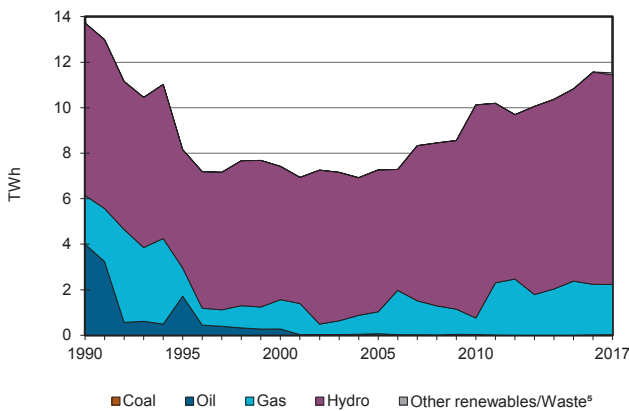
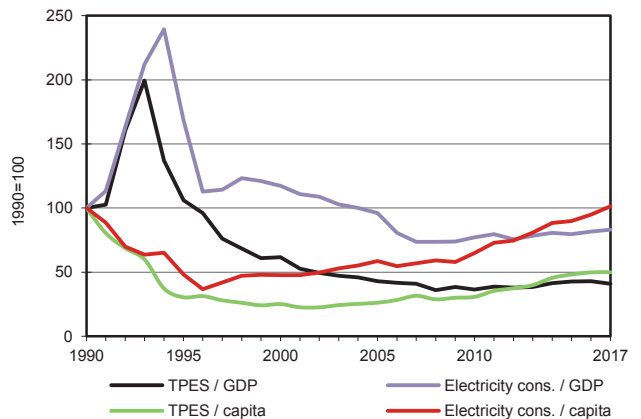


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Georgia

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	109	32	-	7	-	792	28	365	-	-	1333
Imports	192	60	1556	1952	-	-	-	-	151	-	3912
Exports	-10	-217	-47	-	-	-	-	-2	-81	-	-356
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-98	-	-	-	-	-	-	-	-98
Stock changes	0	5	11	-	-	-	-	-	-	-	16
TPES	292	-120	1423	1959	-	792	28	363	70	-	4808
Transfers	-	225	-143	-	-	-	-	-	-	-	81
Statistical differences	-	-80	-	-	-	-	-	-0	-	-	-80
Electricity plants	-15	-	-	-436	-	-792	-8	-	992	-	-259
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-25	24	-	-	-	-	-	-	-	-1
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-0	-	-	-	-	-	-	-	-20	-	-20
Losses	-	-	-	-80	-	-	-2	-	-78	-	-160
TFC	276	-	1304	1444	-	-	19	363	964	-	4370
INDUSTRY	275	-	83	116	-	-	-	1	283	-	758
Iron and steel	99	-	0	14	-	-	-	-	158	-	271
Chemical and petrochemical	-	-	-	5	-	-	-	-	24	-	29
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	172	-	1	33	-	-	-	0	25	-	231
Transport equipment	-	-	-	0	-	-	-	-	0	-	0
Machinery	-	-	-	0	-	-	-	-	0	-	1
Mining and quarrying	-	-	18	1	-	-	-	-	11	-	30
Food and tobacco	4	-	0	41	-	-	-	1	21	-	68
Paper pulp and printing	-	-	-	2	-	-	-	-	1	-	3
Wood and wood products	-	-	-	1	-	-	-	0	1	-	1
Construction	-	-	63	18	-	-	-	0	13	-	93
Textile and leather	-	-	-	1	-	-	-	-	1	-	3
Non-specified	-	-	-	2	-	-	-	-	26	-	28
TRANSPORT	-	-	1063	210	-	-	-	-	29	-	1302
Domestic aviation	-	-	1	-	-	-	-	-	-	-	1
Road	-	-	1049	210	-	-	-	-	-	-	1259
Rail	-	-	11	-	-	-	-	-	29	-	40
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	2	-	-	-	-	-	-	-	2
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	1	-	38	913	-	-	19	362	652	-	1985
Residential	1	-	15	739	-	-	6	358	212	-	1331
Comm. and public services	1	-	10	164	-	-	12	4	262	-	452
Agriculture/forestry	0	-	13	10	-	-	1	0	5	-	31
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	172	-	172
NON-ENERGY USE	-	-	120	205	-	-	-	-	-	-	325
in industry/transf./energy	-	-	104	205	-	-	-	-	-	-	309
of which: chem./petrochem.	-	-	2	205	-	-	-	-	-	-	207
in transport	-	-	14	-	-	-	-	-	-	-	14
in other	-	-	2	-	-	-	-	-	-	-	2
Electricity and Heat Output											
Electr. generated - GWh	25	-	-	2208	-	9210	88	-	-	-	11531
Electricity plants	25	-	-	2208	-	9210	88	-	-	-	11531
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Ghana

Figure 1. Energy production

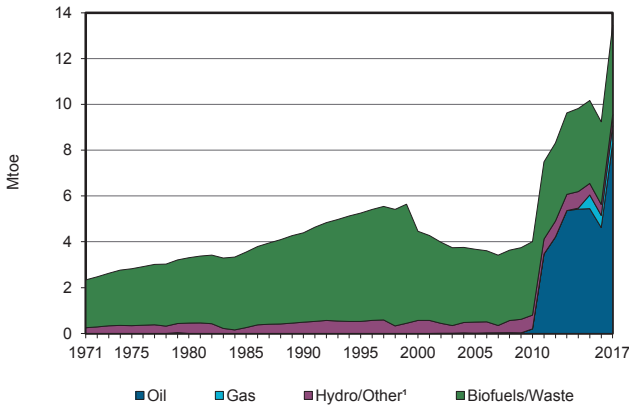


Figure 2. Total primary energy supply²

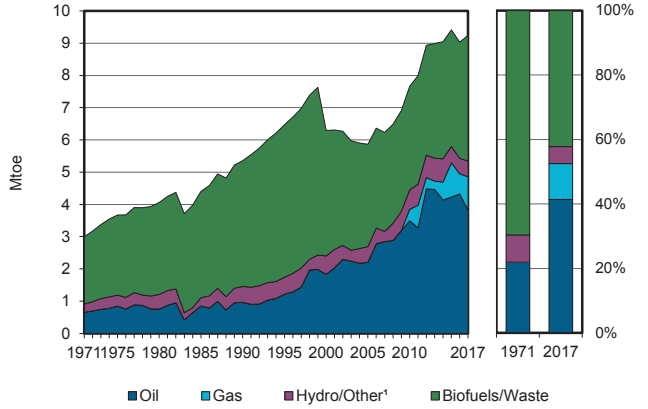


Figure 3. Energy self-sufficiency³

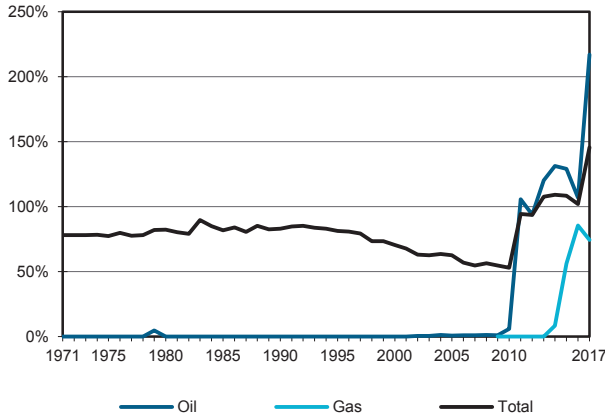


Figure 4. Oil products demand⁴

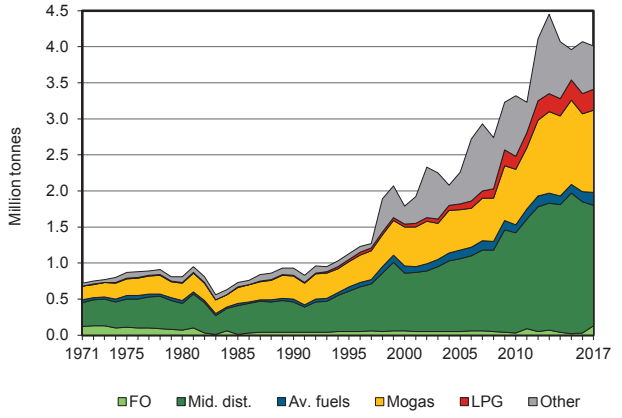


Figure 5. Electricity generation by source

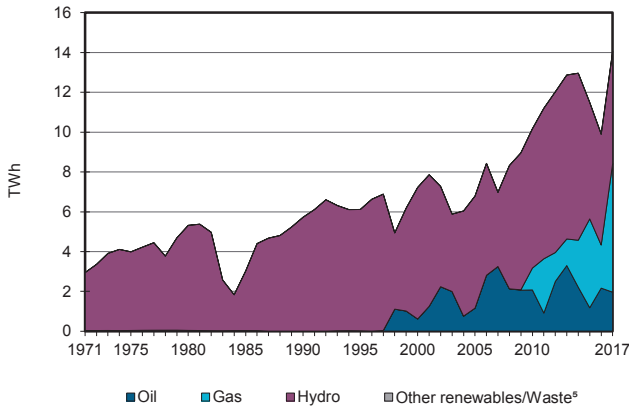
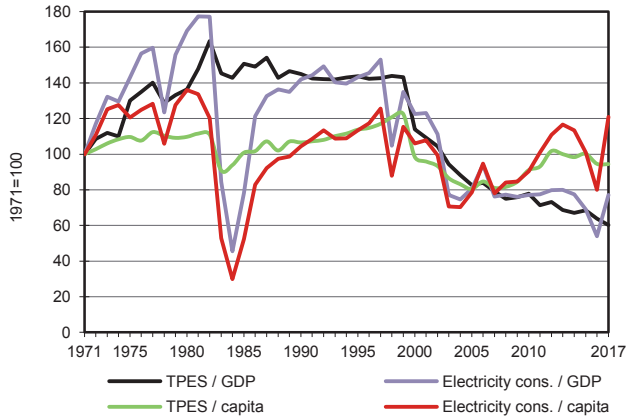


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Ghana

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	8303	-	765	-	483	2	3903	-	-	13457
Imports	-	237	4089	266	-	-	-	-	21	-	4613
Exports	-	-8288	-650	-	-	-	-	-2	-23	-	-8963
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-169	-	-	-	-	-	-	-	-169
Stock changes	-	305	-	-	-	-	-	-	-	-	305
TPES	-	557	3270	1031	-	483	2	3901	-2	-	9243
Transfers	-	-112	126	-	-	-	-	-	-	-	15
Statistical differences	-	-	182	-70	-	-	-	-	107	-	220
Electricity plants	-	-422	-	-935	-	-483	-2	-0	1210	-	-633
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-20	20	-	-	-	-	-	-	-	-0
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-1607	-	-	-1607
Energy industry own use	-	-4	-1	-	-	-	-	-	-6	-	-11
Losses	-	-	-	-	-	-	-	-	-269	-	-269
TFC	-	-	3597	26	-	-	-	2295	1040	-	6957
INDUSTRY	-	-	630	26	-	-	-	408	264	-	1328
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	630	26	-	-	-	408	264	-	1328
TRANSPORT	-	-	2366	-	-	-	-	-	1	-	2366
Domestic aviation	-	-	18	-	-	-	-	-	-	-	18
Road	-	-	2186	-	-	-	-	-	-	-	2186
Rail	-	-	73	-	-	-	-	-	-	-	73
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	89	-	-	-	-	-	-	-	89
Non-specified	-	-	-	-	-	-	-	-	1	-	1
OTHER	-	-	420	-	-	-	-	1887	775	-	3082
Residential	-	-	248	-	-	-	-	1764	533	-	2545
Comm. and public services	-	-	37	-	-	-	-	121	243	-	400
Agriculture/forestry	-	-	61	-	-	-	-	2	0	-	63
Fishing	-	-	74	-	-	-	-	-	-	-	74
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	181	-	-	-	-	-	-	-	181
in industry/transf./energy	-	-	181	-	-	-	-	-	-	-	181
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	1961	-	6463	-	5616	28	0	-	-	14068
Electricity plants	-	1961	-	6463	-	5616	28	0	-	-	14068
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Gibraltar

Figure 1. Energy production

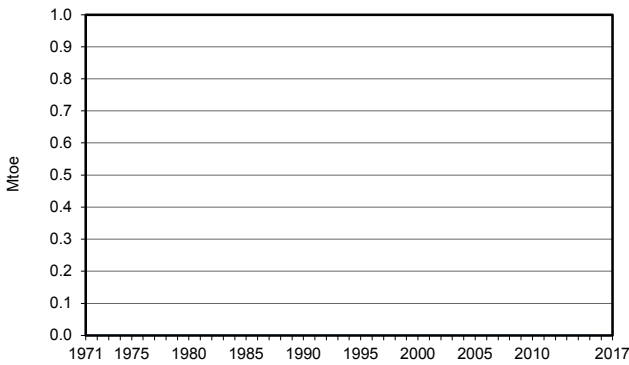


Figure 2. Total primary energy supply¹

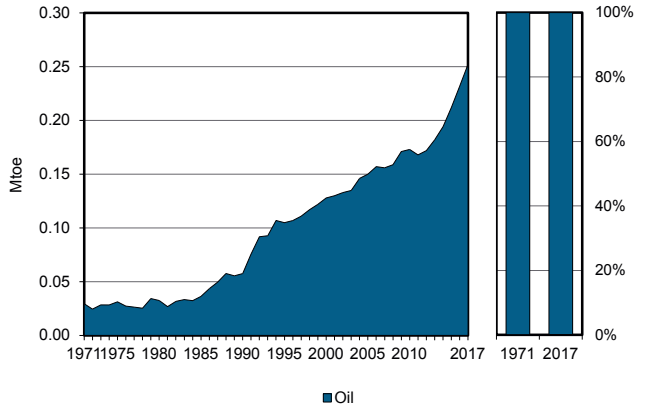


Figure 3. Energy self-sufficiency²

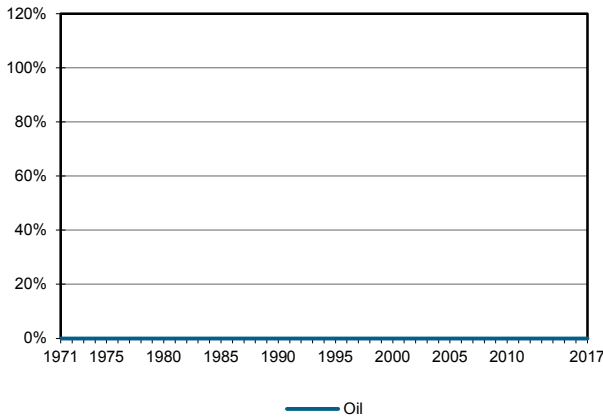


Figure 4. Oil products demand³

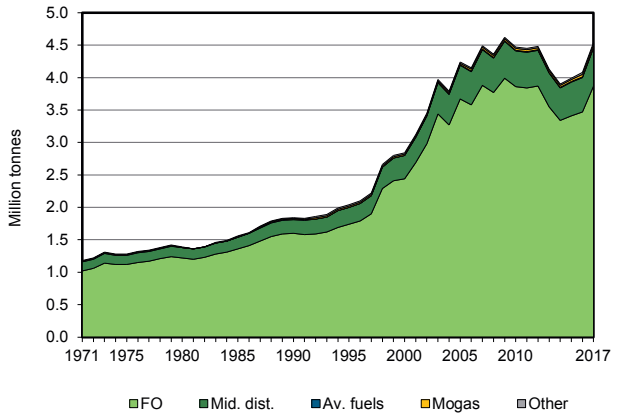


Figure 5. Electricity generation by source

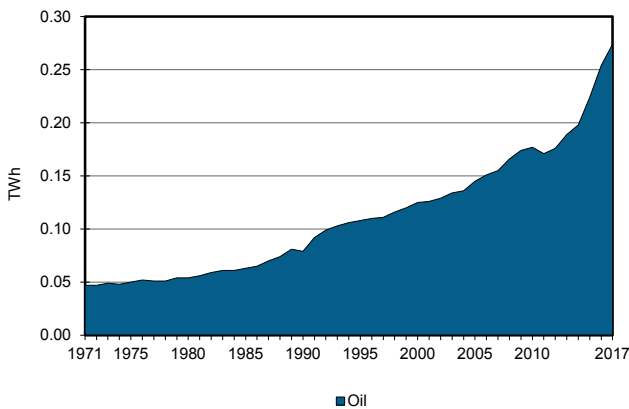
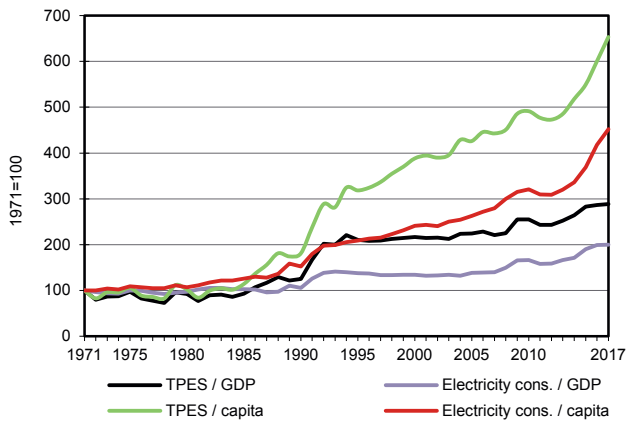


Figure 6. Selected indicators⁴



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Excluding electricity trade.
2. Production divided by TPES. 100% represents full self-sufficiency.
3. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
4. GDP in 2010 USD.

Gibraltar

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	-	-	-	-	-	-
Imports	-	-	4369	-	-	-	-	-	-	-	4369
Exports	-	-	-	-	-	-	-	-	-	-	-
Intl. marine bunkers	-	-	-4108	-	-	-	-	-	-	-	-4108
Intl. aviation bunkers	-	-	-8	-	-	-	-	-	-	-	-8
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	-	-	252	-	-	-	-	-	-	-	252
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	-	-	-	-	-	-	-	-	-
Electricity plants	-	-	-64	-	-	-	-	-	24	-	-40
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-	-	-	-	-	-	-	-	-0	-	-0
Losses	-	-	-	-	-	-	-	-	-1	-	-1
TFC	-	-	188	-	-	-	-	-	22	-	211
INDUSTRY	-	-	-	-	-	-	-	-	-	-	-
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
TRANSPORT	-	-	163	-	-	-	-	-	-	-	163
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	163	-	-	-	-	-	-	-	163
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	-	-	-	-	-	-	22	-	22
Residential	-	-	-	-	-	-	-	-	-	-	-
Comm. and public services	-	-	-	-	-	-	-	-	2	-	2
Agriculture/forestry	-	-	-	-	-	-	-	-	-	-	-
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	21	-	21
NON-ENERGY USE	-	-	25	-	-	-	-	-	-	-	25
in industry/transf./energy	-	-	25	-	-	-	-	-	-	-	25
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	274	-	-	-	-	-	-	-	274
Electricity plants	-	-	274	-	-	-	-	-	-	-	274
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Guatemala

Figure 1. Energy production

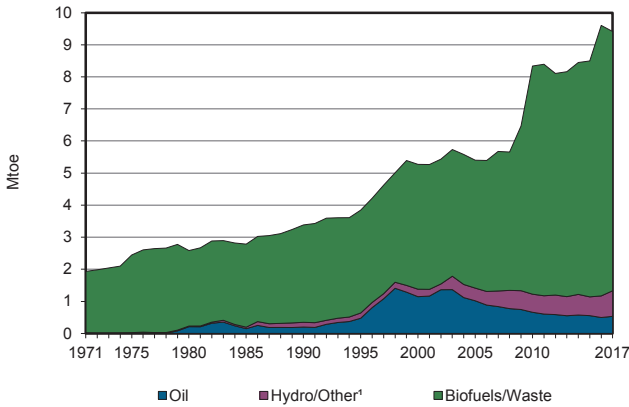


Figure 2. Total primary energy supply²

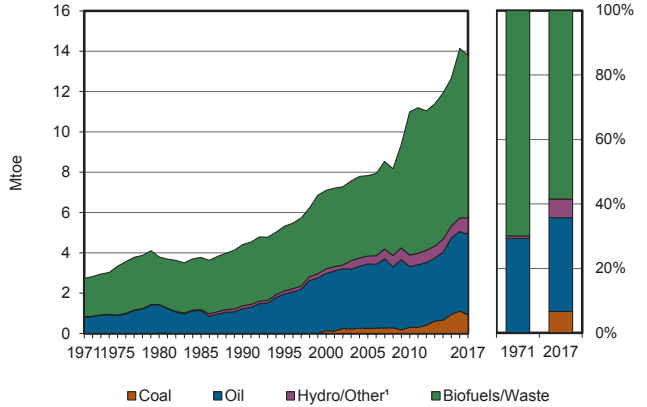


Figure 3. Energy self-sufficiency³

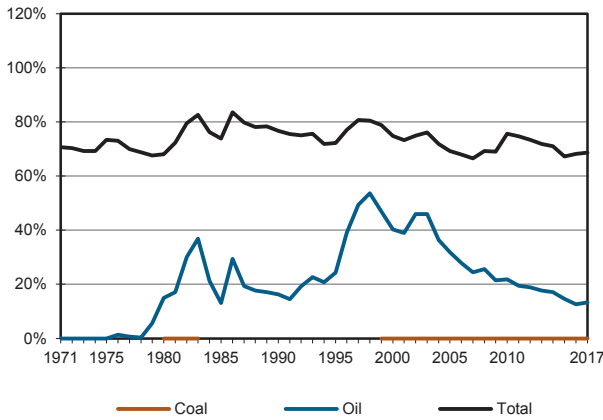


Figure 4. Oil products demand⁴

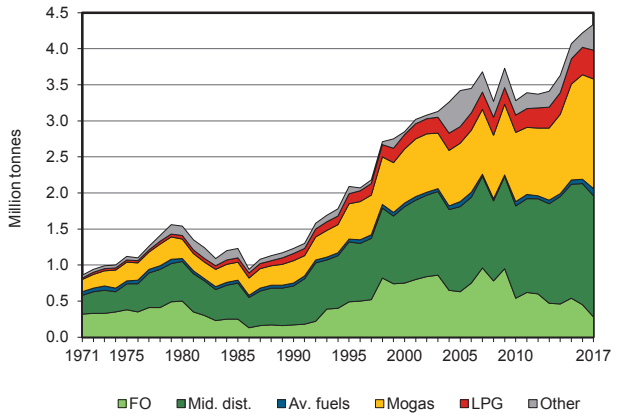


Figure 5. Electricity generation by source

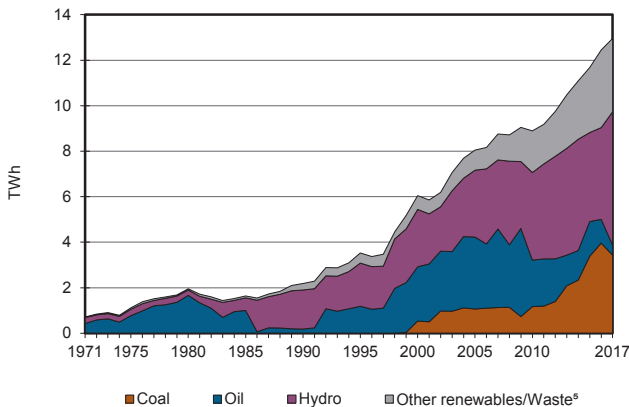
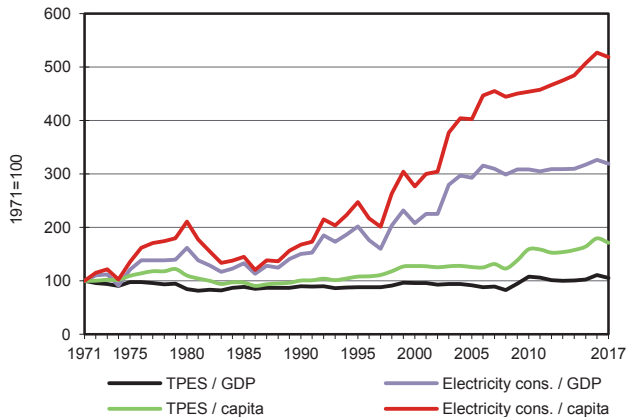


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Guatemala

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	533	-	-	-	504	294	8082	-	-	9413
Imports	1006	-	4715	-	-	-	-	-	77	-	5798
Exports	-	-435	-328	-	-	-	-	-20	-160	-	-942
Intl. marine bunkers	-	-	-370	-	-	-	-	-	-	-	-370
Intl. aviation bunkers	-	-	-97	-	-	-	-	-	-	-	-97
Stock changes	-84	-0	-11	-	-	-	-	-	-	-	-96
TPES	922	97	3910	-	-	504	294	8062	-83	-	13706
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	-2	-	-	-	-	0	0	-	-2
Electricity plants	-922	-	-99	-	-	-504	-294	-1275	1114	-	-1980
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-97	88	-	-	-	-	-	-	-	-9
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-67	-	-	-67
Energy industry own use	-	-	-47	-	-	-	-	-	-76	-	-123
Losses	-	-	-	-	-	-	-	-	-130	-	-130
TFC	-	-	3850	-	-	-	-	6719	825	-	11394
INDUSTRY	-	-	679	-	-	-	-	-	307	-	987
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	679	-	-	-	-	-	307	-	987
TRANSPORT	-	-	2786	-	-	-	-	-	-	-	2786
Domestic aviation	-	-	5	-	-	-	-	-	-	-	5
Road	-	-	2776	-	-	-	-	-	-	-	2776
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	4	-	-	-	-	-	-	-	4
OTHER	-	-	354	-	-	-	-	6719	518	-	7591
Residential	-	-	345	-	-	-	-	6535	291	-	7172
Comm. and public services	-	-	9	-	-	-	-	185	226	-	420
Agriculture/forestry	-	-	-	-	-	-	-	-	-	-	-
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	30	-	-	-	-	-	-	-	30
in industry/transf./energy	-	-	30	-	-	-	-	-	-	-	30
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	3431	-	439	-	-	5865	717	2508	-	-	12960
Electricity plants	3431	-	439	-	-	5865	717	2508	-	-	12960
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Haiti

Figure 1. Energy production

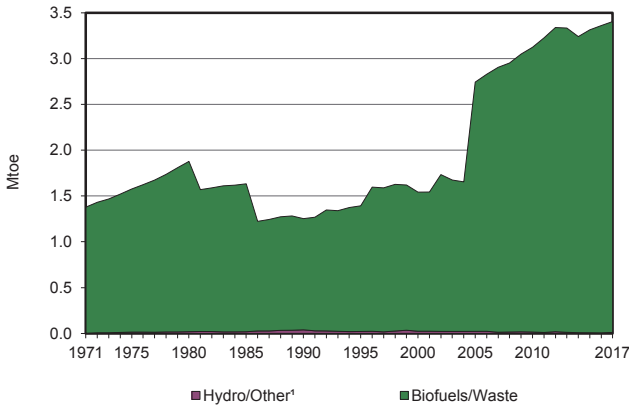


Figure 2. Total primary energy supply²

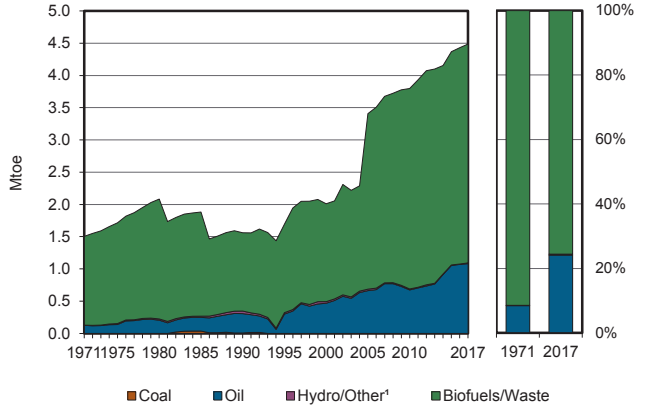


Figure 3. Energy self-sufficiency³

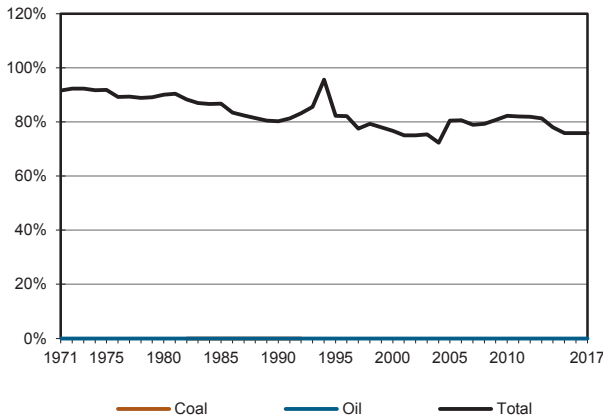


Figure 4. Oil products demand⁴

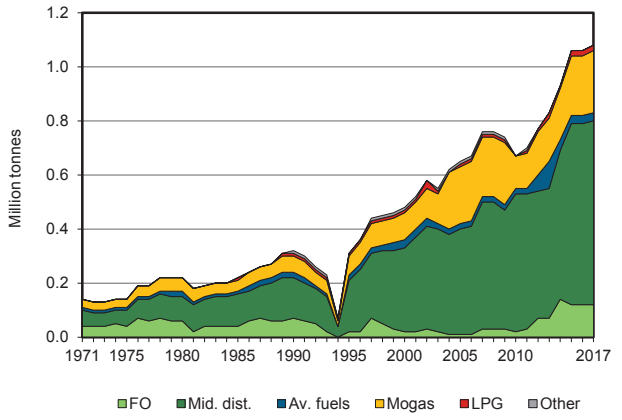


Figure 5. Electricity generation by source

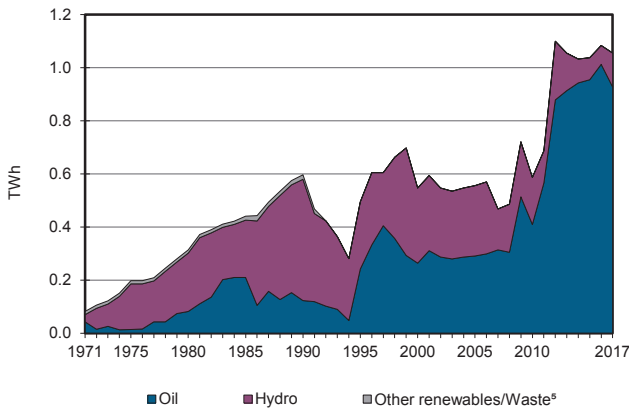
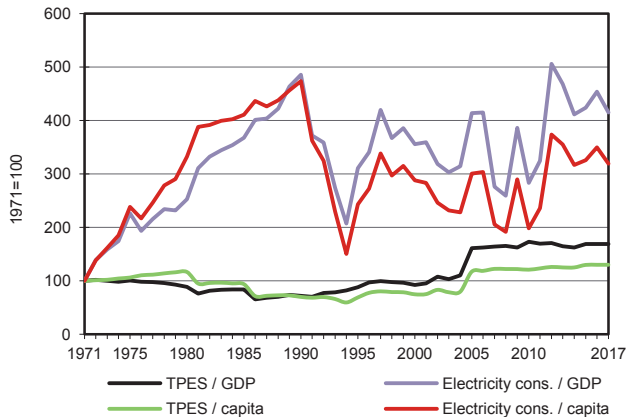


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Haiti

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	11	0	3392	-	-	3403
Imports	-	-	1107	-	-	-	-	-	-	-	1107
Exports	-	-	-	-	-	-	-	-	-	-	-
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-24	-	-	-	-	-	-	-	-24
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	-	-	1083	-	-	11	0	3392	-	-	4486
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	13	-	-	-	-	-	1	-	14
Electricity plants	-	-	-308	-	-	-11	-0	-	91	-	-228
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-846	-	-	-846
Energy industry own use	-	-	-1	-	-	-	-	-	-2	-	-2
Losses	-	-	-15	-	-	-	-	-	-54	-	-69
TFC	-	-	772	-	-	-	-	2546	36	-	3354
INDUSTRY	-	-	196	-	-	-	-	83	16	-	295
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	196	-	-	-	-	83	16	-	295
TRANSPORT	-	-	480	-	-	-	-	-	-	-	480
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	479	-	-	-	-	-	-	-	479
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	1	-	-	-	-	-	-	-	1
OTHER	-	-	92	-	-	-	-	2463	20	-	2575
Residential	-	-	91	-	-	-	-	2414	17	-	2522
Comm. and public services	-	-	1	-	-	-	-	49	3	-	53
Agriculture/forestry	-	-	-	-	-	-	-	-	-	-	-
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	4	-	-	-	-	-	-	-	4
in industry/transf./energy	-	-	4	-	-	-	-	-	-	-	4
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	928	-	-	127	1	-	-	-	1056
Electricity plants	-	-	928	-	-	127	1	-	-	-	1056
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Honduras

Figure 1. Energy production

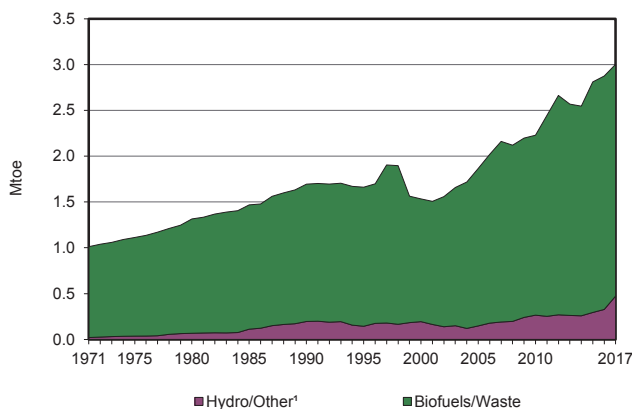


Figure 2. Total primary energy supply²

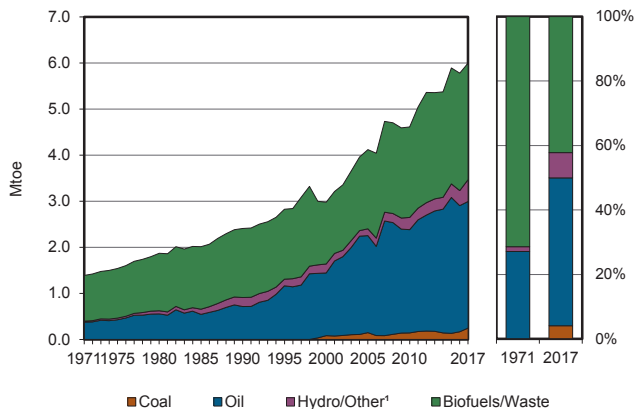


Figure 3. Energy self-sufficiency³

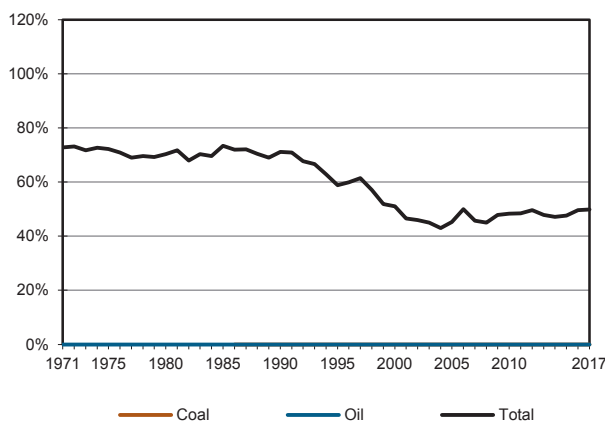


Figure 4. Oil products demand⁴

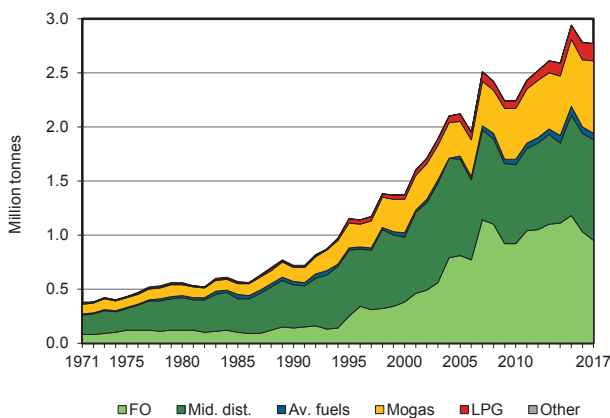


Figure 5. Electricity generation by source

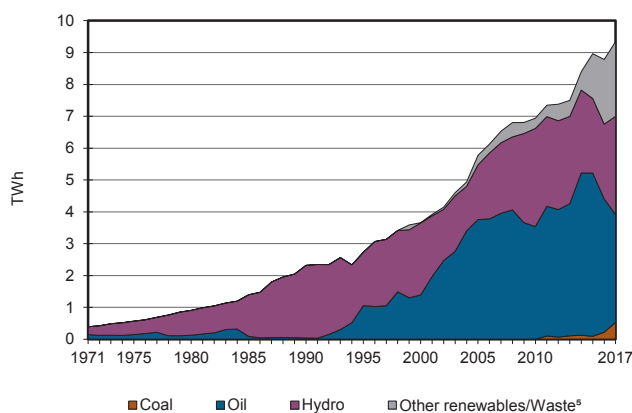
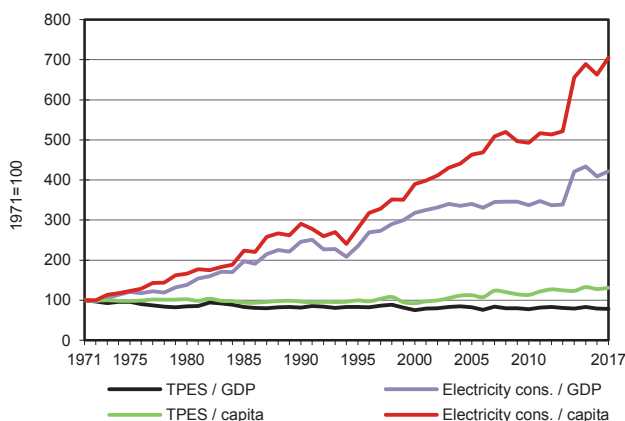


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3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Honduras

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	266	209	2529	-	-	3003
Imports	247	-	2833	-	-	-	-	-	28	-	3108
Exports	-	-	-	-	-	-	-	-	-2	-	-2
Intl. marine bunkers	-	-	-36	-	-	-	-	-	-	-	-36
Intl. aviation bunkers	-	-	-50	-	-	-	-	-	-	-	-50
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	247	-	2747	-	-	266	209	2529	26	-	6024
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	-0	-	-	-	-	-	0	-	-0
Electricity plants	-127	-	-755	-	-	-266	-209	-194	804	-	-746
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-1	-	-	-1
Energy industry own use	-	-	-	-	-	-	-	-	-2	-	-2
Losses	-	-	-	-	-	-	-	-	-119	-	-119
TFC	120	-	1992	-	-	-	-	2334	709	-	5156
INDUSTRY	120	-	369	-	-	-	-	343	156	-	988
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	76	-	-	-	-	-	-	-	76
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	120	-	293	-	-	-	-	343	156	-	912
TRANSPORT	-	-	1472	-	-	-	-	-	-	-	1472
Domestic aviation	-	-	9	-	-	-	-	-	-	-	9
Road	-	-	1462	-	-	-	-	-	-	-	1462
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	0	-	-	-	-	-	-	-	0
OTHER	-	-	151	-	-	-	-	1992	553	-	2696
Residential	-	-	66	-	-	-	-	1881	291	-	2239
Comm. and public services	-	-	59	-	-	-	-	110	261	-	431
Agriculture/forestry	-	-	-	-	-	-	-	-	-	-	-
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	26	-	-	-	-	-	-	-	26
NON-ENERGY USE	-	-	-	-	-	-	-	-	-	-	-
in industry/transf./energy	-	-	-	-	-	-	-	-	-	-	-
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	532	-	3378	-	-	3088	1594	752	-	-	9345
Electricity plants	532	-	3378	-	-	3088	1594	752	-	-	9345
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Hong Kong, China

Figure 1. Energy production

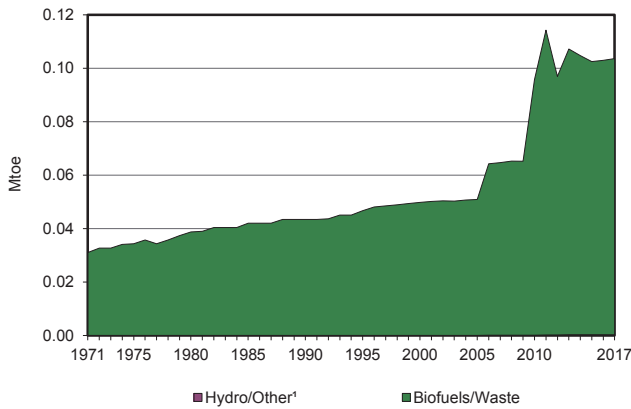


Figure 2. Total primary energy supply²

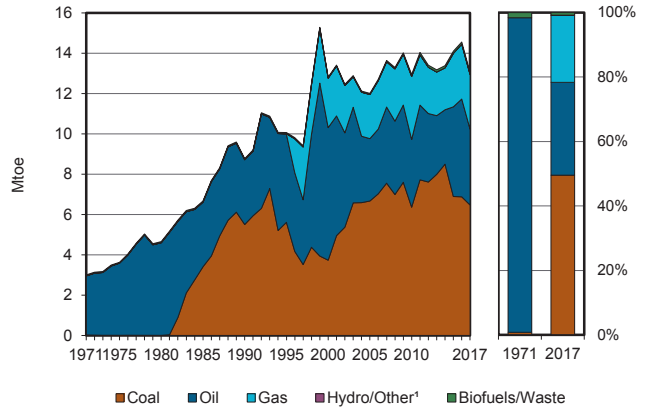


Figure 3. Energy self-sufficiency³

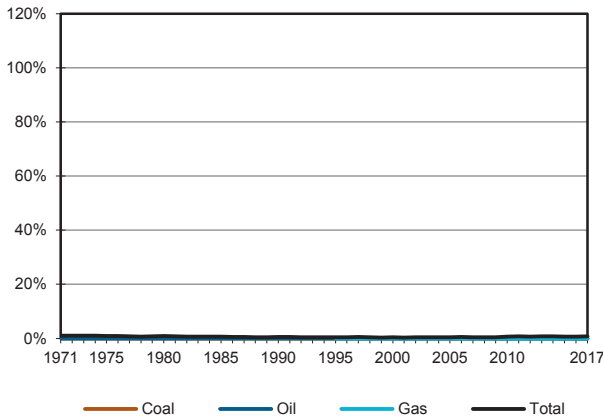


Figure 4. Oil products demand⁴

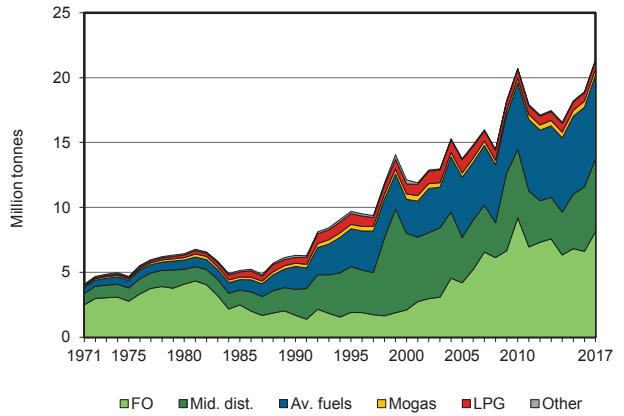


Figure 5. Electricity generation by source

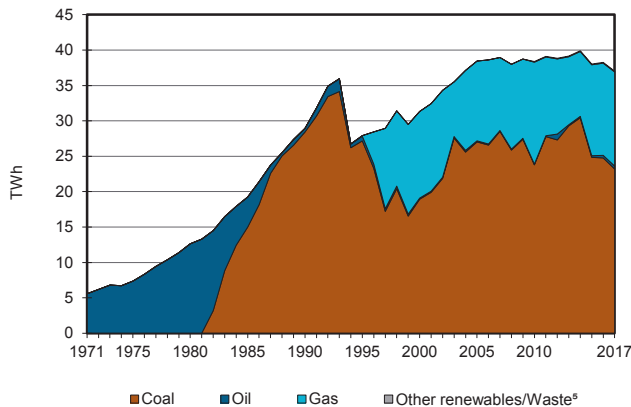
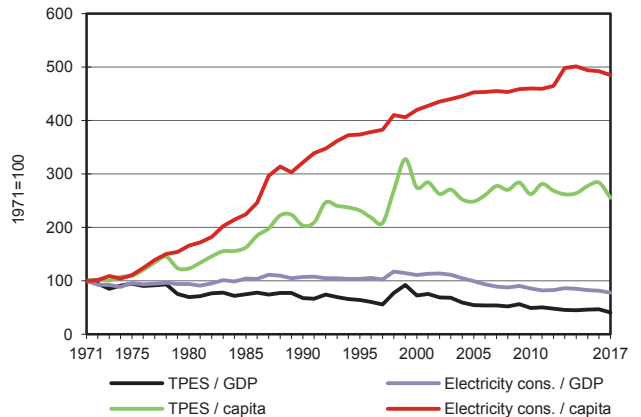


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Hong Kong, China

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	-	0	103	-	-	104
Imports	6472	-	21780	2715	-	-	-	3	1081	-	32051
Exports	-	-	-298	-	-	-	-	-0	-115	-	-414
Intl. marine bunkers	-	-	-10734	-	-	-	-	-	-	-	-10734
Intl. aviation bunkers	-	-	-6906	-	-	-	-	-	-	-	-6906
Stock changes	-	-	-84	-	-	-	-	-	-	-	-84
TPES	6472	-	3757	2715	-	-	0	106	966	-	14016
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	398	-	-	-	-	-	0	-	398
Electricity plants	-5297	-	-103	-2372	-	-	-0	-	3175	-	-4597
CHP plants	-	-	-	-	-	-	-	-31	9	-	-21
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-304	281	-	-	-	-14	-	-	-37
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-	-	-	-	-	-	-	-	-226	-	-226
Losses	-	-	-	-	-	-	-	-	-150	-	-150
TFC	1175	-	3748	624	-	-	-	61	3774	-	9383
INDUSTRY	1175	-	799	34	-	-	-	-	267	-	2275
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	1175	-	799	34	-	-	-	-	267	-	2275
TRANSPORT	-	-	2766	-	-	-	-	4	-	-	2769
Domestic aviation	-	-	6	-	-	-	-	-	-	-	6
Road	-	-	2759	-	-	-	-	4	-	-	2763
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	81	591	-	-	-	58	3506	-	4235
Residential	-	-	4	329	-	-	-	55	1006	-	1394
Comm. and public services	-	-	77	261	-	-	-	-	2491	-	2829
Agriculture/forestry	-	-	-	-	-	-	-	-	-	-	-
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	2	9	-	12
NON-ENERGY USE	-	-	103	-	-	-	-	-	-	-	103
in industry/transf./energy	-	-	103	-	-	-	-	-	-	-	103
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	23208	-	409	13301	-	-	3	107	-	-	37027
Electricity plants	23208	-	409	13301	-	-	3	-	-	-	36920
CHP plants	-	-	-	-	-	-	-	107	-	-	107
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Islamic Republic of Iran

Figure 1. Energy production

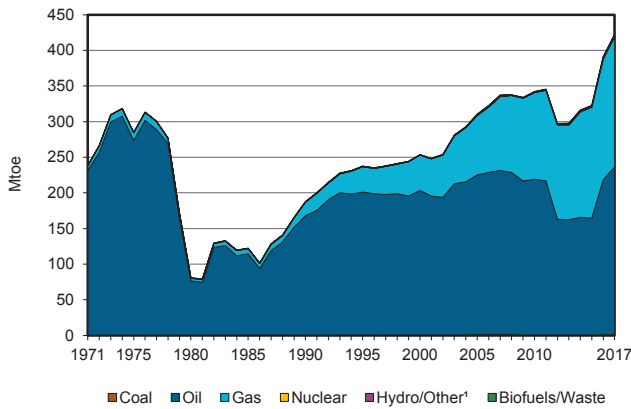


Figure 2. Total primary energy supply²

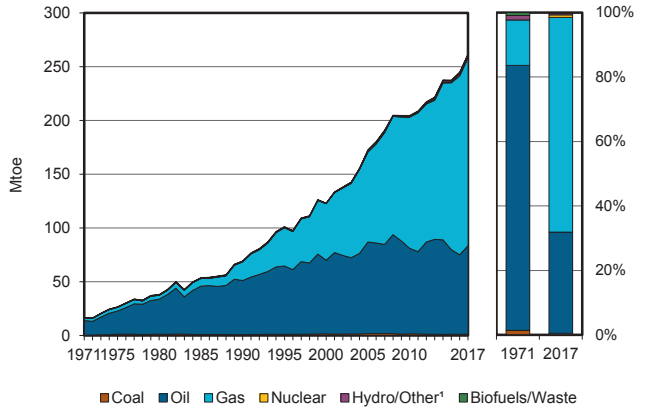


Figure 3. Energy self-sufficiency³

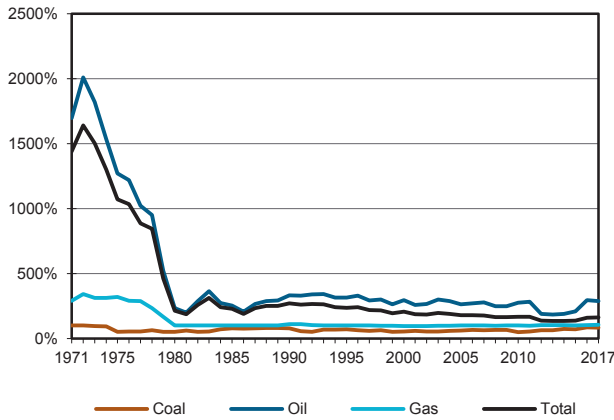


Figure 4. Oil products demand⁴

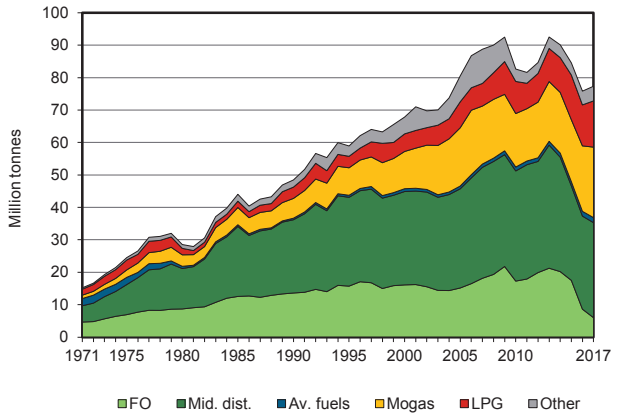


Figure 5. Electricity generation by source

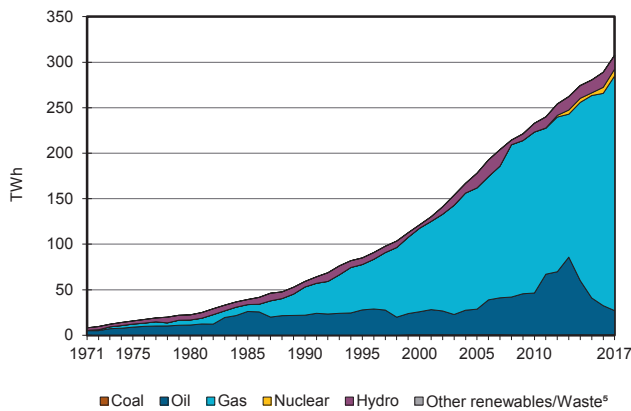
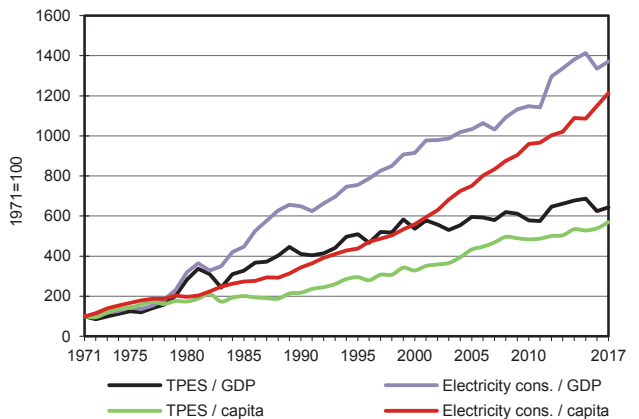


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Islamic Republic of Iran

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	1017	235461	-	182498	1958	1294	34	516	-	-	422778
Imports	308	1581	3788	3266	-	-	-	0	331	-	9275
Exports	-77	-136215	-23712	-11190	-	-	-	-0	-703	-	-171898
Intl. marine bunkers	-	-	-1391	-	-	-	-	-	-	-	-1391
Intl. aviation bunkers	-	-	-1639	-	-	-	-	-	-	-	-1639
Stock changes	-1	4484	-	-	-	-	-	-	-	-	4483
TPES	1247	105311	-22955	174574	1958	1294	34	516	-371	-	261608
Transfers	-	-13042	14974	-	-	-	-	-	-	-	1932
Statistical differences	420	-662	-1897	166	-	-	-	-	-468	-	-2441
Electricity plants	-232	-	-7568	-58697	-1958	-1294	-34	-7	26481	-	-43308
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-486	-	-	-	-	-	-	-	-	-	-486
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-68	-	-	-	-	-	-	-	-	-	-68
Oil refineries	-	-91414	88248	-	-	-	-	-	-	-	-3166
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-2	-	-	-2
Energy industry own use	-154	-194	-2255	-12924	-	-	-	-	-1070	-	-16597
Losses	-32	-	-	-166	-	-	-	-	-2900	-	-3097
TFC	695	-	68548	102953	-	-	-	508	21671	-	194375
INDUSTRY	375	-	3907	35235	-	-	-	-	6943	-	46460
Iron and steel	172	-	-	0	-	-	-	-	-	-	172
Chemical and petrochemical	-	-	160	9681	-	-	-	-	-	-	9841
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	203	-	3747	25554	-	-	-	-	6943	-	36447
TRANSPORT	-	-	38789	6873	-	-	-	-	41	-	45704
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	38751	6501	-	-	-	-	-	-	45252
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	32	373	-	-	-	-	-	-	405
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	6	-	-	-	-	-	41	-	47
OTHER	9	-	8008	48198	-	-	-	508	14687	-	71410
Residential	9	-	4680	40133	-	-	-	256	7171	-	52249
Comm. and public services	-	-	813	6196	-	-	-	252	3698	-	10959
Agriculture/forestry	-	-	2515	1869	-	-	-	-	3386	-	7770
Fishing	-	-	-	-	-	-	-	-	0	-	0
Non-specified	-	-	-	-	-	-	-	0	431	-	432
NON-ENERGY USE	311	-	17843	12646	-	-	-	-	-	-	30801
in industry/transf./energy	311	-	17843	12646	-	-	-	-	-	-	30801
of which: chem./petrochem.	-	-	13839	12646	-	-	-	-	-	-	26486
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	626	-	26389	257973	7514	15051	391	24	-	-	307968
Electricity plants	626	-	26389	257973	7514	15051	391	24	-	-	307968
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Iraq

Figure 1. Energy production

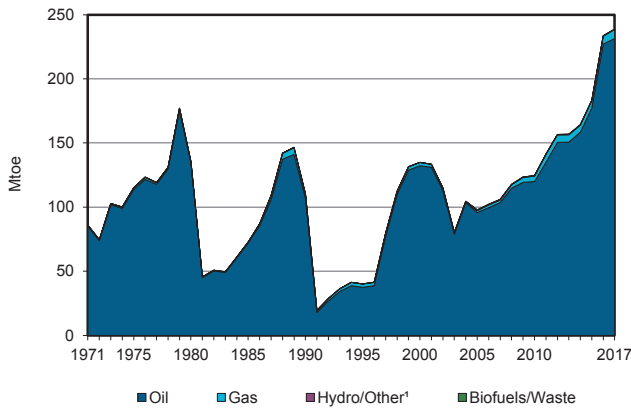


Figure 2. Total primary energy supply²

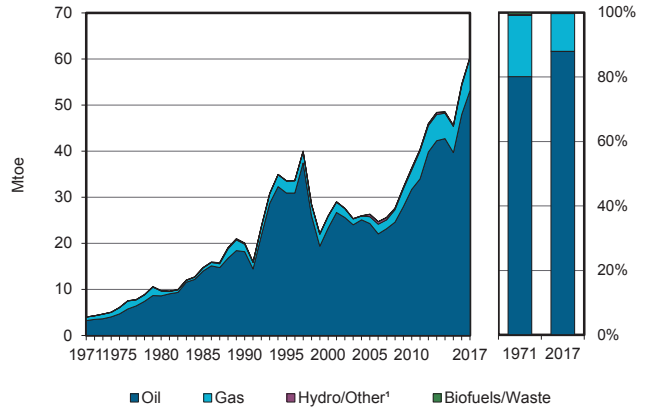


Figure 3. Energy self-sufficiency³

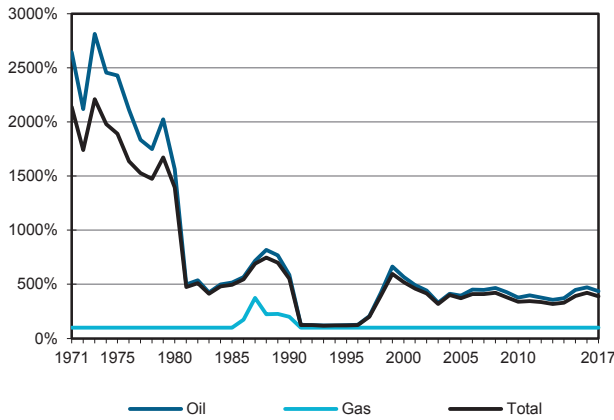


Figure 4. Oil products demand⁴

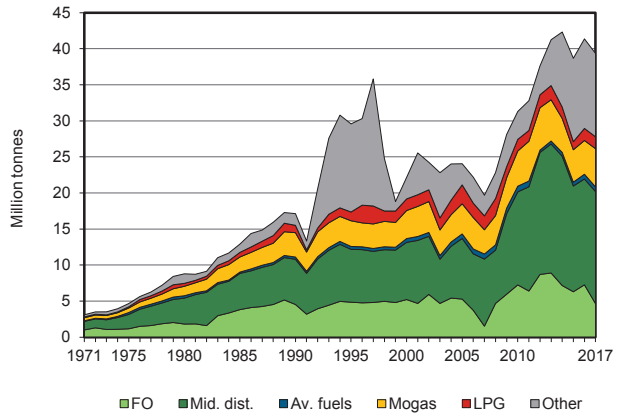


Figure 5. Electricity generation by source

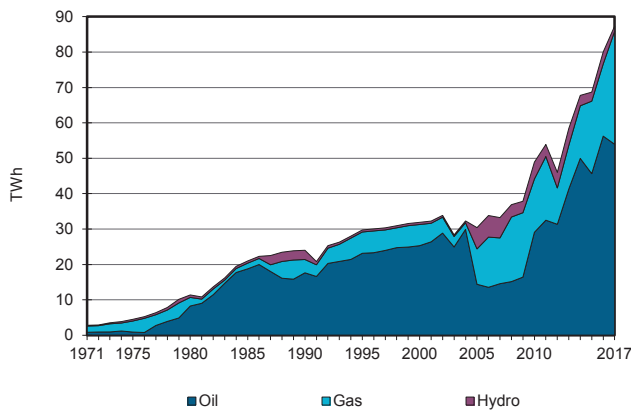
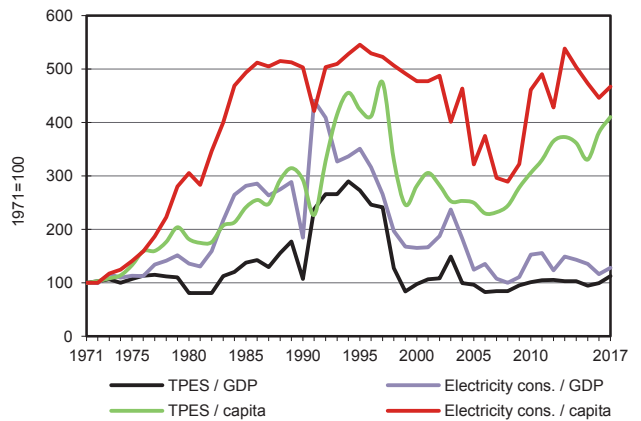


Figure 6. Selected indicators⁵



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. GDP in 2010 USD.

Iraq

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	231469	-	7094	-	125	-	47	-	-	238735
Imports	-	-	16849	-	-	-	-	-	1014	-	17862
Exports	-	-191070	-3512	-	-	-	-	-	-	-	-194582
Intl. marine bunkers	-	-	-275	-	-	-	-	-	-	-	-275
Intl. aviation bunkers	-	-	-680	-	-	-	-	-	-	-	-680
Stock changes	-	394	32	-	-	-	-	-	-	-	426
TPES	-	40793	12414	7094	-	125	-	47	1014	-	61487
Transfers	-	4937	-4393	-	-	-	-	-	-	-	544
Statistical differences	-	-7135	-3528	1871	-	-	-	-	-364	-	-9156
Electricity plants	-	-8193	-11563	-7607	-	-125	-	-	7512	-	-19977
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-27252	23807	-	-	-	-	-	-	-	-3446
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-20	-	-	-20
Energy industry own use	-	-2926	-1290	-	-	-	-	-	-186	-	-4402
Losses	-	-223	-	-	-	-	-	-	-4537	-	-4760
TFC	-	-	15446	1358	-	-	-	27	3439	-	20270
INDUSTRY	-	-	2170	1137	-	-	-	-	444	-	3750
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	2170	1137	-	-	-	-	444	-	3750
TRANSPORT	-	-	9635	-	-	-	-	-	-	-	9635
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	9635	-	-	-	-	-	-	-	9635
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	3354	-	-	-	-	27	2995	-	6376
Residential	-	-	3354	-	-	-	-	-	1585	-	4939
Comm. and public services	-	-	-	-	-	-	-	-	198	-	198
Agriculture/forestry	-	-	-	-	-	-	-	-	-	-	-
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	27	1212	-	1239
NON-ENERGY USE	-	-	287	221	-	-	-	-	-	-	509
in industry/transf./energy	-	-	287	221	-	-	-	-	-	-	509
of which: chem./petrochem.	-	-	-	221	-	-	-	-	-	-	221
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	28587	25366	31955	-	1458	-	-	-	-	87365
Electricity plants	-	28587	25366	31955	-	1458	-	-	-	-	87365
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Jamaica

Figure 1. Energy production

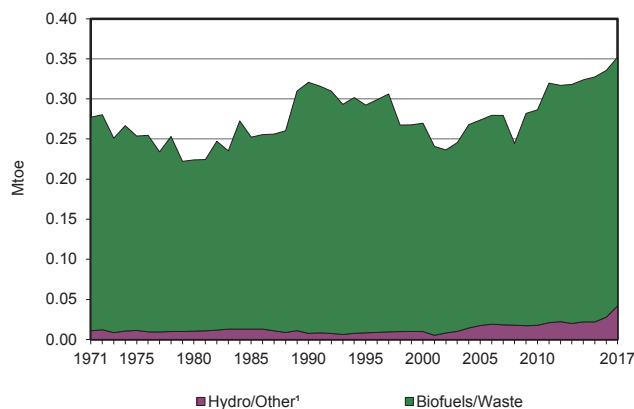


Figure 2. Total primary energy supply²

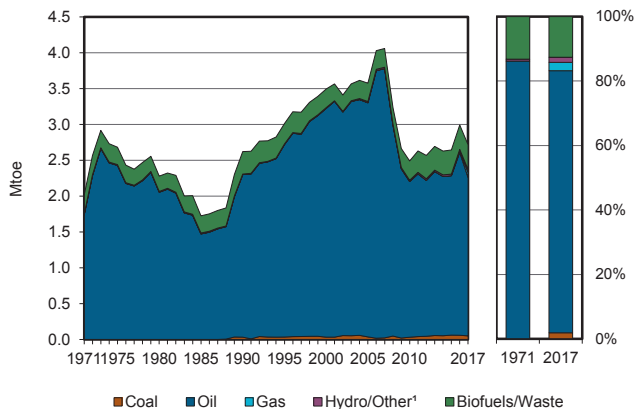


Figure 3. Energy self-sufficiency³

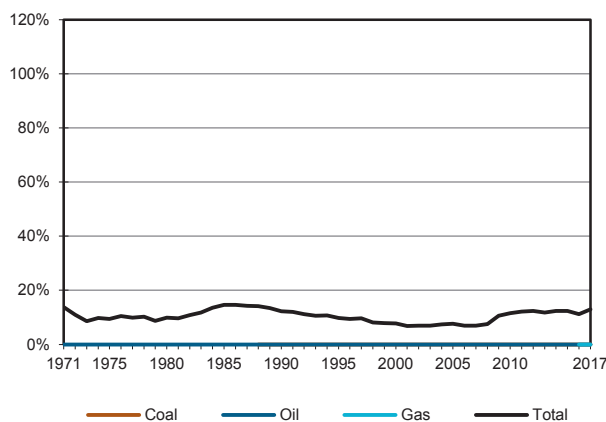


Figure 4. Oil products demand⁴

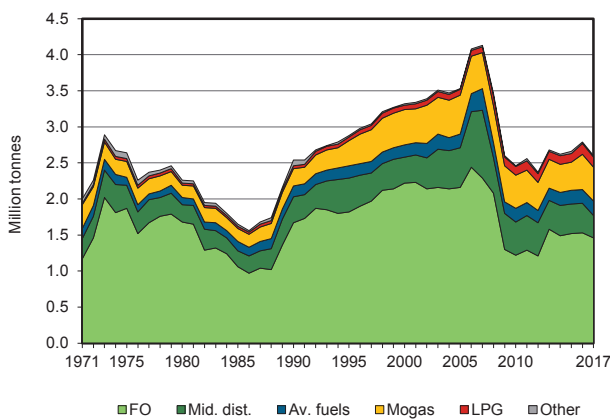


Figure 5. Electricity generation by source

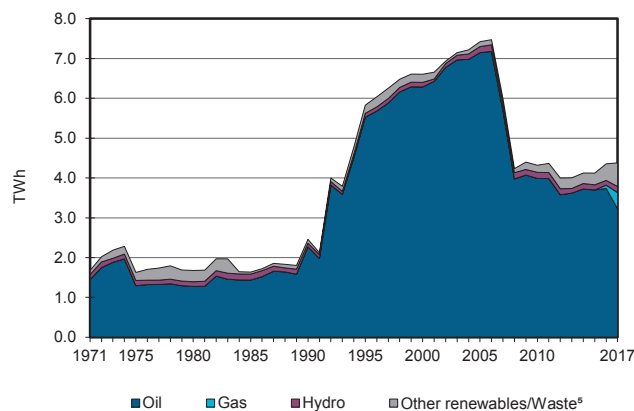
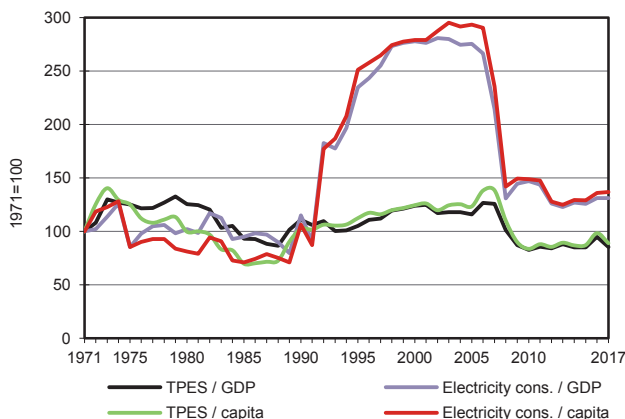


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Jamaica

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	13	29	310	-	-	352
Imports	59	1025	1750	70	-	-	-	34	-	-	2938
Exports	-	-	-60	-	-	-	-	-	-	-	-60
Intl. marine bunkers	-	-	-251	-	-	-	-	-	-	-	-251
Intl. aviation bunkers	-	-	-217	-	-	-	-	-	-	-	-217
Stock changes	-9	-	-38	-	-	-	-	-	-	-	-47
TPES	51	1025	1184	70	-	13	29	344	-	-	2716
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	-60	-	-	-	-	-	-0	-	-60
Electricity plants	-	-	-743	-70	-	-13	-29	-	354	-	-501
CHP plants	-	-	-	-	-	-	-	-124	22	-	-102
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-1025	1019	-	-	-	-	-	-	-	-6
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-32	-	-	-32
Energy industry own use	-	-	-	-	-	-	-	-	-2	-	-2
Losses	-	-	-	-	-	-	-	-	-99	-	-99
TFC	51	-	1400	-	-	-	-	187	276	-	1913
INDUSTRY	51	-	565	-	-	-	-	52	168	-	836
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	51	-	7	-	-	-	-	-	50	-	107
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	471	-	-	-	-	-	41	-	513
Food and tobacco	-	-	3	-	-	-	-	-	33	-	36
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	9	-	-	-	-	-	-	-	9
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	75	-	-	-	-	52	44	-	170
TRANSPORT	-	-	679	-	-	-	-	34	-	-	713
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	678	-	-	-	-	34	-	-	711
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	2	-	-	-	-	-	-	-	2
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	139	-	-	-	-	102	108	-	349
Residential	-	-	24	-	-	-	-	32	92	-	148
Comm. and public services	-	-	104	-	-	-	-	70	16	-	189
Agriculture/forestry	-	-	11	-	-	-	-	-	-	-	11
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	16	-	-	-	-	-	-	-	16
in industry/transf./energy	-	-	16	-	-	-	-	-	-	-	16
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	3221	410	-	154	333	261	-	-	4379
Electricity plants	-	-	3221	410	-	154	333	-	-	-	4118
CHP plants	-	-	-	-	-	-	-	261	-	-	261
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Jordan

Figure 1. Energy production

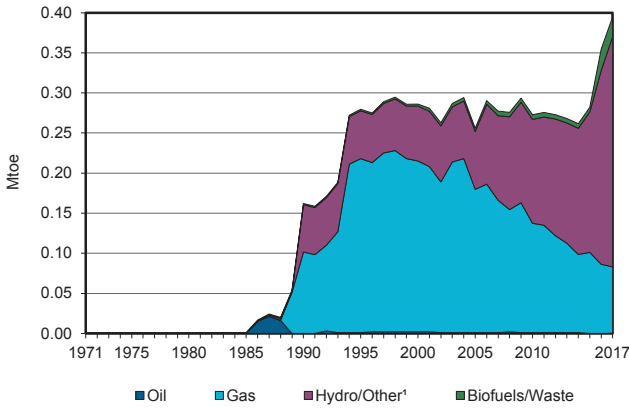


Figure 2. Total primary energy supply²

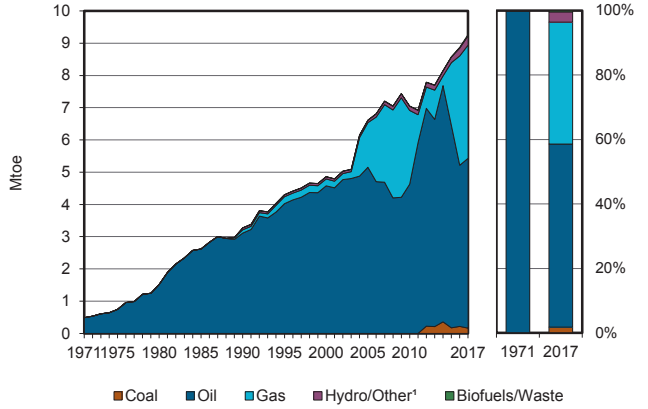


Figure 3. Energy self-sufficiency³

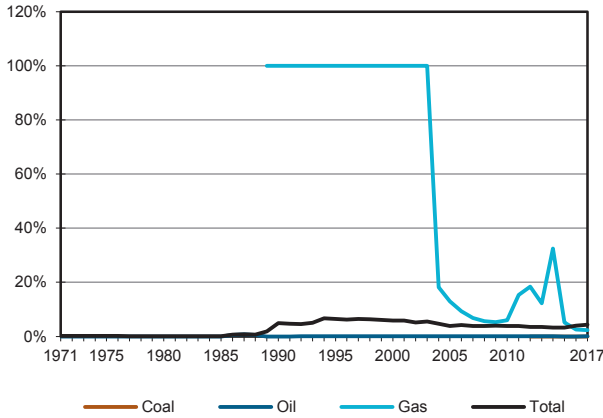


Figure 4. Oil products demand⁴

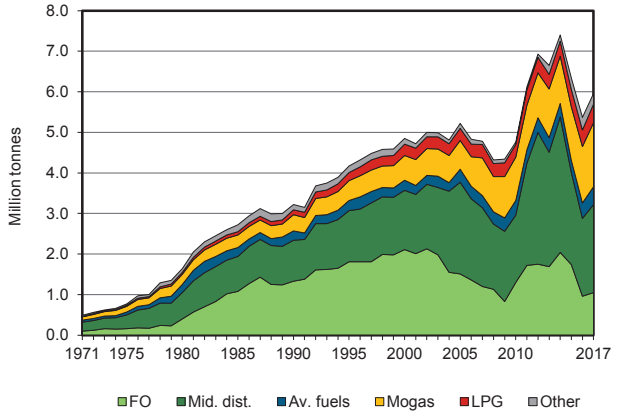


Figure 5. Electricity generation by source

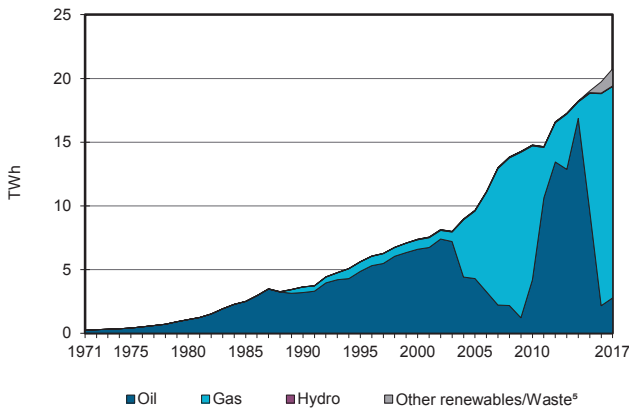
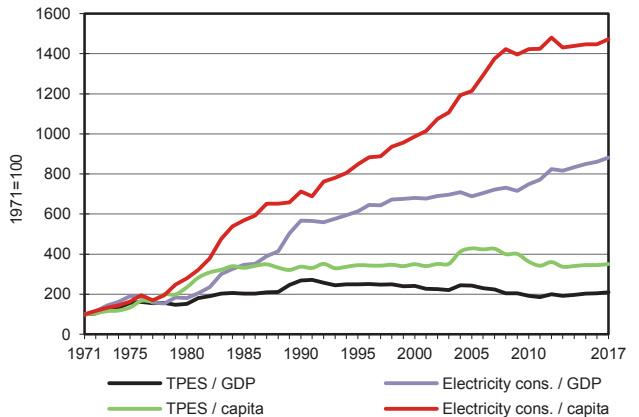


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Jordan

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	0	-	83	-	3	284	25	-	-	395
Imports	165	2850	2819	4343	-	-	-	17	4	-	10198
Exports	-	-	-	-915	-	-	-	-	-5	-	-920
Intl. marine bunkers	-	-	-76	-	-	-	-	-	-	-	-76
Intl. aviation bunkers	-	-	-451	-	-	-	-	-	-	-	-451
Stock changes	-	16	107	-	-	-	-	-	-	-	123
TPES	165	2867	2399	3510	-	3	284	41	-0	-	9269
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-0	-	594	0	-	-	-	44	-57	-	580
Electricity plants	-	-	-648	-3510	-	-3	-116	-1	1785	-	-2493
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-2867	2524	-	-	-	-	-	-	-	-343
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-22	-	-	-22
Energy industry own use	-	-	-174	-	-	-	-	-	-52	-	-226
Losses	-	-	-	-	-	-	-	-	-174	-	-174
TFC	165	-	4694	-	-	-	168	62	1501	-	6590
INDUSTRY	165	-	502	-	-	-	-	-	326	-	993
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	10	-	10
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	165	-	148	-	-	-	-	-	42	-	355
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	38	-	38
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	354	-	-	-	-	-	236	-	590
TRANSPORT	-	-	3046	-	-	-	-	-	-	-	3046
Domestic aviation	-	-	8	-	-	-	-	-	-	-	8
Road	-	-	3035	-	-	-	-	-	-	-	3035
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	2	-	-	-	-	-	-	-	2
OTHER	-	-	1084	-	-	-	168	62	1175	-	2489
Residential	-	-	687	-	-	-	131	18	688	-	1524
Comm. and public services	-	-	169	-	-	-	37	13	257	-	476
Agriculture/forestry	-	-	-	-	-	-	-	-	231	-	231
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	228	-	-	-	-	31	-	-	259
NON-ENERGY USE	-	-	62	-	-	-	-	-	-	-	62
in industry/transf./energy	-	-	62	-	-	-	-	-	-	-	62
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	0	-	-	-	-	-	-	-	0
Electricity and Heat Output											
Electr. generated - GWh	-	-	2775	16599	-	38	1344	4	-	-	20760
Electricity plants	-	-	2775	16599	-	38	1344	4	-	-	20760
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Kazakhstan

Figure 1. Energy production

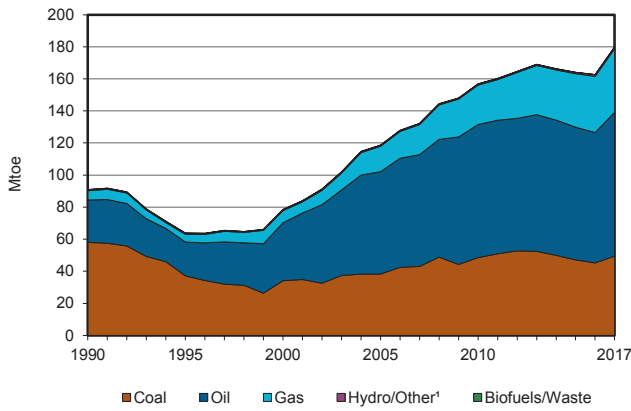


Figure 2. Total primary energy supply²

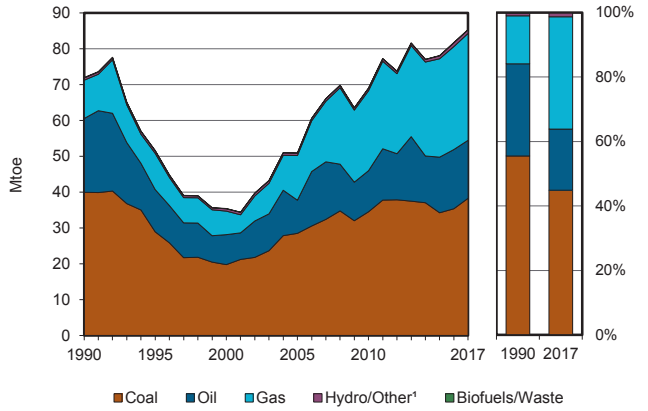


Figure 3. Energy self-sufficiency³

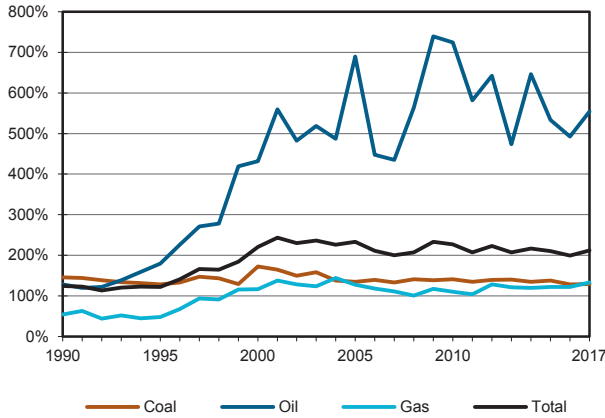


Figure 4. Oil products demand⁴

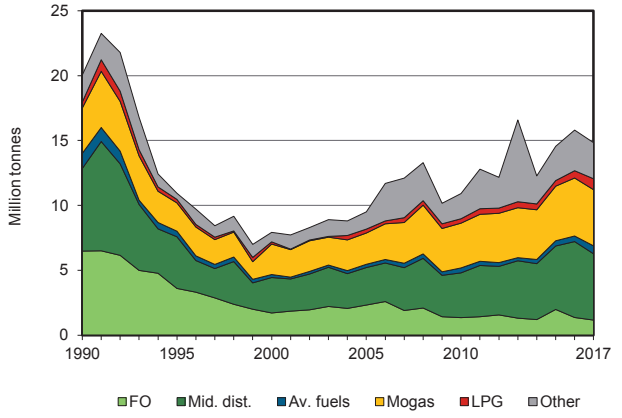


Figure 5. Electricity generation by source

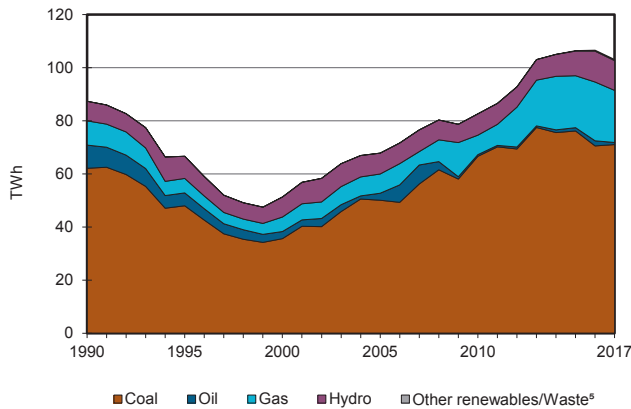
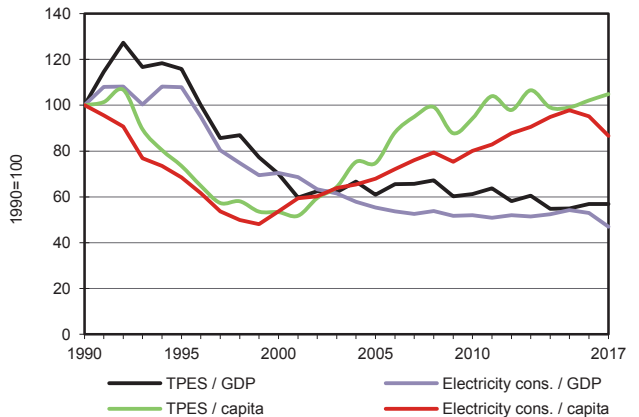


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Kazakhstan

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	49469	89727	-	39723	-	964	37	57	-	-	179977
Imports	573	43	2088	5264	-	-	-	9	114	-	8090
Exports	-12794	-70442	-4780	-14914	-	-	-	-	-489	-	-103419
Intl. marine bunkers	-	-	-169	-	-	-	-	-	-	-	-169
Intl. aviation bunkers	-	-	-489	-	-	-	-	-	-	-	-489
Stock changes	1034	43	163	-244	-	-	-	-	-	-	997
TPES	38282	19371	-3187	29829	-	964	37	66	-375	-	84988
Transfers	-	-1458	1458	-	-	-	-	-	-	-	-
Statistical differences	756	50	-1065	-881	-	-	-	-	-	-	-1139
Electricity plants	-	-	-	-	-	-964	-37	-	1001	-	-0
CHP plants	-22241	-	-210	-5629	-	-	-	-	7866	8866	-11348
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-1082	-	-	-	-	-	-	-	-	-	-1082
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-1976	-	-	-	-	-	-	-	-	-	-1976
Oil refineries	-	-16252	15584	-	-	-	-	-	-	-	-669
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-2	-	-	-2
Energy industry own use	-536	-893	-398	-19388	-	-	-	-10	-2649	-2123	-25996
Losses	-6	-200	-11	-482	-	-	-	-	-551	-825	-2076
TFC	13197	618	12170	3450	-	-	-	53	5292	5917	40699
INDUSTRY	10173	618	3818	1685	-	-	-	-	3385	1891	21570
Iron and steel	3183	-	510	377	-	-	-	-	1129	693	5893
Chemical and petrochemical	19	-	74	494	-	-	-	-	348	117	1051
Non-ferrous metals	554	-	449	49	-	-	-	-	520	15	1587
Non-metallic minerals	1	-	609	-	-	-	-	-	136	-	746
Transport equipment	2	-	2	6	-	-	-	-	4	15	30
Machinery	34	-	9	13	-	-	-	-	34	30	120
Mining and quarrying	476	-	968	481	-	-	-	-	332	263	2521
Food and tobacco	28	-	103	191	-	-	-	-	107	152	581
Paper pulp and printing	0	-	7	18	-	-	-	-	7	16	48
Wood and wood products	0	-	2	1	-	-	-	-	3	3	9
Construction	30	-	608	46	-	-	-	-	38	136	858
Textile and leather	1	-	2	9	-	-	-	-	11	5	28
Non-specified	5843	618	475	-	-	-	-	-	717	445	8098
TRANSPORT	4	-	4972	-	-	-	-	4	346	-	5326
Domestic aviation	-	-	119	-	-	-	-	-	-	-	119
Road	-	-	4682	-	-	-	-	4	10	-	4696
Rail	0	-	146	-	-	-	-	-	116	-	262
Pipeline transport	-	-	-	-	-	-	-	-	40	-	40
Domestic navigation	1	-	7	-	-	-	-	-	-	-	9
Non-specified	2	-	17	-	-	-	-	-	180	-	200
OTHER	3021	-	3380	1271	-	-	-	49	1562	4026	13309
Residential	2249	-	2165	276	-	-	-	49	1033	787	6559
Comm. and public services	723	-	655	957	-	-	-	-	466	2104	4905
Agriculture/forestry	49	-	560	39	-	-	-	-	62	90	799
Fishing	-	-	-	-	-	-	-	-	1	0	1
Non-specified	-	-	-	-	-	-	-	-	0	1046	1046
NON-ENERGY USE	-	-	-	494	-	-	-	-	-	-	494
in industry/transf./energy	-	-	-	494	-	-	-	-	-	-	494
of which: chem./petrochem.	-	-	-	494	-	-	-	-	-	-	494
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	71081	-	782	19622	-	11210	433	-	-	-	103128
Electricity plants	-	-	-	-	-	11210	433	-	-	-	11643
CHP plants	71081	-	782	19622	-	-	-	-	-	-	91485
Heat generated - TJ	367800	-	3387	-	-	-	-	-	-	-	371187
CHP plants	367800	-	3387	-	-	-	-	-	-	-	371187
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Kenya

Figure 1. Energy production

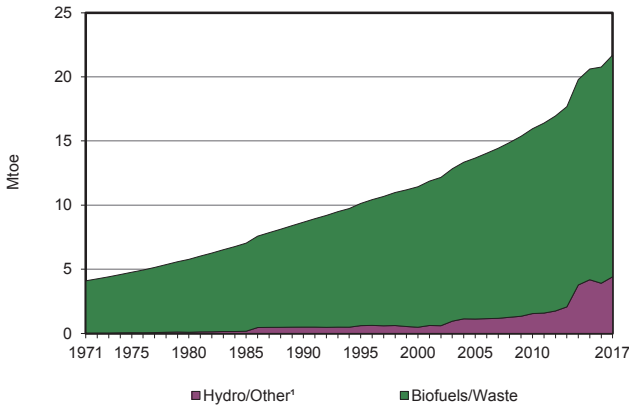


Figure 2. Total primary energy supply²

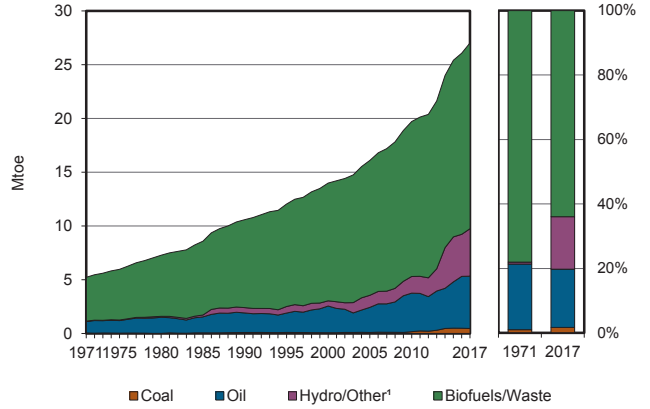


Figure 3. Energy self-sufficiency³

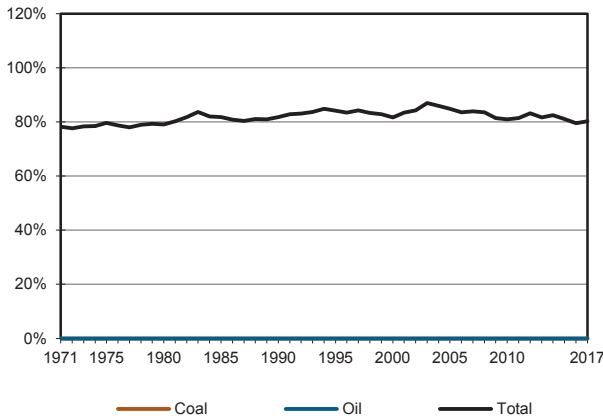


Figure 4. Oil products demand⁴

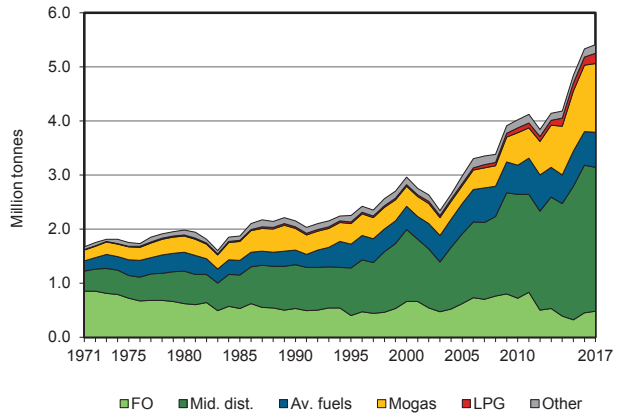


Figure 5. Electricity generation by source

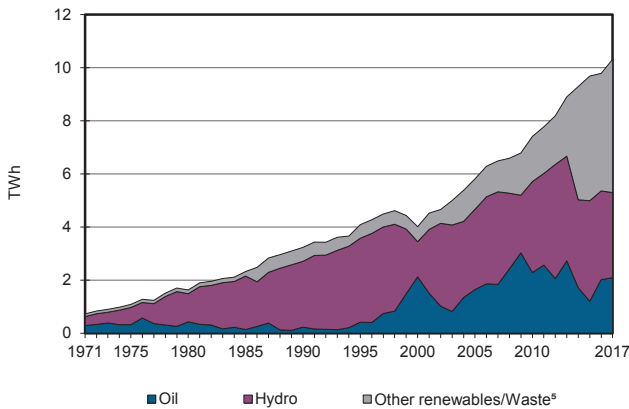
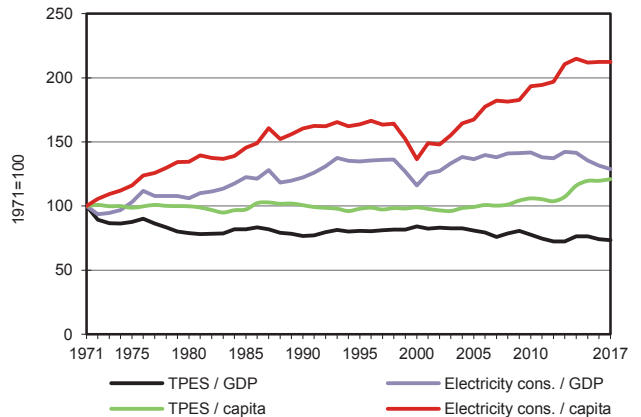


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Kenya

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	276	4143	17281	-	-	21700
Imports	463	780	4850	-	-	-	-	-	15	-	6107
Exports	-	-	-26	-	-	-	-	-	-2	-	-28
Intl. marine bunkers	-	-	-45	-	-	-	-	-	-	-	-45
Intl. aviation bunkers	-	-	-692	-	-	-	-	-	-	-	-692
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	463	780	4086	-	-	276	4143	17281	13	-	27042
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	62	-	-	-	-	-	24	-	86
Electricity plants	-	-	-600	-	-	-276	-4143	-36	888	-	-4168
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-780	750	-	-	-	-	-	-	-	-30
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-5761	-	-	-5761
Energy industry own use	-	-	-39	-	-	-	-	-	-4	-	-43
Losses	-	-	-	-	-	-	-	-	-193	-	-193
TFC	463	-	4259	-	-	-	-	11484	727	-	16934
INDUSTRY	463	-	640	-	-	-	-	-	374	-	1476
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	463	-	-	-	-	-	-	-	-	-	463
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	10	-	10
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	640	-	-	-	-	-	363	-	1003
TRANSPORT	-	-	2886	-	-	-	-	-	-	-	2886
Domestic aviation	-	-	4	-	-	-	-	-	-	-	4
Road	-	-	2869	-	-	-	-	-	-	-	2869
Rail	-	-	12	-	-	-	-	-	-	-	12
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	1	-	-	-	-	-	-	-	1
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	609	-	-	-	-	11484	353	-	12447
Residential	-	-	506	-	-	-	-	11484	248	-	12239
Comm. and public services	-	-	-	-	-	-	-	-	105	-	105
Agriculture/forestry	-	-	48	-	-	-	-	-	-	-	48
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	55	-	-	-	-	-	-	-	55
NON-ENERGY USE	-	-	124	-	-	-	-	-	-	-	124
in industry/transf./energy	-	-	124	-	-	-	-	-	-	-	124
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	2094	-	-	3206	4898	126	-	-	10324
Electricity plants	-	-	2094	-	-	3206	4898	126	-	-	10324
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Kosovo

Figure 1. Energy production

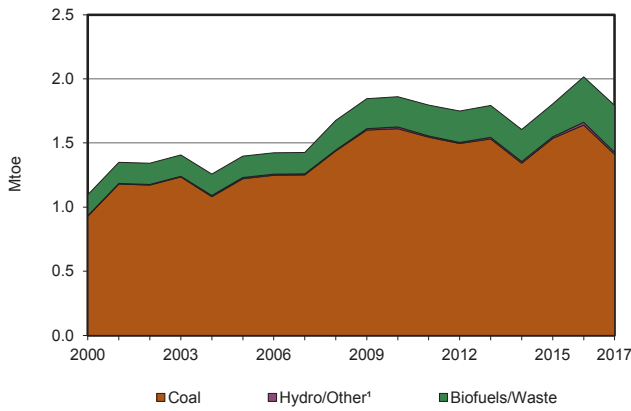


Figure 2. Total primary energy supply²

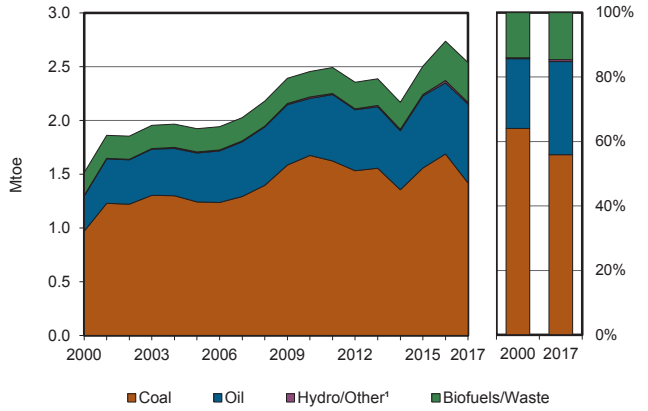


Figure 3. Energy self-sufficiency³

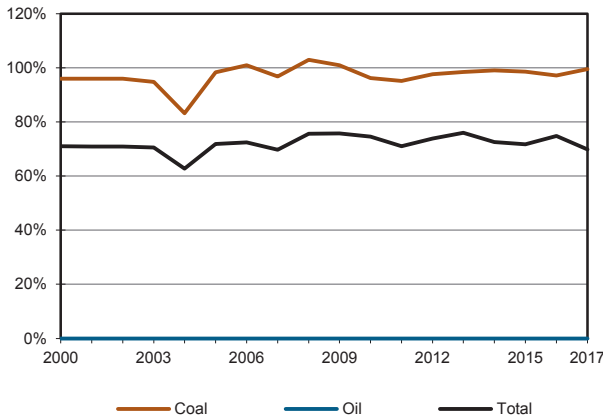


Figure 4. Oil products demand⁴

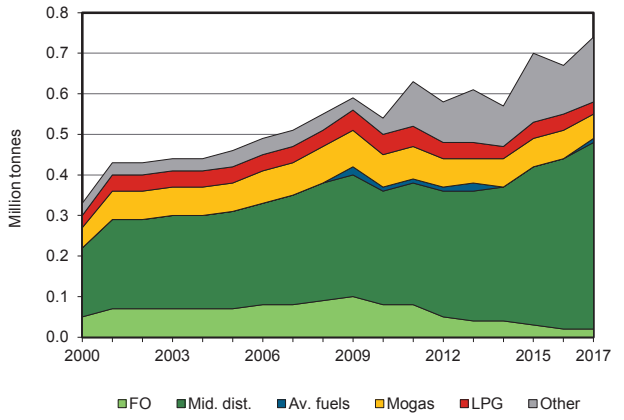


Figure 5. Electricity generation by source

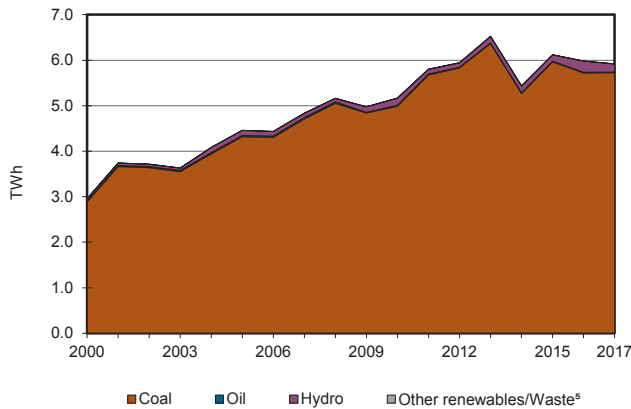
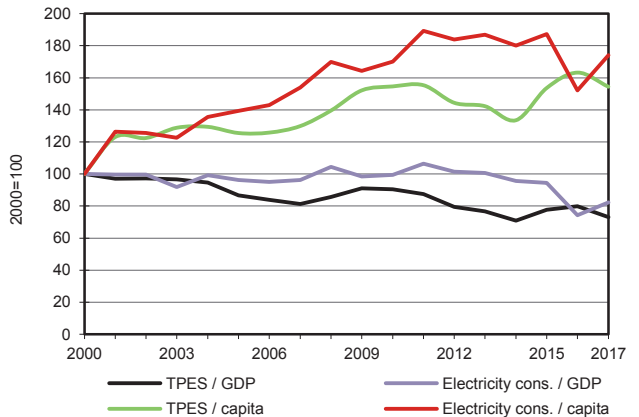


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Kosovo

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	1412	-	-	-	-	15	0	366	-	-	1793
Imports	3	-	741	-	-	-	-	6	107	-	856
Exports	-3	-	-2	-	-	-	-	-0	-76	-	-81
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-6	-	-	-	-	-	-	-	-6
Stock changes	6	-	-	-	-	-	-	-	-	-	6
TPES	1418	-	733	-	-	15	0	371	31	-	2569
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	2	-	-12	-	-	-	-	0	-1	-0	-11
Electricity plants	-1333	-	-3	-	-	-15	-0	-	509	-	-843
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-1	-	-	-	-	-	-	20	18
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-	-	-	-	-	-	-	-	-53	-2	-55
Losses	-	-	-	-	-	-	-	-	-113	-2	-116
TFC	87	-	716	-	-	-	0	371	373	15	1562
INDUSTRY	23	-	187	-	-	-	-	13	91	-	316
Iron and steel	19	-	16	-	-	-	-	0	41	-	75
Chemical and petrochemical	-	-	1	-	-	-	-	0	0	-	1
Non-ferrous metals	-	-	22	-	-	-	-	-	1	-	24
Non-metallic minerals	-	-	106	-	-	-	-	0	5	-	112
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	0	1	-	1
Mining and quarrying	-	-	4	-	-	-	-	-	-	-	4
Food and tobacco	4	-	11	-	-	-	-	6	32	-	53
Paper pulp and printing	-	-	-	-	-	-	-	-	0	-	0
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	0	-	-	-	-	-	-	-	-	-	0
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	27	-	-	-	-	7	11	-	45
TRANSPORT	-	-	412	-	-	-	-	-	-	-	412
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	409	-	-	-	-	-	-	-	409
Rail	-	-	3	-	-	-	-	-	-	-	3
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	64	-	75	-	-	-	0	358	282	15	793
Residential	10	-	11	-	-	-	0	344	197	9	571
Comm. and public services	54	-	47	-	-	-	0	11	75	5	192
Agriculture/forestry	-	-	17	-	-	-	-	3	10	-	30
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	42	-	-	-	-	-	-	-	42
in industry/transf./energy	-	-	42	-	-	-	-	-	-	-	42
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	5726	-	12	-	-	179	1	-	-	-	5918
Electricity plants	5726	-	12	-	-	179	1	-	-	-	5918
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	45	-	-	-	-	-	772	-	817
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	45	-	-	-	-	-	772	-	817

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Kuwait

Figure 1. Energy production

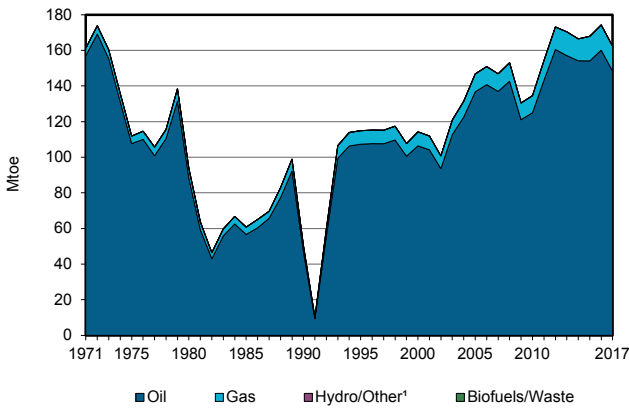


Figure 2. Total primary energy supply²

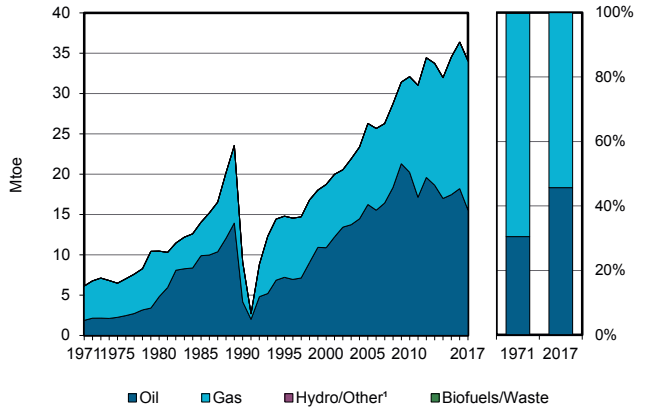


Figure 3. Energy self-sufficiency³

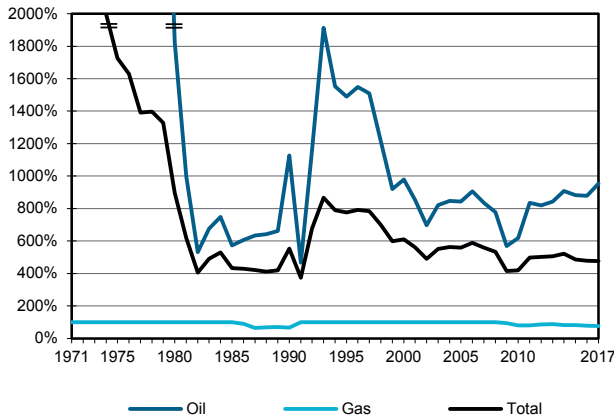


Figure 4. Oil products demand⁴

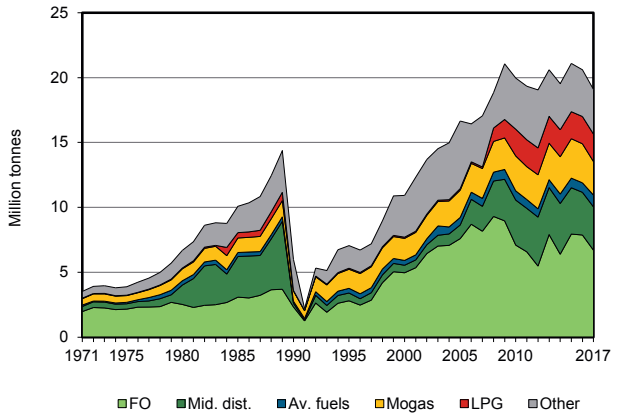


Figure 5. Electricity generation by source

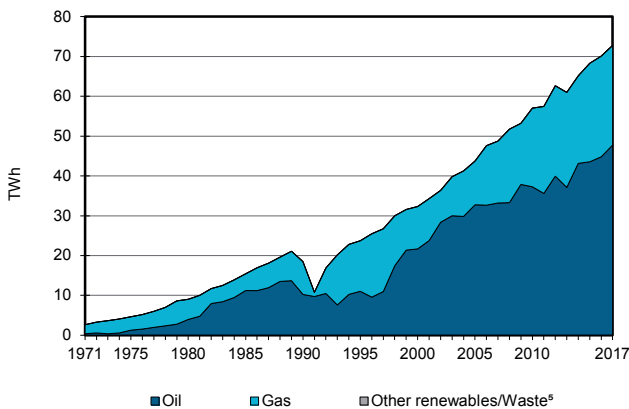
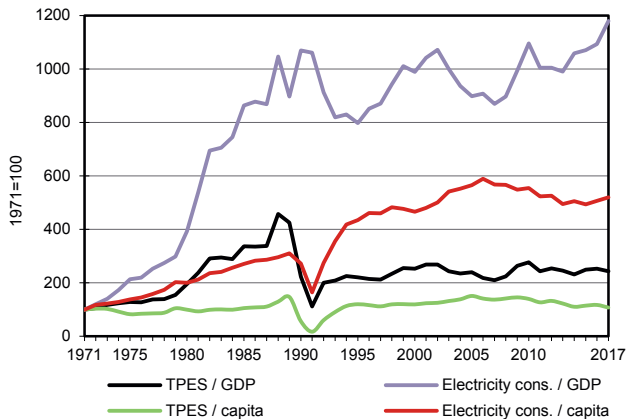


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency. Maximum scale refers to values greater than or equal to 2000%.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Kuwait

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	148226	-	13970	-	-	0	-	-	-	162196
Imports	-	-	-	4517	-	-	-	-	-	-	4517
Exports	-	-104427	-28386	-	-	-	-	-	-	-	-132813
Intl. marine bunkers	-	-	-930	-	-	-	-	-	-	-	-930
Intl. aviation bunkers	-	-	-969	-	-	-	-	-	-	-	-969
Stock changes	-	-	2025	-	-	-	-	-	-	-	2025
TPES	-	43799	-28259	18487	-	-	0	-	-	-	34027
Transfers	-	-8942	10021	-	-	-	-	-	-	-	1079
Statistical differences	-	1325	-157	-	-	-	-	-	-0	-	1168
Electricity plants	-	-2627	-6463	-6146	-	-	-0	-	6259	-	-8977
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-33555	33460	-	-	-	-	-	-	-	-95
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-	-	-349	-5434	-	-	-	-	-1406	-	-7190
Losses	-	-	-	-	-	-	-	-	-681	-	-681
TFC	-	-	8252	6907	-	-	-	-	4171	-	19330
INDUSTRY	-	-	706	6907	-	-	-	-	-	-	7612
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	2654	-	-	-	-	-	-	2654
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	706	4253	-	-	-	-	-	-	4958
TRANSPORT	-	-	4431	-	-	-	-	-	-	-	4431
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	4431	-	-	-	-	-	-	-	4431
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	322	-	-	-	-	-	4171	-	4493
Residential	-	-	322	-	-	-	-	-	2789	-	3111
Comm. and public services	-	-	-	-	-	-	-	-	1383	-	1383
Agriculture/forestry	-	-	-	-	-	-	-	-	-	-	-
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	2793	-	-	-	-	-	-	-	2793
in industry/transf./energy	-	-	2793	-	-	-	-	-	-	-	2793
of which: chem./petrochem.	-	-	2283	-	-	-	-	-	-	-	2283
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	47768	25016	-	-	4	-	-	-	72788
Electricity plants	-	-	47768	25016	-	-	4	-	-	-	72788
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Kyrgyzstan

Figure 1. Energy production

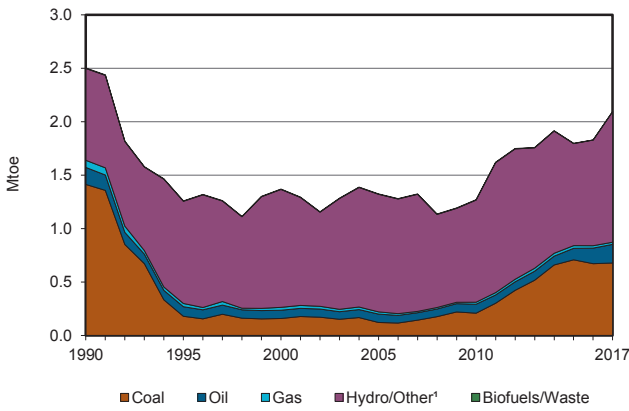


Figure 2. Total primary energy supply²

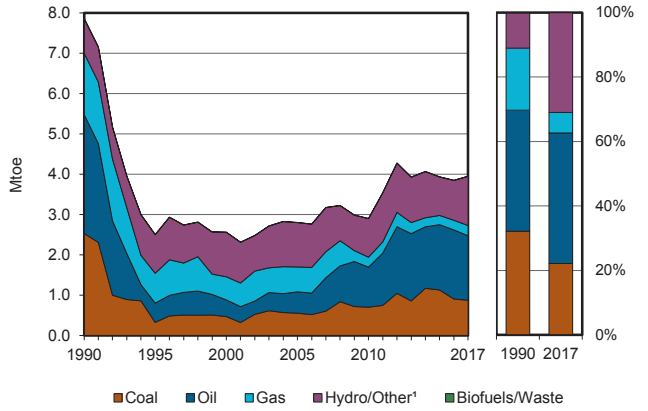


Figure 3. Energy self-sufficiency³

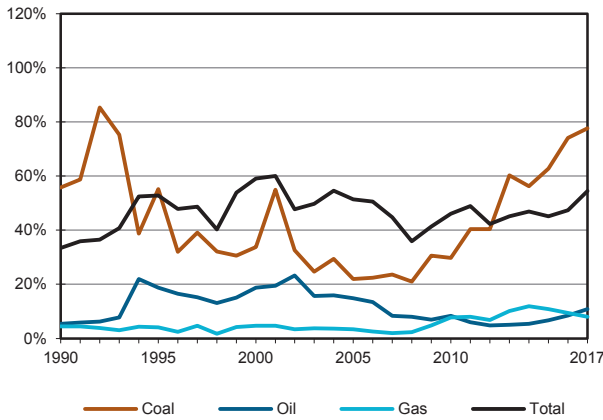


Figure 4. Oil products demand⁴

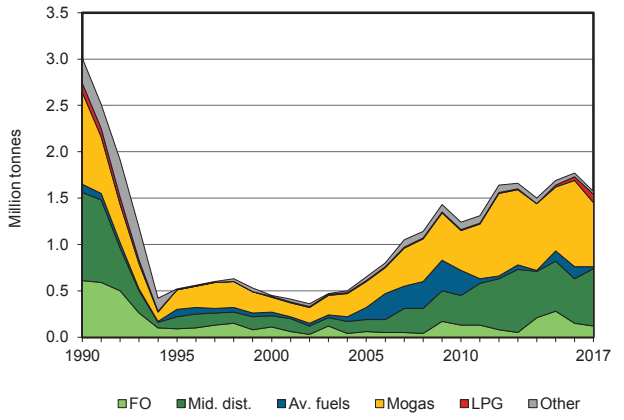


Figure 5. Electricity generation by source

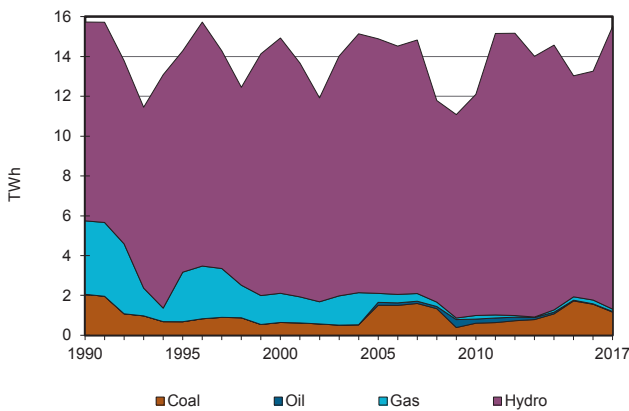
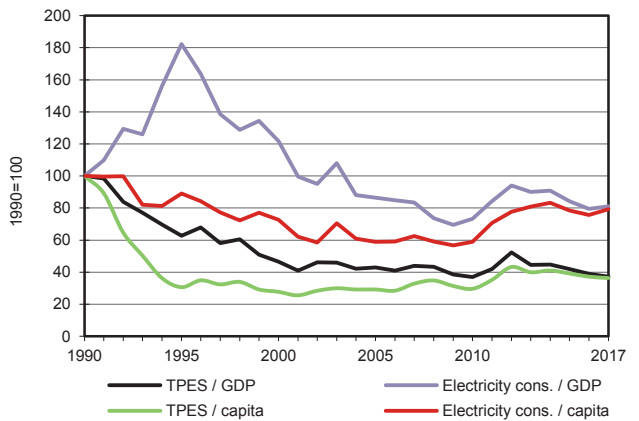


Figure 6. Selected indicators⁵



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. GDP in 2010 USD.

Kyrgyzstan

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	678	174	-	20	-	1221	-	1	-	-	2095
Imports	453	298	1286	234	-	-	-	-	-	-	2271
Exports	-188	-20	-77	-	-	-	-	-	-104	-	-389
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-20	-	-	-	-	-	-	-	-20
Stock changes	-71	-5	-37	-	-	-	-	-	-	-	-113
TPES	873	447	1152	254	-	1221	-	1	-104	-	3845
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-3	-	-	-	-	-	-	-	-11	156	142
Electricity plants	-5	-	-	-	-	-1221	-	-	1223	-	-4
CHP plants	-302	-	-13	-36	-	-	-	-	111	148	-92
Heat plants	-3	-	-10	-41	-	-	-	-	-	42	-12
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-447	446	-	-	-	-	-	-	-	-1
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-2	-	-	-	-	-	-	-	-2
Energy industry own use	-	-	-7	-7	-	-	-	-	-27	-16	-57
Losses	-0	-	-1	-13	-	-	-	-	-245	-20	-279
TFC	559	-	1565	156	-	-	-	1	947	310	3538
INDUSTRY	120	-	88	39	-	-	-	-	152	30	429
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	0	-	5	-	-	-	-	-	2	-	6
Non-ferrous metals	-	-	0	0	-	-	-	-	10	0	11
Non-metallic minerals	40	-	3	13	-	-	-	-	28	3	88
Transport equipment	-	-	-	-	-	-	-	-	0	-	0
Machinery	-	-	0	7	-	-	-	-	3	1	11
Mining and quarrying	0	-	21	-	-	-	-	-	8	-	29
Food and tobacco	7	-	2	15	-	-	-	-	16	23	63
Paper pulp and printing	1	-	-	2	-	-	-	-	-	-	3
Wood and wood products	-	-	0	-	-	-	-	-	2	0	2
Construction	0	-	37	-	-	-	-	-	9	1	47
Textile and leather	0	-	0	0	-	-	-	-	3	-	4
Non-specified	71	-	19	2	-	-	-	-	69	2	164
TRANSPORT	1	-	612	-	-	-	-	-	4	-	616
Domestic aviation	-	-	2	-	-	-	-	-	-	-	2
Road	-	-	602	-	-	-	-	-	2	-	604
Rail	1	-	7	-	-	-	-	-	2	-	9
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	0	-	-	-	-	-	1	-	1
OTHER	439	-	865	117	-	-	-	1	791	279	2492
Residential	368	-	844	83	-	-	-	1	680	184	2160
Comm. and public services	69	-	8	34	-	-	-	0	83	95	290
Agriculture/forestry	0	-	2	-	-	-	-	0	19	0	22
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	1	-	11	0	-	-	-	0	9	0	20
NON-ENERGY USE	-	-	1	-	-	-	-	-	-	-	1
in industry/transf./energy	-	-	-	-	-	-	-	-	-	-	-
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	1	-	-	-	-	-	-	-	1
Electricity and Heat Output											
Electr. generated - GWh	1159	-	32	119	-	14203	-	-	-	-	15513
Electricity plants	15	-	-	-	-	14203	-	-	-	-	14218
CHP plants	1145	-	32	119	-	-	-	-	-	-	1296
Heat generated - TJ	5131	-	611	2223	-	-	-	-	-	-	7965
CHP plants	5015	-	245	947	-	-	-	-	-	-	6207
Heat plants	117	-	366	1276	-	-	-	-	-	-	1759

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Lebanon

Figure 1. Energy production

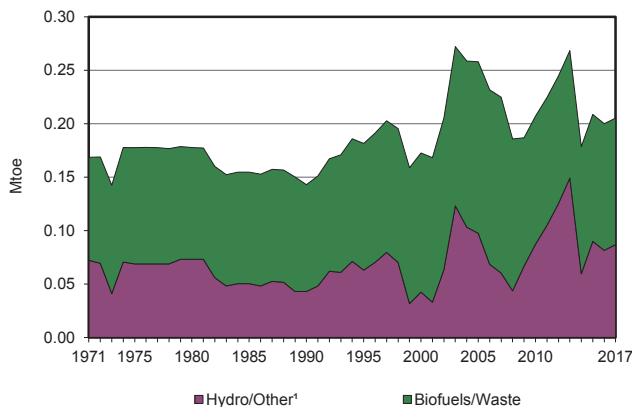


Figure 2. Total primary energy supply²

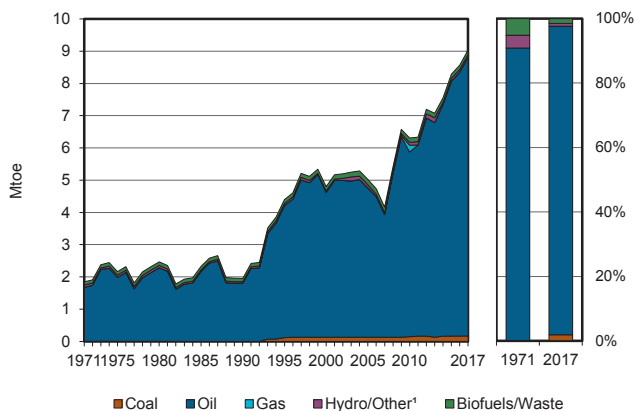


Figure 3. Energy self-sufficiency³

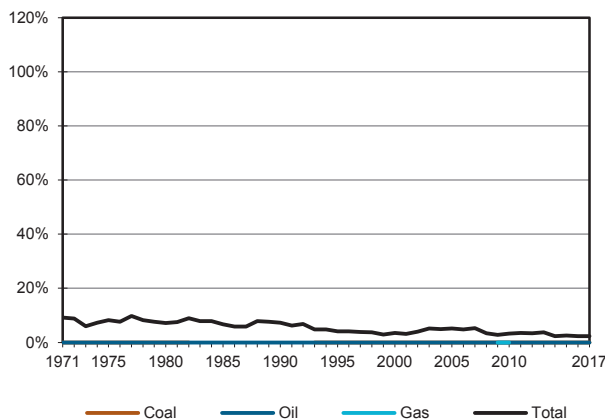


Figure 4. Oil products demand⁴

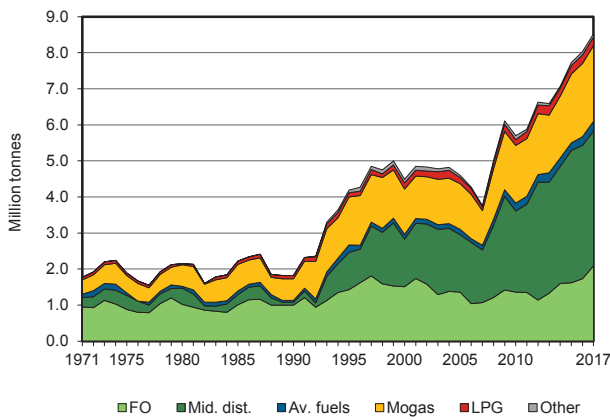


Figure 5. Electricity generation by source

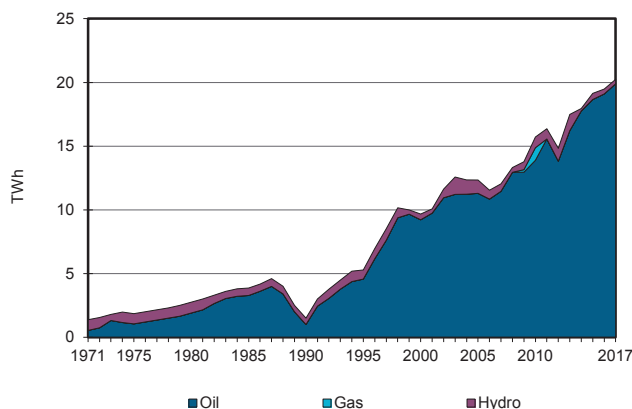
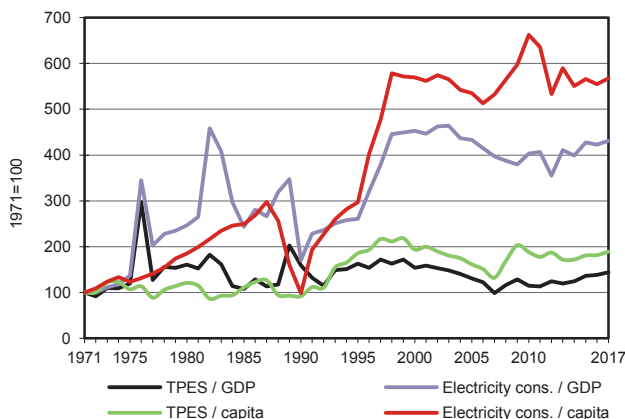


Figure 6. Selected indicators⁵



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. GDP in 2010 USD.

Lebanon

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	30	57	118	-	-	205
Imports	171	-	8932	-	-	-	-	15	-	-	9118
Exports	-	-	-	-	-	-	-	-	-	-	-
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-288	-	-	-	-	-	-	-	-288
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	171	-	8644	-	-	30	57	133	-	-	9035
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	-	-	-	-	-32	-1	-89	-	-122
Electricity plants	-	-	-4969	-	-	-30	-	-	1740	-	-3259
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-4	-	-	-4
Energy industry own use	-	-	-	-	-	-	-	-	-	-	-
Losses	-	-	-	-	-	-	-	-	-182	-	-182
TFC	171	-	3675	-	-	-	25	127	1470	-	5468
INDUSTRY	171	-	147	-	-	-	1	-	379	-	698
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	171	-	-	-	-	-	-	-	-	-	171
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	147	-	-	-	1	-	379	-	527
TRANSPORT	-	-	3151	-	-	-	-	-	-	-	3151
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	3151	-	-	-	-	-	-	-	3151
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	290	-	-	-	23	127	1091	-	1532
Residential	-	-	266	-	-	-	16	112	577	-	970
Comm. and public services	-	-	-	-	-	-	7	-	242	-	249
Agriculture/forestry	-	-	-	-	-	-	-	-	-	-	-
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	25	-	-	-	-	15	272	-	312
NON-ENERGY USE	-	-	87	-	-	-	-	-	-	-	87
in industry/transf./energy	-	-	87	-	-	-	-	-	-	-	87
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	19890	-	-	351	-	-	-	-	20241
Electricity plants	-	-	19890	-	-	351	-	-	-	-	20241
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Libya

Figure 1. Energy production

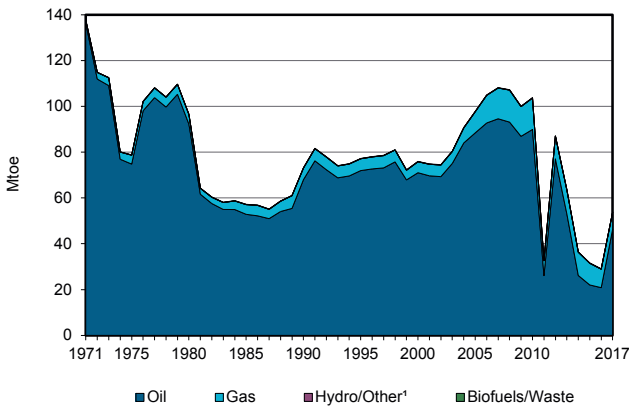


Figure 2. Total primary energy supply²

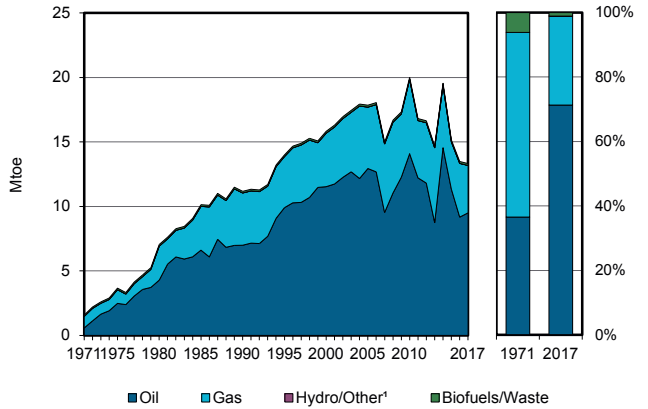


Figure 3. Energy self-sufficiency³

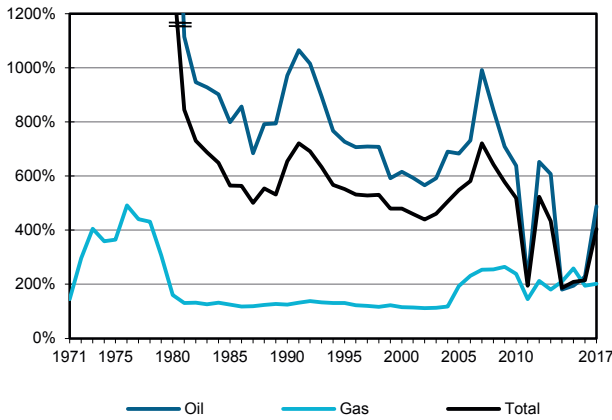


Figure 4. Oil products demand⁴

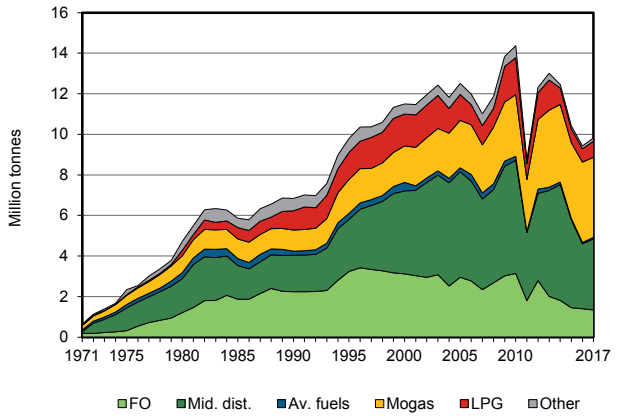


Figure 5. Electricity generation by source

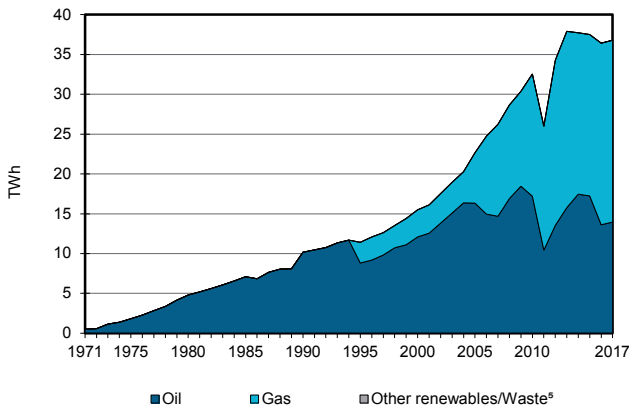
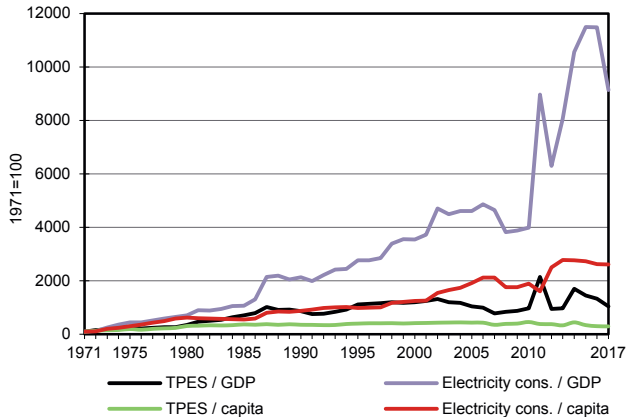


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency. Maximum scale refers to values greater than or equal to 1200%.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Libya

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	46371	-	7433	-	-	1	144	-	-	53949
Imports	-	-	5968	-	-	-	-	-	26	-	5994
Exports	-	-41129	-1439	-3758	-	-	-	-	-	-	-46325
Intl. marine bunkers	-	-	-211	-	-	-	-	-	-	-	-211
Intl. aviation bunkers	-	-	-60	-	-	-	-	-	-	-	-60
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	-	5243	4259	3676	-	-	1	144	26	-	13347
Transfers	-	-758	808	-	-	-	-	-	-	-	51
Statistical differences	-	481	13	2132	-	-	-	-	-1279	-	1347
Electricity plants	-	-	-2482	-5603	-	-	-1	-	3164	-	-4921
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-4965	4901	-	-	-	-	-	-	-	-64
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-	-	-171	-43	-	-	-	-	-62	-	-276
Losses	-	-	-	-	-	-	-	-	-635	-	-635
TFC	-	-	7329	162	-	-	-	144	1214	-	8849
INDUSTRY	-	-	436	57	-	-	-	-	105	-	599
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	436	57	-	-	-	-	105	-	599
TRANSPORT	-	-	5833	-	-	-	-	-	-	-	5833
Domestic aviation	-	-	16	-	-	-	-	-	-	-	16
Road	-	-	5817	-	-	-	-	-	-	-	5817
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	449	-	-	-	-	144	1109	-	1702
Residential	-	-	449	-	-	-	-	144	512	-	1104
Comm. and public services	-	-	-	-	-	-	-	-	131	-	131
Agriculture/forestry	-	-	-	-	-	-	-	-	106	-	106
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	360	-	360
NON-ENERGY USE	-	-	611	105	-	-	-	-	-	-	716
in industry/transf./energy	-	-	611	105	-	-	-	-	-	-	716
of which: chem./petrochem.	-	-	546	105	-	-	-	-	-	-	651
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	13955	22834	-	-	8	-	-	-	36797
Electricity plants	-	-	13955	22834	-	-	8	-	-	-	36797
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Malaysia

Figure 1. Energy production

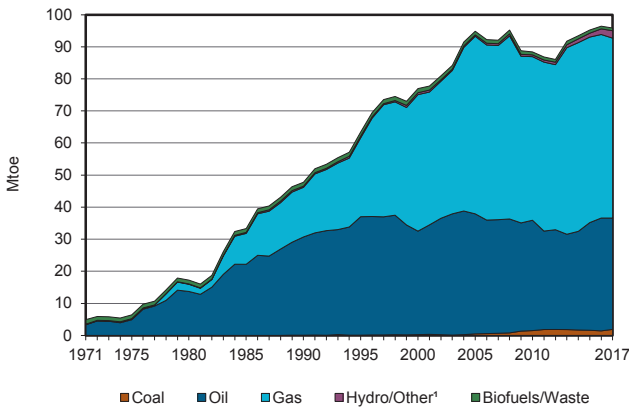


Figure 2. Total primary energy supply²

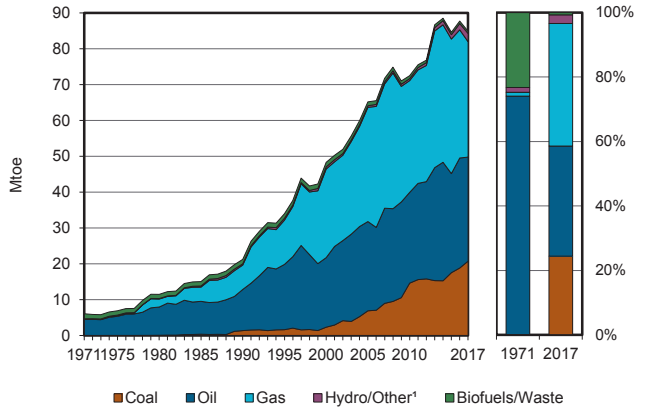


Figure 3. Energy self-sufficiency³

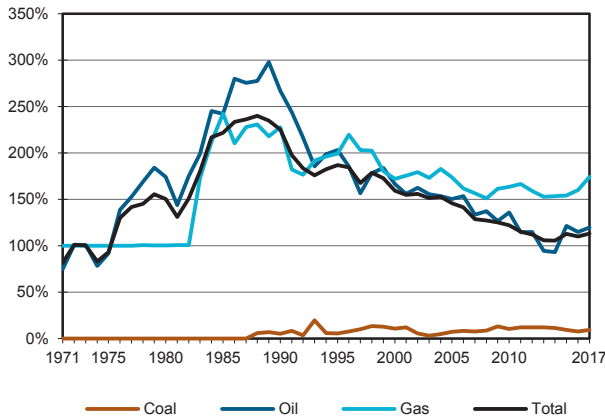


Figure 4. Oil products demand⁴

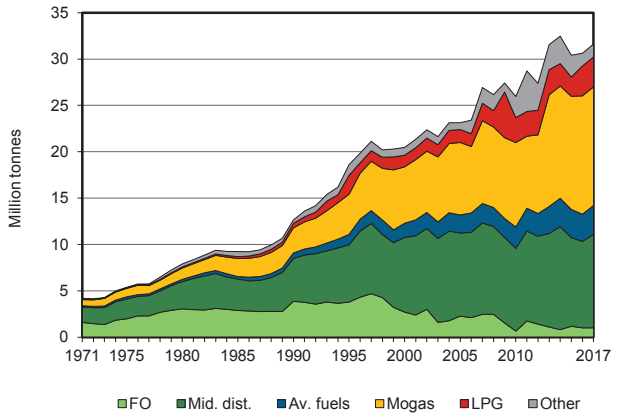


Figure 5. Electricity generation by source

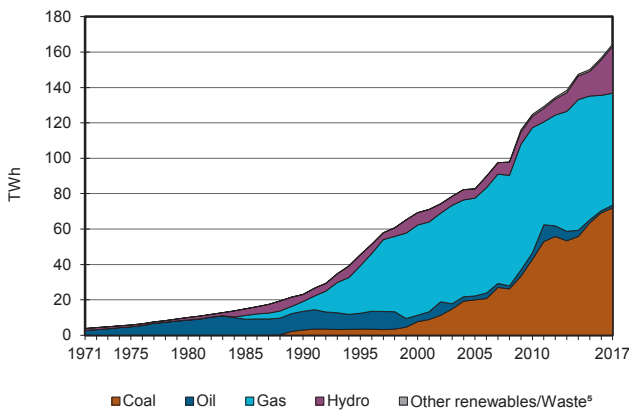
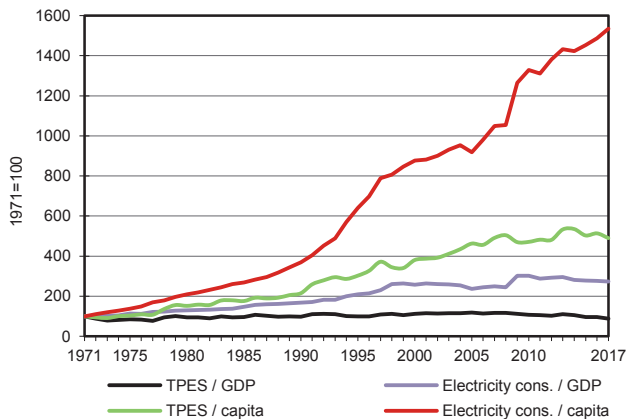


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Malaysia

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	1884	34720	-	56092	-	2285	28	839	-	-	95848
Imports	19181	10212	13253	6998	-	-	-	8	1	-	49652
Exports	-382	-14982	-11063	-30880	-	-	-	-279	-97	-	-57683
Intl. marine bunkers	-	-	-390	-	-	-	-	-	-	-	-390
Intl. aviation bunkers	-	-	-2577	-	-	-	-	-	-	-	-2577
Stock changes	58	-297	143	-	-	-	-	32	-	-	-64
TPES	20741	29653	-634	32210	-	2285	28	600	-96	-	84786
Transfers	-	-2453	2510	-	-	-	-	-	-	-	57
Statistical differences	30	-206	536	0	-	-	-	119	15	-	494
Electricity plants	-18967	-	-472	-12910	-	-2285	-28	-279	14145	-	-20796
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-27315	27236	-	-	-	-	-	-	-	-79
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	540	-	-1140	-	-	-	-	-	-	-600
Other transformation	-	-	-	-40	-	-	-	-61	-	-	-100
Energy industry own use	-	-219	-213	-513	-	-	-	-	-481	-	-1426
Losses	-	-	-	-770	-	-	-	-	-976	-	-1745
TFC	1804	-	28962	16838	-	-	-	380	12607	-	60591
INDUSTRY	1804	-	3005	6827	-	-	-	-	6145	-	17781
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	1804	-	3005	6827	-	-	-	-	6145	-	17781
TRANSPORT	-	-	20380	148	-	-	-	379	39	-	20946
Domestic aviation	-	-	644	-	-	-	-	-	-	-	644
Road	-	-	19735	148	-	-	-	379	-	-	20262
Rail	-	-	-	-	-	-	-	-	39	-	39
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	1	-	-	-	-	-	-	-	1
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	2898	25	-	-	-	1	6422	-	9346
Residential	-	-	1128	1	-	-	-	1	2610	-	3740
Comm. and public services	-	-	787	25	-	-	-	-	3762	-	4574
Agriculture/forestry	-	-	383	-	-	-	-	-	50	-	434
Fishing	-	-	599	-	-	-	-	-	-	-	599
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	2680	9837	-	-	-	-	-	-	12517
in industry/transf./energy	-	-	2680	9837	-	-	-	-	-	-	12517
of which: chem./petrochem.	-	-	1961	9837	-	-	-	-	-	-	11798
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	71959	-	1527	63273	-	26575	330	839	-	-	164502
Electricity plants	71959	-	1527	63273	-	26575	330	839	-	-	164502
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Malta

Figure 1. Energy production

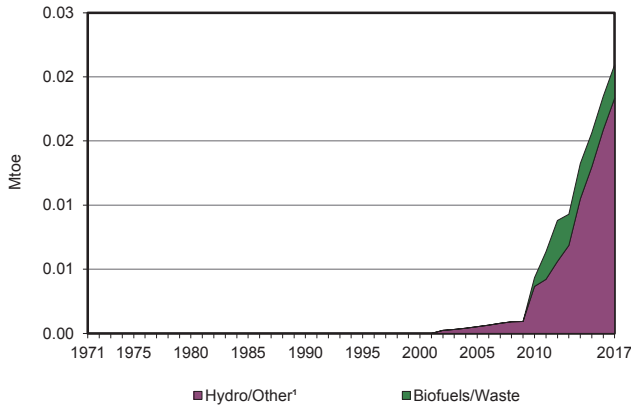


Figure 2. Total primary energy supply²

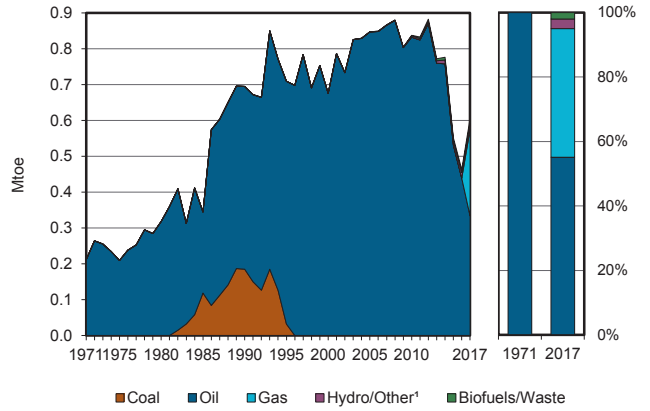


Figure 3. Energy self-sufficiency³

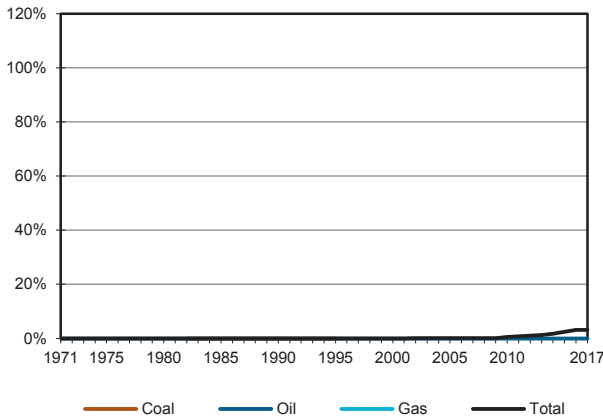


Figure 4. Oil products demand⁴

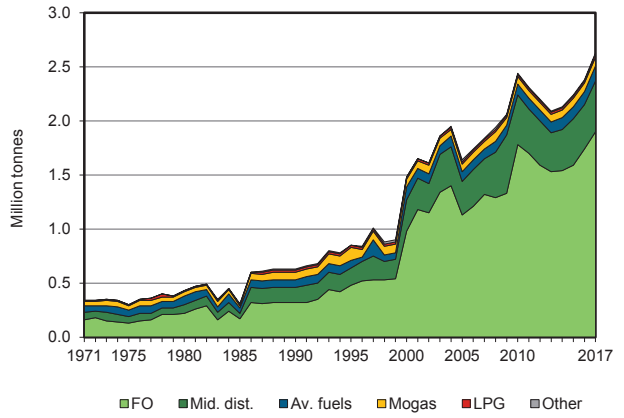


Figure 5. Electricity generation by source

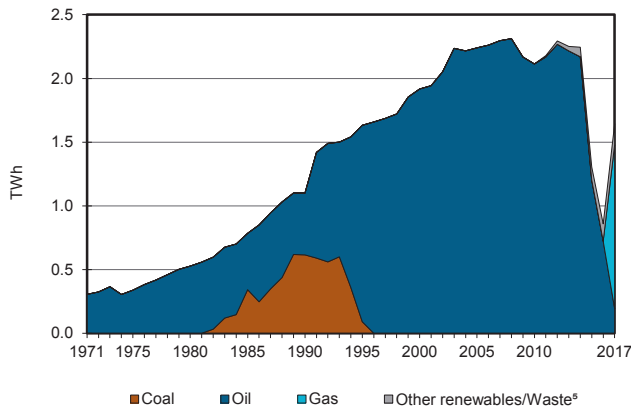
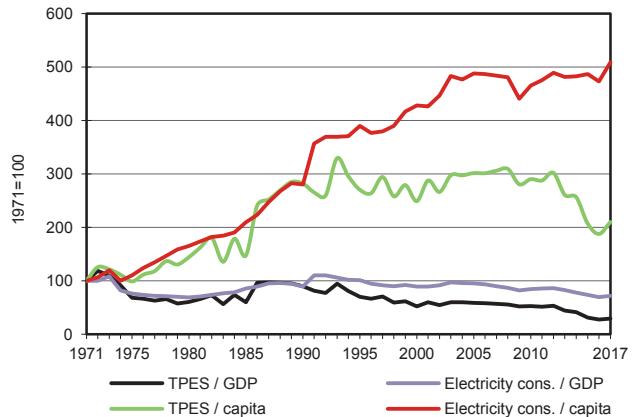


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Malta

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	-	18	3	-	-	21
Imports	-	-	2818	254	-	-	-	7	77	-	3156
Exports	-	-	-150	-	-	-	-	-	-3	-	-153
Intl. marine bunkers	-	-	-2089	-	-	-	-	-	-	-	-2089
Intl. aviation bunkers	-	-	-139	-	-	-	-	-	-	-	-139
Stock changes	-	-	-107	-13	-	-	-	3	-	-	-116
TPES	-	-	333	242	-	-	18	12	74	-	680
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	-2	-	-	-	-	-	-	-	-2
Electricity plants	-	-	-51	-232	-	-	-13	-	141	-	-156
CHP plants	-	-	-	-	-	-	-	-2	1	0	-1
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-	-	-	-	-	-	-	-	-4	-	-4
Losses	-	-	-	-10	-	-	-	-	-11	-	-21
TFC	-	-	280	-	-	-	5	10	201	0	496
INDUSTRY	-	-	18	-	-	-	-	-	39	-	57
Iron and steel	-	-	-	-	-	-	-	-	0	-	0
Chemical and petrochemical	-	-	-	-	-	-	-	-	4	-	4
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	1	-	1
Transport equipment	-	-	-	-	-	-	-	-	2	-	2
Machinery	-	-	-	-	-	-	-	-	10	-	10
Mining and quarrying	-	-	1	-	-	-	-	-	0	-	1
Food and tobacco	-	-	-	-	-	-	-	-	6	-	6
Paper pulp and printing	-	-	-	-	-	-	-	-	2	-	2
Wood and wood products	-	-	-	-	-	-	-	-	0	-	0
Construction	-	-	1	-	-	-	-	-	2	-	3
Textile and leather	-	-	-	-	-	-	-	-	3	-	3
Non-specified	-	-	16	-	-	-	-	-	9	-	25
TRANSPORT	-	-	201	-	-	-	-	8	-	-	209
Domestic aviation	-	-	1	-	-	-	-	-	-	-	1
Road	-	-	187	-	-	-	-	-	8	-	195
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	13	-	-	-	-	-	0	-	13
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	51	-	-	-	5	2	161	0	220
Residential	-	-	16	-	-	-	5	1	66	-	89
Comm. and public services	-	-	30	-	-	-	-	1	92	0	122
Agriculture/forestry	-	-	4	-	-	-	-	-	1	-	5
Fishing	-	-	2	-	-	-	-	-	0	-	2
Non-specified	-	-	-	-	-	-	-	-	2	-	2
NON-ENERGY USE	-	-	10	-	-	-	-	-	-	-	10
in industry/transf./energy	-	-	10	-	-	-	-	-	-	-	10
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	193	1287	-	-	155	10	-	-	1645
Electricity plants	-	-	193	1287	-	-	155	-	-	-	1635
CHP plants	-	-	-	-	-	-	-	10	-	-	10
Heat generated - TJ	-	-	-	-	-	-	-	15	-	-	15
CHP plants	-	-	-	-	-	-	-	15	-	-	15
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Mauritius

Figure 1. Energy production

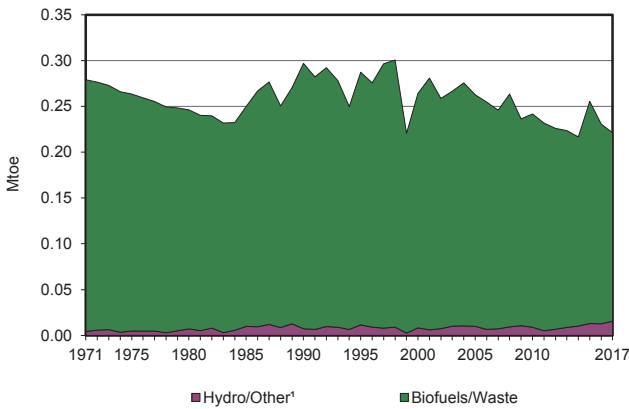


Figure 2. Total primary energy supply²

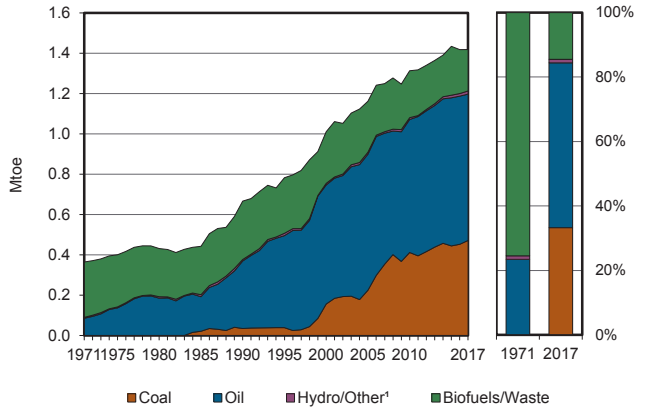


Figure 3. Energy self-sufficiency³

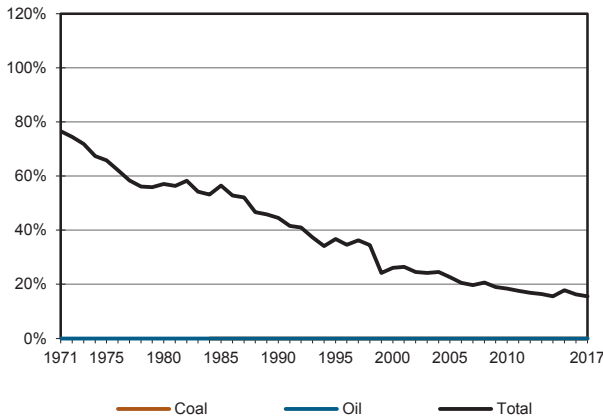


Figure 4. Oil products demand⁴

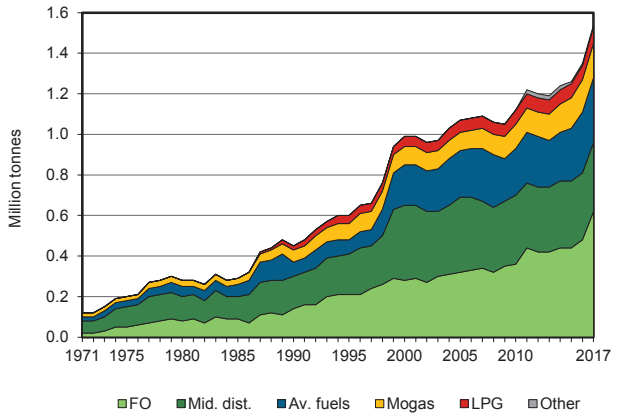


Figure 5. Electricity generation by source

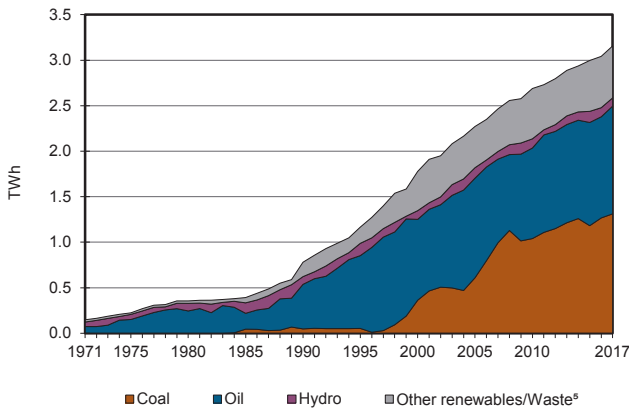
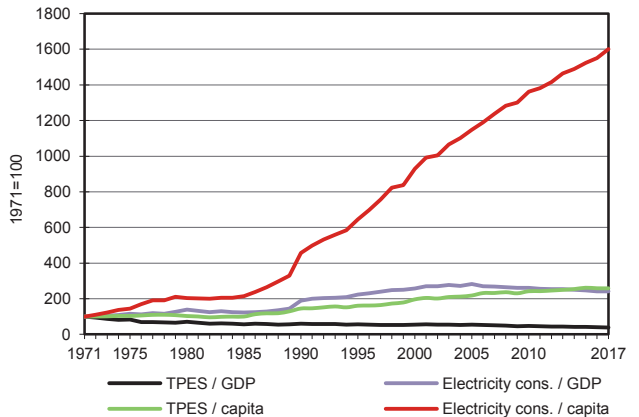


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Mauritius

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	8	8	206	-	-	221
Imports	471	-	1679	-	-	-	-	-	-	-	2150
Exports	-	-	-57	-	-	-	-	-	-	-	-57
Intl. marine bunkers	-	-	-457	-	-	-	-	-	-	-	-457
Intl. aviation bunkers	-	-	-327	-	-	-	-	-	-	-	-327
Stock changes	-	-	-112	-	-	-	-	-	-	-	-112
TPES	471	-	726	-	-	8	8	206	-	-	1418
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	42	-	-	-	-	-	0	-	42
Electricity plants	-451	-	-232	-	-	-8	-8	-177	271	-	-604
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-0	-	-	-0
Energy industry own use	-	-	-	-	-	-	-	-	-4	-	-4
Losses	-	-	-	-	-	-	-	-	-16	-	-16
TFC	21	-	536	-	-	-	-	28	252	-	836
INDUSTRY	21	-	77	-	-	-	-	22	85	-	206
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	21	-	77	-	-	-	-	22	85	-	206
TRANSPORT	-	-	375	-	-	-	-	-	-	-	375
Domestic aviation	-	-	7	-	-	-	-	-	-	-	7
Road	-	-	355	-	-	-	-	-	-	-	355
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	9	-	-	-	-	-	-	-	9
Non-specified	-	-	4	-	-	-	-	-	-	-	4
OTHER	-	-	74	-	-	-	-	5	166	-	246
Residential	-	-	54	-	-	-	-	5	75	-	134
Comm. and public services	-	-	17	-	-	-	-	0	82	-	100
Agriculture/forestry	-	-	2	-	-	-	-	-	2	-	4
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	0	-	-	-	-	-	7	-	8
NON-ENERGY USE	-	-	9	-	-	-	-	-	-	-	9
in industry/transf./energy	-	-	-	-	-	-	-	-	-	-	-
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	9	-	-	-	-	-	-	-	9
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	1312	-	1184	-	-	90	91	480	-	-	3157
Electricity plants	1312	-	1184	-	-	90	91	480	-	-	3157
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Moldova

Figure 1. Energy production

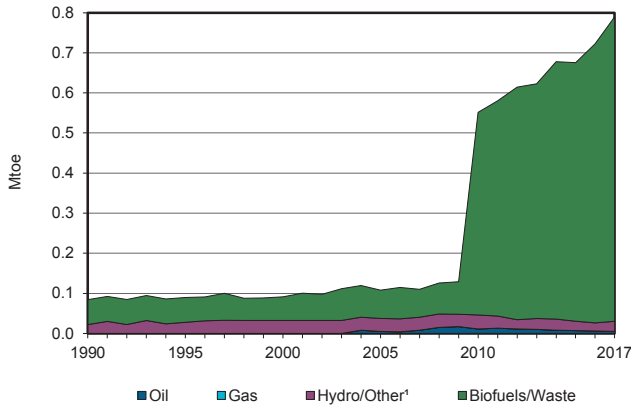


Figure 2. Total primary energy supply²

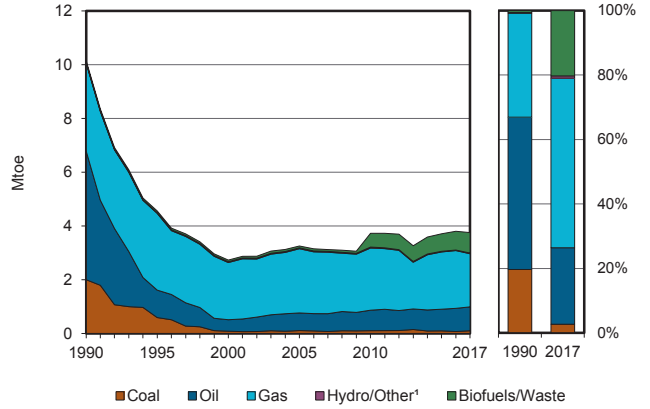


Figure 3. Energy self-sufficiency³

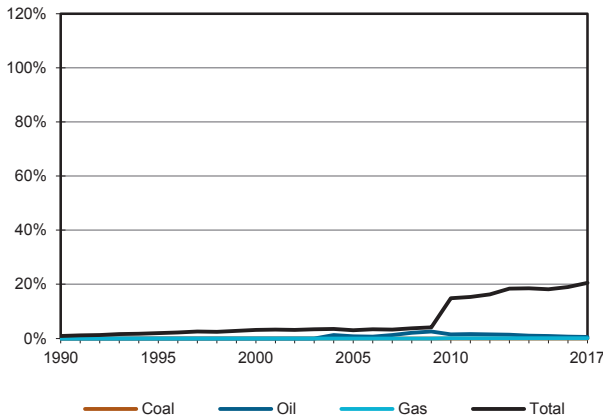


Figure 4. Oil products demand⁴

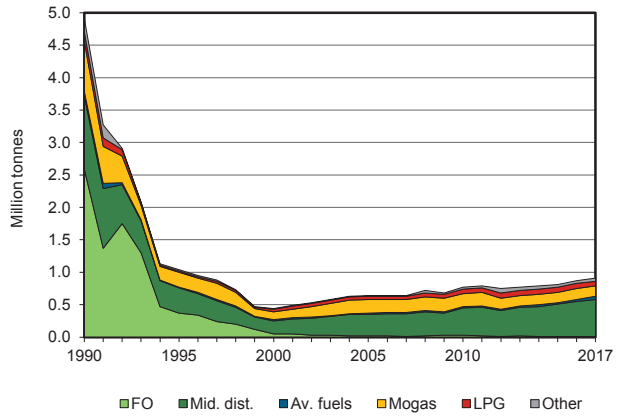


Figure 5. Electricity generation by source

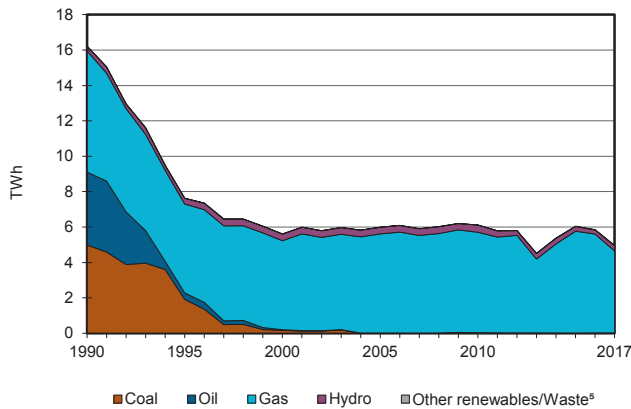
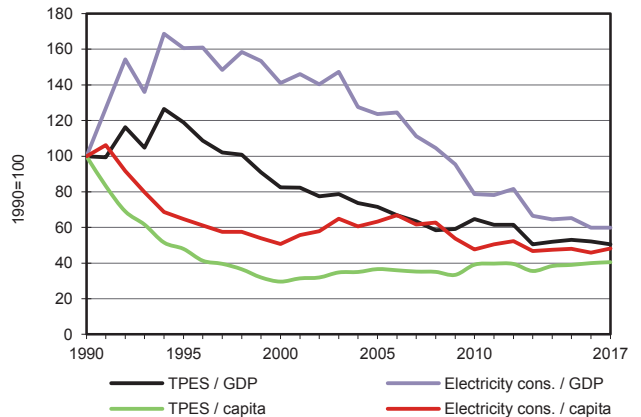


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

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3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Moldova

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	5	-	0	-	25	1	759	-	-	790
Imports	116	-	959	1975	-	-	-	2	98	-	3149
Exports	-	-	-35	-	-	-	-	-0	-	-	-35
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-48	-	-	-	-	-	-	-	-48
Stock changes	-14	-1	8	1	-	-	-	1	-	-	-5
TPES	101	4	884	1976	-	25	1	762	98	-	3850
Transfers	-	12	-11	-	-	-	-	-	-	-	1
Statistical differences	0	-	-	-	-	-	-	-	-9	-	-9
Electricity plants	-	-	-	-941	-	-25	-1	-2	355	-	-613
CHP plants	-	-	-10	-247	-	-	-	-5	72	165	-25
Heat plants	-2	-	-1	-76	-	-	-	-9	-	80	-7
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-16	14	-	-	-	-	-	-	-	-1
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-1	-	-	-1
Energy industry own use	-	-	-	-0	-	-	-	-	-35	-2	-36
Losses	-1	-	-2	-44	-	-	-	-0	-49	-40	-136
TFC	100	-	875	667	-	-	-	745	431	204	3021
INDUSTRY	28	-	16	334	-	-	-	1	128	47	554
Iron and steel	-	-	-	-	-	-	-	-	0	-	0
Chemical and petrochemical	-	-	-	1	-	-	-	0	4	1	6
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	27	-	12	28	-	-	-	0	11	-	78
Transport equipment	-	-	-	0	-	-	-	0	0	-	0
Machinery	-	-	-	0	-	-	-	-	4	0	4
Mining and quarrying	-	-	1	-	-	-	-	-	1	-	2
Food and tobacco	1	-	1	22	-	-	-	1	34	43	102
Paper pulp and printing	-	-	-	0	-	-	-	-	1	1	2
Wood and wood products	-	-	-	-	-	-	-	0	2	-	2
Construction	-	-	3	1	-	-	-	-	1	0	4
Textile and leather	-	-	-	0	-	-	-	0	4	2	7
Non-specified	-	-	-	282	-	-	-	0	65	0	347
TRANSPORT	-	-	660	23	-	-	-	-	11	-	693
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	647	16	-	-	-	-	-	-	663
Rail	-	-	10	-	-	-	-	-	-	-	10
Pipeline transport	-	-	-	7	-	-	-	-	3	-	10
Domestic navigation	-	-	1	-	-	-	-	-	-	-	1
Non-specified	-	-	1	-	-	-	-	-	8	-	9
OTHER	71	-	163	310	-	-	-	744	292	157	1738
Residential	53	-	63	225	-	-	-	720	172	115	1348
Comm. and public services	18	-	2	83	-	-	-	12	113	42	269
Agriculture/forestry	1	-	99	2	-	-	-	1	7	0	110
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	10	1	-	11
NON-ENERGY USE	1	-	35	-	-	-	-	-	-	-	36
in industry/transf./energy	-	-	28	-	-	-	-	-	-	-	28
of which: chem./petrochem.	-	-	3	-	-	-	-	-	-	-	3
in transport	-	-	7	-	-	-	-	-	-	-	7
in other	1	-	-	-	-	-	-	-	-	-	1
Electricity and Heat Output											
Electr. generated - GWh	-	-	17	4631	-	285	9	23	-	-	4965
Electricity plants	-	-	1	3832	-	285	9	5	-	-	4132
CHP plants	-	-	16	799	-	-	-	18	-	-	833
Heat generated - TJ	55	-	362	9553	-	-	-	281	-	-	10251
CHP plants	-	-	344	6547	-	-	-	2	-	-	6893
Heat plants	55	-	18	3006	-	-	-	279	-	-	3358

1. Includes peat.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Mongolia

Figure 1. Energy production

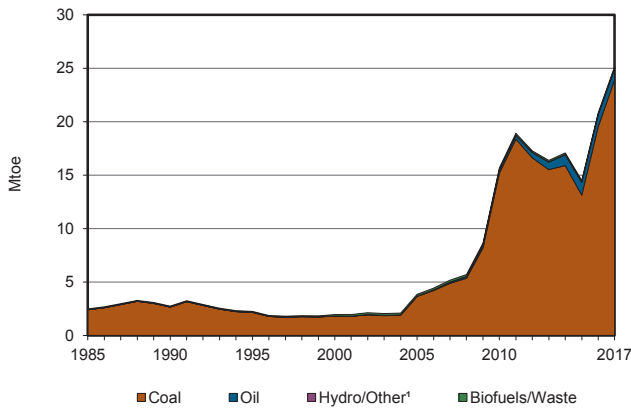


Figure 2. Total primary energy supply²

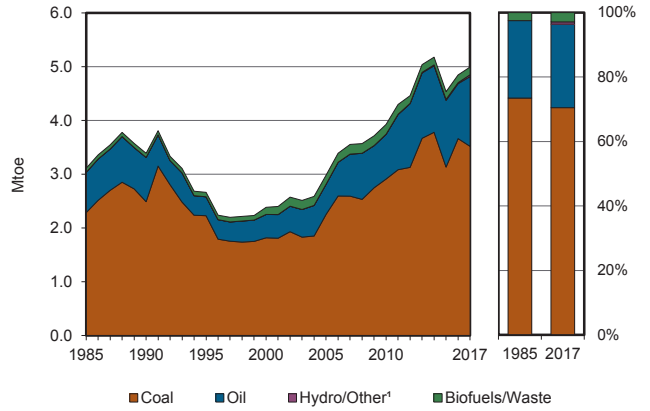


Figure 3. Energy self-sufficiency³

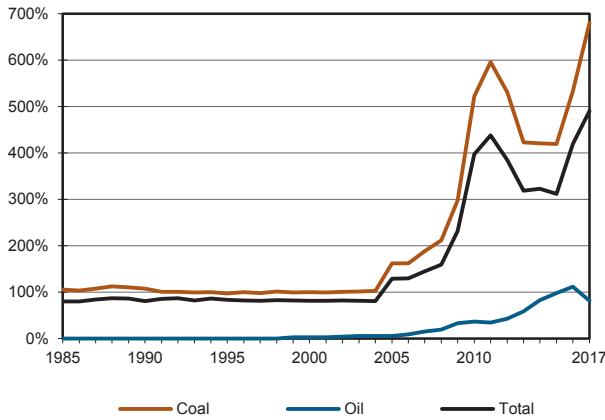


Figure 4. Oil products demand⁴

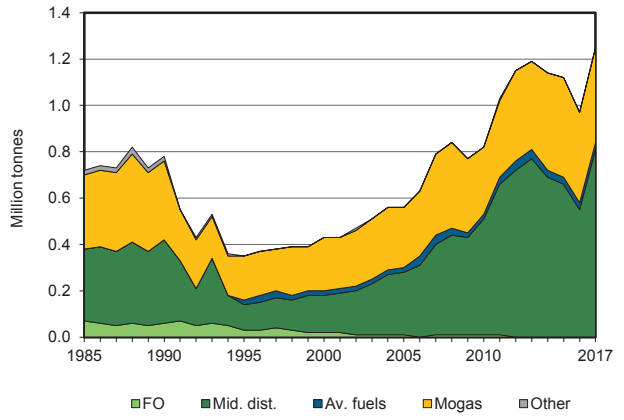


Figure 5. Electricity generation by source

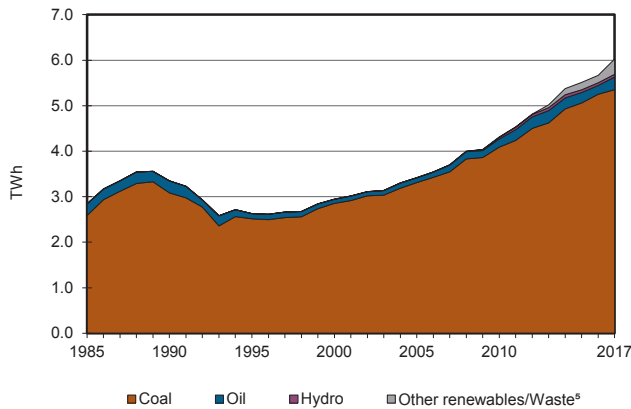
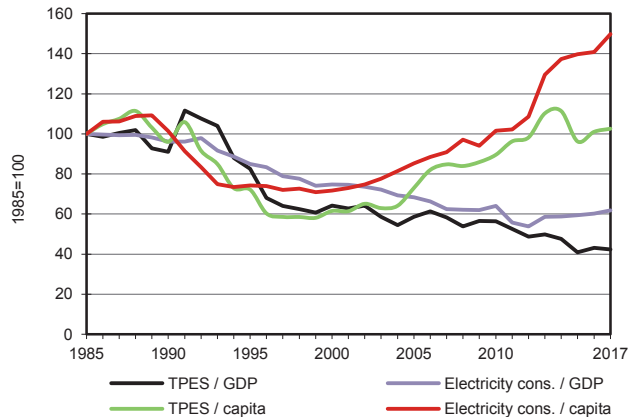


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Mongolia

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	23919	1052	-	-	-	5	29	143	-	-	25148
Imports	1	-	1311	-	-	-	-	-	135	-	1447
Exports	-19322	-1037	-	-	-	-	-	-	-2	-	-20360
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-29	-	-	-	-	-	-	-	-29
Stock changes	-1080	-	-	-	-	-	-	-	-	-	-1080
TPES	3518	15	1282	-	-	5	29	143	133	-	5126
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	497	-15	-	-	-	-	-	-	0	-	481
Electricity plants	-	-	-94	-	-	-5	-29	-	58	-	-71
CHP plants	-3012	-	-2	-	-	-	-	-	461	1130	-1423
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-5	-	-	-	-	-	-	-	-	-	-5
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-52	-	-	-52
Energy industry own use	-5	-	-	-	-	-	-	-	-70	-55	-131
Losses	-277	-	-	-	-	-	-	-	-70	-49	-396
TFC	716	-	1186	-	-	-	-	92	511	1025	3530
INDUSTRY	95	-	444	-	-	-	-	-	317	250	1106
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	207	-	-	-	-	-	-	-	207
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	95	-	237	-	-	-	-	-	317	250	899
TRANSPORT	25	-	674	-	-	-	-	-	-	-	699
Domestic aviation	-	-	7	-	-	-	-	-	-	-	7
Road	-	-	481	-	-	-	-	-	-	-	481
Rail	22	-	186	-	-	-	-	-	-	-	208
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	3	-	-	-	-	-	-	-	-	-	3
OTHER	595	-	67	-	-	-	-	92	194	776	1724
Residential	372	-	-	-	-	-	-	64	123	387	946
Comm. and public services	0	-	-	-	-	-	-	-	-	349	349
Agriculture/forestry	2	-	67	-	-	-	-	7	5	5	87
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	222	-	-	-	-	-	-	20	66	35	343
NON-ENERGY USE	-	-	1	-	-	-	-	-	-	-	1
in industry/transf./energy	-	-	1	-	-	-	-	-	-	-	1
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	5353	-	279	-	-	59	337	-	-	-	6027
Electricity plants	-	-	274	-	-	59	337	-	-	-	670
CHP plants	5353	-	5	-	-	-	-	-	-	-	5358
Heat generated - TJ	47252	-	44	-	-	-	-	-	-	-	47296
CHP plants	47252	-	44	-	-	-	-	-	-	-	47296
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Montenegro

Figure 1. Energy production

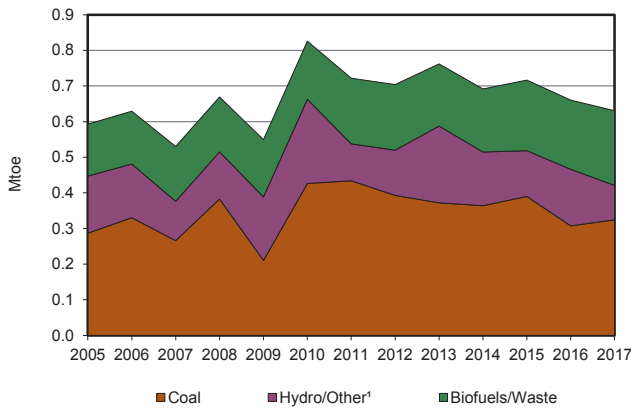


Figure 2. Total primary energy supply²

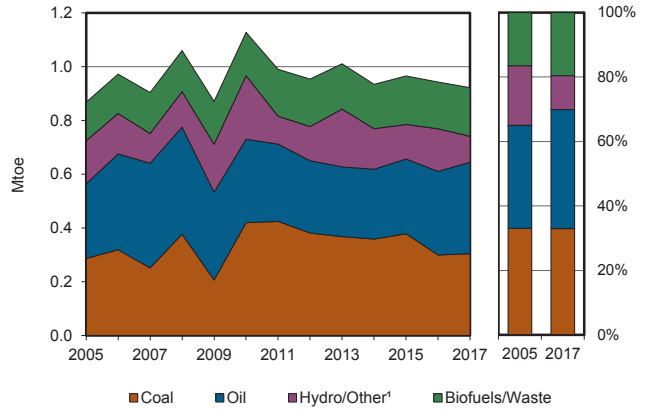


Figure 3. Energy self-sufficiency³

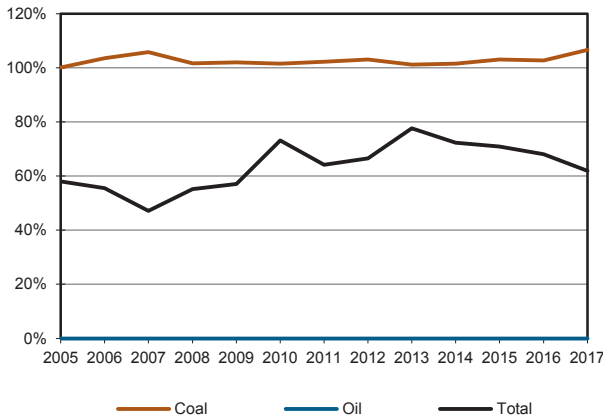


Figure 4. Oil products demand⁴

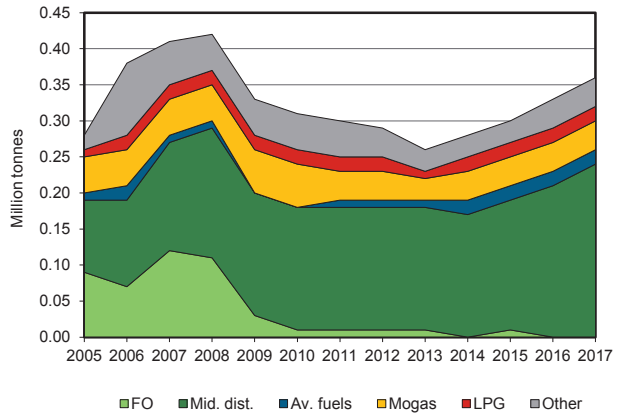


Figure 5. Electricity generation by source

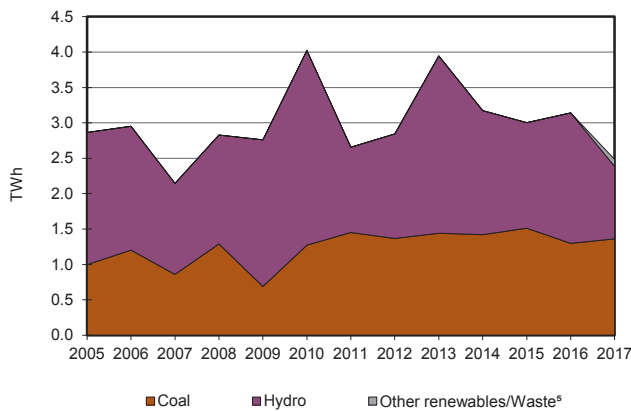
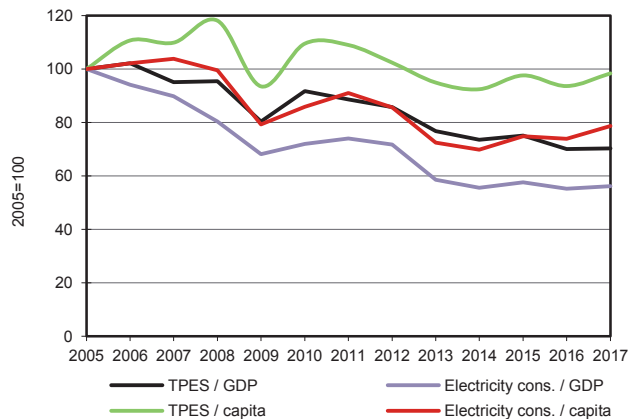


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Montenegro

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	324	-	-	-	-	88	9	210	-	-	631
Imports	1	-	405	-	-	-	-	1	132	-	539
Exports	-21	-	-34	-	-	-	-	-30	-36	-	-121
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-21	-	-	-	-	-	-	-	-21
Stock changes	-	-	-10	-	-	-	-	0	-	-	-10
TPES	304	-	340	-	-	88	9	181	96	-	1018
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	-	-	-	-	-	-	-10	-	-10
Electricity plants	-295	-	-	-	-	-88	-8	-	213	-	-178
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-17	-	-	-17
Energy industry own use	-	-	-	-	-	-	-	-	-10	-	-10
Losses	-	-	-	-	-	-	-	-	-44	-	-44
TFC	9	-	340	-	-	-	0	164	245	-	759
INDUSTRY	5	-	55	-	-	-	-	8	63	-	132
Iron and steel	4	-	0	-	-	-	-	-	3	-	8
Chemical and petrochemical	-	-	1	-	-	-	-	2	0	-	3
Non-ferrous metals	-	-	-	-	-	-	-	-	51	-	51
Non-metallic minerals	-	-	2	-	-	-	-	0	1	-	3
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	0	-	2	-	-	-	-	0	1	-	4
Mining and quarrying	-	-	13	-	-	-	-	-	1	-	13
Food and tobacco	1	-	9	-	-	-	-	6	3	-	18
Paper pulp and printing	-	-	1	-	-	-	-	-	1	-	1
Wood and wood products	0	-	11	-	-	-	-	0	1	-	12
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	0	-	-	-	-	0	0	-	0
Non-specified	0	-	16	-	-	-	-	0	2	-	18
TRANSPORT	-	-	233	-	-	-	-	-	2	-	234
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	233	-	-	-	-	-	-	-	233
Rail	-	-	-	-	-	-	-	-	2	-	2
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	4	-	14	-	-	-	0	155	181	-	354
Residential	2	-	1	-	-	-	-	149	111	-	263
Comm. and public services	2	-	9	-	-	-	0	6	69	-	86
Agriculture/forestry	-	-	3	-	-	-	-	-	2	-	5
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	39	-	-	-	-	-	-	-	39
in industry/transf./energy	-	-	29	-	-	-	-	-	-	-	29
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	5	-	-	-	-	-	-	-	5
in other	-	-	5	-	-	-	-	-	-	-	5
Electricity and Heat Output											
Electr. generated - GWh	1362	-	-	-	-	1024	97	-	-	-	2483
Electricity plants	1362	-	-	-	-	1024	97	-	-	-	2483
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Mozambique

Figure 1. Energy production

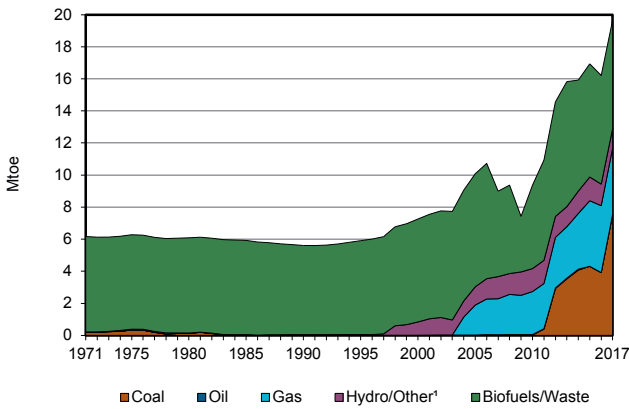


Figure 2. Total primary energy supply²

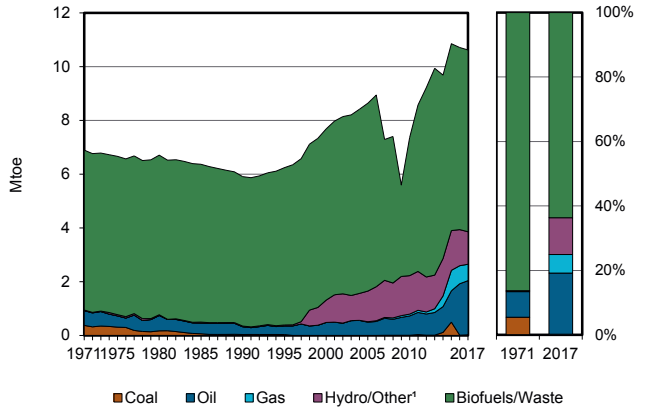


Figure 3. Energy self-sufficiency³

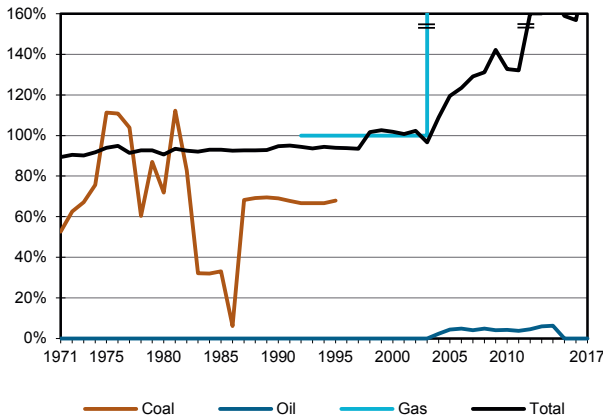


Figure 4. Oil products demand⁴

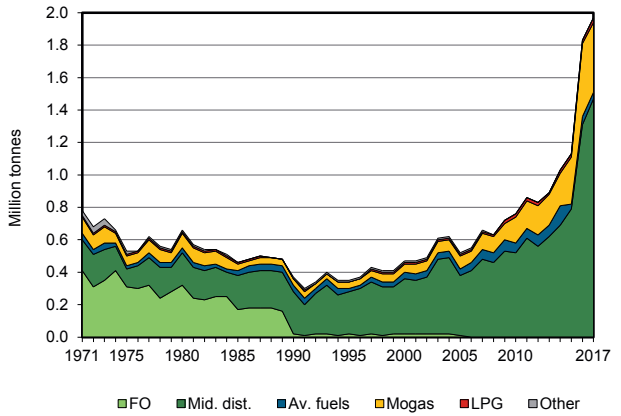


Figure 5. Electricity generation by source

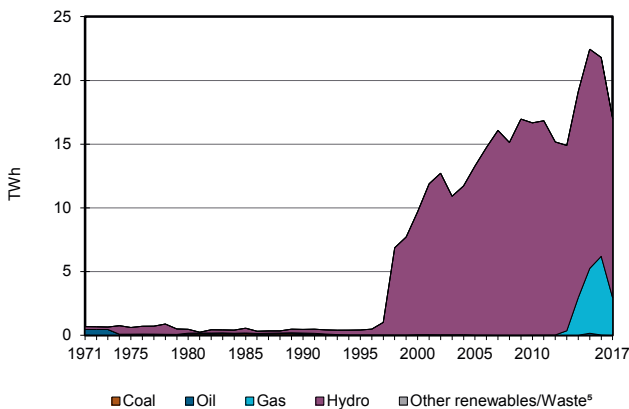
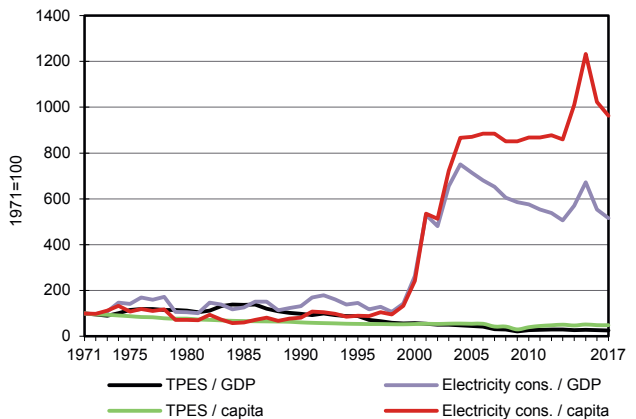


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency. Maximum scale refers to values greater than or equal to 160%.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Mozambique

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	7563	-	-	4136	-	1209	0	6761	-	-	19670
Imports	-	-	2247	-	-	-	-	-	854	-	3101
Exports	-7563	-	-	-3526	-	-	-	-	-855	-	-11944
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-40	-	-	-	-	-	-	-	-40
Stock changes	22	-	-191	-	-	-	-	-	-	-	-168
TPES	22	-	2016	610	-	1209	0	6761	-1	-	10618
Transfers	-	-	-1	-	-	-	-	-	-	-	-1
Statistical differences	-	-	-13	-0	-	-	-	312	0	-	299
Electricity plants	-	-	-	-506	-	-1209	-0	-	1461	-	-254
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-4699	-	-	-4699
Energy industry own use	-22	-	-	-	-	-	-	-	-5	-	-27
Losses	-	-	-	-	-	-	-	-	-213	-	-213
TFC	-	-	2002	104	-	-	-	2375	1242	-	5723
INDUSTRY	-	-	167	101	-	-	-	-	1074	-	1341
Iron and steel	-	-	-	1	-	-	-	-	-	-	1
Chemical and petrochemical	-	-	-	0	-	-	-	-	-	-	0
Non-ferrous metals	-	-	-	37	-	-	-	-	930	-	967
Non-metallic minerals	-	-	-	54	-	-	-	-	-	-	54
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	6	-	-	-	-	-	-	6
Paper pulp and printing	-	-	-	1	-	-	-	-	-	-	1
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	167	-	-	-	-	-	-	-	167
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	3	-	-	-	-	144	-	146
TRANSPORT	-	-	1366	2	-	-	-	-	-	-	1369
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	1297	2	-	-	-	-	-	-	1300
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	69	-	-	-	-	-	-	-	69
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	470	1	-	-	-	2375	168	-	3013
Residential	-	-	36	1	-	-	-	1687	131	-	1854
Comm. and public services	-	-	39	0	-	-	-	688	33	-	760
Agriculture/forestry	-	-	395	-	-	-	-	-	2	-	397
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	2	-	2
NON-ENERGY USE	-	-	-	-	-	-	-	-	-	-	-
in industry/transf./energy	-	-	-	-	-	-	-	-	-	-	-
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	-	2930	-	14061	2	-	-	-	16992
Electricity plants	-	-	-	2930	-	14061	2	-	-	-	16992
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Myanmar

Figure 1. Energy production

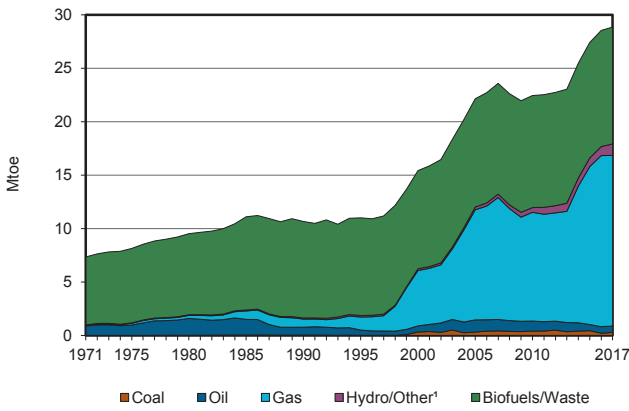


Figure 2. Total primary energy supply²

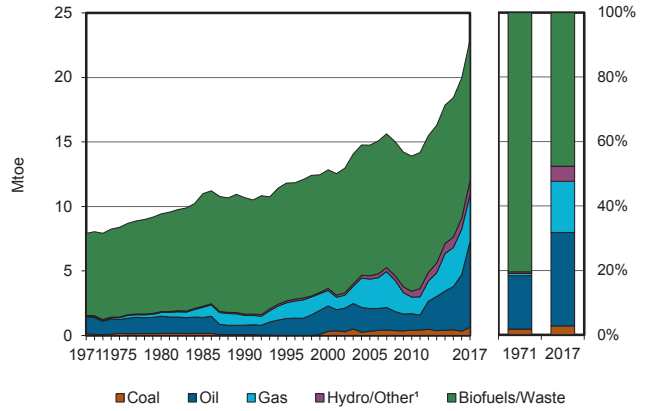


Figure 3. Energy self-sufficiency³

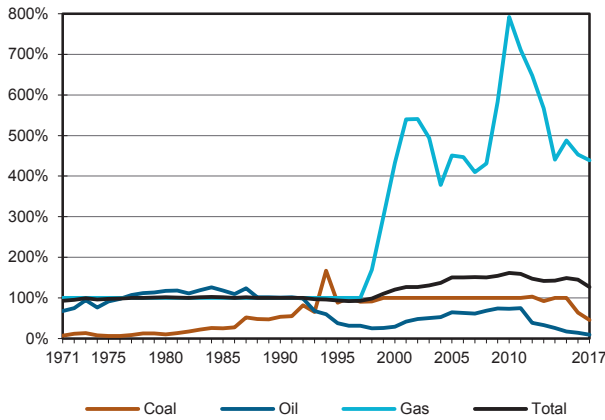


Figure 4. Oil products demand⁴

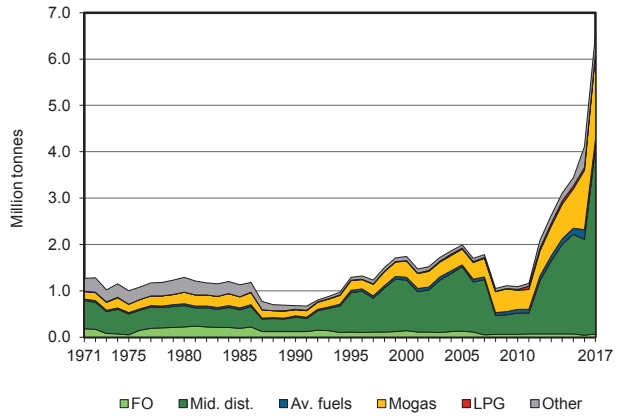


Figure 5. Electricity generation by source

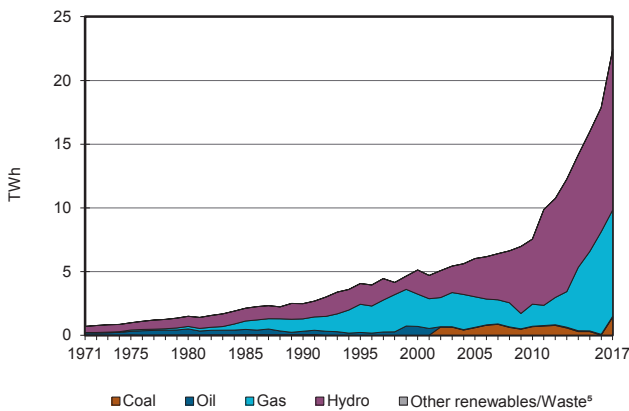
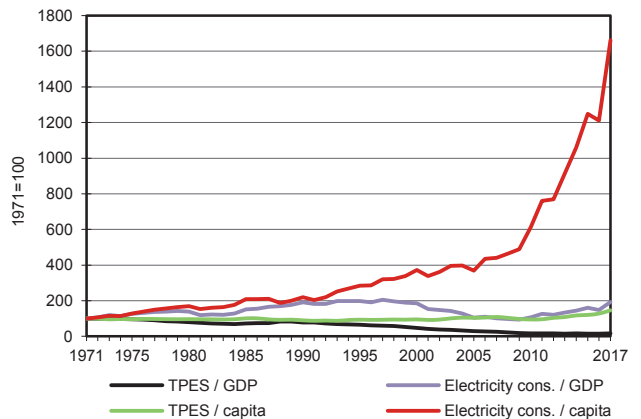


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Myanmar

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	287	599	-	15948	-	1082	1	10929	-	-	28846
Imports	347	-	6350	-	-	-	-	-	-	-	6697
Exports	-	-252	-	-12300	-	-	-	-	-120	-	-12672
Intl. marine bunkers	-	-	-1	-	-	-	-	-	-	-	-1
Intl. aviation bunkers	-	-	-75	-	-	-	-	-	-	-	-75
Stock changes	-	29	11	-12	-	-	-	-	-	-	29
TPES	634	376	6285	3636	-	1082	1	10929	-120	-	22823
Transfers	-	-13	14	-	-	-	-	-	-	-	1
Statistical differences	0	-50	119	62	-	-	-	-	-83	-	49
Electricity plants	-412	-	-19	-2711	-	-1082	-1	-	1928	-	-2297
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-287	287	-	-	-	-	-	-	-	-1
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-43	-	-	-43
Energy industry own use	-	-26	-9	-446	-	-	-	-	-12	-	-493
Losses	-	-	-	-	-	-	-	-	-248	-	-248
TFC	221	-	6677	542	-	-	-	10886	1466	-	19792
INDUSTRY	221	-	2181	246	-	-	-	341	451	-	3441
Iron and steel	50	-	-	9	-	-	-	-	-	-	59
Chemical and petrochemical	-	-	-	127	-	-	-	-	-	-	127
Non-ferrous metals	-	-	-	2	-	-	-	-	-	-	2
Non-metallic minerals	159	-	-	84	-	-	-	-	-	-	243
Transport equipment	-	-	-	3	-	-	-	-	-	-	3
Machinery	-	-	-	5	-	-	-	-	-	-	5
Mining and quarrying	-	-	467	-	-	-	-	-	-	-	467
Food and tobacco	-	-	104	9	-	-	-	-	-	-	112
Paper pulp and printing	-	-	-	0	-	-	-	-	-	-	0
Wood and wood products	-	-	164	-	-	-	-	-	-	-	164
Construction	-	-	1398	-	-	-	-	-	-	-	1398
Textile and leather	-	-	-	8	-	-	-	-	-	-	8
Non-specified	12	-	49	-	-	-	-	341	451	-	853
TRANSPORT	-	-	1875	159	-	-	-	-	-	-	2034
Domestic aviation	-	-	112	-	-	-	-	-	-	-	112
Road	-	-	1345	159	-	-	-	-	-	-	1504
Rail	-	-	338	-	-	-	-	-	-	-	338
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	80	-	-	-	-	-	-	-	80
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	2298	0	-	-	-	10545	1015	-	13858
Residential	-	-	13	-	-	-	-	10545	730	-	11287
Comm. and public services	-	-	470	0	-	-	-	-	275	-	745
Agriculture/forestry	-	-	1290	-	-	-	-	-	-	-	1290
Fishing	-	-	6	-	-	-	-	-	-	-	6
Non-specified	-	-	520	-	-	-	-	-	10	-	530
NON-ENERGY USE	-	-	322	136	-	-	-	-	-	-	459
in industry/transf./energy	-	-	252	136	-	-	-	-	-	-	389
of which: chem./petrochem.	-	-	-	136	-	-	-	-	-	-	136
in transport	-	-	70	-	-	-	-	-	-	-	70
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	1415	-	69	8345	-	12584	9	-	-	-	22422
Electricity plants	1415	-	69	8345	-	12584	9	-	-	-	22422
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Namibia

Figure 1. Energy production

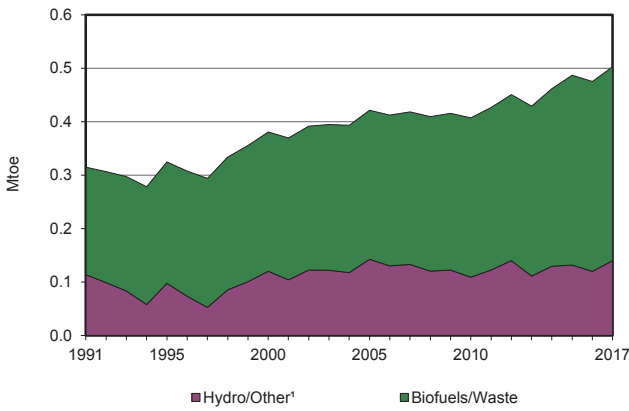


Figure 2. Total primary energy supply²

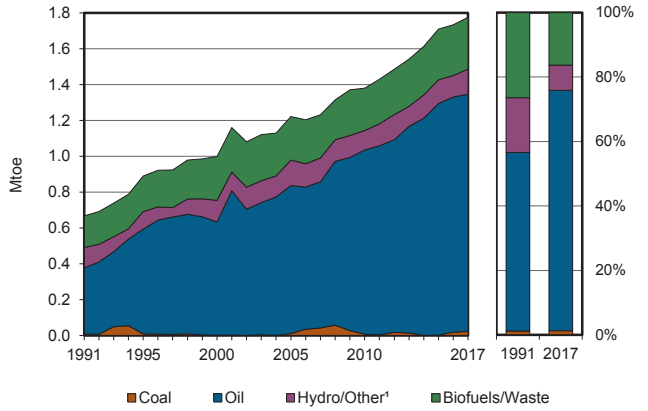


Figure 3. Energy self-sufficiency³

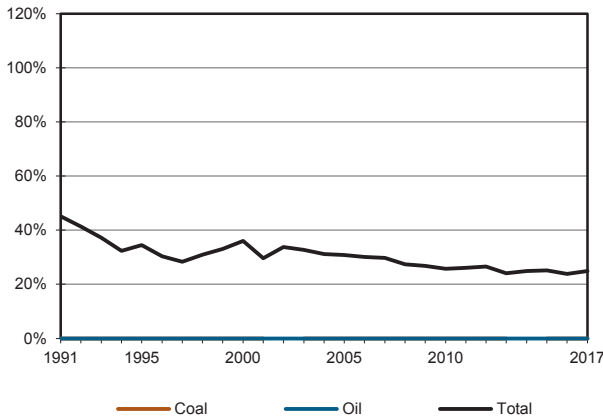


Figure 4. Oil products demand⁴

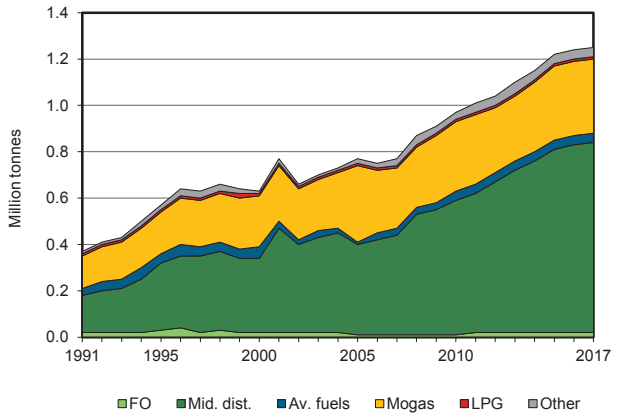


Figure 5. Electricity generation by source

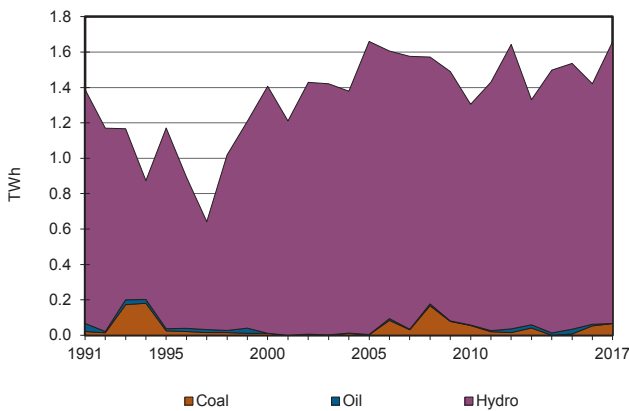
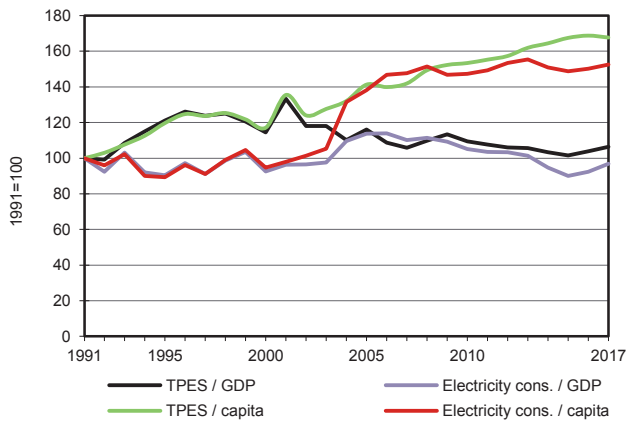


Figure 6. Selected indicators⁵



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. GDP in 2010 USD.

Namibia

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	137	3	363	-	-	503
Imports	23	-	1367	-	-	-	-	-	254	-	1643
Exports	-	-	-4	-	-	-	-	-74	-9	-	-86
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-39	-	-	-	-	-	-	-	-39
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	23	-	1324	-	-	137	3	289	245	-	2021
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	-	-	-	-	-	-	0	-	0
Electricity plants	-23	-	-0	-	-	-137	-	-	143	-	-17
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-115	-	-	-115
Energy industry own use	-	-	-	-	-	-	-	-	-	-	-
Losses	-	-	-	-	-	-	-	-	-39	-	-39
TFC	-	-	1324	-	-	-	3	174	349	-	1850
INDUSTRY	-	-	108	-	-	-	-	29	52	-	188
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	29	-	-	29
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	73	-	-	-	-	-	40	-	114
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	25	-	-	-	-	-	-	-	25
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	10	-	-	-	-	-	11	-	22
TRANSPORT	-	-	693	-	-	-	-	-	-	-	693
Domestic aviation	-	-	6	-	-	-	-	-	-	-	6
Road	-	-	661	-	-	-	-	-	-	-	661
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	26	-	-	-	-	-	-	-	26
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	496	-	-	-	3	146	297	-	941
Residential	-	-	2	-	-	-	-	146	-	-	148
Comm. and public services	-	-	2	-	-	-	-	-	-	-	2
Agriculture/forestry	-	-	397	-	-	-	-	-	-	-	397
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	94	-	-	-	3	-	297	-	394
NON-ENERGY USE	-	-	27	-	-	-	-	-	-	-	27
in industry/transf./energy	-	-	17	-	-	-	-	-	-	-	17
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	6	-	-	-	-	-	-	-	6
in other	-	-	3	-	-	-	-	-	-	-	3
Electricity and Heat Output											
Electr. generated - GWh	66	-	0	-	-	1593	-	-	-	-	1659
Electricity plants	66	-	0	-	-	1593	-	-	-	-	1659
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Nepal

Figure 1. Energy production

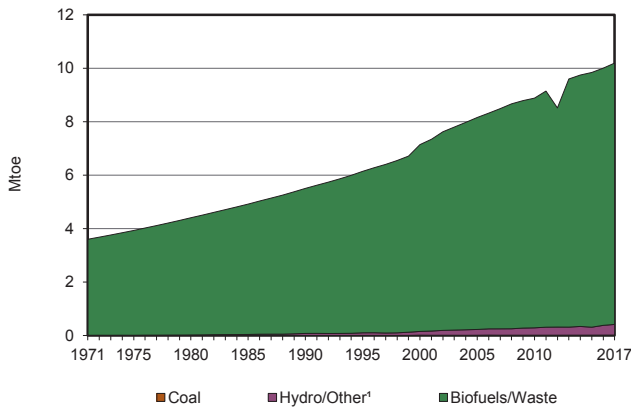


Figure 2. Total primary energy supply²

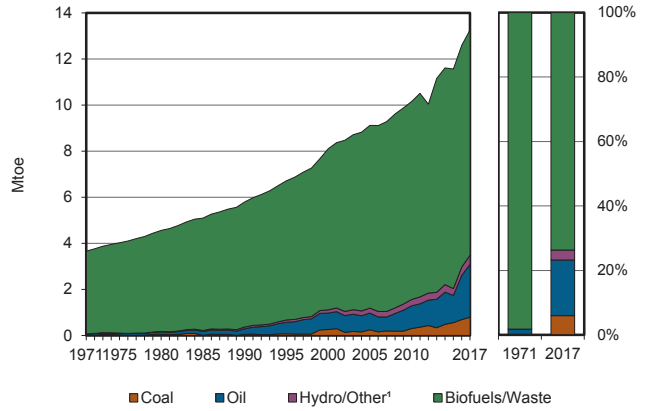


Figure 3. Energy self-sufficiency³

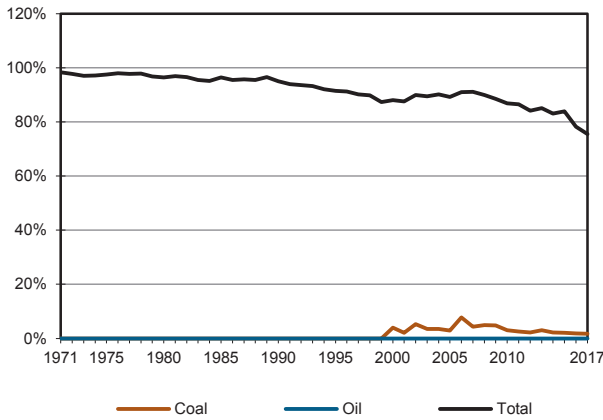


Figure 4. Oil products demand⁴

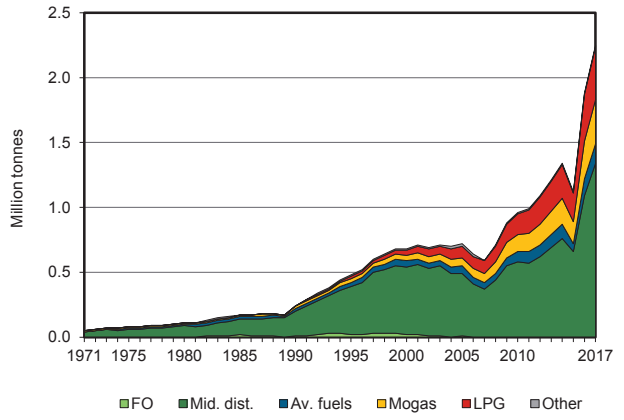


Figure 5. Electricity generation by source

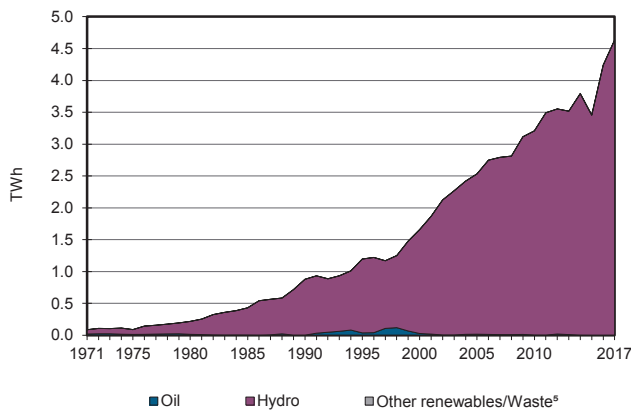
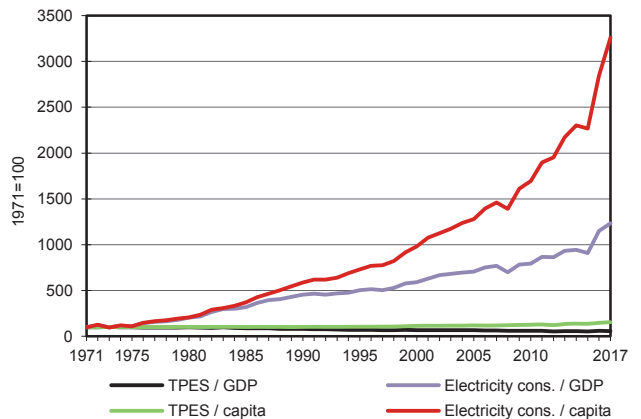


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Nepal

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	14	-	-	-	-	398	1	9778	-	-	10191
Imports	777	-	2466	-	-	-	-	-	222	-	3464
Exports	-	-	-	-	-	-	-	-	-0	-	-0
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-168	-	-	-	-	-	-	-	-168
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	791	-	2298	-	-	398	1	9778	222	-	13487
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	61	-	-	-	-	0	-1	-	61
Electricity plants	-	-	-0	-	-	-398	-1	-	399	-	-0
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-15	-	-	-15
Energy industry own use	-	-	-	-	-	-	-	-	-5	-	-5
Losses	-	-	-	-	-	-	-	-	-124	-	-124
TFC	791	-	2359	-	-	-	-	9763	491	-	13404
INDUSTRY	788	-	23	-	-	-	-	62	173	-	1046
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	788	-	23	-	-	-	-	62	173	-	1046
TRANSPORT	-	-	1566	-	-	-	-	-	0	-	1567
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	1566	-	-	-	-	-	-	-	1566
Rail	-	-	-	-	-	-	-	-	0	-	0
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	3	-	760	-	-	-	-	9701	318	-	10781
Residential	3	-	281	-	-	-	-	9640	229	-	10153
Comm. and public services	-	-	210	-	-	-	-	61	58	-	328
Agriculture/forestry	-	-	269	-	-	-	-	-	11	-	279
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	20	-	20
NON-ENERGY USE	-	-	10	-	-	-	-	-	-	-	10
in industry/transf./energy	-	-	10	-	-	-	-	-	-	-	10
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	0	-	-	4632	6	-	-	-	4638
Electricity plants	-	-	0	-	-	4632	6	-	-	-	4638
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Nicaragua

Figure 1. Energy production

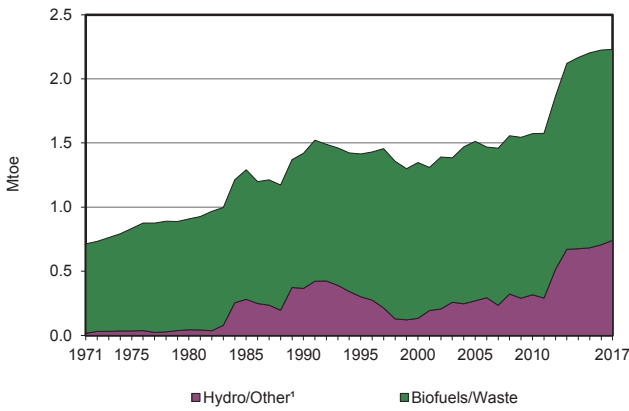


Figure 2. Total primary energy supply²

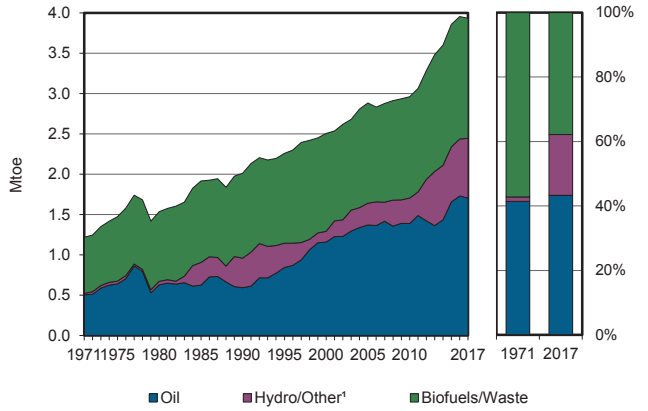


Figure 3. Energy self-sufficiency³

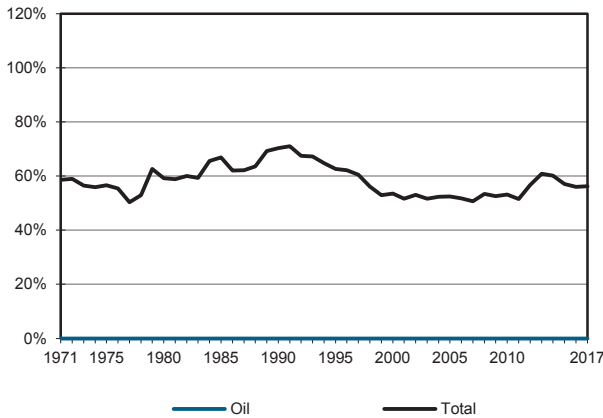


Figure 4. Oil products demand⁴

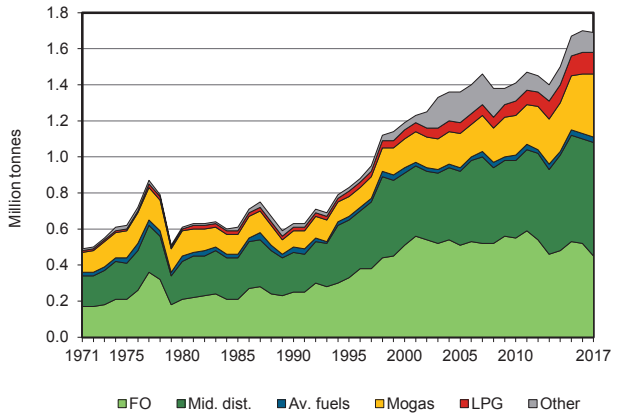


Figure 5. Electricity generation by source

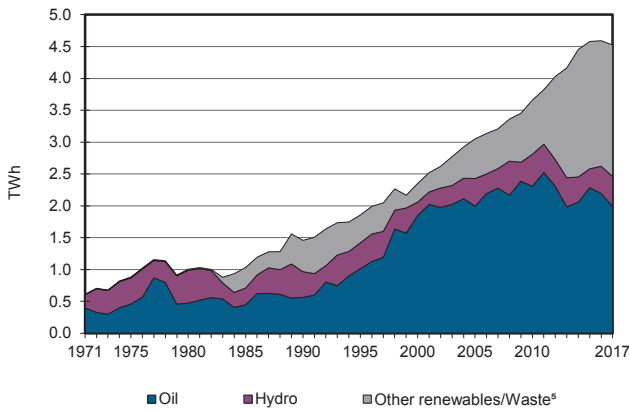
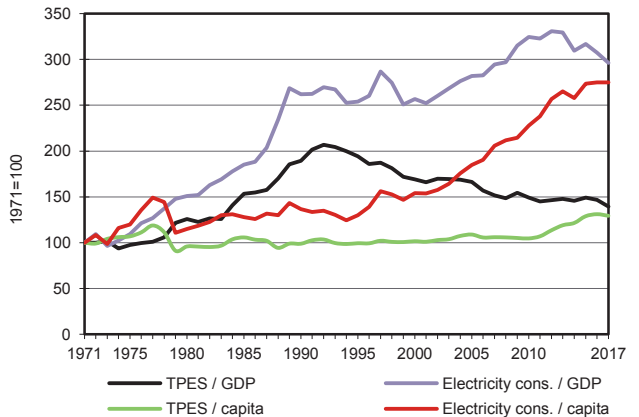


Figure 6. Selected indicators⁶



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3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Nicaragua

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	40	701	1488	-	-	2230
Imports	-	725	1031	-	-	-	-	-	28	-	1783
Exports	-	-	-21	-	-	-	-	-	-0	-	-21
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-25	-	-	-	-	-	-	-	-25
Stock changes	-	-22	16	-	-	-	-	-	-	-	-6
TPES	-	702	1001	-	-	40	701	1488	28	-	3961
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-18	19	-	-	-	-	0	0	-	1
Electricity plants	-	-	-434	-	-	-40	-701	-447	389	-	-1234
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-684	676	-	-	-	-	-	-	-	-8
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-8	-	-	-8
Energy industry own use	-	-	-10	-	-	-	-	-	-35	-	-45
Losses	-	-	-	-	-	-	-	-	-86	-	-86
TFC	-	-	1251	-	-	-	-	1033	297	-	2581
INDUSTRY	-	-	197	-	-	-	-	65	99	-	361
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	6	-	-	-	-	-	-	-	6
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	11	-	-	-	-	-	8	-	19
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	181	-	-	-	-	65	91	-	336
TRANSPORT	-	-	777	-	-	-	-	-	-	-	777
Domestic aviation	-	-	4	-	-	-	-	-	-	-	4
Road	-	-	693	-	-	-	-	-	-	-	693
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	80	-	-	-	-	-	-	-	80
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	240	-	-	-	-	968	198	-	1406
Residential	-	-	60	-	-	-	-	900	95	-	1056
Comm. and public services	-	-	164	-	-	-	-	38	93	-	295
Agriculture/forestry	-	-	15	-	-	-	-	30	10	-	55
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	38	-	-	-	-	-	-	-	38
in industry/transf./energy	-	-	38	-	-	-	-	-	-	-	38
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	1992	-	-	468	1399	666	-	-	4525
Electricity plants	-	-	1992	-	-	468	1399	666	-	-	4525
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Niger

Figure 1. Energy production

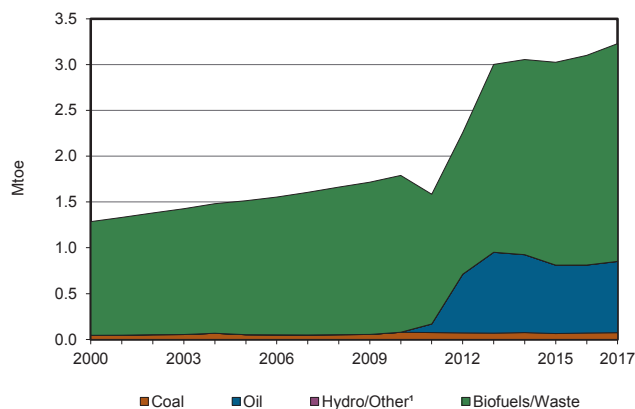


Figure 2. Total primary energy supply²

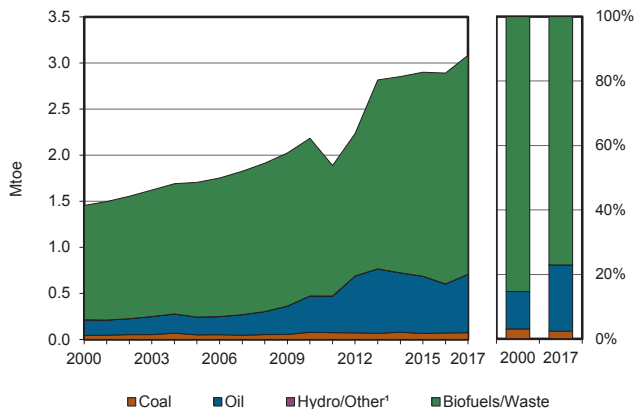


Figure 3. Energy self-sufficiency³

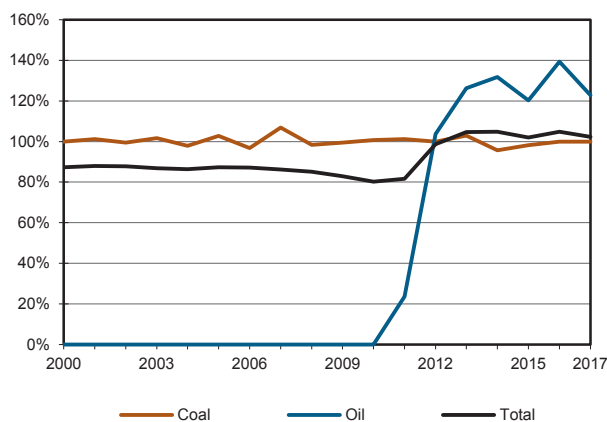


Figure 4. Oil products demand⁴

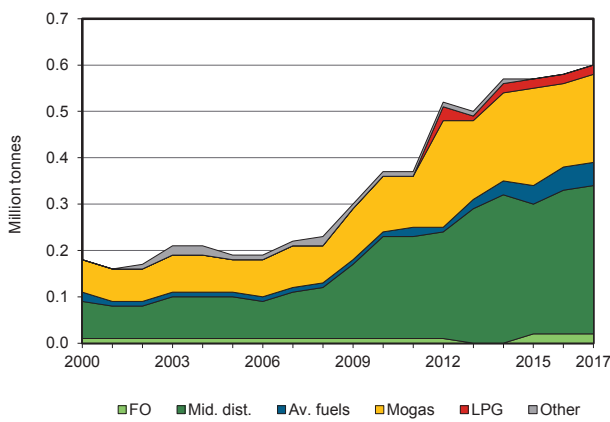


Figure 5. Electricity generation by source

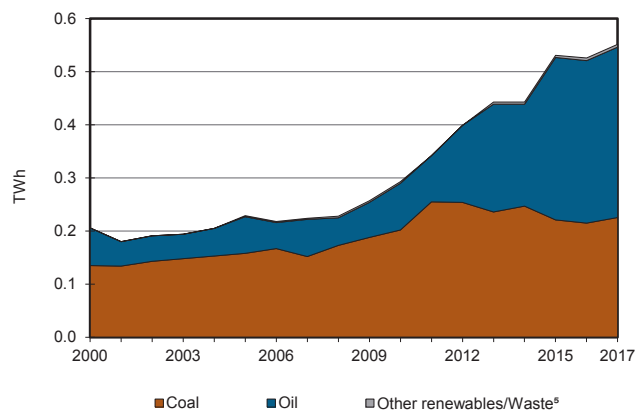
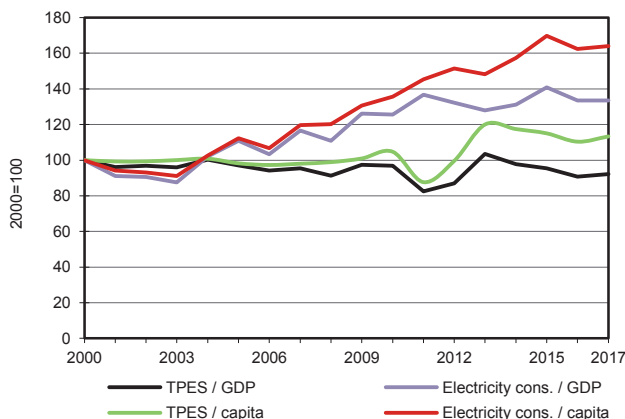


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Niger

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	74	777	-	-	-	-	0	2377	-	-	3228
Imports	-	-	170	-	-	-	-	-	70	-	240
Exports	-	-	-266	-	-	-	-	-	-	-	-266
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-48	-	-	-	-	-	-	-	-48
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	74	777	-144	-	-	-	0	2377	70	-	3155
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-3	-	45	-	-	-	-	-	-1	-	41
Electricity plants	-69	-	-74	-	-	-	-0	-	47	-	-96
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-1	-	-	-	-	-	-	-	-	-	-1
Oil refineries	-	-777	684	-	-	-	-	-	-	-	-93
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-74	-	-	-74
Energy industry own use	-	-	-	-	-	-	-	-	-10	-	-10
Losses	-	-	-	-	-	-	-	-	-19	-	-19
TFC	0	-	512	-	-	-	-	2303	87	-	2903
INDUSTRY	-	-	68	-	-	-	-	-	25	-	93
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	68	-	-	-	-	-	25	-	93
TRANSPORT	-	-	411	-	-	-	-	-	-	-	411
Domestic aviation	-	-	2	-	-	-	-	-	-	-	2
Road	-	-	409	-	-	-	-	-	-	-	409
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	0	-	28	-	-	-	-	2303	63	-	2394
Residential	0	-	18	-	-	-	-	2283	52	-	2353
Comm. and public services	0	-	11	-	-	-	-	20	10	-	41
Agriculture/forestry	-	-	-	-	-	-	-	-	1	-	1
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	4	-	-	-	-	-	-	-	4
in industry/transf./energy	-	-	4	-	-	-	-	-	-	-	4
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	226	-	321	-	-	-	5	-	-	-	552
Electricity plants	226	-	321	-	-	-	5	-	-	-	552
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Nigeria

Figure 1. Energy production

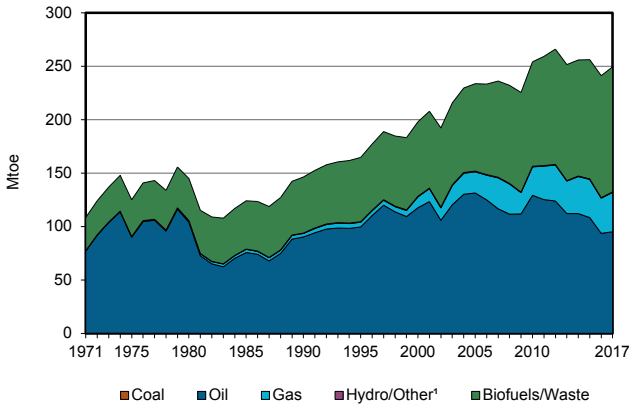


Figure 2. Total primary energy supply²

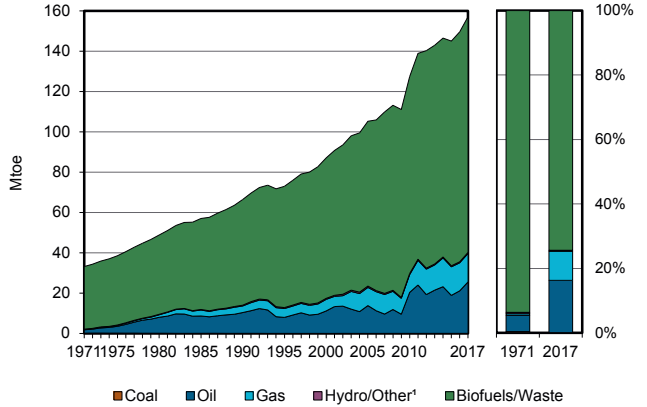


Figure 3. Energy self-sufficiency³

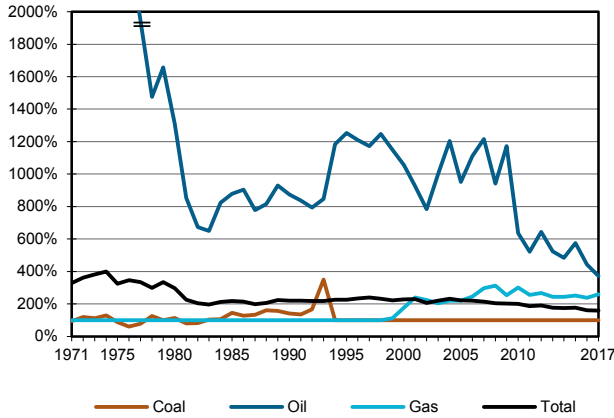


Figure 4. Oil products demand⁴

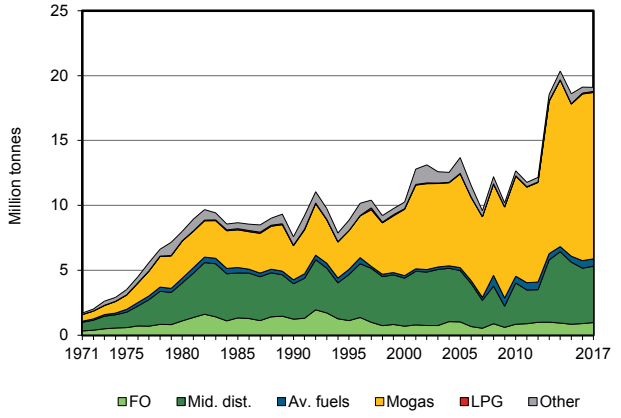


Figure 5. Electricity generation by source

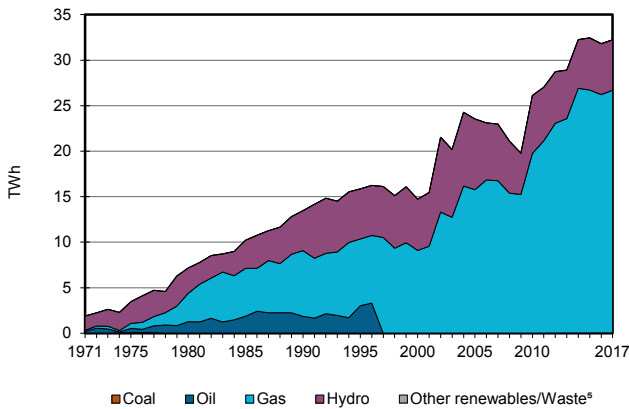
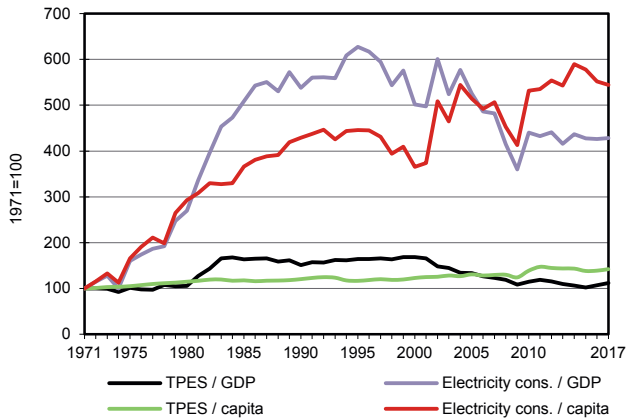


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency. Maximum scale refers to values greater than or equal to 2000%.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Nigeria

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	29	95040	-	36840	-	475	2	116926	-	-	249312
Imports	-	-	23645	-	-	-	-	-	-	-	23645
Exports	-	-90912	-858	-22676	-	-	-	-	-	-	-114446
Intl. marine bunkers	-	-	-310	-	-	-	-	-	-	-	-310
Intl. aviation bunkers	-	-	-437	-	-	-	-	-	-	-	-437
Stock changes	-	-732	105	-	-	-	-	-	-	-	-627
TPES	29	3396	22144	14164	-	475	2	116926	-	-	157137
Transfers	-	555	-467	-	-	-	-	-	-	-	88
Statistical differences	-	745	-6748	-69	-	-	-	-	-39	-	-6111
Electricity plants	-	-	-	-5733	-	-475	-2	-	2771	-	-3440
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-4856	4460	-	-	-	-	-	-	-	-396
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	200	-	-440	-	-	-	-	-	-	-240
Other transformation	-	-	-	-	-	-	-	-9137	-	-	-9137
Energy industry own use	-	-	-418	-4455	-	-	-	-	-100	-	-4973
Losses	-	-41	-61	-	-	-	-	-	-416	-	-518
TFC	29	-	18909	3467	-	-	-	107789	2216	-	132410
INDUSTRY	29	-	437	2251	-	-	-	4119	355	-	7192
Iron and steel	-	-	-	235	-	-	-	-	-	-	235
Chemical and petrochemical	-	-	-	388	-	-	-	-	-	-	388
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	29	-	-	-	-	-	-	-	-	-	29
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	437	1628	-	-	-	4119	355	-	6540
TRANSPORT	-	-	17431	-	-	-	-	-	-	-	17431
Domestic aviation	-	-	171	-	-	-	-	-	-	-	171
Road	-	-	17148	-	-	-	-	-	-	-	17148
Rail	-	-	56	-	-	-	-	-	-	-	56
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	56	-	-	-	-	-	-	-	56
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	886	-	-	-	-	103670	1861	-	106417
Residential	-	-	607	-	-	-	-	100921	1303	-	102830
Comm. and public services	-	-	1	-	-	-	-	2748	558	-	3308
Agriculture/forestry	-	-	4	-	-	-	-	-	-	-	4
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	274	-	-	-	-	-	-	-	274
NON-ENERGY USE	-	-	155	1216	-	-	-	-	-	-	1371
in industry/transf./energy	-	-	155	1216	-	-	-	-	-	-	1371
of which: chem./petrochem.	-	-	-	1216	-	-	-	-	-	-	1216
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	26	26670	-	5527	26	-	-	-	32250
Electricity plants	-	-	26	26670	-	5527	26	-	-	-	32250
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

North Macedonia, Republic of

Figure 1. Energy production

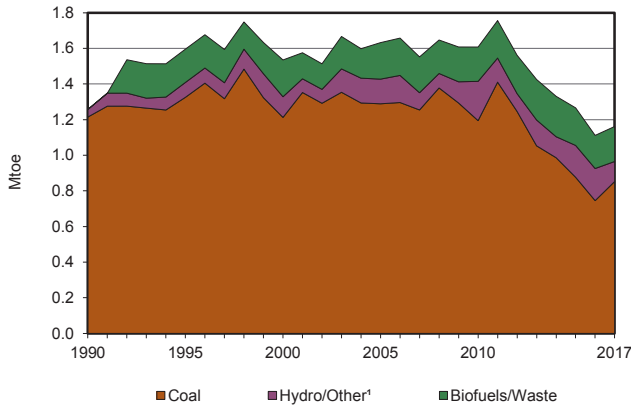


Figure 2. Total primary energy supply²

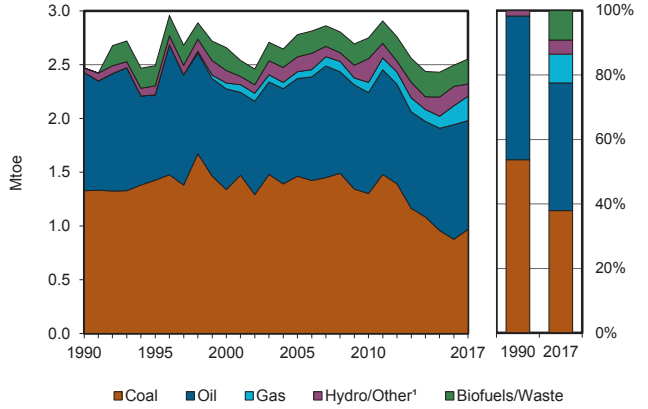


Figure 3. Energy self-sufficiency³

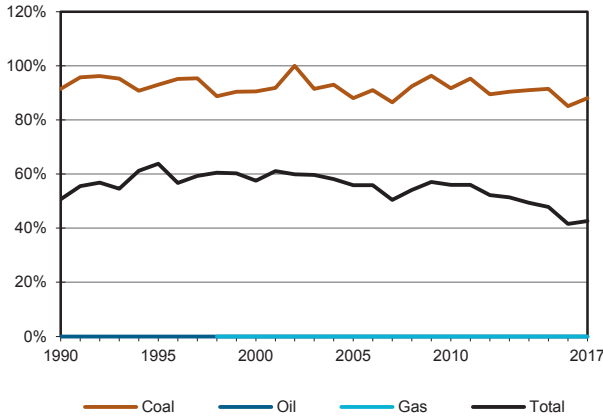


Figure 4. Oil products demand⁴

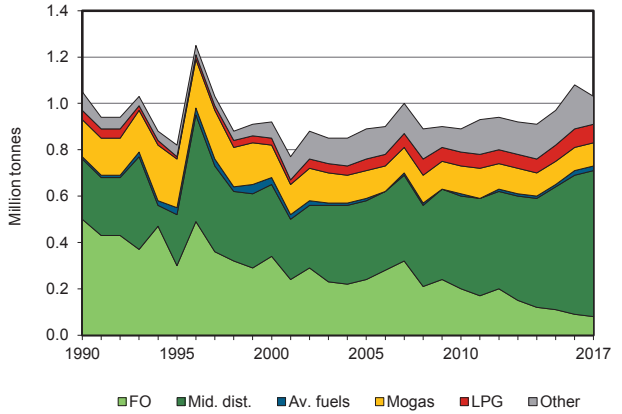


Figure 5. Electricity generation by source

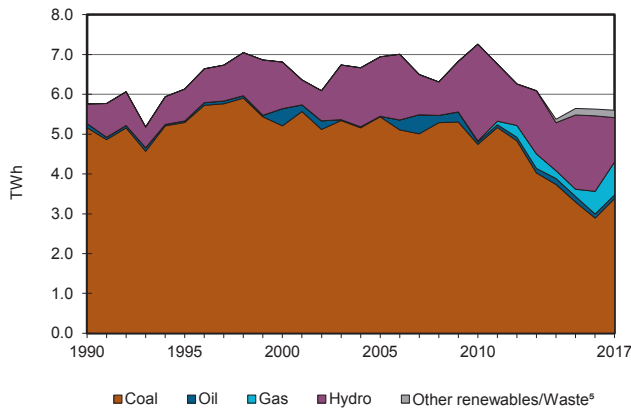
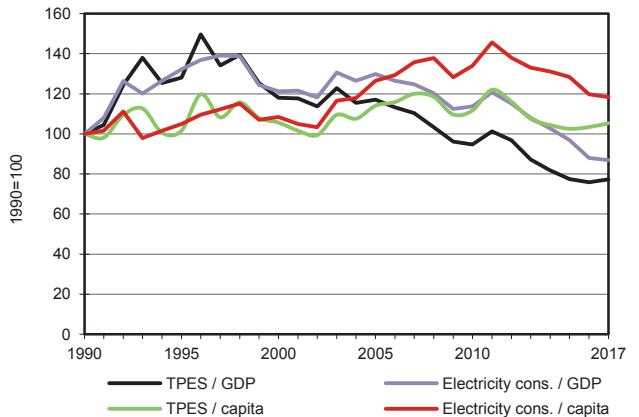


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

North Macedonia, Republic of

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	853	-	-	-	-	95	17	196	-	-	1161
Imports	91	-	1117	227	-	-	-	31	197	-	1663
Exports	-1	-	-91	-	-	-	-	-1	-27	-	-119
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-21	-	-	-	-	-	-	-	-21
Stock changes	26	-	6	-0	-	-	-	7	-	-	39
TPES	968	-	1012	226	-	95	17	233	170	-	2723
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-8	-	-	-	-	-	-	-	-	-	-8
Electricity plants	-860	-	-23	-	-	-95	-12	-5	410	-	-584
CHP plants	-	-	-	-155	-	-	-	-	71	31	-53
Heat plants	-	-	-	-27	-	-	-	-	-	27	-0
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-	-	-1	-	-	-	-	-0	-41	-0	-43
Losses	-	-	-	-0	-	-	-1	-	-86	-7	-95
TFC	101	-	987	44	-	-	5	229	525	50	1940
INDUSTRY	97	-	116	37	-	-	-	8	122	2	384
Iron and steel	35	-	41	25	-	-	-	0	53	2	157
Chemical and petrochemical	-	-	2	1	-	-	-	0	6	-	10
Non-ferrous metals	-	-	1	-	-	-	-	-	1	-	2
Non-metallic minerals	61	-	21	1	-	-	-	0	12	-	95
Transport equipment	-	-	1	3	-	-	-	0	7	-	12
Machinery	-	-	2	0	-	-	-	0	5	-	7
Mining and quarrying	-	-	13	-	-	-	-	0	13	-	26
Food and tobacco	-	-	15	6	-	-	-	6	12	-	39
Paper pulp and printing	0	-	1	0	-	-	-	0	1	-	2
Wood and wood products	-	-	0	-	-	-	-	0	0	-	1
Construction	0	-	13	-	-	-	-	0	2	-	15
Textile and leather	1	-	5	0	-	-	-	0	5	-	12
Non-specified	0	-	0	0	-	-	-	0	4	-	5
TRANSPORT	-	-	702	0	-	-	-	0	1	-	703
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	701	0	-	-	-	0	-	-	701
Rail	-	-	1	-	-	-	-	-	1	-	2
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	4	-	89	7	-	-	5	220	401	48	773
Residential	1	-	12	0	-	-	-	214	266	35	529
Comm. and public services	1	-	63	6	-	-	1	5	132	13	220
Agriculture/forestry	1	-	14	-	-	-	4	1	3	-	24
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	80	-	-	-	-	-	-	-	80
in industry/transf./energy	-	-	72	-	-	-	-	-	-	-	72
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	8	-	-	-	-	-	-	-	8
in other	-	-	0	-	-	-	-	-	-	-	0
Electricity and Heat Output											
Electr. generated - GWh	3386	-	89	829	-	1110	134	52	-	-	5600
Electricity plants	3386	-	89	-	-	1110	134	52	-	-	4771
CHP plants	-	-	-	829	-	-	-	-	-	-	829
Heat generated - TJ	-	-	2419	-	-	-	-	-	-	-	2419
CHP plants	-	-	-	1303	-	-	-	-	-	-	1303
Heat plants	-	-	-	1116	-	-	-	-	-	-	1116

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Oman

Figure 1. Energy production

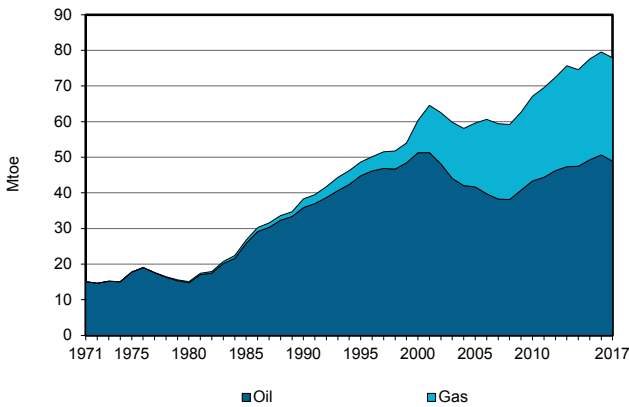


Figure 2. Total primary energy supply¹

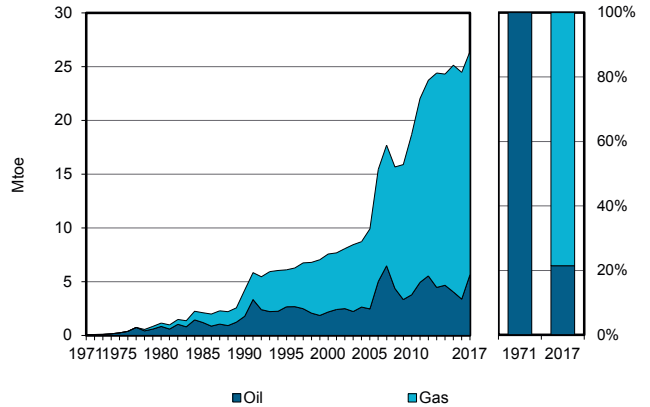


Figure 3. Energy self-sufficiency²

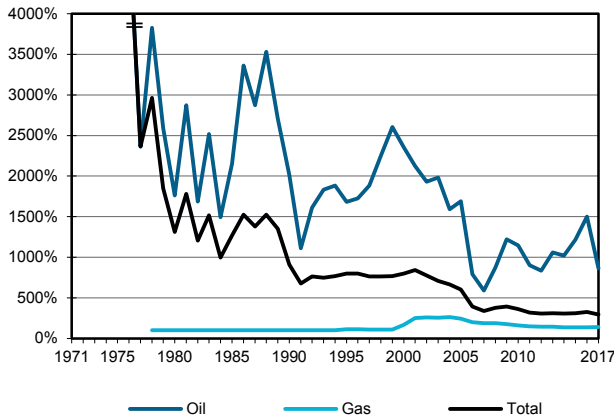


Figure 4. Oil products demand³

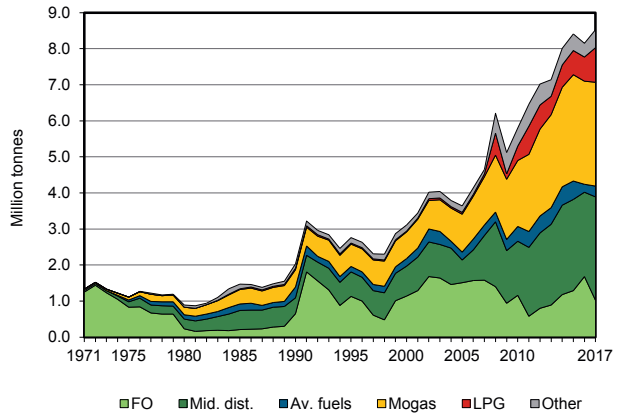


Figure 5. Electricity generation by source

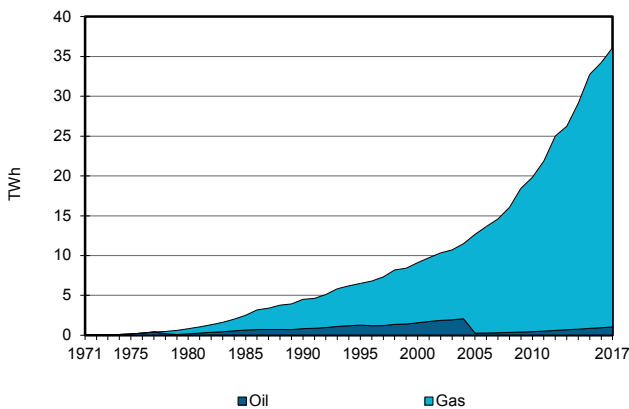
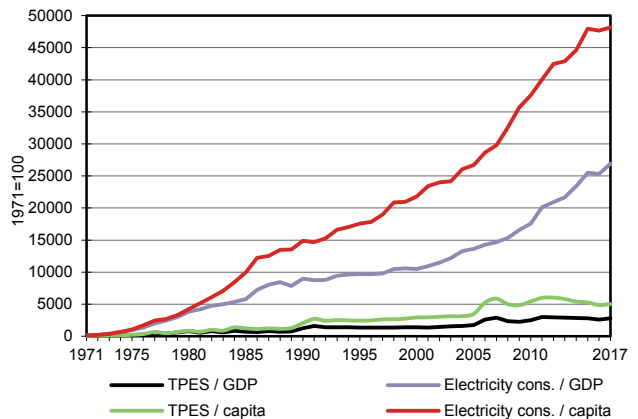


Figure 6. Selected indicators⁴



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Excluding electricity trade.
2. Production divided by TPES. 100% represents full self-sufficiency. Maximum scale refers to values greater than or equal to 4000%.
3. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
4. GDP in 2010 USD.

Oman

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	48881	-	28997	-	-	-	-	-	-	77878
Imports	-	224	343	1753	-	-	-	-	-	-	2320
Exports	-	-40388	-2078	-9995	-	-	-	-	-	-	-52460
Intl. marine bunkers	-	-	-982	-	-	-	-	-	-	-	-982
Intl. aviation bunkers	-	-	-317	-	-	-	-	-	-	-	-317
Stock changes	-	-	-4	-	-	-	-	-	-	-	-4
TPES	-	8717	-3038	20755	-	-	-	-	-	-	26434
Transfers	-	1010	-855	-	-	-	-	-	-	-	155
Statistical differences	-	4417	-656	645	-	-	-	-	-	-	4407
Electricity plants	-	-	-198	-6756	-	-	-	-	3106	-	-3848
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-14144	12180	-	-	-	-	-	-	-	-1964
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-	-	-143	-3460	-	-	-	-	-39	-	-3641
Losses	-	-	-	-	-	-	-	-	-286	-	-286
TFC	-	-	7291	11185	-	-	-	-	2782	-	21257
INDUSTRY	-	-	956	5764	-	-	-	-	432	-	7152
Iron and steel	-	-	-	630	-	-	-	-	-	-	630
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	279	-	-	-	-	-	-	279
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	62	-	-	-	-	-	-	62
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	956	4793	-	-	-	-	432	-	6181
TRANSPORT	-	-	4134	-	-	-	-	-	-	-	4134
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	4134	-	-	-	-	-	-	-	4134
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	975	3794	-	-	-	-	2350	-	7119
Residential	-	-	222	-	-	-	-	-	1280	-	1502
Comm. and public services	-	-	-	3638	-	-	-	-	1033	-	4670
Agriculture/forestry	-	-	-	-	-	-	-	-	37	-	37
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	753	157	-	-	-	-	-	-	910
NON-ENERGY USE	-	-	1226	1626	-	-	-	-	-	-	2852
in industry/transf./energy	-	-	1226	1626	-	-	-	-	-	-	2852
of which: chem./petrochem.	-	-	1117	1626	-	-	-	-	-	-	2743
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	1038	35088	-	-	-	-	-	-	36126
Electricity plants	-	-	1038	35088	-	-	-	-	-	-	36126
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Pakistan

Figure 1. Energy production

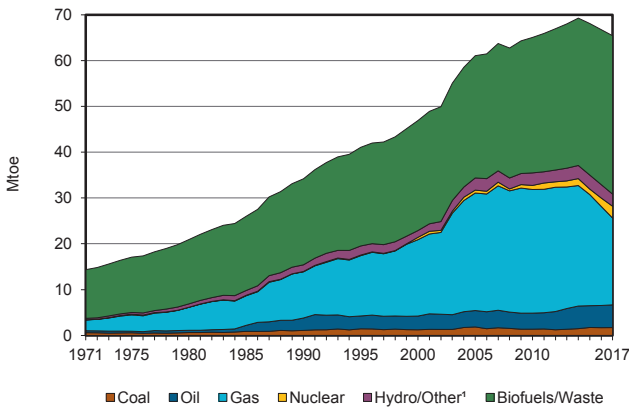


Figure 2. Total primary energy supply²

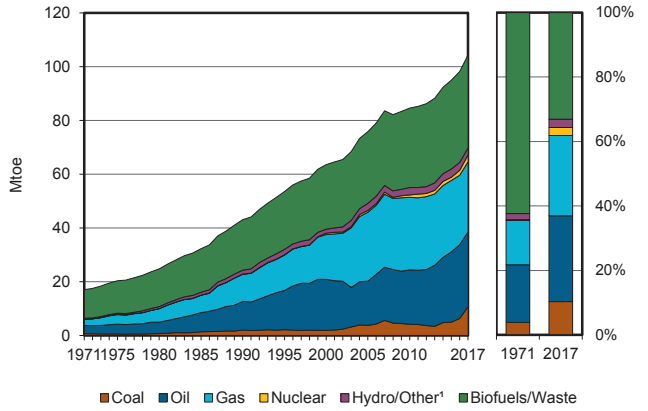


Figure 3. Energy self-sufficiency³

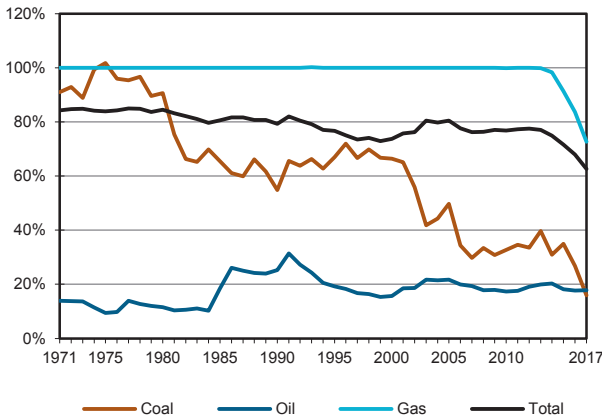


Figure 4. Oil products demand⁴

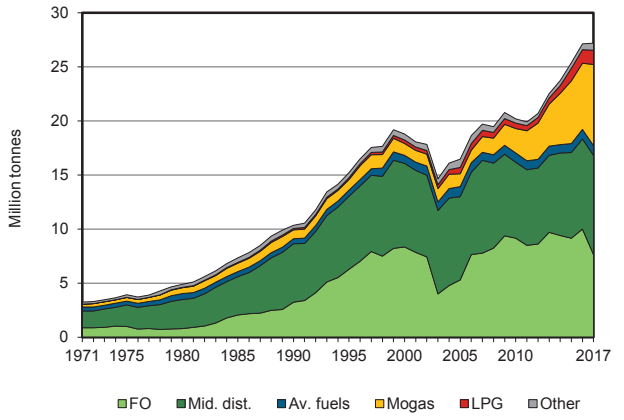


Figure 5. Electricity generation by source

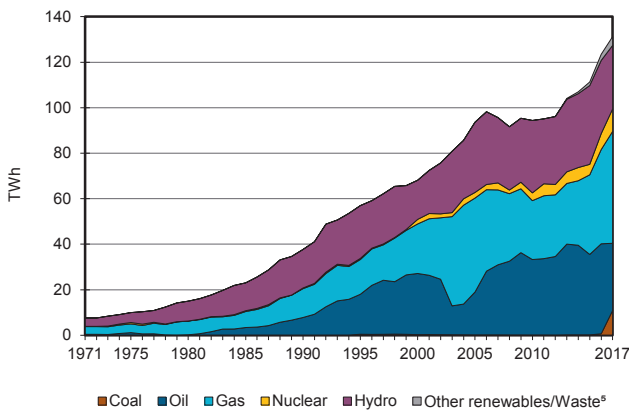
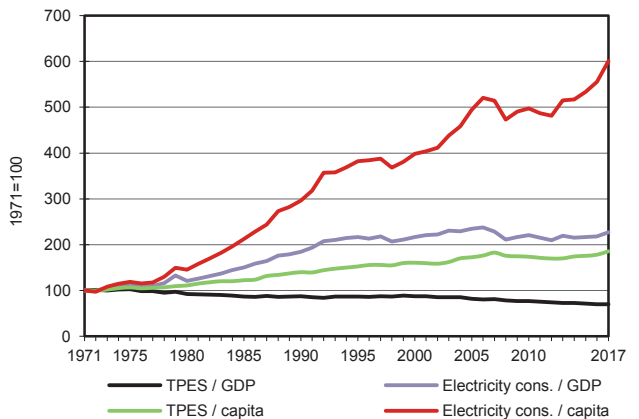


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Pakistan

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	1714	4960	-	18939	2574	2401	247	34568	-	-	65404
Imports	9035	10733	14149	7119	-	-	-	-	48	-	41085
Exports	-	-384	-873	-	-	-	-	-	-	-	-1257
Intl. marine bunkers	-	-	-38	-	-	-	-	-	-	-	-38
Intl. aviation bunkers	-	-	-821	-	-	-	-	-	-	-	-821
Stock changes	-	-	110	-22	-	-	-	-	-	-	88
TPES	10750	15309	12528	26036	2574	2401	247	34568	48	-	104460
Transfers	-	-585	619	-	-	-	-	-	-	-	35
Statistical differences	-670	-301	18	4693	-	-	-	-	-0	-	3739
Electricity plants	-2583	-	-6224	-10292	-2574	-2401	-247	-425	11288	-	-13459
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-14423	14095	-	-	-	-	-	-	-	-329
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-681	-	-	-681
Energy industry own use	-	-	-273	-208	-	-	-	-	-326	-	-807
Losses	-	-	-	-1039	-	-	-	-	-1815	-	-2854
TFC	7496	-	20763	19189	-	-	-	33462	9194	-	90104
INDUSTRY	7496	-	1809	7258	-	-	-	3714	2362	-	22639
Iron and steel	-	-	-	16	-	-	-	-	-	-	16
Chemical and petrochemical	-	-	614	1145	-	-	-	-	-	-	1758
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	7496	-	798	20	-	-	-	-	-	-	8314
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	396	6078	-	-	-	3714	2362	-	12549
TRANSPORT	-	-	16704	1567	-	-	-	-	-	-	18271
Domestic aviation	-	-	115	-	-	-	-	-	-	-	115
Road	-	-	16276	1567	-	-	-	-	-	-	17843
Rail	-	-	313	-	-	-	-	-	-	-	313
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	0	-	-	-	-	-	-	-	0
OTHER	-	-	1675	7038	-	-	-	29749	6832	-	45294
Residential	-	-	606	6324	-	-	-	29749	4646	-	41325
Comm. and public services	-	-	762	714	-	-	-	-	1316	-	2791
Agriculture/forestry	-	-	15	-	-	-	-	-	871	-	886
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	292	-	-	-	-	-	-	-	292
NON-ENERGY USE	-	-	575	3327	-	-	-	-	-	-	3901
in industry/transf./energy	-	-	575	3327	-	-	-	-	-	-	3901
of which: chem./petrochem.	-	-	-	3327	-	-	-	-	-	-	3327
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	10911	-	29501	49203	9880	27925	2869	988	-	-	131277
Electricity plants	10911	-	29501	49203	9880	27925	2869	988	-	-	131277
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Panama

Figure 1. Energy production

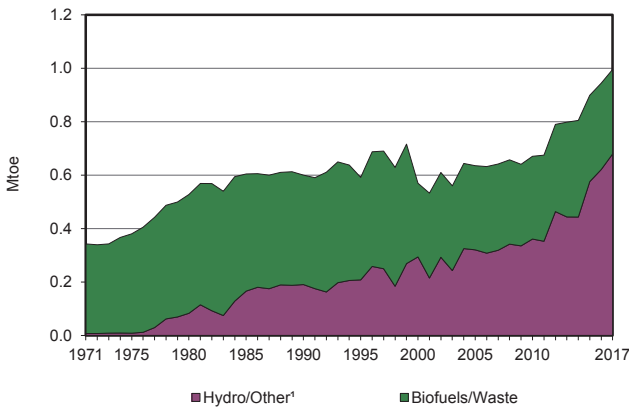


Figure 2. Total primary energy supply²

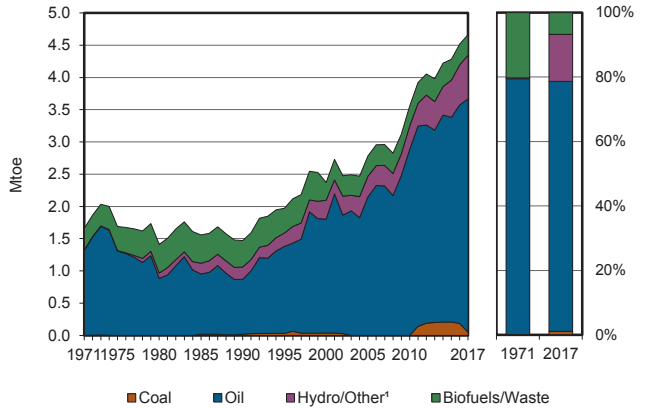


Figure 3. Energy self-sufficiency³

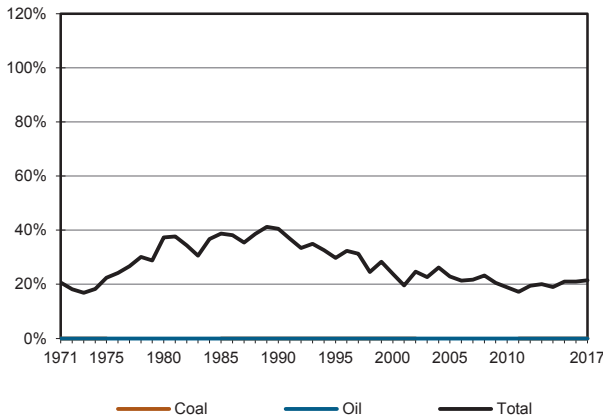


Figure 4. Oil products demand⁴

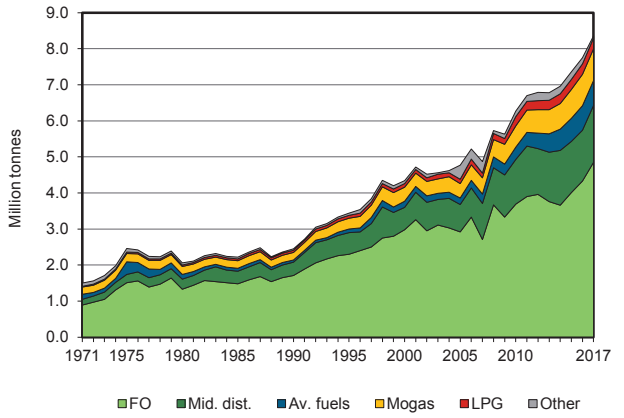


Figure 5. Electricity generation by source

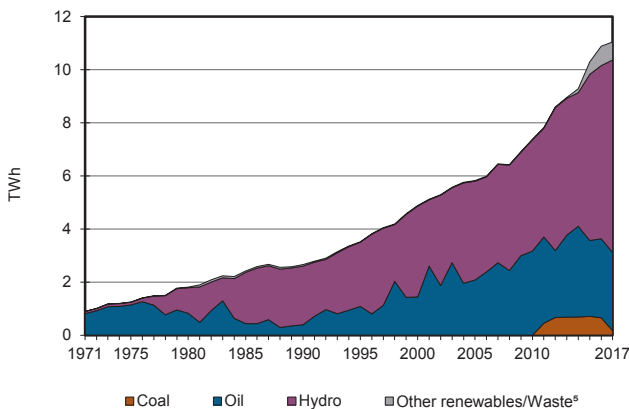
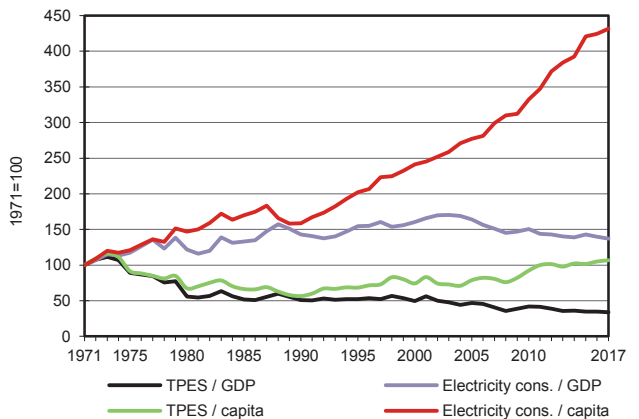


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Panama

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	624	56	316	-	-	995
Imports	51	-	8340	-	-	-	-	0	1	-	8392
Exports	-	-	-0	-	-	-	-	-	-27	-	-28
Intl. marine bunkers	-	-	-4477	-	-	-	-	-	-	-	-4477
Intl. aviation bunkers	-	-	-718	-	-	-	-	-	-	-	-718
Stock changes	-	-	472	-	-	-	-	-	-	-	472
TPES	51	-	3616	-	-	624	56	316	-27	-	4636
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	-442	-	-	-	-	0	-19	-	-461
Electricity plants	-51	-	-576	-	-	-624	-56	-51	950	-	-407
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-0	-	-	-0
Energy industry own use	-	-	-	-	-	-	-	-	-15	-	-15
Losses	-	-	-	-	-	-	-	-	-125	-	-125
TFC	-	-	2598	-	-	-	-	265	765	-	3627
INDUSTRY	-	-	647	-	-	-	-	96	71	-	815
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	647	-	-	-	-	96	71	-	815
TRANSPORT	-	-	1595	-	-	-	-	-	-	-	1595
Domestic aviation	-	-	14	-	-	-	-	-	-	-	14
Road	-	-	1579	-	-	-	-	-	-	-	1579
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	2	-	-	-	-	-	-	-	2
OTHER	-	-	303	-	-	-	-	168	694	-	1165
Residential	-	-	231	-	-	-	-	168	248	-	646
Comm. and public services	-	-	57	-	-	-	-	0	445	-	503
Agriculture/forestry	-	-	14	-	-	-	-	-	-	-	14
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	1	-	1
NON-ENERGY USE	-	-	53	-	-	-	-	-	-	-	53
in industry/transf./energy	-	-	53	-	-	-	-	-	-	-	53
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	171	-	2947	-	-	7254	647	32	-	-	11051
Electricity plants	171	-	2947	-	-	7254	647	32	-	-	11051
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Paraguay

Figure 1. Energy production

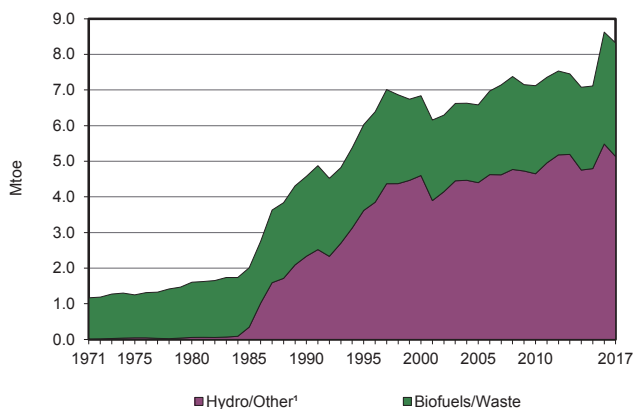


Figure 2. Total primary energy supply²

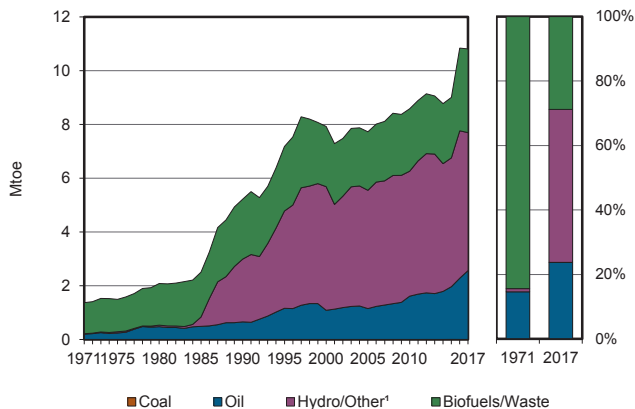


Figure 3. Energy self-sufficiency³

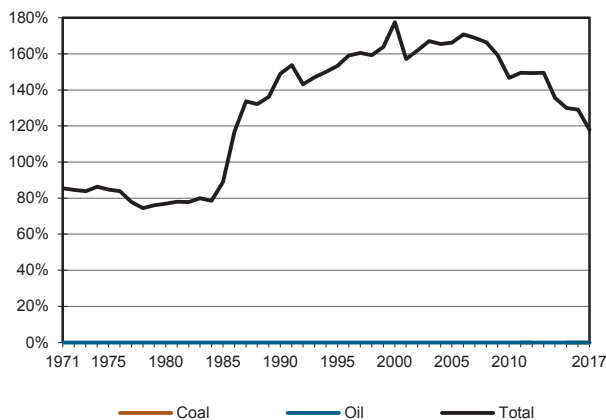


Figure 4. Oil products demand⁴

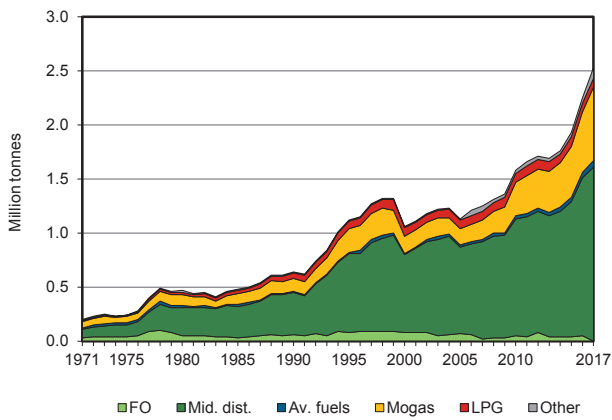


Figure 5. Electricity generation by source

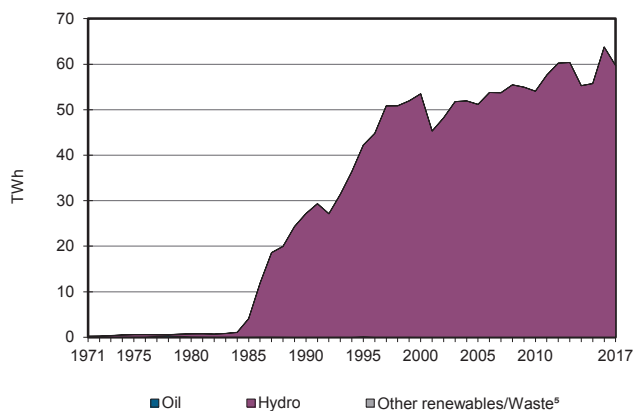
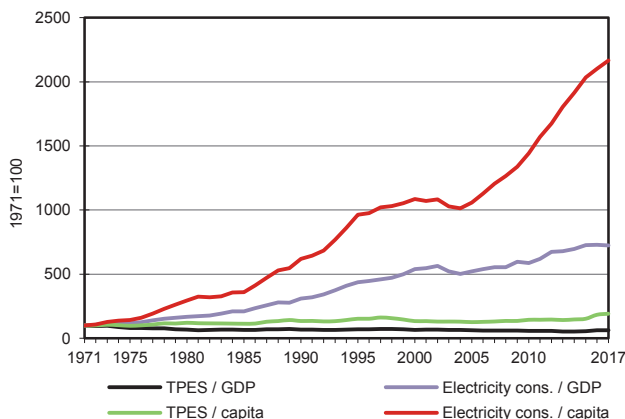


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Paraguay

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	5132	-	3185	-	-	8317
Imports	1	-	2501	-	-	-	-	-	-	-	2502
Exports	-	-	-	-	-	-	-	-72	-3752	-	-3824
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-57	-	-	-	-	-	-	-	-57
Stock changes	-	-	118	-	-	-	-	-	-	-	118
TPES	1	-	2563	-	-	5132	-	3113	-3752	-	7056
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	-0	-	-	-	-	0	-	-	-0
Electricity plants	-	-	-0	-	-	-5132	-	-	5132	-	-0
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-316	-	-	-316
Energy industry own use	-	-	-	-	-	-	-	-	-43	-	-43
Losses	-	-	-	-	-	-	-	-	-344	-	-344
TFC	1	-	2562	-	-	-	-	2797	994	-	6353
INDUSTRY	1	-	45	-	-	-	-	1358	202	-	1606
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	38	-	-	-	-	-	-	-	38
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	1	-	7	-	-	-	-	1358	202	-	1567
TRANSPORT	-	-	2387	-	-	-	-	150	-	-	2538
Domestic aviation	-	-	1	-	-	-	-	-	-	-	1
Road	-	-	2378	-	-	-	-	150	-	-	2528
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	8	-	-	-	-	-	-	-	8
OTHER	-	-	81	-	-	-	-	1289	792	-	2162
Residential	-	-	81	-	-	-	-	1283	423	-	1787
Comm. and public services	-	-	-	-	-	-	-	6	369	-	374
Agriculture/forestry	-	-	-	-	-	-	-	-	-	-	-
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	48	-	-	-	-	-	-	-	48
in industry/transf./energy	-	-	7	-	-	-	-	-	-	-	7
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	41	-	-	-	-	-	-	-	41
Electricity and Heat Output											
Electr. generated - GWh	-	-	2	-	-	59684	-	-	-	-	59685
Electricity plants	-	-	2	-	-	59684	-	-	-	-	59685
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Peru

Figure 1. Energy production

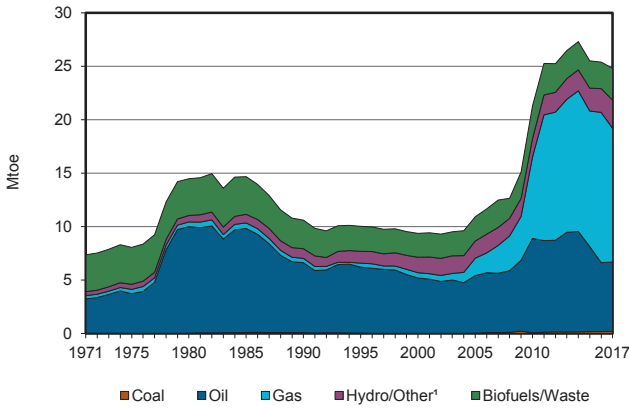


Figure 2. Total primary energy supply²

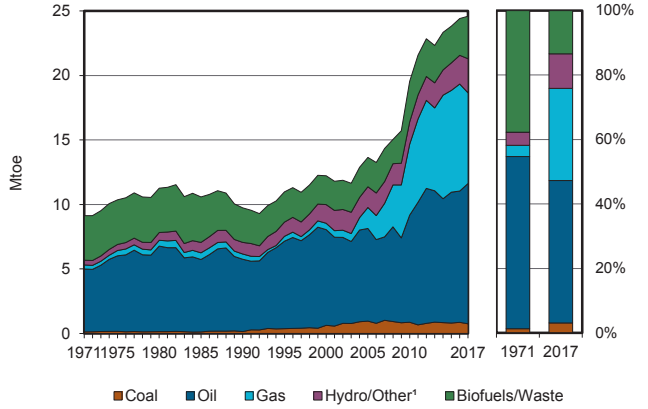


Figure 3. Energy self-sufficiency³

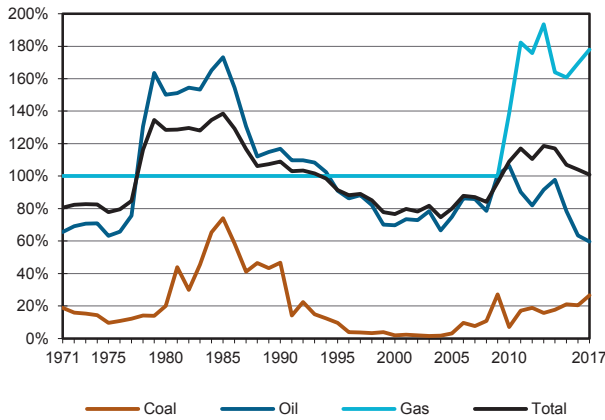


Figure 4. Oil products demand⁴

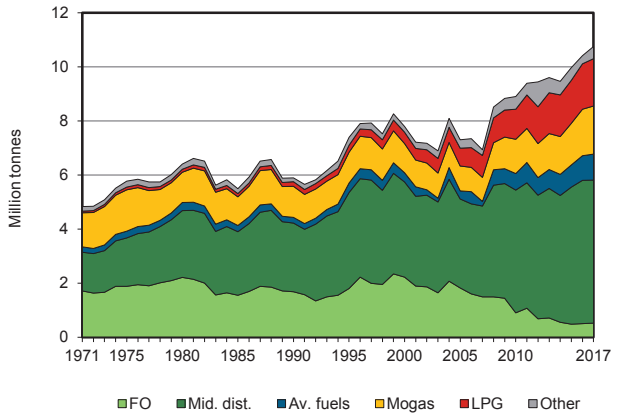


Figure 5. Electricity generation by source

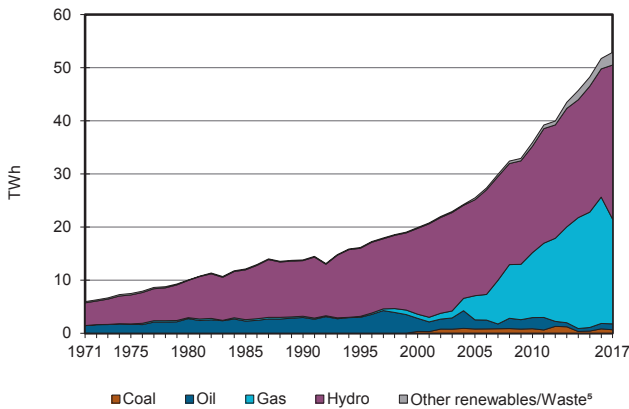
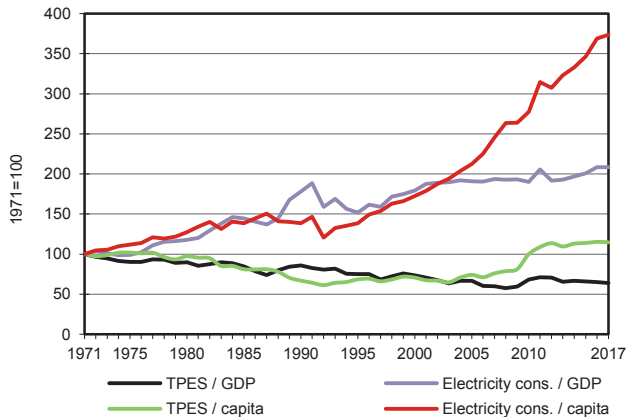


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Peru

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	198	6477	-	12498	-	2499	150	2976	-	-	24798
Imports	385	6326	5427	-	-	-	-	321	1	-	12460
Exports	-247	-79	-6170	-5478	-	-	-	-	-	-	-11974
Intl. marine bunkers	-	-	-133	-	-	-	-	-	-	-	-133
Intl. aviation bunkers	-	-	-753	-	-	-	-	-	-	-	-753
Stock changes	413	-65	-153	-	-	-	-	-3	-	-	192
TPES	749	12658	-1782	7020	-	2499	150	3294	1	-	24590
Transfers	-	-2803	2814	-	-	-	-	-	-	-	10
Statistical differences	0	132	-34	64	-	-	-	57	-17	-	203
Electricity plants	-224	-	-494	-3954	-	-2499	-117	-369	4550	-	-3107
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-9987	9438	-	-	-	-	-	-	-	-549
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-157	-	-	-157
Energy industry own use	-	-	-265	-991	-	-	-	-0	-65	-	-1321
Losses	-	-	-	-	-	-	-	-	-476	-	-476
TFC	526	-	9677	2139	-	-	33	2824	3993	-	19193
INDUSTRY	526	-	870	1334	-	-	0	343	2296	-	5368
Iron and steel	50	-	267	179	-	-	-	10	1285	-	1791
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	58	-	-	-	0	-	-	-	58
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	475	-	545	1154	-	-	0	333	1012	-	3519
TRANSPORT	-	-	7246	682	-	-	-	335	5	-	8268
Domestic aviation	-	-	265	-	-	-	-	-	-	-	265
Road	-	-	6940	682	-	-	-	335	-	-	7957
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	42	-	-	-	-	-	-	-	42
Non-specified	-	-	-	-	-	-	-	-	5	-	5
OTHER	0	-	1258	123	-	-	33	2147	1693	-	5253
Residential	-	-	891	96	-	-	20	1949	823	-	3779
Comm. and public services	0	-	266	25	-	-	13	126	760	-	1191
Agriculture/forestry	0	-	42	2	-	-	0	69	87	-	200
Fishing	-	-	58	0	-	-	-	3	22	-	84
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	304	-	-	-	-	-	-	-	304
in industry/transf./energy	-	-	304	-	-	-	-	-	-	-	304
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	650	-	1117	19699	-	29060	1360	1032	-	-	52918
Electricity plants	650	-	1117	19699	-	29060	1360	1032	-	-	52918
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Philippines

Figure 1. Energy production

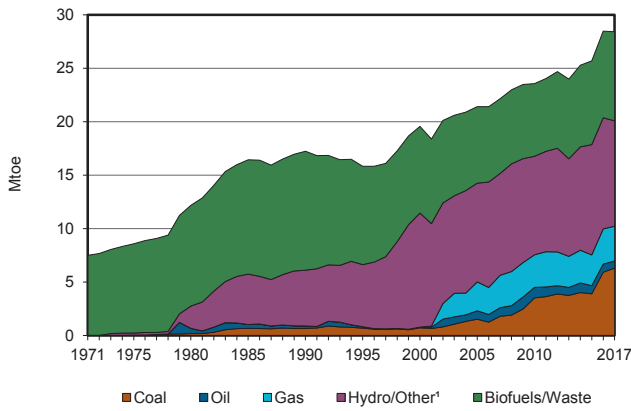


Figure 2. Total primary energy supply²

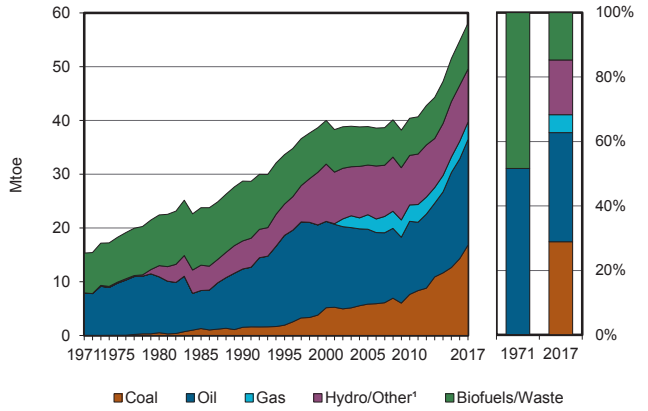


Figure 3. Energy self-sufficiency³

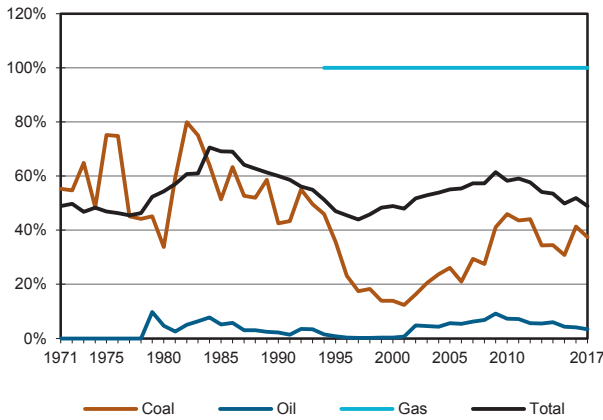


Figure 4. Oil products demand⁴

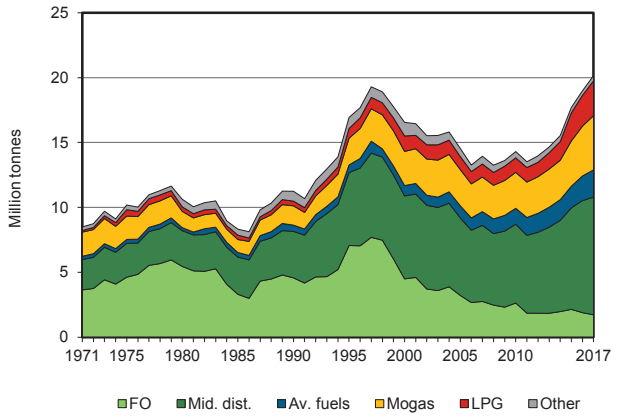


Figure 5. Electricity generation by source

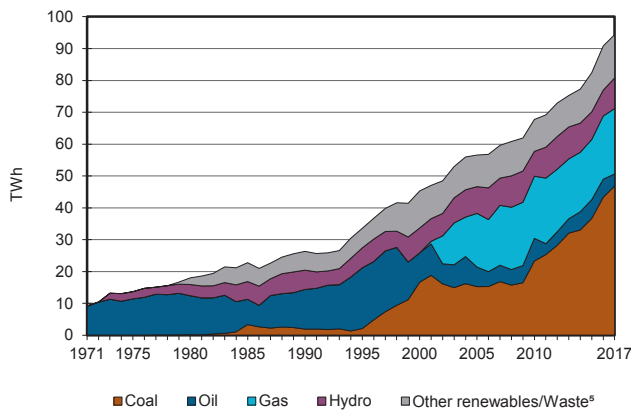
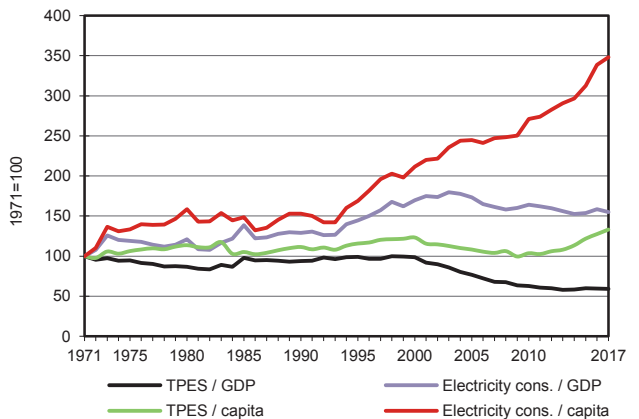


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Philippines

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	6298	669	-	3250	-	826	9028	8334	-	-	28406
Imports	13105	10344	12325	-	-	-	-	154	-	-	35927
Exports	-3258	-645	-1424	-	-	-	-	-	-	-	-5327
Intl. marine bunkers	-	-	-96	-	-	-	-	-	-	-	-96
Intl. aviation bunkers	-	-	-1580	-	-	-	-	-	-	-	-1580
Stock changes	682	235	-178	-	-	-	-	58	-	-	797
TPES	16827	10602	9047	3250	-	826	9028	8546	-	-	58126
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-342	-228	-88	-	-	-	-	46	-0	-	-612
Electricity plants	-13269	-	-969	-3103	-	-826	-9028	-402	8114	-	-19483
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-119	-	-	-	-	-	-	-	-	-	-119
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-10212	9834	-	-	-	-	-	-	-	-378
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-2325	-	-	-2325
Energy industry own use	-	-163	-118	-94	-	-	-	-	-715	-	-1090
Losses	-	-	-	-	-	-	-	-	-710	-	-710
TFC	3097	-	17705	53	-	-	-	5865	6689	-	33409
INDUSTRY	3097	-	1486	53	-	-	-	1196	2199	-	8031
Iron and steel	293	-	118	-	-	-	-	1	448	-	860
Chemical and petrochemical	14	-	224	-	-	-	-	1	134	-	373
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	2338	-	227	-	-	-	-	1	167	-	2733
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	171	-	-	-	-	2	550	-	723
Mining and quarrying	-	-	257	-	-	-	-	4	68	-	329
Food and tobacco	315	-	215	-	-	-	-	1169	402	-	2101
Paper pulp and printing	100	-	4	-	-	-	-	0	123	-	228
Wood and wood products	-	-	14	-	-	-	-	0	52	-	66
Construction	-	-	229	-	-	-	-	4	21	-	254
Textile and leather	9	-	12	-	-	-	-	0	170	-	191
Non-specified	29	-	14	53	-	-	-	14	63	-	173
TRANSPORT	-	-	11375	-	-	-	-	462	10	-	11847
Domestic aviation	-	-	512	-	-	-	-	-	-	-	512
Road	-	-	9930	-	-	-	-	456	-	-	10386
Rail	-	-	2	-	-	-	-	0	10	-	12
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	931	-	-	-	-	6	-	-	937
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	3523	-	-	-	-	4208	4480	-	12212
Residential	-	-	1159	-	-	-	-	3830	2303	-	7291
Comm. and public services	-	-	2074	-	-	-	-	373	1958	-	4405
Agriculture/forestry	-	-	59	-	-	-	-	1	194	-	253
Fishing	-	-	232	-	-	-	-	4	26	-	262
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	1320	-	-	-	-	-	-	-	1320
in industry/transf./energy	-	-	1320	-	-	-	-	-	-	-	1320
of which: chem./petrochem.	-	-	1202	-	-	-	-	-	-	-	1202
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	46847	-	3787	20547	-	9611	12565	1013	-	-	94370
Electricity plants	46847	-	3787	20547	-	9611	12565	1013	-	-	94370
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Qatar

Figure 1. Energy production

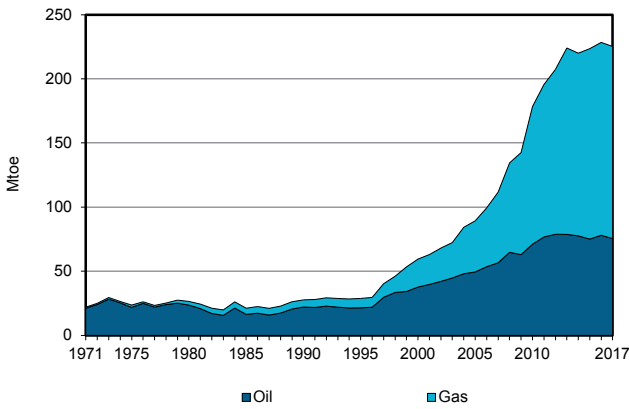


Figure 2. Total primary energy supply¹

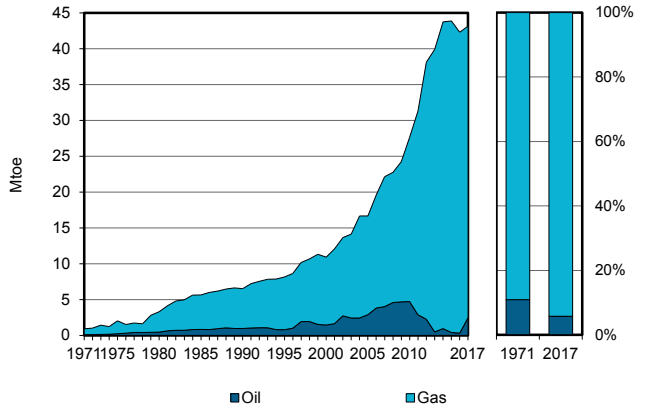


Figure 3. Energy self-sufficiency²

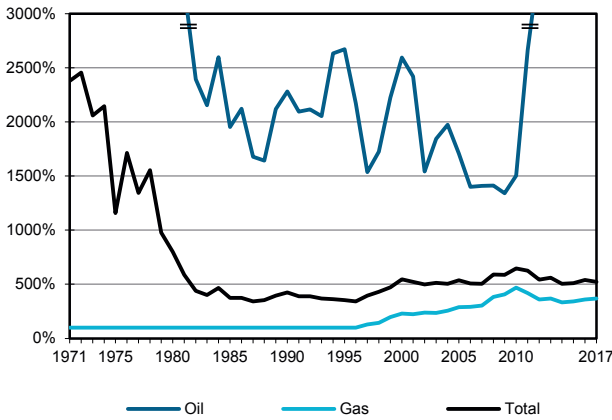


Figure 4. Oil products demand³

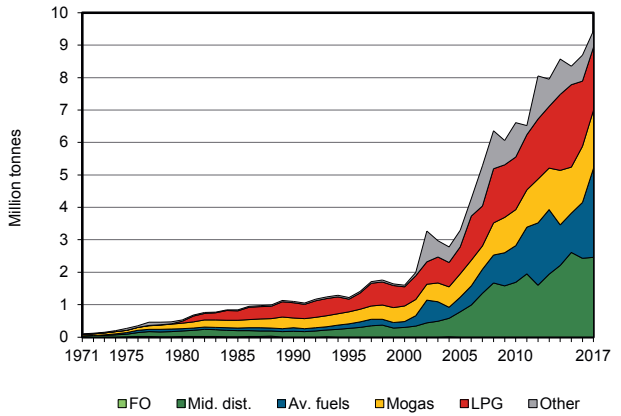


Figure 5. Electricity generation by source

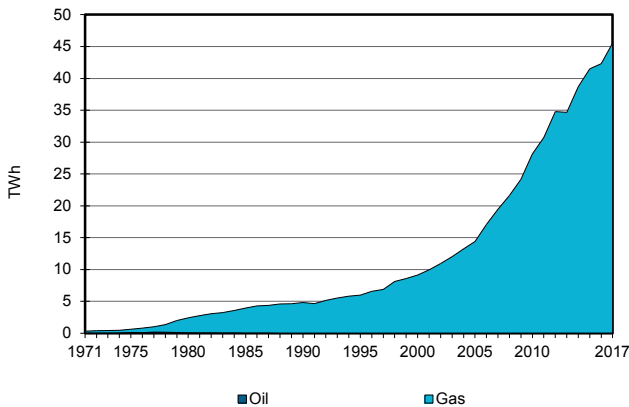
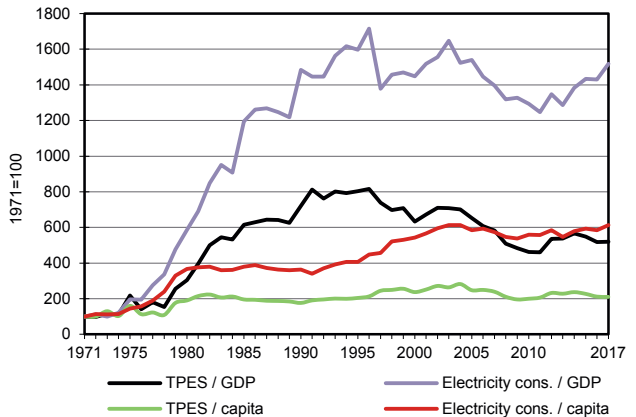


Figure 6. Selected indicators⁴



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Excluding electricity trade.
2. Production divided by TPES. 100% represents full self-sufficiency. Maximum scale refers to values greater than or equal to 3000%.
3. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
4. GDP in 2010 USD.

Qatar

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	75425	-	149787	-	-	-	-	-	-	225212
Imports	-	-	119	-	-	-	-	-	-	-	119
Exports	-	-47817	-22688	-109110	-	-	-	-	-	-	-179616
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-2926	-	-	-	-	-	-	-	-2926
Stock changes	-	-	361	-	-	-	-	-	-	-	361
TPES	-	27608	-25134	40676	-	-	-	-	-	-	43150
Transfers	-	-15705	16586	-	-	-	-	-	-	-	881
Statistical differences	-	-	-460	-	-	-	-	-	-	-	-460
Electricity plants	-	-	-	-9434	-	-	-	-	3917	-	-5517
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-16221	16211	-	-	-	-	-	-	-	-10
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	4319	-	-10471	-	-	-	-	-	-	-6152
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-	-	-157	-12964	-	-	-	-	-243	-	-13365
Losses	-	-	-	-	-	-	-	-	-232	-	-232
TFC	-	-	7046	7808	-	-	-	-	3442	-	18296
INDUSTRY	-	-	432	5076	-	-	-	-	968	-	6476
Iron and steel	-	-	-	534	-	-	-	-	-	-	534
Chemical and petrochemical	-	-	-	3855	-	-	-	-	-	-	3855
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	686	-	-	-	-	-	-	686
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	432	-	-	-	-	-	968	-	1400
TRANSPORT	-	-	4460	-	-	-	-	-	-	-	4460
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	4460	-	-	-	-	-	-	-	4460
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	155	-	-	-	-	-	2474	-	2628
Residential	-	-	155	-	-	-	-	-	1529	-	1684
Comm. and public services	-	-	-	-	-	-	-	-	632	-	632
Agriculture/forestry	-	-	-	-	-	-	-	-	-	-	-
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	312	-	312
NON-ENERGY USE	-	-	1999	2732	-	-	-	-	-	-	4731
in industry/transf./energy	-	-	1999	2732	-	-	-	-	-	-	4731
of which: chem./petrochem.	-	-	1999	2732	-	-	-	-	-	-	4731
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	-	45555	-	-	-	-	-	-	45555
Electricity plants	-	-	-	45555	-	-	-	-	-	-	45555
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Romania

Figure 1. Energy production

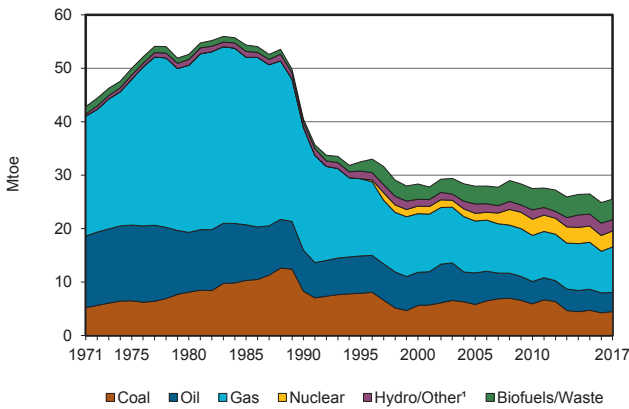


Figure 2. Total primary energy supply²

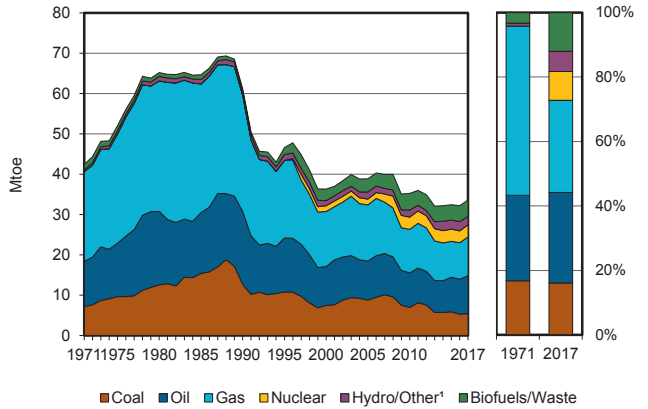


Figure 3. Energy self-sufficiency³

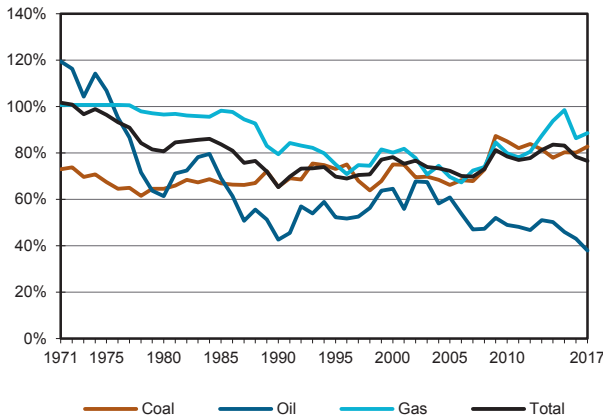


Figure 4. Oil products demand⁴

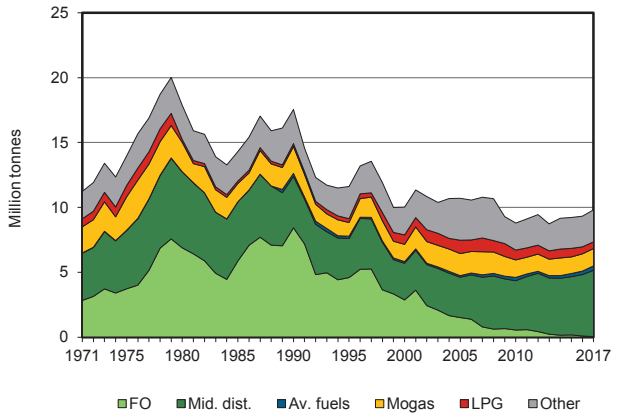


Figure 5. Electricity generation by source

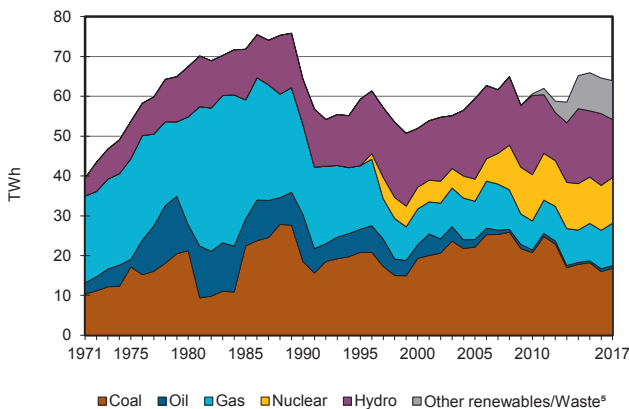
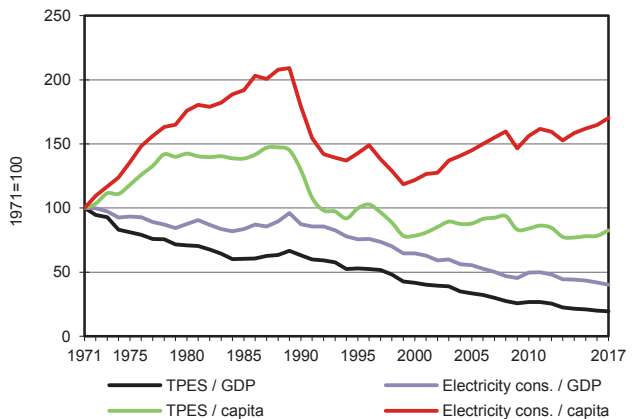


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Romania

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	4468	3568	-	8522	2999	1246	839	3854	-	-	25496
Imports	1001	8643	2539	953	-	-	-	275	416	-	13826
Exports	-1	-85	-5073	-21	-	-	-	-70	-665	-	-5914
Intl. marine bunkers	-	-	-28	-	-	-	-	-	-	-	-28
Intl. aviation bunkers	-	-	-300	-	-	-	-	-	-	-	-300
Stock changes	-69	184	-20	166	-	-	-	-11	-	-	251
TPES	5400	12310	-2882	9620	2999	1246	839	4048	-249	-	33331
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-24	-41	-259	-175	-	-	-	2	-12	38	-471
Electricity plants	-3443	-	-2	-996	-2999	-1246	-796	-29	4686	-	-4826
CHP plants	-1061	-	-198	-1619	-	-	-	-137	812	1373	-830
Heat plants	-9	-	-90	-323	-	-	-16	-28	-	408	-57
Blast furnaces	-223	-	-	-	-	-	-	-	-	-	-223
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-12419	12721	-	-	-	-	-	-	-	303
Petrochemical plants	-	71	-67	-	-	-	-	-	-	-	4
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	87	-	-97	-	-	-	-	-	-	-10
Energy industry own use	-31	-0	-890	-469	-	-	-	-12	-792	-275	-2470
Losses	-31	-1	-5	-77	-	-	-0	-0	-601	-280	-996
TFC	578	7	8329	5863	-	-	27	3844	3843	1264	23755
INDUSTRY	530	7	919	2181	-	-	1	380	1868	271	6158
Iron and steel	427	-	4	487	-	-	-	1	218	1	1139
Chemical and petrochemical	33	7	255	587	-	-	-	19	266	165	1332
Non-ferrous metals	-	-	-	-	-	-	-	-	289	-	289
Non-metallic minerals	60	-	317	270	-	-	-	113	228	7	994
Transport equipment	-	-	-	95	-	-	-	-	123	12	230
Machinery	-	-	15	148	-	-	1	4	211	13	392
Mining and quarrying	-	-	16	1	-	-	-	2	23	0	41
Food and tobacco	10	-	46	295	-	-	0	41	162	25	579
Paper pulp and printing	-	-	0	97	-	-	-	6	64	3	170
Wood and wood products	-	-	14	25	-	-	0	165	91	35	329
Construction	0	-	245	63	-	-	-	4	35	2	349
Textile and leather	-	-	2	97	-	-	0	1	59	4	163
Non-specified	-	-	5	17	-	-	0	25	100	5	151
TRANSPORT	-	-	5780	0	-	-	-	297	94	-	6171
Domestic aviation	-	-	44	-	-	-	-	-	-	-	44
Road	-	-	5579	-	-	-	-	297	3	-	5880
Rail	-	-	116	-	-	-	-	0	89	-	205
Pipeline transport	-	-	-	0	-	-	-	-	2	-	2
Domestic navigation	-	-	41	-	-	-	-	-	-	-	41
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	46	-	856	3339	-	-	26	3167	1882	992	10308
Residential	34	-	269	2421	-	-	3	3051	1083	805	7667
Comm. and public services	-	-	89	812	-	-	22	5	735	178	1840
Agriculture/forestry	12	-	297	106	-	-	0	6	64	10	494
Fishing	-	-	0	0	-	-	-	-	0	-	0
Non-specified	-	-	202	-	-	-	-	106	-	-	308
NON-ENERGY USE	1	-	774	343	-	-	-	-	-	-	1118
in industry/transf./energy	1	-	681	343	-	-	-	-	-	-	1024
of which: chem./petrochem.	-	-	36	343	-	-	-	-	-	-	379
in transport	-	-	77	-	-	-	-	-	-	-	77
in other	-	-	16	-	-	-	-	-	-	-	16
Electricity and Heat Output											
Electr. generated - GWh	16857	-	633	10656	11509	14494	9262	525	-	-	63937
Electricity plants	13797	-	10	5323	11509	14494	9262	102	-	-	54498
CHP plants	3061	-	623	5333	-	-	-	423	-	-	9439
Heat generated - TJ	16693	-	4940	49759	-	-	262	2937	-	-	74590
CHP plants	16400	-	1770	37205	-	-	-	2120	-	-	57494
Heat plants	293	-	3170	12554	-	-	262	817	-	-	17096

1. Includes peat.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Russian Federation

Figure 1. Energy production

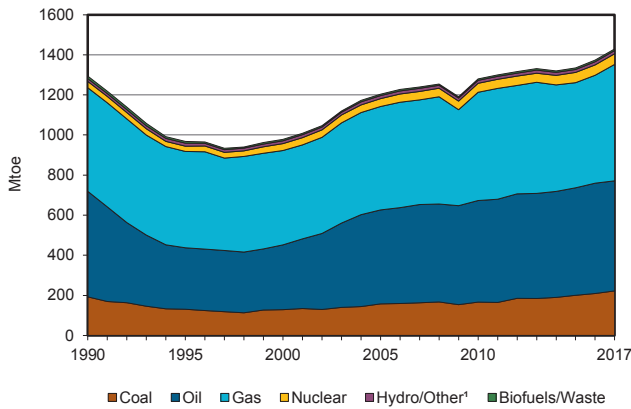


Figure 2. Total primary energy supply²

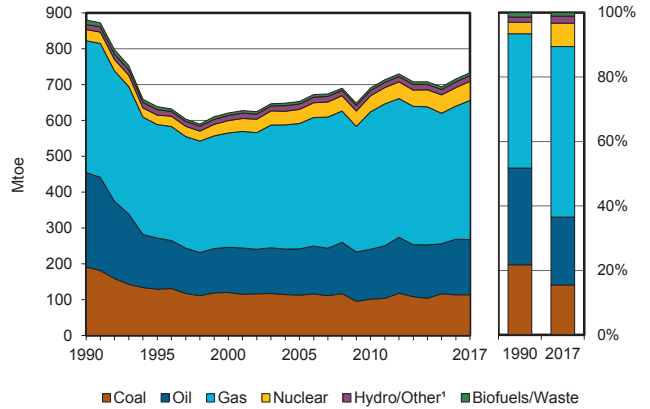


Figure 3. Energy self-sufficiency³

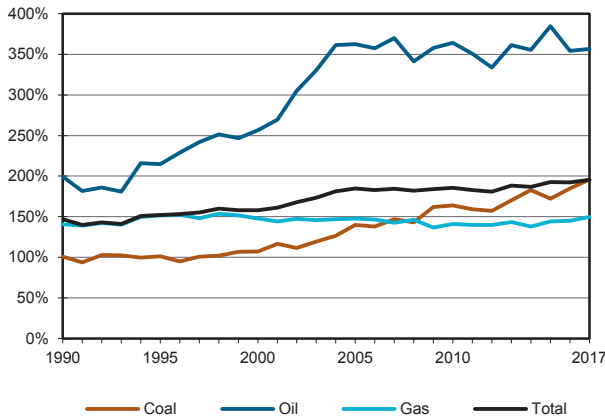


Figure 4. Oil products demand⁴

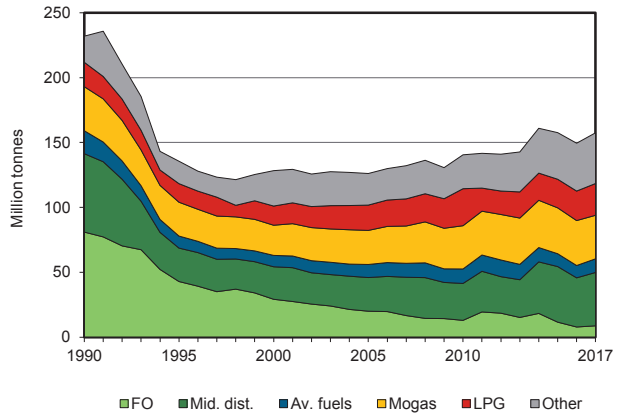


Figure 5. Electricity generation by source

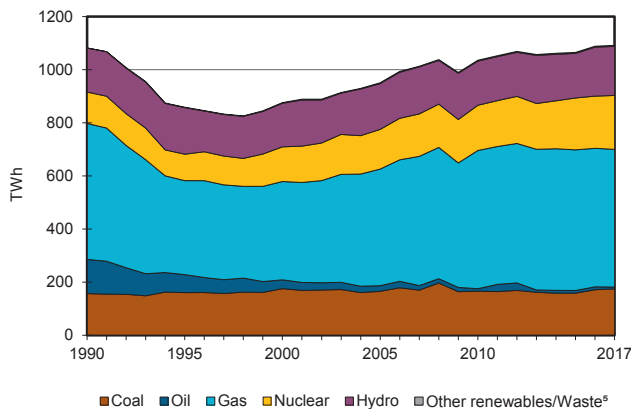
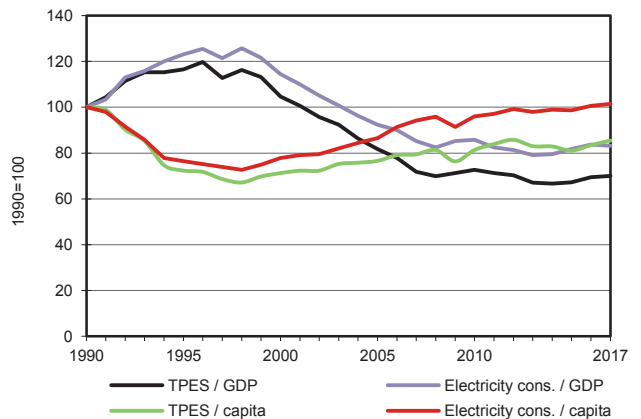


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Russian Federation

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	222233	548998	-	580954	53279	15908	165	7712	-	-	1429250
Imports	17218	625	1225	7217	-	-	-	5	551	-	26841
Exports	-120615	-254053	-127210	-187555	-	-	-	-30	-1462	-	-690926
Intl. marine bunkers	-	-	-11756	-	-	-	-	-	-	-	-11756
Intl. aviation bunkers	-	-	-5392	-	-	-	-	-	-	-	-5392
Stock changes	-5256	1626	-100	-12281	-	-	-	154	-	-	-15858
TPES	113581	297195	-143233	388334	53279	15908	165	7841	-911	-	732160
Transfers	-	-	-4	-	-	-	-	-	-	-	-4
Statistical differences	-7274	-	-4042	-1226	-	-	-	-	-	-	-12542
Electricity plants	-	-	-1123	-5074	-52931	-15908	-165	-	34782	-	-40419
CHP plants	-50310	-49	-1950	-148722	-349	-	-	-2197	59128	68396	-76053
Heat plants	-9282	-492	-3649	-45415	-	-	-	-2020	-323	58794	-2387
Blast furnaces	-8178	-	-	-	-	-	-	-	-	-	-8178
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-10063	-	-	-	-	-	-	-	-	-	-10063
Oil refineries	-	-290452	286992	-	-	-	-	-	-	-	-3460
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-2833	-	-	-	-84	-	-	-2918
Energy industry own use	-1603	-275	-12195	-13920	-	-	-	-149	-18200	-11643	-57985
Losses	-	-5901	-	-5848	-	-	-	-	-9051	-9405	-30205
TFC	26870	26	120796	165295	-	-	-	3391	65424	106142	487945
INDUSTRY	24185	14	15857	38003	-	-	-	1232	29130	41119	149540
Iron and steel	22901	-	323	12272	-	-	-	489	5256	6214	47455
Chemical and petrochemical	183	10	9624	6792	-	-	-	113	4052	11913	32687
Non-ferrous metals	-	-	-	-	-	-	-	-	7926	-	7926
Non-metallic minerals	860	0	135	9408	-	-	-	29	1568	2289	14289
Transport equipment	32	-	183	555	-	-	-	1	1177	2026	3972
Machinery	19	-	144	1298	-	-	-	0	1706	6968	10136
Mining and quarrying	60	-	1424	1504	-	-	-	31	2399	752	6170
Food and tobacco	106	4	691	1298	-	-	-	77	1506	4265	7947
Paper pulp and printing	0	-	88	456	-	-	-	64	1371	3971	5950
Wood and wood products	-	-	158	229	-	-	-	422	394	1117	2319
Construction	20	-	643	4070	-	-	-	3	1093	527	6356
Textile and leather	0	-	16	63	-	-	-	1	164	962	1207
Non-specified	3	-	2428	58	-	-	-	2	520	115	3126
TRANSPORT	-	-	58927	30261	-	-	-	-	6671	-	95859
Domestic aviation	-	-	5402	-	-	-	-	-	-	-	5402
Road	-	-	50235	237	-	-	-	-	-	-	50472
Rail	-	-	1965	-	-	-	-	-	4369	-	6334
Pipeline transport	-	-	184	30009	-	-	-	-	1846	-	32039
Domestic navigation	-	-	430	-	-	-	-	-	-	-	430
Non-specified	-	-	711	15	-	-	-	-	456	-	1182
OTHER	2564	12	16432	57375	-	-	-	2159	29623	65023	173187
Residential	1547	-	10427	53570	-	-	-	892	14314	43834	124584
Comm. and public services	964	-	2487	2476	-	-	-	1148	13746	18483	39304
Agriculture/forestry	52	11	2876	1327	-	-	-	119	1539	2690	8614
Fishing	0	-	643	1	-	-	-	0	24	16	684
Non-specified	-	1	-	-	-	-	-	-	-	-	1
NON-ENERGY USE	122	-	29580	39657	-	-	-	-	-	-	69359
in industry/transf./energy	122	-	29580	39657	-	-	-	-	-	-	69359
of which: chem./petrochem.	122	-	18330	39657	-	-	-	-	-	-	58109
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	174568	34	6942	518660	203143	185013	1133	2678	-	-	1092171
Electricity plants	-	-	3631	11597	203143	185013	1133	-	-	-	404517
CHP plants	174568	34	3310	507063	-	-	-	2678	-	-	687653
Heat generated - TJ	998247	17684	153460	3640042	14593	-	373030	114769	13366	-	5325192
CHP plants	671399	58	40610	2091001	14593	-	-	45928	-	-	2863590
Heat plants	326848	17626	112850	1549041	-	-	373030	68841	13366	-	2461602

1. Includes peat.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Saudi Arabia

Figure 1. Energy production

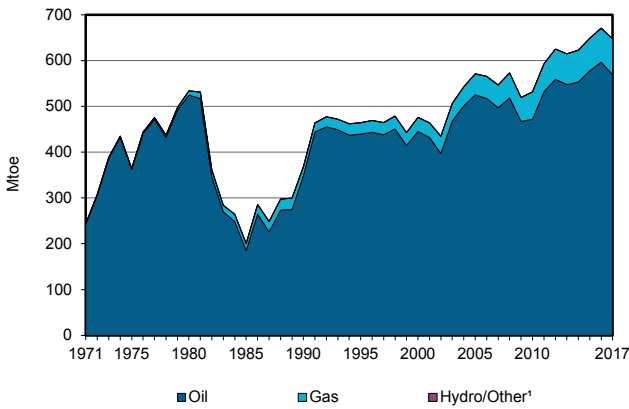


Figure 2. Total primary energy supply²

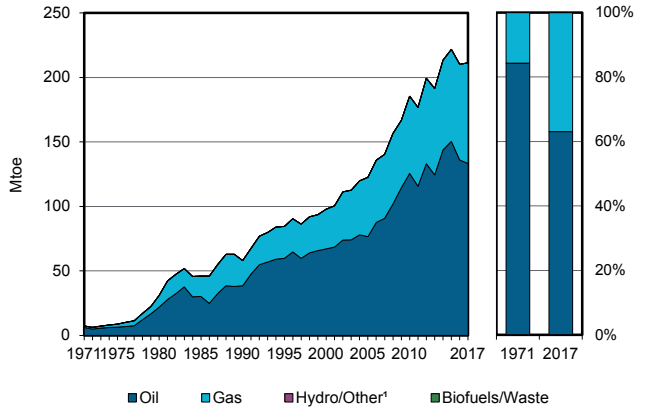


Figure 3. Energy self-sufficiency³

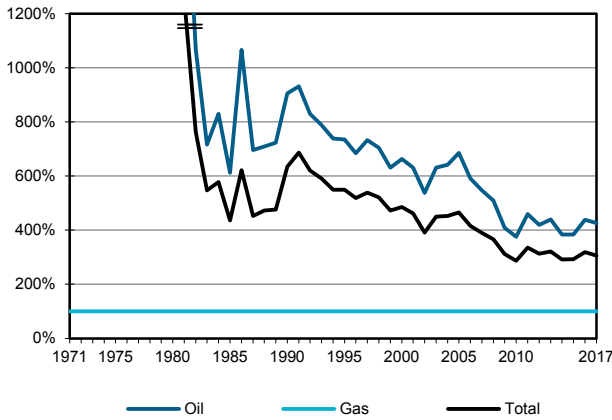


Figure 4. Oil products demand⁴

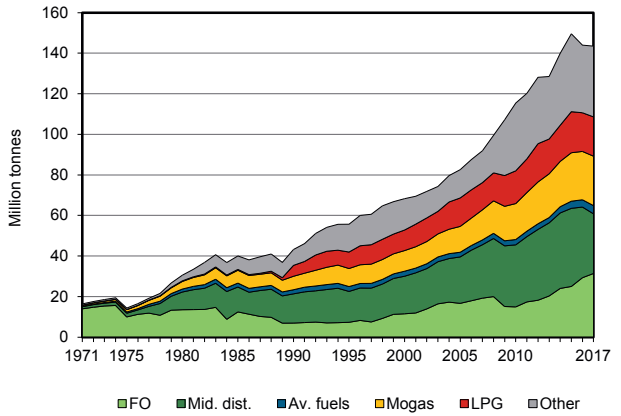


Figure 5. Electricity generation by source

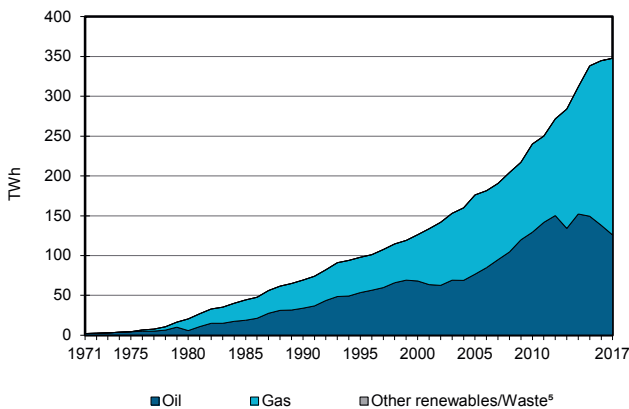
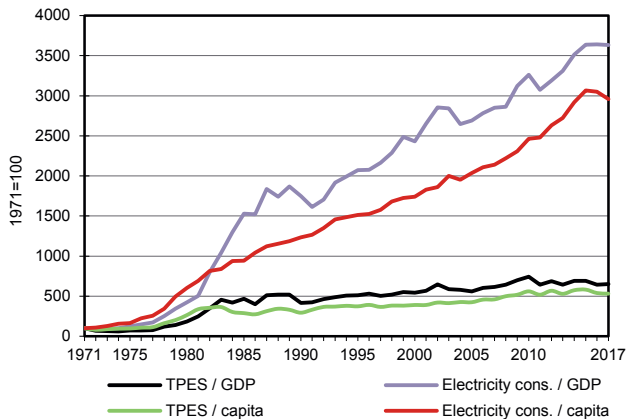


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency. Maximum scale refers to values greater than or equal to 1200%.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Saudi Arabia

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	568727	-	78009	-	-	13	-	-	-	646750
Imports	-	-	25253	-	-	-	-	7	-	-	25260
Exports	-	-353804	-96855	-	-	-	-	-	-	-	-450659
Intl. marine bunkers	-	-	-3193	-	-	-	-	-	-	-	-3193
Intl. aviation bunkers	-	-	-3271	-	-	-	-	-	-	-	-3271
Stock changes	-	-3831	264	-	-	-	-	-	-	-	-3567
TPES	-	211092	-77802	78009	-	-	13	7	-	-	211321
Transfers	-	-54410	57334	-	-	-	-	-	-	-	2924
Statistical differences	-	6022	1166	-	-	-	-	-	-1467	-	5721
Electricity plants	-	-24353	-15563	-52345	-	-	-13	-	29910	-	-62365
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-136032	135190	-	-	-	-	-	-	-	-841
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-	-1	-8155	-3120	-	-	-	-	-1985	-	-13262
Losses	-	-	-	-	-	-	-	-	-2788	-	-2788
TFC	-	2318	92170	22544	-	-	-	7	23670	-	140710
INDUSTRY	-	2318	24599	17397	-	-	-	-	2880	-	47194
Iron and steel	-	-	-	-	-	-	-	-	312	-	312
Chemical and petrochemical	-	-	-	-	-	-	-	-	662	-	662
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	34	-	34
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	20	-	20
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	2318	24599	17397	-	-	-	-	1853	-	46167
TRANSPORT	-	-	41790	-	-	-	-	-	-	-	41790
Domestic aviation	-	-	1045	-	-	-	-	-	-	-	1045
Road	-	-	40745	-	-	-	-	-	-	-	40745
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	1783	-	-	-	-	7	20790	-	22580
Residential	-	-	1783	-	-	-	-	7	12301	-	14091
Comm. and public services	-	-	-	-	-	-	-	-	8458	-	8458
Agriculture/forestry	-	-	-	-	-	-	-	-	-	-	-
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	31	-	31
NON-ENERGY USE	-	-	23998	5147	-	-	-	-	-	-	29145
in industry/transf./energy	-	-	23998	5147	-	-	-	-	-	-	29145
of which: chem./petrochem.	-	-	20698	5147	-	-	-	-	-	-	25845
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	82463	43397	221836	-	-	155	-	-	-	347852
Electricity plants	-	82463	43397	221836	-	-	155	-	-	-	347852
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Senegal

Figure 1. Energy production

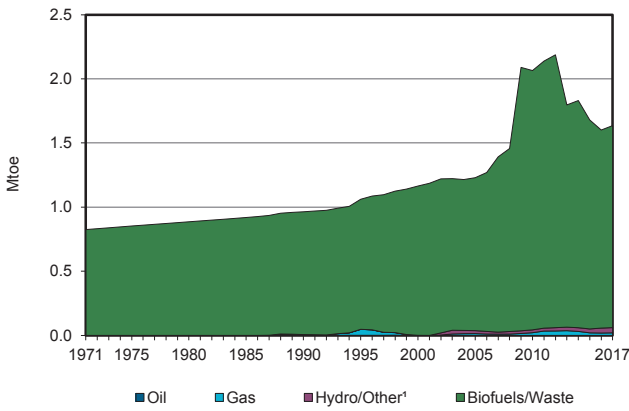


Figure 2. Total primary energy supply²

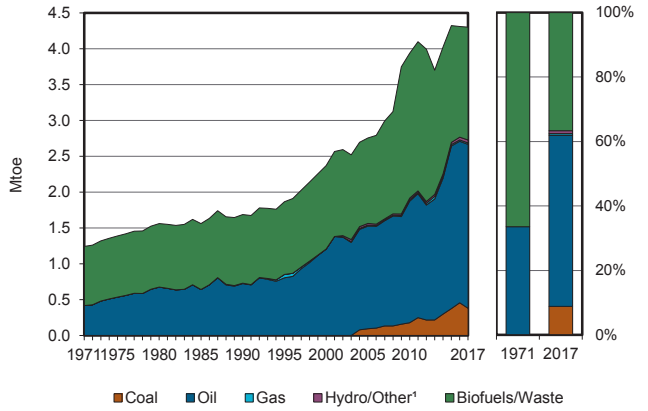


Figure 3. Energy self-sufficiency³

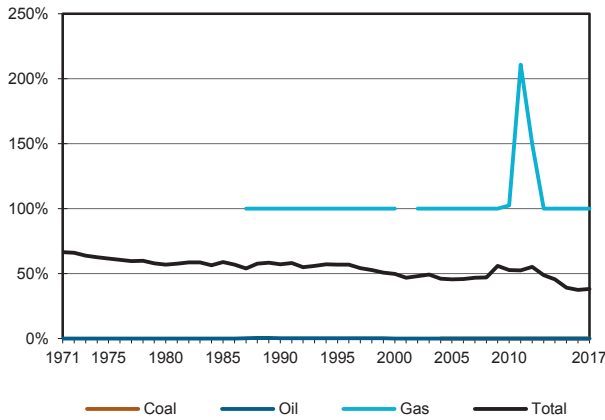


Figure 4. Oil products demand⁴

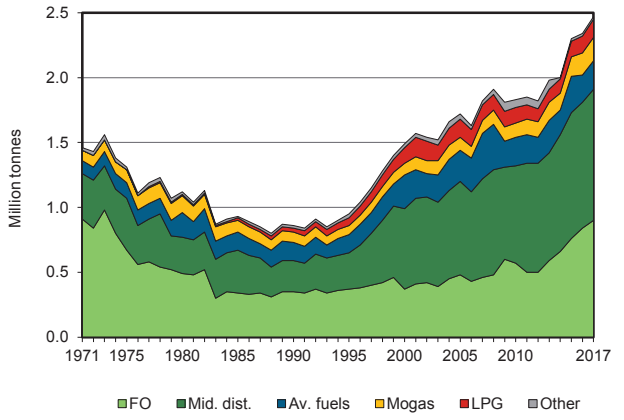


Figure 5. Electricity generation by source

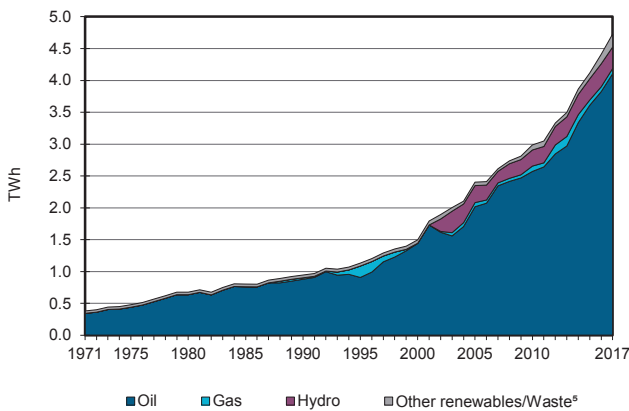
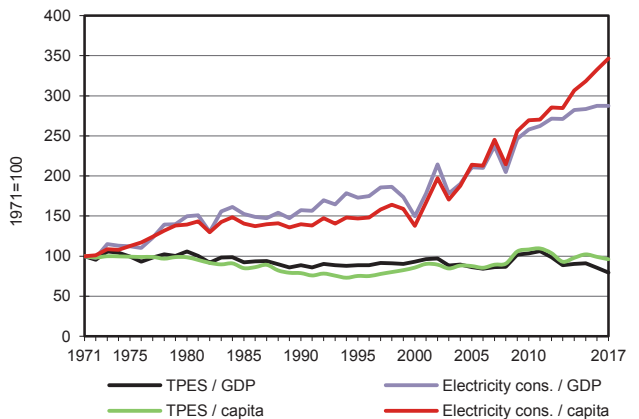


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Senegal

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	20	-	29	12	1575	-	12	1648
Imports	379	1268	2133	-	-	-	-	-	-	-	3780
Exports	-	-	-834	-	-	-	-	-	-	-	-834
Intl. marine bunkers	-	-	-120	-	-	-	-	-	-	-	-120
Intl. aviation bunkers	-	-	-233	-	-	-	-	-	-	-	-233
Stock changes	-	74	-	-	-	-	-	-	-	-	74
TPES	379	1342	945	20	-	29	12	1575	-	12	4314
Transfers	-	-	-0	-	-	-	-	-	-	-	-0
Statistical differences	-	1	0	-	-	-	-	4	-4	-	1
Electricity plants	-115	-	-792	-20	-	-29	-12	-67	411	-12	-636
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-1343	1239	-	-	-	-	-	-	-	-103
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-387	-	-	-387
Energy industry own use	-	-	-28	-	-	-	-	-	-5	-	-33
Losses	-	-	-	-	-	-	-	-	-62	-	-62
TFC	265	-	1364	-	-	-	-	1124	340	-	3093
INDUSTRY	265	-	159	-	-	-	-	32	99	-	554
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	3	-	-	-	-	-	30	-	33
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	265	-	13	-	-	-	-	-	50	-	328
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	26	-	-	26
Food and tobacco	-	-	0	-	-	-	-	6	17	-	23
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	0	-	0
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	142	-	-	-	-	-	2	-	144
TRANSPORT	-	-	1036	-	-	-	-	-	-	-	1036
Domestic aviation	-	-	0	-	-	-	-	-	-	-	0
Road	-	-	985	-	-	-	-	-	-	-	985
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	52	-	-	-	-	-	-	-	52
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	168	-	-	-	-	1093	241	-	1502
Residential	-	-	153	-	-	-	-	1093	99	-	1345
Comm. and public services	-	-	6	-	-	-	-	-	87	-	93
Agriculture/forestry	-	-	-	-	-	-	-	-	10	-	10
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	9	-	-	-	-	-	46	-	54
NON-ENERGY USE	-	-	-	-	-	-	-	-	-	-	-
in industry/transf./energy	-	-	-	-	-	-	-	-	-	-	-
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	4106	81	-	337	137	68	-	47	4776
Electricity plants	-	-	4106	81	-	337	137	68	-	47	4776
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	513	513
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	513	513

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Serbia

Figure 1. Energy production

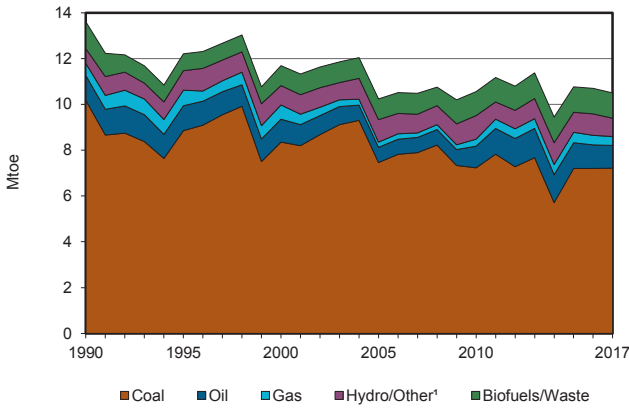


Figure 2. Total primary energy supply²

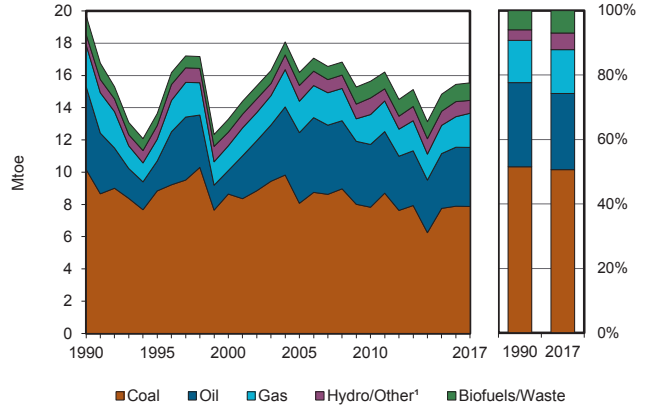


Figure 3. Energy self-sufficiency³

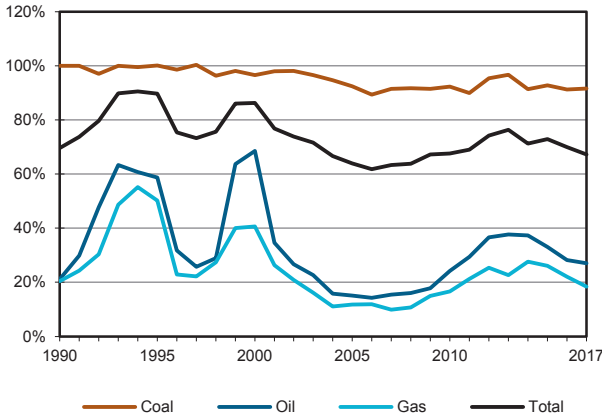


Figure 4. Oil products demand⁴

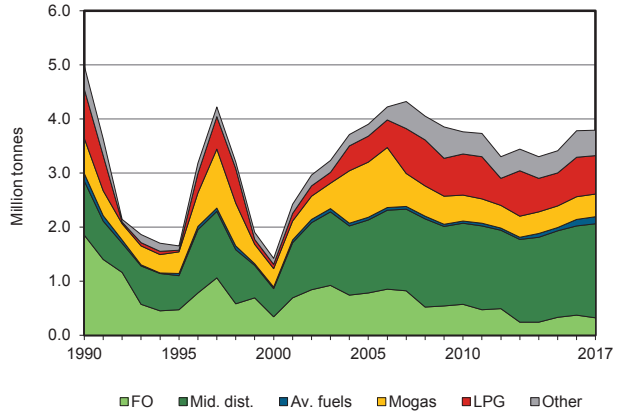


Figure 5. Electricity generation by source

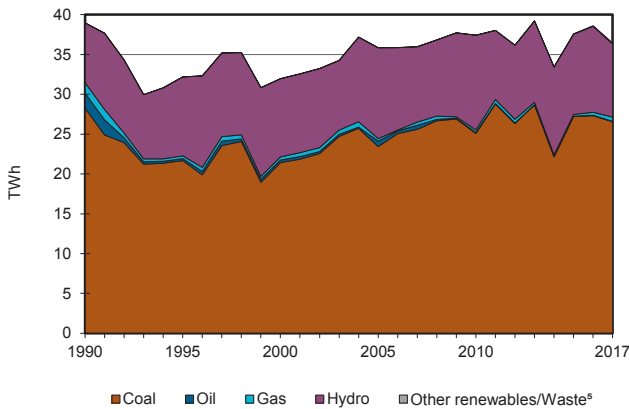
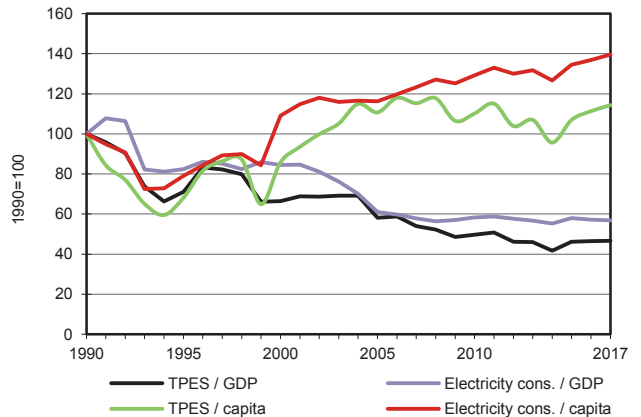


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Serbia

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	7216	990	-	389	-	787	11	1104	-	-	10498
Imports	686	2691	1029	1738	-	-	-	36	563	-	6744
Exports	-17	-6	-848	-	-	-	-	-63	-492	-	-1425
Intl. marine bunkers	-	-	-15	-	-	-	-	-	-	-	-15
Intl. aviation bunkers	-	-	-132	-	-	-	-	-	-	-	-132
Stock changes	-11	-11	-37	-10	-	-	-	10	-	-	-60
TPES	7874	3664	-3	2117	-	787	11	1087	71	-	15609
Transfers	-	-5	9	-	-	-	-	-	-	-	4
Statistical differences	-59	21	2	-	-	-	-0	-	-	-	-36
Electricity plants	-3358	-	-	-	-	-787	-5	-	1995	-	-2155
CHP plants	-3420	-	-68	-161	-	-	-	-12	1138	258	-2265
Heat plants	-106	-	-117	-486	-	-	-	-2	-	628	-84
Blast furnaces	-255	-	-	-	-	-	-	-	-	-	-255
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	14	-	-	-	-	-	-	-	-	-	14
Oil refineries	-	-3901	3683	-	-	-	-	-	-	-	-218
Petrochemical plants	-	154	-157	-	-	-	-	-	-	-	-3
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	66	-	-98	-	-	-	-26	-	-	-58
Energy industry own use	-	-	-135	-162	-	-	-	-	-373	-52	-721
Losses	-61	-	-	-29	-	-	-0	-0	-413	-83	-586
TFC	629	-	3214	1182	-	-	5	1047	2418	751	9246
INDUSTRY	352	-	308	543	-	-	-	186	722	214	2326
Iron and steel	146	-	0	87	-	-	-	-	79	14	327
Chemical and petrochemical	56	-	60	158	-	-	-	6	108	86	474
Non-ferrous metals	-	-	7	20	-	-	-	3	38	10	78
Non-metallic minerals	84	-	124	75	-	-	-	6	65	1	355
Transport equipment	0	-	7	26	-	-	-	0	22	1	56
Machinery	8	-	33	13	-	-	-	23	56	1	135
Mining and quarrying	-	-	15	0	-	-	-	0	39	-	55
Food and tobacco	16	-	35	113	-	-	-	59	140	51	413
Paper pulp and printing	17	-	2	28	-	-	-	5	43	18	114
Wood and wood products	0	-	1	1	-	-	-	19	11	0	32
Construction	1	-	16	-	-	-	-	-	29	-	46
Textile and leather	6	-	5	10	-	-	-	23	32	1	78
Non-specified	19	-	2	11	-	-	-	41	58	30	161
TRANSPORT	-	-	2055	4	-	-	-	-	32	-	2092
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	2038	2	-	-	-	-	-	-	2041
Rail	-	-	10	-	-	-	-	-	32	-	42
Pipeline transport	-	-	-	2	-	-	-	-	-	-	2
Domestic navigation	-	-	7	-	-	-	-	-	-	-	7
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	273	-	245	396	-	-	5	861	1664	537	3980
Residential	229	-	46	191	-	-	-	804	1188	395	2852
Comm. and public services	44	-	66	187	-	-	2	51	446	142	938
Agriculture/forestry	0	-	133	18	-	-	3	6	29	-	190
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	4	-	606	238	-	-	-	-	-	-	848
in industry/transf./energy	4	-	594	238	-	-	-	-	-	-	836
of which: chem./petrochem.	-	-	406	238	-	-	-	-	-	-	644
in transport	-	-	12	-	-	-	-	-	-	-	12
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	26554	-	48	549	-	9153	62	80	-	-	36447
Electricity plants	13992	-	-	-	-	9153	62	-	-	-	23207
CHP plants	12562	-	48	549	-	-	-	80	-	-	13240
Heat generated - TJ	8991	-	6520	21438	-	-	-	140	-	-	37089
CHP plants	5164	-	2672	2899	-	-	-	68	-	-	10803
Heat plants	3827	-	3848	18539	-	-	-	72	-	-	26286

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

South Sudan

Figure 1. Energy production

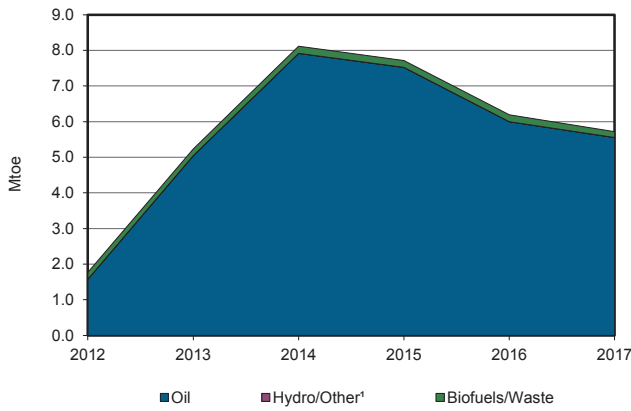


Figure 2. Total primary energy supply²

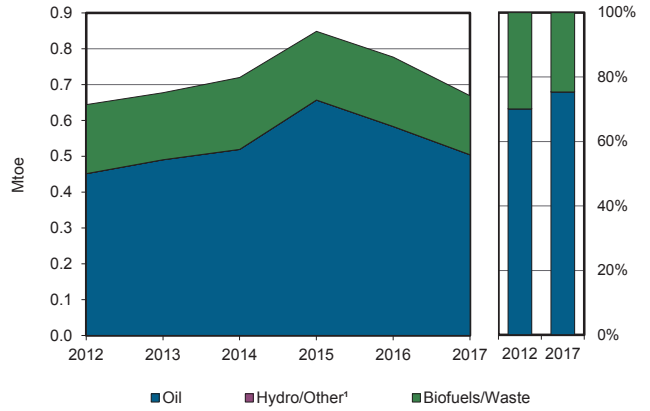


Figure 3. Energy self-sufficiency³

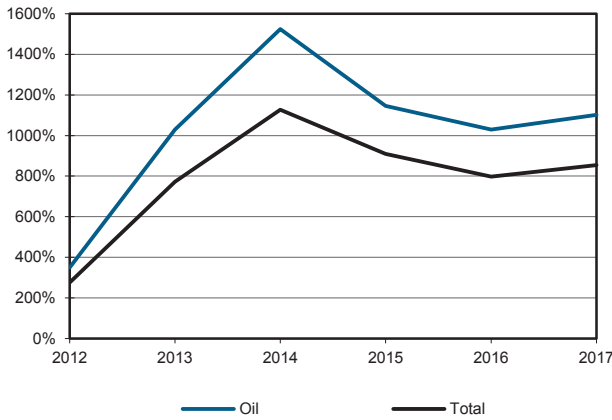


Figure 4. Oil products demand⁴

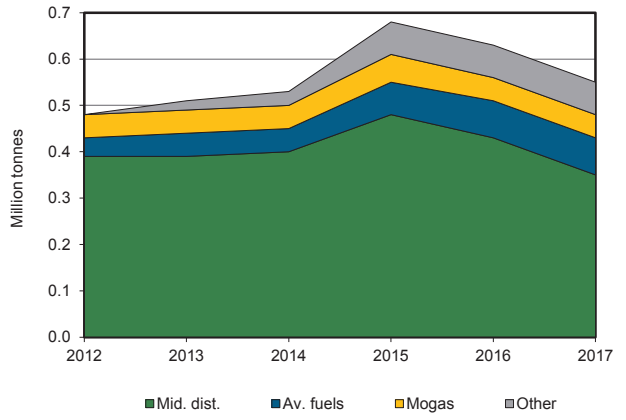


Figure 5. Electricity generation by source

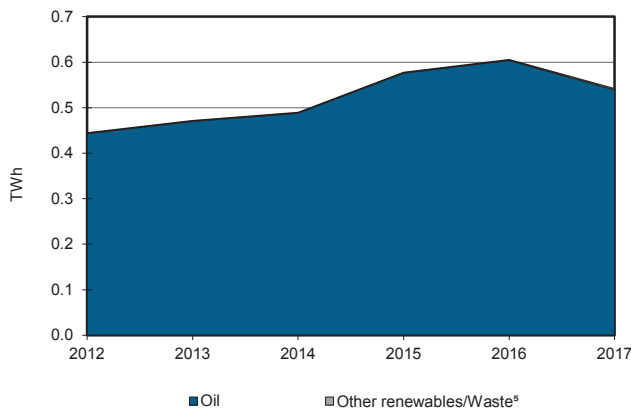
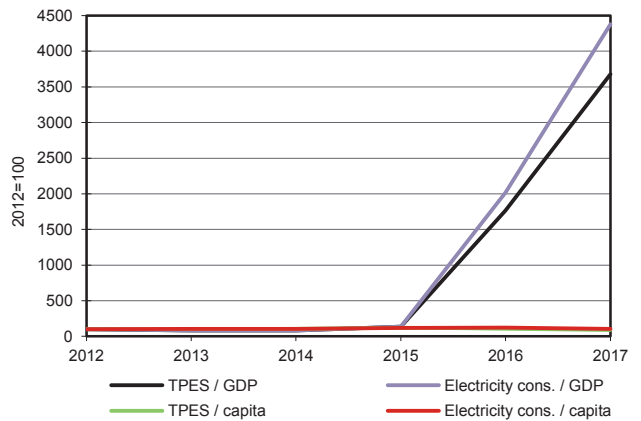


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

South Sudan

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	5552	-	-	-	-	0	165	-	-	5717
Imports	-	-	498	-	-	-	-	-	-	-	498
Exports	-	-5480	-	-	-	-	-	-	-	-	-5480
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-66	-	-	-	-	-	-	-	-66
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	-	72	432	-	-	-	0	165	-	-	669
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	3	-	-	-	-	-2	-0	-	0
Electricity plants	-	-	-135	-	-	-	-0	-	47	-	-89
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-30	-	-	-30
Energy industry own use	-	-72	-	-	-	-	-	-0	-1	-	-73
Losses	-	-0	-2	-	-	-	-	-1	-2	-	-5
TFC	-	-	298	-	-	-	-	132	43	-	472
INDUSTRY	-	-	17	-	-	-	-	-	17	-	34
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	17	-	-	-	-	-	17	-	34
TRANSPORT	-	-	253	-	-	-	-	-	-	-	253
Domestic aviation	-	-	17	-	-	-	-	-	-	-	17
Road	-	-	236	-	-	-	-	-	-	-	236
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	28	-	-	-	-	132	26	-	186
Residential	-	-	3	-	-	-	-	126	19	-	147
Comm. and public services	-	-	3	-	-	-	-	6	2	-	11
Agriculture/forestry	-	-	22	-	-	-	-	0	6	-	28
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	-	-	-	-	-	-	-	-	-
in industry/transf./energy	-	-	-	-	-	-	-	-	-	-	-
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	539	-	-	-	3	-	-	-	542
Electricity plants	-	-	539	-	-	-	3	-	-	-	542
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Sri Lanka

Figure 1. Energy production

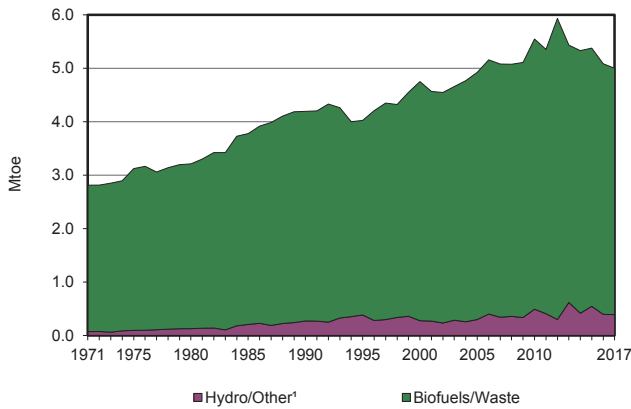


Figure 2. Total primary energy supply²

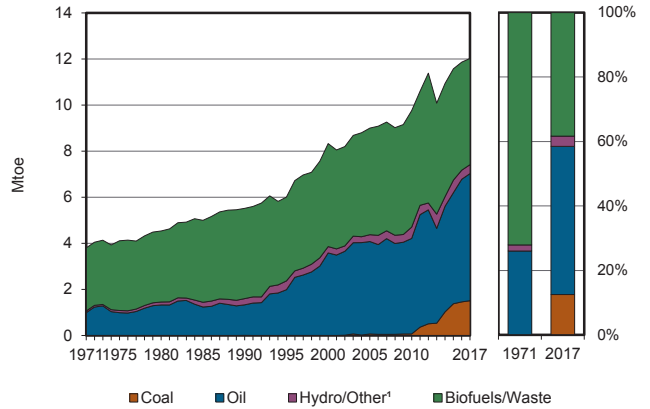


Figure 3. Energy self-sufficiency³

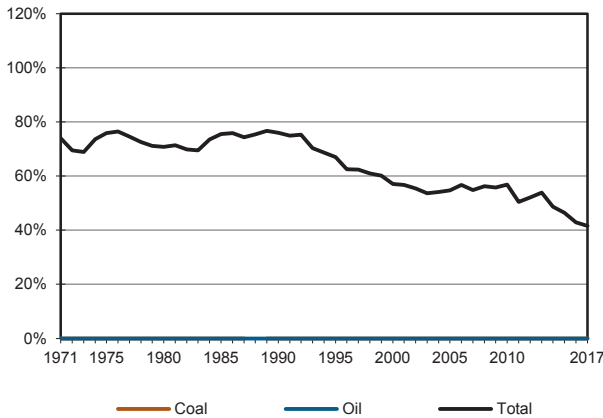


Figure 4. Oil products demand⁴

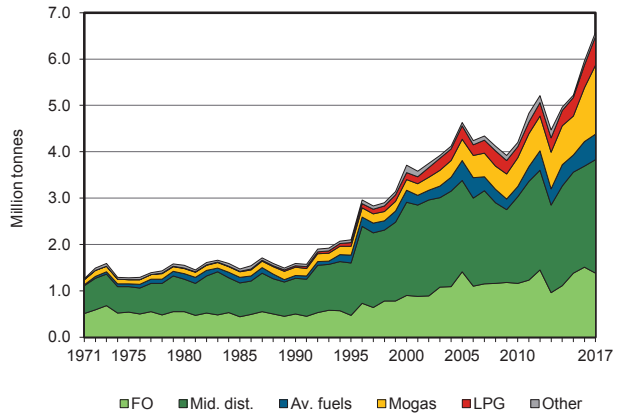


Figure 5. Electricity generation by source

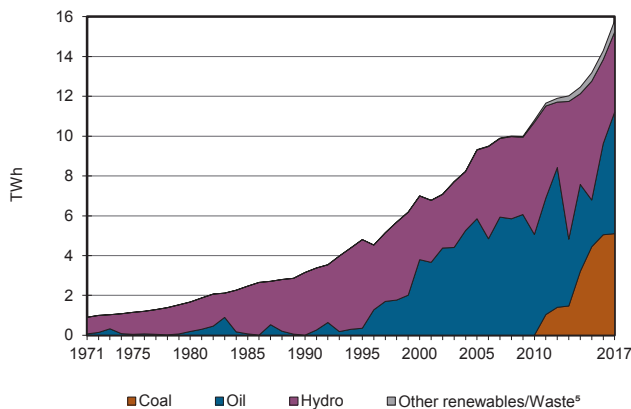
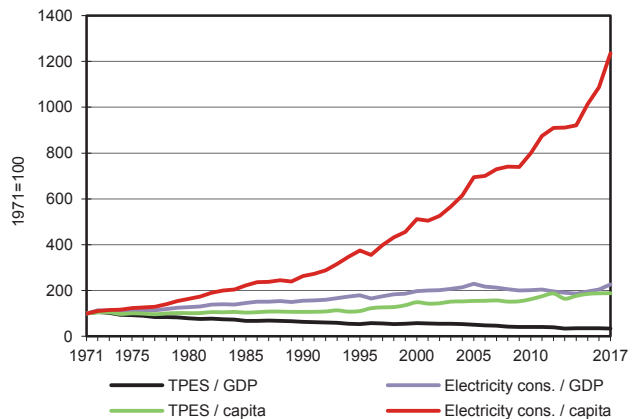


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Sri Lanka

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	346	44	4608	-	-	4997
Imports	1769	1544	3976	-	-	-	-	-	-	-	7289
Exports	-	-	-	-	-	-	-	-	-	-	-
Intl. marine bunkers	-	-	-565	-	-	-	-	-	-	-	-565
Intl. aviation bunkers	-	-	-567	-	-	-	-	-	-	-	-567
Stock changes	-260	-60	1189	-	-	-	-	-	-	-	870
TPES	1510	1485	4033	-	-	346	44	4608	-	-	12024
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	211	67	-	-	-	-	0	-108	-	170
Electricity plants	-1461	-	-1310	-	-	-346	-44	-44	1359	-	-1845
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-1695	1635	-	-	-	-	-	-	-	-60
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-19	-	-	-19
Energy industry own use	-	-	-15	-	-	-	-	-	-56	-	-71
Losses	-	-	-	-	-	-	-	-	-46	-	-46
TFC	49	-	4409	-	-	-	-	4545	1150	-	10153
INDUSTRY	49	-	173	-	-	-	-	1853	372	-	2447
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	49	-	-	-	-	-	-	-	-	-	49
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	173	-	-	-	-	1853	372	-	2398
TRANSPORT	-	-	3645	-	-	-	-	-	-	-	3645
Domestic aviation	-	-	10	-	-	-	-	-	-	-	10
Road	-	-	3528	-	-	-	-	-	-	-	3528
Rail	-	-	40	-	-	-	-	-	-	-	40
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	67	-	-	-	-	-	-	-	67
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	522	-	-	-	-	2693	777	-	3992
Residential	-	-	288	-	-	-	-	2578	469	-	3336
Comm. and public services	-	-	71	-	-	-	-	114	309	-	493
Agriculture/forestry	-	-	0	-	-	-	-	-	-	-	0
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	163	-	-	-	-	-	-	-	163
NON-ENERGY USE	-	-	70	-	-	-	-	-	-	-	70
in industry/transf./energy	-	-	68	-	-	-	-	-	-	-	68
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	2	-	-	-	-	-	-	-	2
Electricity and Heat Output											
Electr. generated - GWh	5103	-	6107	-	-	4021	506	67	-	-	15804
Electricity plants	5103	-	6107	-	-	4021	506	67	-	-	15804
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Sudan

Figure 1. Energy production

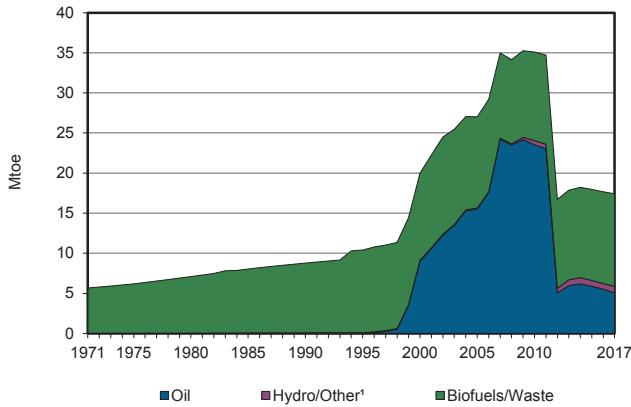


Figure 2. Total primary energy supply²

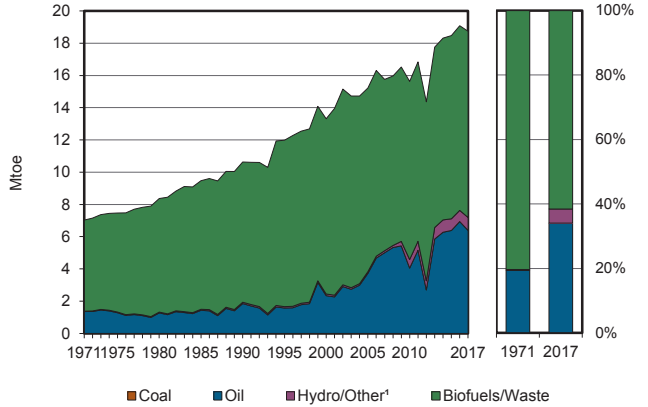


Figure 3. Energy self-sufficiency³

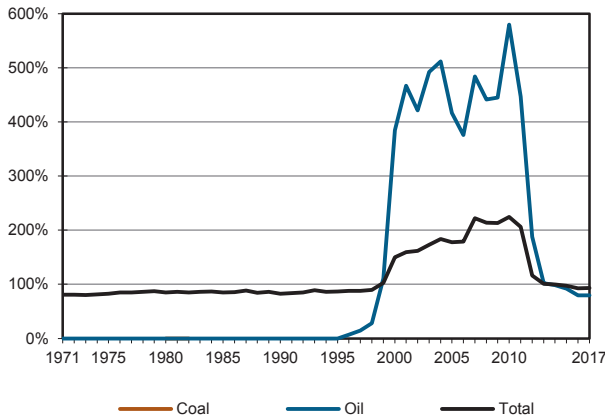


Figure 4. Oil products demand⁴

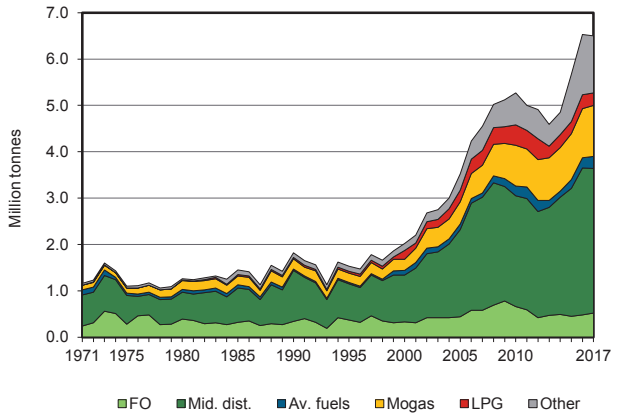


Figure 5. Electricity generation by source

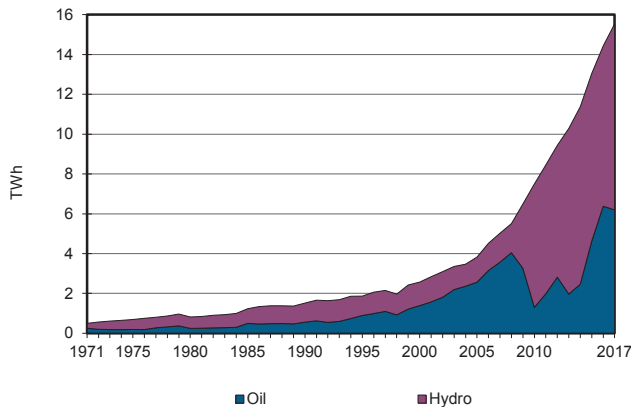
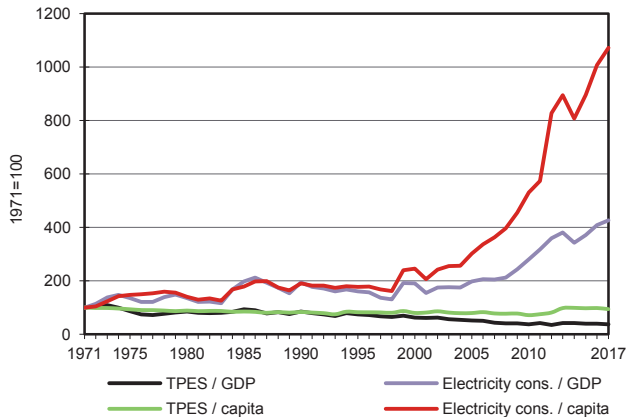


Figure 6. Selected indicators⁵



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. GDP in 2010 USD.

Sudan

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	5069	-	-	-	804	-	11543	-	-	17416
Imports	-	733	1443	-	-	-	-	-	-	-	2176
Exports	-	-320	-285	-	-	-	-	-	-	-	-605
Intl. marine bunkers	-	-	-28	-	-	-	-	-	-	-	-28
Intl. aviation bunkers	-	-	-224	-	-	-	-	-	-	-	-224
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	-	5482	906	-	-	804	-	11543	-	-	18735
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-301	439	-	-	-	-	-	258	-	396
Electricity plants	-	-737	-844	-	-	-804	-	-	1336	-	-1048
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-4444	4350	-	-	-	-	-	-	-	-94
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-4675	-	-	-4675
Energy industry own use	-	-	-57	-	-	-	-	-	-20	-	-77
Losses	-	-	-	-	-	-	-	-	-366	-	-366
TFC	-	-	4794	-	-	-	-	6869	1208	-	12871
INDUSTRY	-	-	430	-	-	-	-	740	172	-	1342
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	29	-	-	-	-	-	-	-	29
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	194	-	-	-	-	-	-	-	194
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	53	-	-	-	-	-	-	-	53
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	154	-	-	-	-	740	172	-	1067
TRANSPORT	-	-	3677	-	-	-	-	-	-	-	3677
Domestic aviation	-	-	58	-	-	-	-	-	-	-	58
Road	-	-	3589	-	-	-	-	-	-	-	3589
Rail	-	-	26	-	-	-	-	-	-	-	26
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	4	-	-	-	-	-	-	-	4
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	379	-	-	-	-	6129	1035	-	7543
Residential	-	-	135	-	-	-	-	4687	632	-	5454
Comm. and public services	-	-	87	-	-	-	-	1442	328	-	1857
Agriculture/forestry	-	-	82	-	-	-	-	-	75	-	158
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	74	-	-	-	-	-	-	-	74
NON-ENERGY USE	-	-	308	-	-	-	-	-	-	-	308
in industry/transf./energy	-	-	308	-	-	-	-	-	-	-	308
of which: chem./petrochem.	-	-	4	-	-	-	-	-	-	-	4
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	2573	3622	-	-	9347	-	-	-	-	15542
Electricity plants	-	2573	3622	-	-	9347	-	-	-	-	15542
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Suriname

Figure 1. Energy production

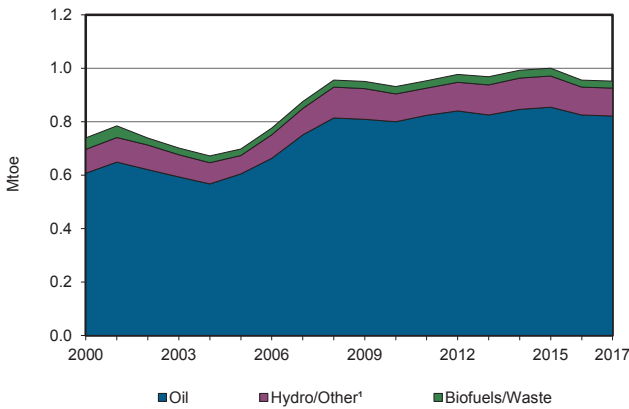


Figure 2. Total primary energy supply²

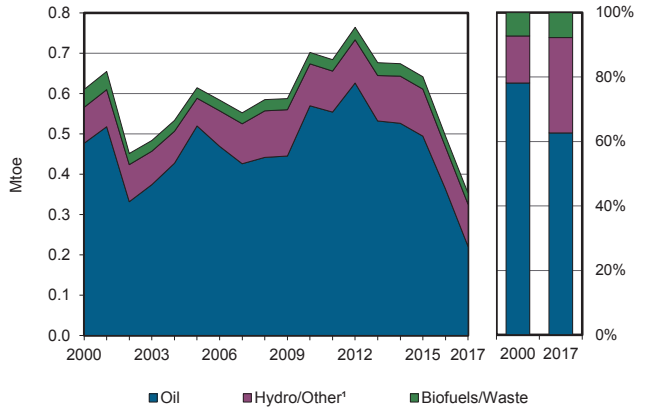


Figure 3. Energy self-sufficiency³

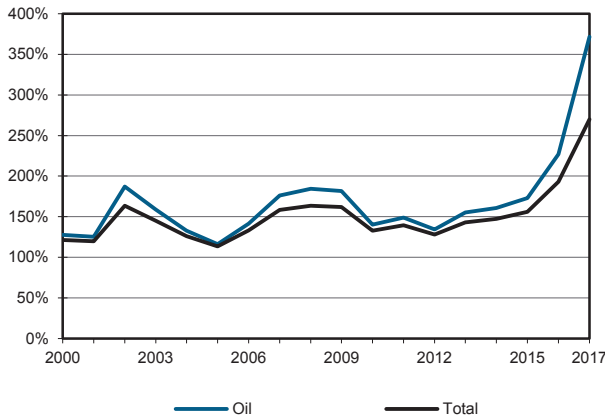


Figure 4. Oil products demand⁴

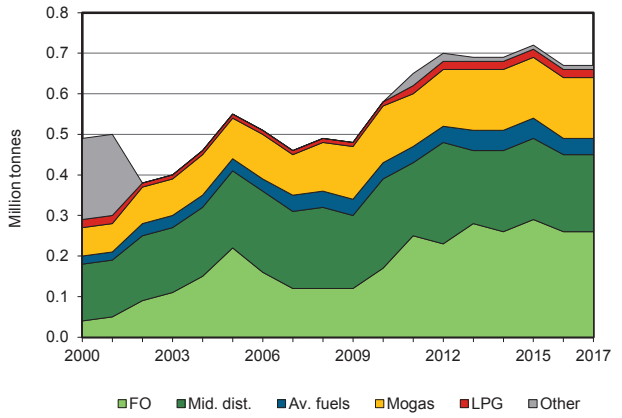


Figure 5. Electricity generation by source

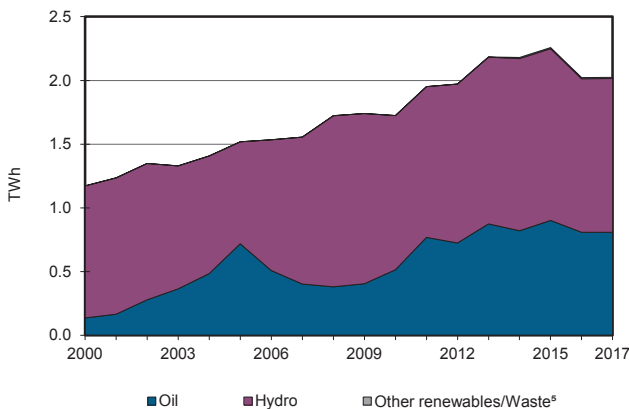
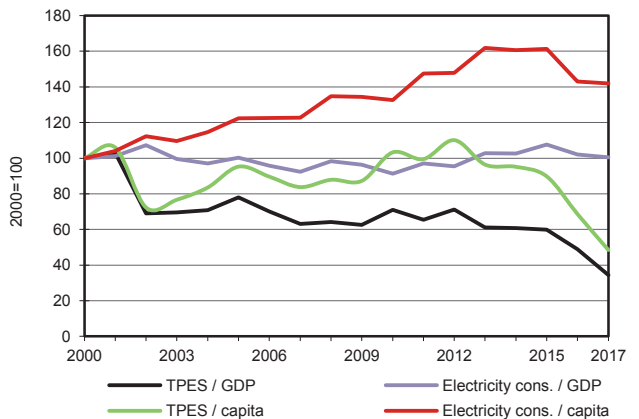


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
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3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Suriname

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	821	-	-	-	104	1	26	-	-	951
Imports	-	-	404	-	-	-	-	1	-	-	406
Exports	-	-	-958	-	-	-	-	-	-	-	-958
Intl. marine bunkers	-	-	-47	-	-	-	-	-	-	-	-47
Intl. aviation bunkers	-	-	-	-	-	-	-	-	-	-	-
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	-	821	-600	-	-	104	1	27	-	-	353
Transfers	-	-436	546	-	-	-	-	-	-	-	110
Statistical differences	-	308	-	-	-	-	-	-	-0	-	308
Electricity plants	-	-	-248	-	-	-104	-1	-	174	-	-178
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-690	680	-	-	-	-	-	-	-	-10
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-	-3	-3	-	-	-	-	-	-3	-	-9
Losses	-	-	-	-	-	-	-	-	-19	-	-19
TFC	-	-	374	-	-	-	-	27	152	-	554
INDUSTRY	-	-	22	-	-	-	-	4	73	-	100
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	8	-	-	-	-	-	-	-	8
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	14	-	-	-	-	4	73	-	91
TRANSPORT	-	-	218	-	-	-	-	-	-	-	218
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	140	-	-	-	-	-	-	-	140
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	78	-	-	-	-	-	-	-	78
OTHER	-	-	129	-	-	-	-	23	79	-	232
Residential	-	-	16	-	-	-	-	23	51	-	90
Comm. and public services	-	-	9	-	-	-	-	0	28	-	38
Agriculture/forestry	-	-	104	-	-	-	-	-	-	-	104
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	5	-	-	-	-	-	-	-	5
in industry/transf./energy	-	-	-	-	-	-	-	-	-	-	-
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	5	-	-	-	-	-	-	-	5
Electricity and Heat Output											
Electr. generated - GWh	-	-	808	-	-	1207	9	-	-	-	2024
Electricity plants	-	-	808	-	-	1207	9	-	-	-	2024
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Syrian Arab Republic

Figure 1. Energy production

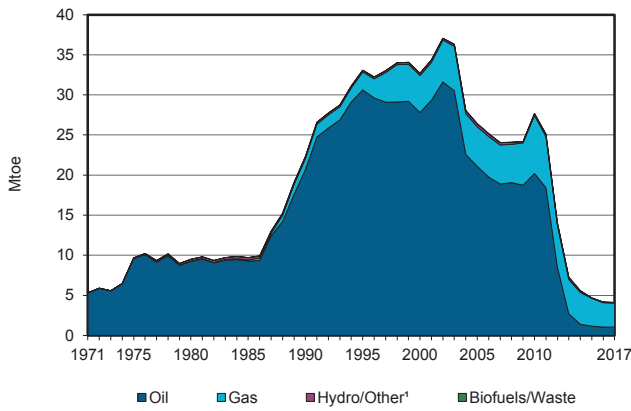


Figure 2. Total primary energy supply²

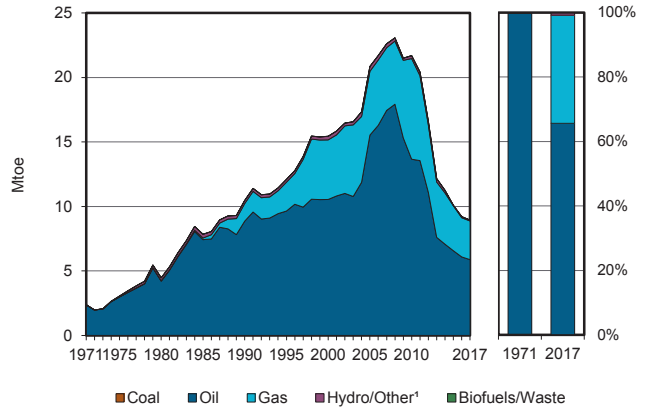


Figure 3. Energy self-sufficiency³

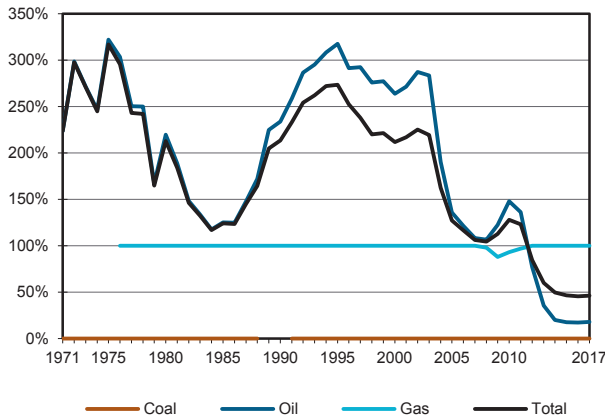


Figure 4. Oil products demand⁴

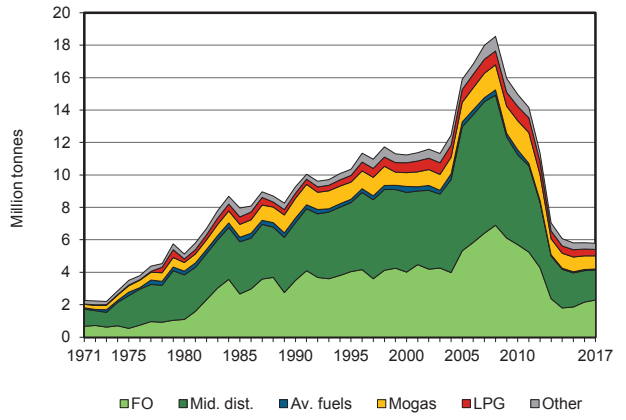


Figure 5. Electricity generation by source

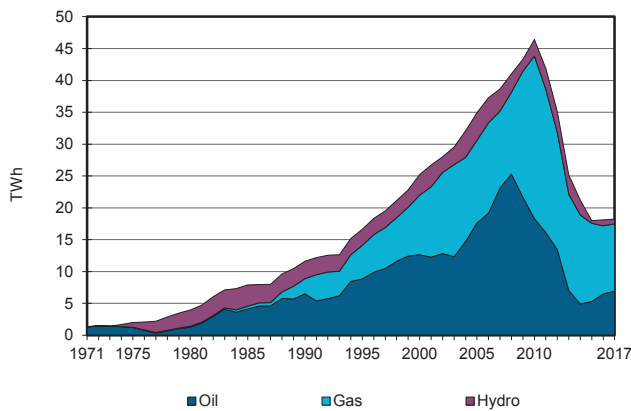
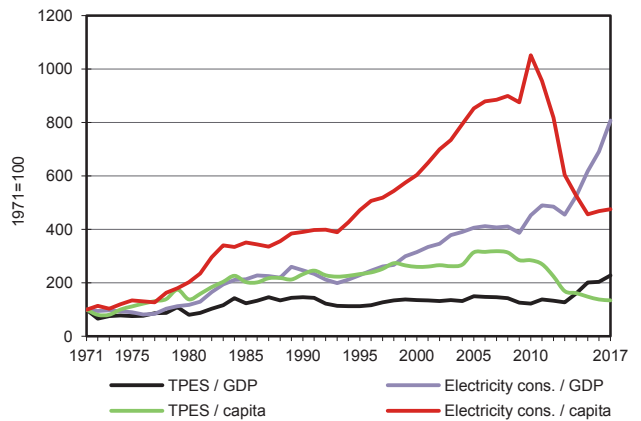


Figure 6. Selected indicators⁵



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. GDP in 2010 USD.

Syrian Arab Republic

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	1041	-	2998	-	65	-	6	-	-	4110
Imports	1	4933	677	-	-	-	-	-	-	-	5611
Exports	-	-	-633	-	-	-	-	-	-47	-	-680
Intl. marine bunkers	-	-	-137	-	-	-	-	-	-	-	-137
Intl. aviation bunkers	-	-	-6	-	-	-	-	-	-	-	-6
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	1	5974	-100	2998	-	65	-	6	-47	-	8897
Transfers	-	-76	86	-	-	-	-	-	-	-	10
Statistical differences	-	-	-107	1	-	-	-	-	-	-	-106
Electricity plants	-	-	-1880	-2454	-	-65	-	-	1568	-	-2831
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-1	-	-	-	-	-	-	-	-	-	-1
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-5898	5854	-	-	-	-	-	-	-	-44
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-0	-	-	-0
Energy industry own use	-	-	-171	-45	-	-	-	-	-179	-	-396
Losses	-	-	-	-	-	-	-	-	-205	-	-205
TFC	0	-	3682	501	-	-	-	5	1137	-	5325
INDUSTRY	0	-	611	177	-	-	-	-	382	-	1170
Iron and steel	0	-	-	-	-	-	-	-	-	-	0
Chemical and petrochemical	-	-	-	177	-	-	-	-	-	-	177
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	611	-	-	-	-	-	382	-	994
TRANSPORT	-	-	1701	-	-	-	-	-	-	-	1701
Domestic aviation	-	-	61	-	-	-	-	-	-	-	61
Road	-	-	1640	-	-	-	-	-	-	-	1640
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	1082	-	-	-	-	5	754	-	1842
Residential	-	-	672	-	-	-	-	-	520	-	1192
Comm. and public services	-	-	127	-	-	-	-	-	118	-	245
Agriculture/forestry	-	-	183	-	-	-	-	-	-	-	183
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	101	-	-	-	-	5	116	-	223
NON-ENERGY USE	-	-	288	324	-	-	-	-	-	-	612
in industry/transf./energy	-	-	279	324	-	-	-	-	-	-	603
of which: chem./petrochem.	-	-	1	324	-	-	-	-	-	-	325
in transport	-	-	9	-	-	-	-	-	-	-	9
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	6918	10559	-	754	-	-	-	-	18231
Electricity plants	-	-	6918	10559	-	754	-	-	-	-	18231
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Chinese Taipei

Figure 1. Energy production

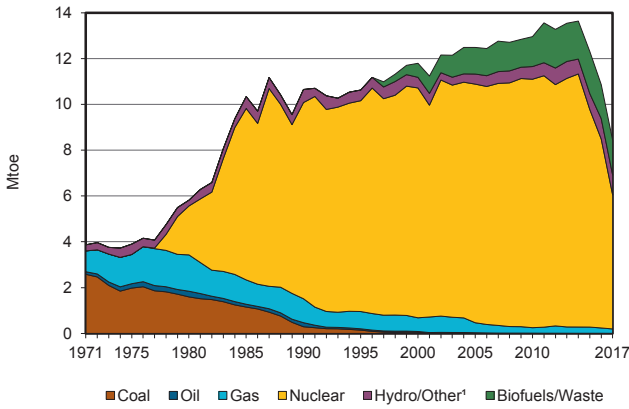


Figure 2. Total primary energy supply²

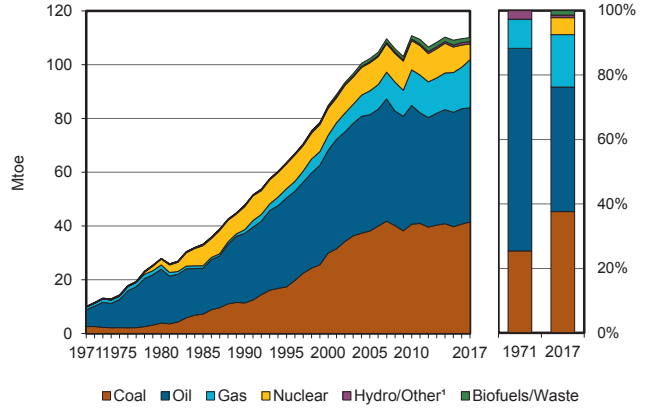


Figure 3. Energy self-sufficiency³

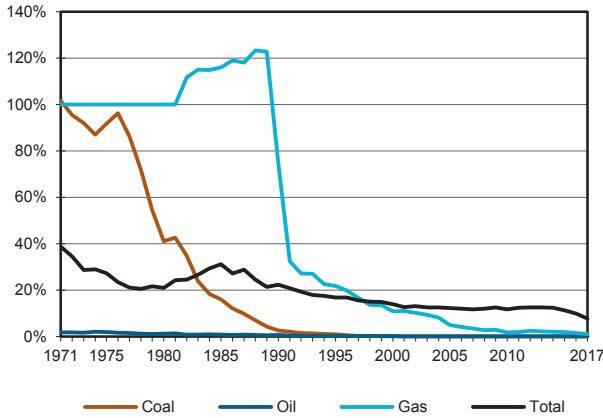


Figure 4. Oil products demand⁴

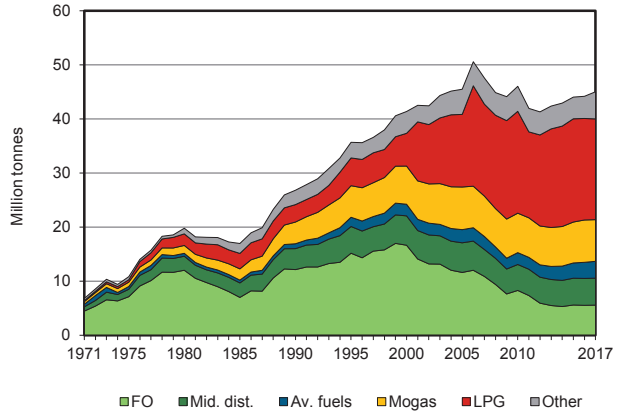


Figure 5. Electricity generation by source

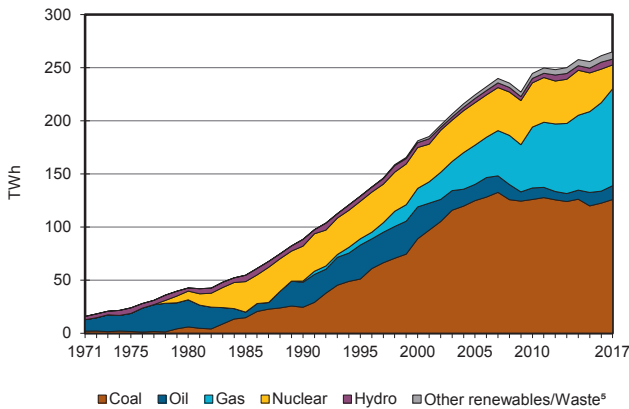
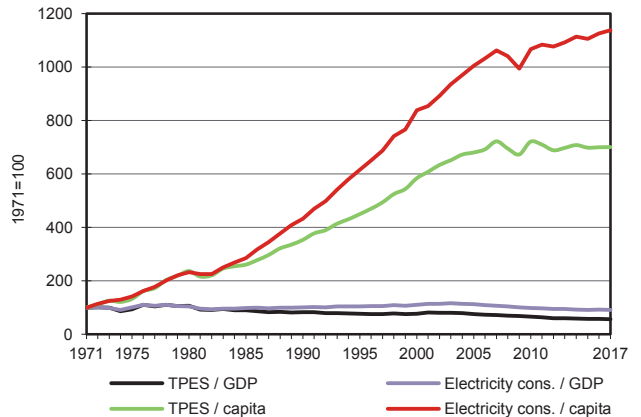


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Chinese Taipei

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	5	-	191	5848	468	398	1513	-	-	8425
Imports	41952	45368	18251	17797	-	-	-	-	-	-	123368
Exports	-32	-402	-16922	-	-	-	-	-	-	-	-17355
Intl. marine bunkers	-	-	-1160	-	-	-	-	-	-	-	-1160
Intl. aviation bunkers	-	-	-3031	-	-	-	-	-	-	-	-3031
Stock changes	-435	61	311	-96	-	-	-	0	-	-	-159
TPES	41485	45031	-2550	17893	5848	468	398	1513	-	-	110087
Transfers	-	-	-292	-	-	-	-	-	-	-	-292
Statistical differences	-3	209	57	22	-	-	-	-0	156	-	442
Electricity plants	-21659	-	-2557	-14365	-5848	-468	-294	-1079	20048	-	-26222
CHP plants	-7138	-	-705	-63	-	-	-	-	2744	-	-5162
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-2819	-	-	-	-	-	-	-	-	-	-2819
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-840	-	-	-	-	-	-	-	-	-	-840
Oil refineries	-	-45205	45793	-	-	-	-	-	-	-	589
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-1116	-	-2071	-280	-	-	-	-	-1424	-	-4890
Losses	-86	-	-	-	-	-	-	-	-759	-	-845
TFC	7825	35	37677	3208	-	-	104	434	20765	-	70049
INDUSTRY	7529	-	1692	2229	-	-	-	140	12133	-	23723
Iron and steel	1523	-	158	378	-	-	-	-	1345	-	3404
Chemical and petrochemical	3766	-	605	823	-	-	-	1	3234	-	8429
Non-ferrous metals	-	-	26	52	-	-	-	-	106	-	184
Non-metallic minerals	1250	-	186	185	-	-	-	-	460	-	2081
Transport equipment	-	-	27	31	-	-	-	-	220	-	278
Machinery	147	-	98	380	-	-	-	-	5061	-	5686
Mining and quarrying	-	-	30	0	-	-	-	-	37	-	67
Food and tobacco	45	-	160	88	-	-	-	17	359	-	670
Paper pulp and printing	411	-	68	33	-	-	-	122	340	-	973
Wood and wood products	-	-	5	4	-	-	-	-	33	-	42
Construction	-	-	53	-	-	-	-	-	49	-	102
Textile and leather	387	-	155	97	-	-	-	-	440	-	1080
Non-specified	-	-	122	157	-	-	-	-	451	-	730
TRANSPORT	-	-	12566	-	-	-	-	0	122	-	12689
Domestic aviation	-	-	104	-	-	-	-	-	-	-	104
Road	-	-	12273	-	-	-	-	0	-	-	12274
Rail	-	-	17	-	-	-	-	-	122	-	140
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	171	-	-	-	-	-	-	-	171
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	2249	979	-	-	104	294	8510	-	12136
Residential	-	-	1023	583	-	-	101	-	4094	-	5800
Comm. and public services	-	-	783	384	-	-	3	294	2442	-	3907
Agriculture/forestry	-	-	4	3	-	-	-	-	175	-	182
Fishing	-	-	324	-	-	-	-	-	86	-	409
Non-specified	-	-	116	9	-	-	-	-	1713	-	1838
NON-ENERGY USE	296	35	21169	-	-	-	-	-	-	-	21500
in industry/transf./energy	296	35	21169	-	-	-	-	-	-	-	21500
of which: chem./petrochem.	-	-	18615	-	-	-	-	-	-	-	18615
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	125925	-	13039	91325	22446	5447	3422	3468	-	-	265071
Electricity plants	95820	-	11595	90962	22446	5447	3422	3468	-	-	233159
CHP plants	30105	-	1444	363	-	-	-	-	-	-	31912
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Tajikistan

Figure 1. Energy production

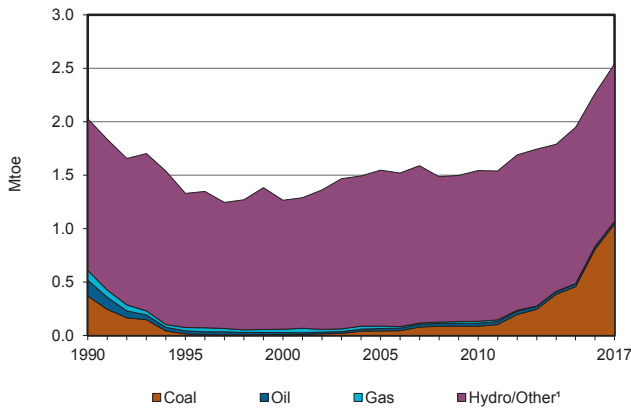


Figure 2. Total primary energy supply²

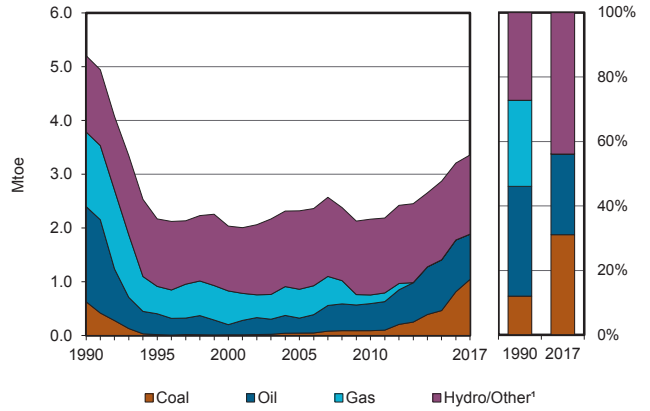


Figure 3. Energy self-sufficiency³

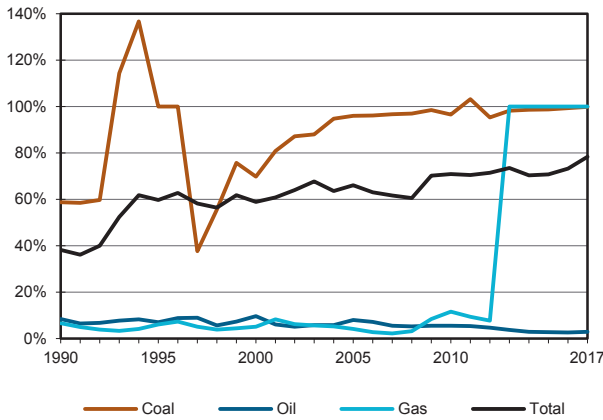


Figure 4. Oil products demand⁴

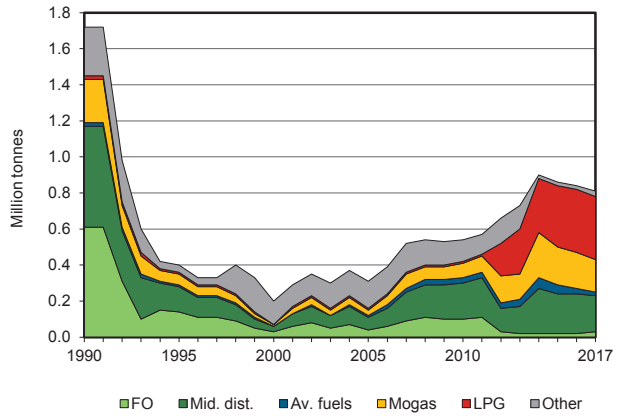


Figure 5. Electricity generation by source

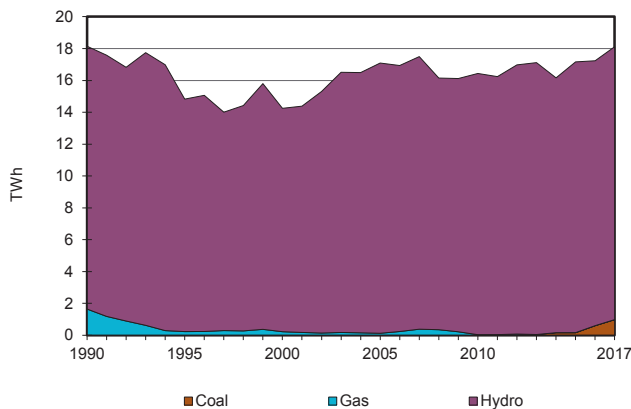
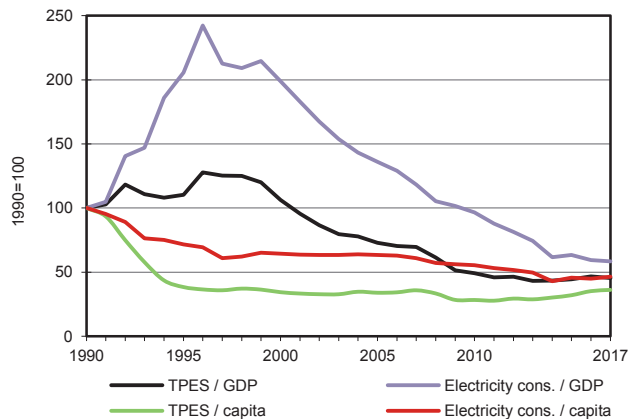


Figure 6. Selected indicators⁵



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. GDP in 2010 USD.

Tajikistan

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	1043	24	-	1	-	1473	-	-	-	-	2541
Imports	4	-	834	-	-	-	-	-	9	-	847
Exports	-3	-	-	-	-	-	-	-	-122	-	-125
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-18	-	-	-	-	-	-	-	-18
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	1044	24	816	1	-	1473	-	-	-113	-	3245
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-159	-	-1	-	-	-	-	-	11	-	-149
Electricity plants	-	-	-	-	-	-1473	-	-	1473	-	-
CHP plants	-245	-	-	-	-	-	-	-	84	43	-118
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-24	20	-	-	-	-	-	-	-	-3
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-	-	-	-	-	-	-	-	-23	-	-23
Losses	-	-	-	-	-	-	-	-	-248	-	-248
TFC	640	-	835	1	-	-	-	-	1184	43	2703
INDUSTRY	367	-	24	-	-	-	-	-	381	-	772
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	9	-	9
Non-ferrous metals	26	-	-	-	-	-	-	-	334	-	359
Non-metallic minerals	328	-	-	-	-	-	-	-	-	-	328
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	2	-	2
Mining and quarrying	3	-	-	-	-	-	-	-	-	-	3
Food and tobacco	6	-	-	-	-	-	-	-	6	-	12
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	0	-	0
Construction	-	-	-	-	-	-	-	-	20	-	20
Textile and leather	4	-	-	-	-	-	-	-	11	-	16
Non-specified	-	-	24	-	-	-	-	-	-	-	24
TRANSPORT	-	-	392	-	-	-	-	-	3	-	395
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	392	-	-	-	-	-	-	-	392
Rail	-	-	-	-	-	-	-	-	2	-	2
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	1	-	1
OTHER	273	-	402	1	-	-	-	-	801	43	1520
Residential	273	-	-	-	-	-	-	-	466	43	782
Comm. and public services	1	-	-	-	-	-	-	-	153	-	154
Agriculture/forestry	-	-	-	-	-	-	-	-	182	-	182
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	402	1	-	-	-	-	-	-	403
NON-ENERGY USE	-	-	17	-	-	-	-	-	-	-	17
in industry/transf./energy	-	-	3	-	-	-	-	-	-	-	3
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	14	-	-	-	-	-	-	-	14
Electricity and Heat Output											
Electr. generated - GWh	981	-	-	-	-	17133	-	-	-	-	18114
Electricity plants	-	-	-	-	-	17133	-	-	-	-	17133
CHP plants	981	-	-	-	-	-	-	-	-	-	981
Heat generated - TJ	1792	-	-	-	-	-	-	-	-	-	1792
CHP plants	1792	-	-	-	-	-	-	-	-	-	1792
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Tanzania

Figure 1. Energy production

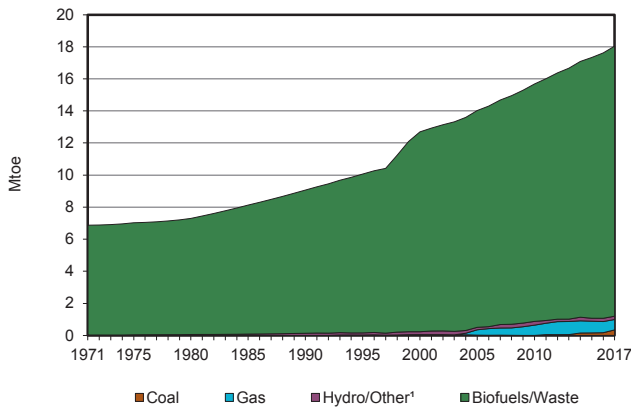


Figure 2. Total primary energy supply²

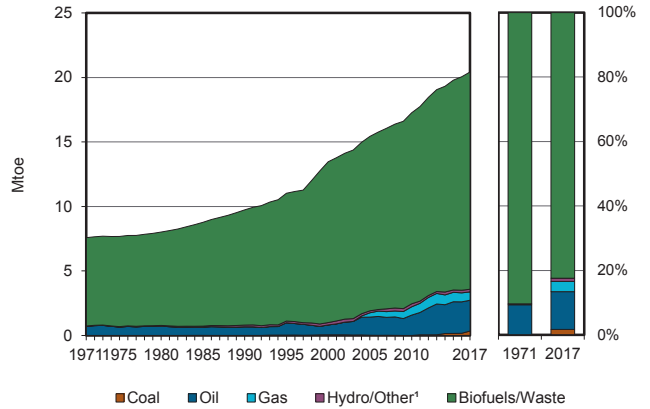


Figure 3. Energy self-sufficiency³

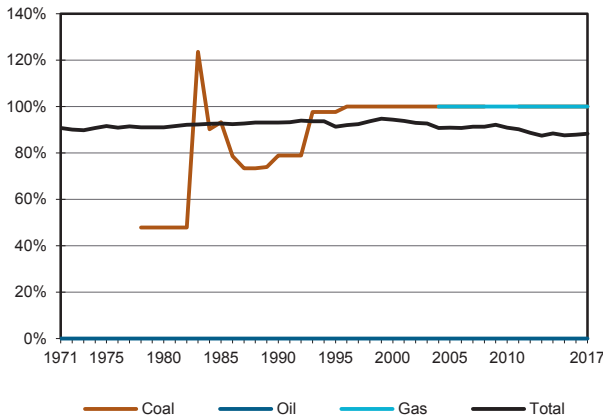


Figure 4. Oil products demand⁴

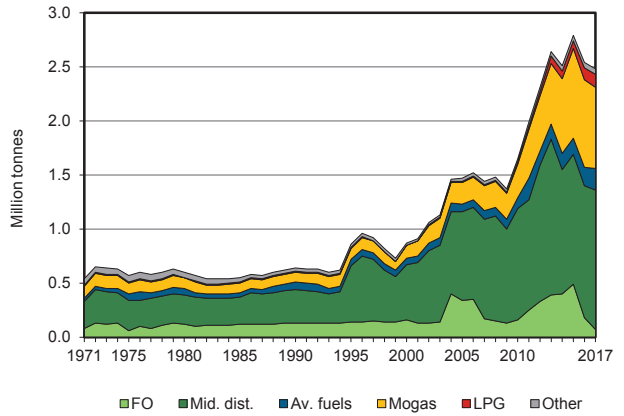


Figure 5. Electricity generation by source

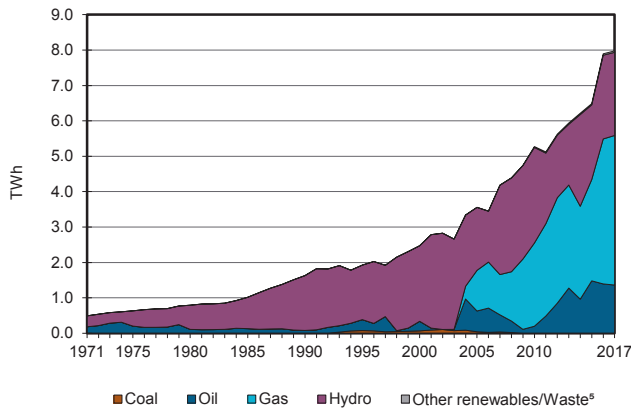
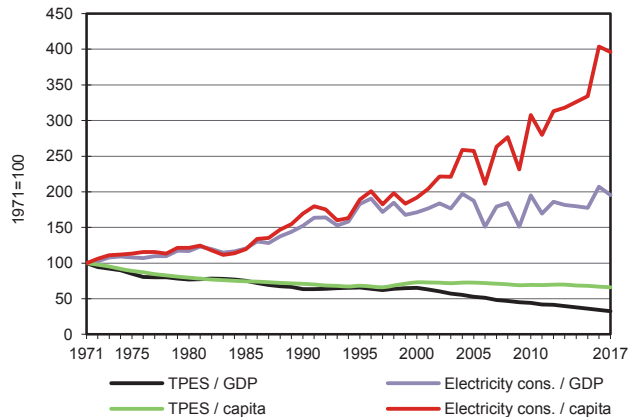


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Tanzania

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	347	-	-	649	-	202	2	16840	-	-	18040
Imports	-	-	2535	-	-	-	-	-	9	-	2545
Exports	-	-	-	-	-	-	-	-	-	-	-
Intl. marine bunkers	-	-	-12	-	-	-	-	-	-	-	-12
Intl. aviation bunkers	-	-	-141	-	-	-	-	-	-	-	-141
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	347	-	2382	649	-	202	2	16840	9	-	20431
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	75	0	-	-	-	-	-77	-	-3
Electricity plants	-	-	-393	-505	-	-202	-2	-9	686	-	-425
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-2207	-	-	-2207
Energy industry own use	-	-	-	-	-	-	-	-	-2	-	-2
Losses	-	-	-	-	-	-	-	-	-106	-	-106
TFC	347	-	2063	144	-	-	-	14624	510	-	17689
INDUSTRY	347	-	41	144	-	-	-	1247	131	-	1910
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	37	-	-	-	-	-	-	37
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	347	-	41	107	-	-	-	1247	131	-	1873
TRANSPORT	-	-	1788	-	-	-	-	-	-	-	1788
Domestic aviation	-	-	67	-	-	-	-	-	-	-	67
Road	-	-	1721	-	-	-	-	-	-	-	1721
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	182	-	-	-	-	13377	379	-	13939
Residential	-	-	159	-	-	-	-	12048	249	-	12456
Comm. and public services	-	-	-	-	-	-	-	-	104	-	104
Agriculture/forestry	-	-	23	-	-	-	-	878	14	-	915
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	452	12	-	464
NON-ENERGY USE	-	-	52	-	-	-	-	-	-	-	52
in industry/transf./energy	-	-	52	-	-	-	-	-	-	-	52
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	1361	4227	-	2350	19	21	-	-	7978
Electricity plants	-	-	1361	4227	-	2350	19	21	-	-	7978
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Togo

Figure 1. Energy production

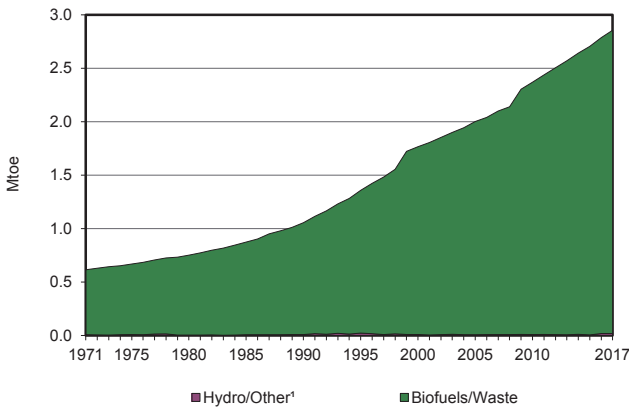


Figure 2. Total primary energy supply²

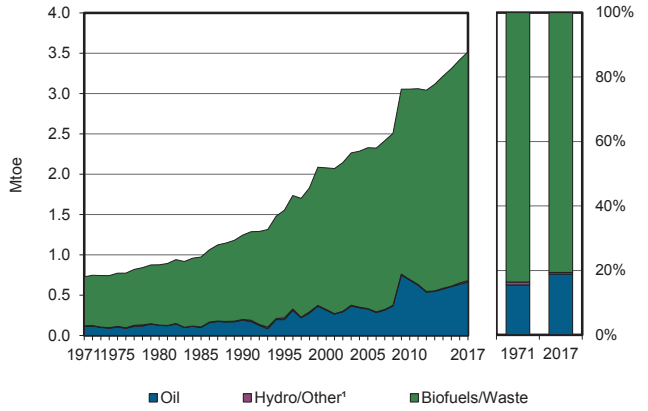


Figure 3. Energy self-sufficiency³

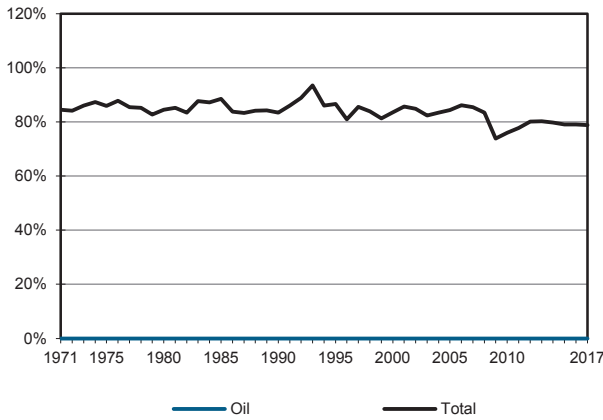


Figure 4. Oil products demand⁴

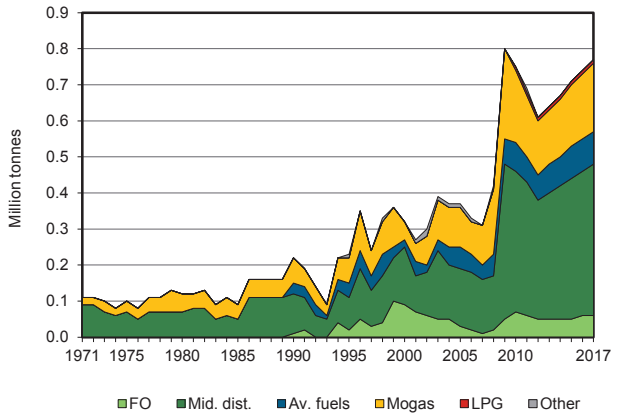


Figure 5. Electricity generation by source

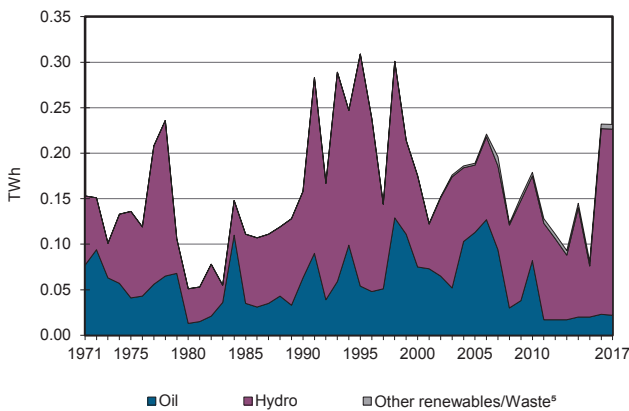
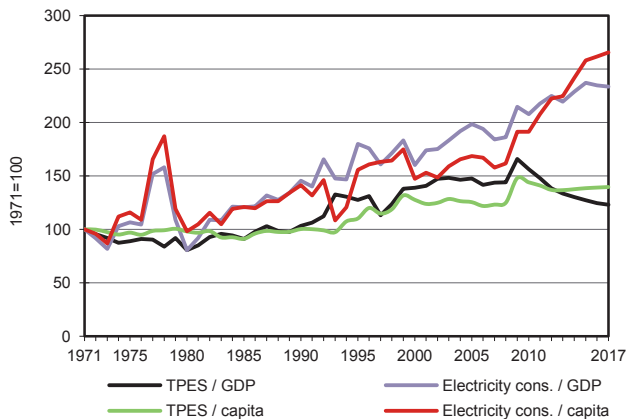


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Togo

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	18	-	2837	-	-	2855
Imports	-	-	780	-	-	-	-	-	104	-	885
Exports	-	-	-	-	-	-	-	-	-	-	-
Intl. marine bunkers	-	-	-20	-	-	-	-	-	-	-	-20
Intl. aviation bunkers	-	-	-97	-	-	-	-	-	-	-	-97
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	-	-	663	-	-	18	-	2837	104	-	3622
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	25	-	-	-	-	26	-	-	52
Electricity plants	-	-	-7	-	-	-18	-	-2	20	-	-7
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-1276	-	-	-1276
Energy industry own use	-	-	-	-	-	-	-	-	-1	-	-1
Losses	-	-	-	-	-	-	-	-	-10	-	-10
TFC	-	-	681	-	-	-	-	1585	113	-	2379
INDUSTRY	-	-	59	-	-	-	-	1	38	-	98
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	57	-	-	-	-	-	18	-	74
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	12	-	12
Food and tobacco	-	-	2	-	-	-	-	-	0	-	3
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	3	-	3
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	1	4	-	6
TRANSPORT	-	-	541	-	-	-	-	-	-	-	541
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	541	-	-	-	-	-	-	-	541
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	78	-	-	-	-	1584	75	-	1737
Residential	-	-	78	-	-	-	-	1360	54	-	1492
Comm. and public services	-	-	-	-	-	-	-	224	15	-	239
Agriculture/forestry	-	-	-	-	-	-	-	-	-	-	-
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	7	-	7
NON-ENERGY USE	-	-	3	-	-	-	-	-	-	-	3
in industry/transf./energy	-	-	3	-	-	-	-	-	-	-	3
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	22	-	-	205	-	5	-	-	232
Electricity plants	-	-	22	-	-	205	-	5	-	-	232
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Trinidad and Tobago

Figure 1. Energy production

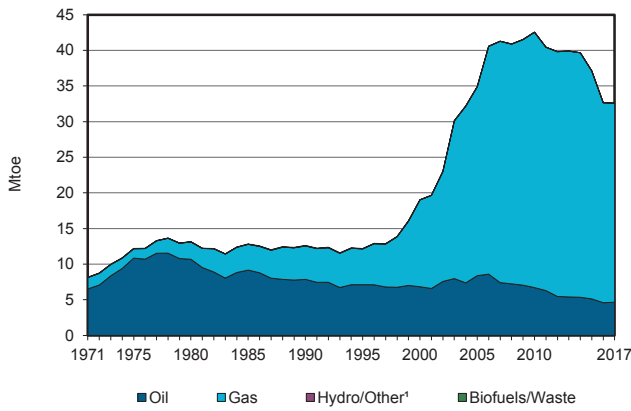


Figure 2. Total primary energy supply²

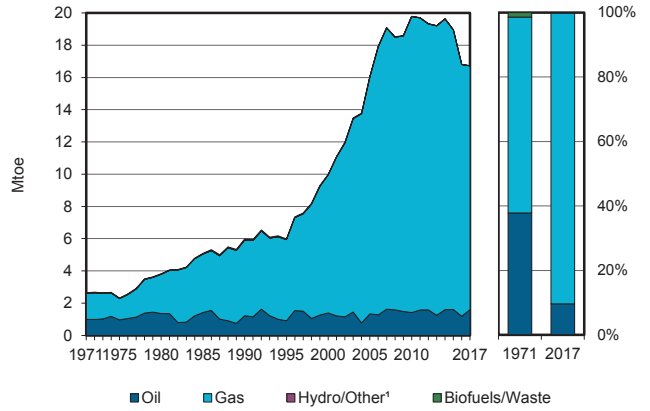


Figure 3. Energy self-sufficiency³

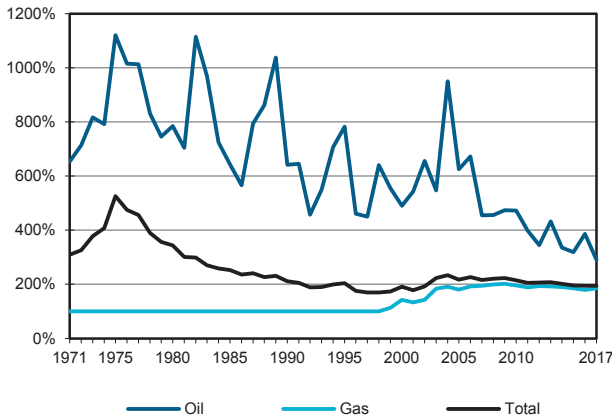


Figure 4. Oil products demand⁴

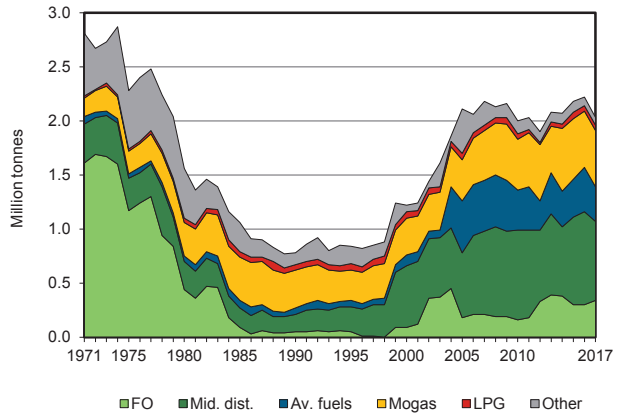


Figure 5. Electricity generation by source

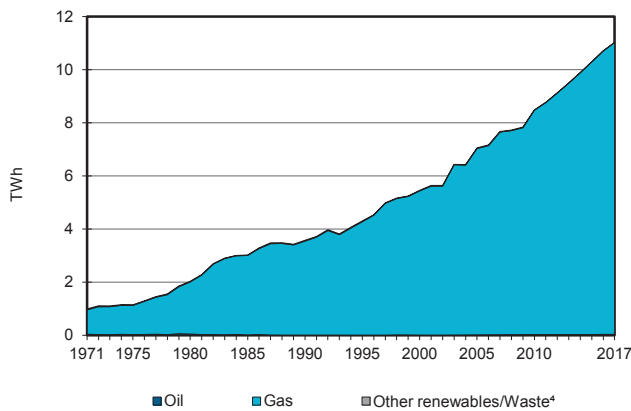
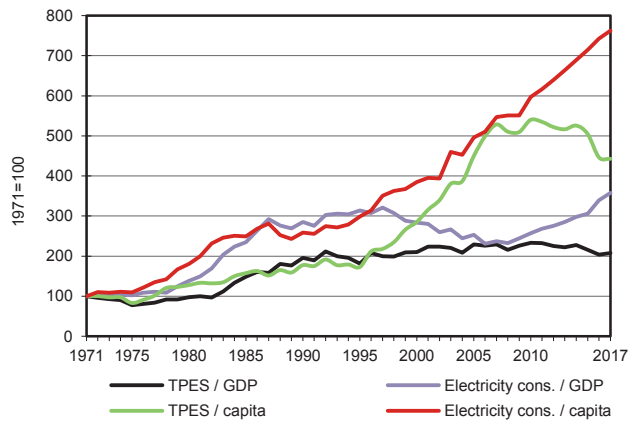


Figure 6. Selected indicators⁵



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. GDP in 2010 USD.

Trinidad and Tobago

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	4656	-	27934	-	-	0	13	-	-	32604
Imports	-	4595	2	-	-	-	-	-	-	-	4597
Exports	-	-1421	-5246	-12825	-	-	-	-	-	-	-19492
Intl. marine bunkers	-	-	-514	-	-	-	-	-	-	-	-514
Intl. aviation bunkers	-	-	-238	-	-	-	-	-	-	-	-238
Stock changes	-	-	-228	-	-	-	-	-	-	-	-228
TPES	-	7830	-6224	15109	-	-	0	13	-	-	16728
Transfers	-	-953	1052	-	-	-	-	-	-	-	99
Statistical differences	-	-76	50	-	-	-	-	-	-0	-	-26
Electricity plants	-	-	-11	-2180	-	-	-0	-	949	-	-1243
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-6801	6492	-	-	-	-	-	-	-	-309
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-2	-	-	-2
Energy industry own use	-	-	-83	-2868	-	-	-	-	-35	-	-2985
Losses	-	-	-	-86	-	-	-	-	-18	-	-104
TFC	-	-	1276	9975	-	-	-	11	896	-	12158
INDUSTRY	-	-	163	840	-	-	-	-	542	-	1544
Iron and steel	-	-	-	381	-	-	-	-	-	-	381
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	95	-	-	-	-	-	-	95
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	163	364	-	-	-	-	542	-	1069
TRANSPORT	-	-	1021	-	-	-	-	-	-	-	1021
Domestic aviation	-	-	104	-	-	-	-	-	-	-	104
Road	-	-	917	-	-	-	-	-	-	-	917
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	79	69	-	-	-	11	354	-	514
Residential	-	-	72	69	-	-	-	11	257	-	409
Comm. and public services	-	-	7	-	-	-	-	-	98	-	105
Agriculture/forestry	-	-	-	-	-	-	-	-	-	-	-
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	13	9066	-	-	-	-	-	-	9079
in industry/transf./energy	-	-	13	9066	-	-	-	-	-	-	9079
of which: chem./petrochem.	-	-	-	9066	-	-	-	-	-	-	9066
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	33	10996	-	-	4	-	-	-	11033
Electricity plants	-	-	33	10996	-	-	4	-	-	-	11033
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Tunisia

Figure 1. Energy production

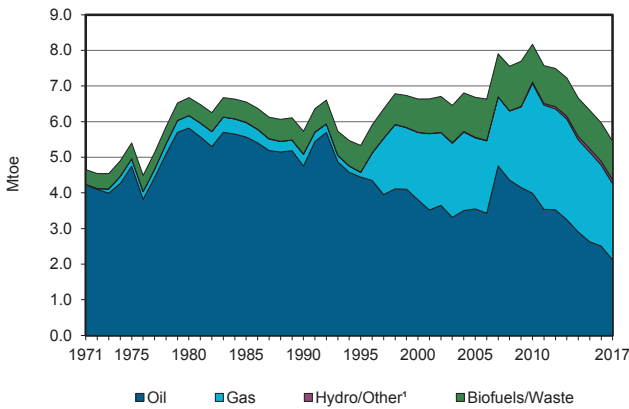


Figure 2. Total primary energy supply²

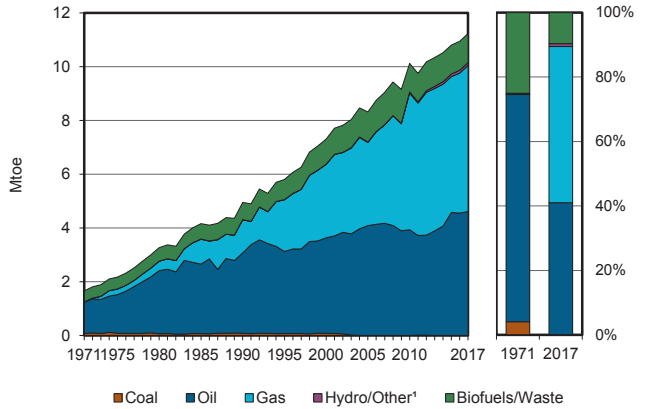


Figure 3. Energy self-sufficiency³

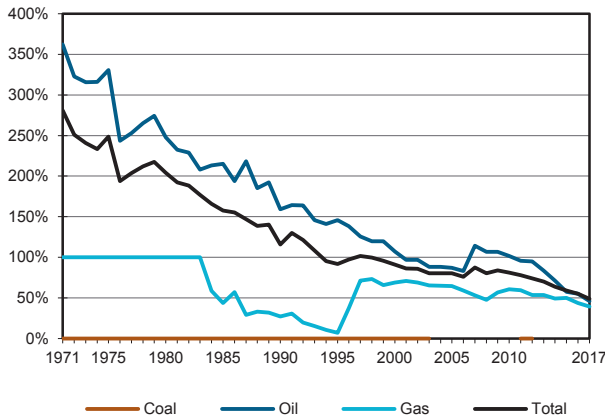


Figure 4. Oil products demand⁴

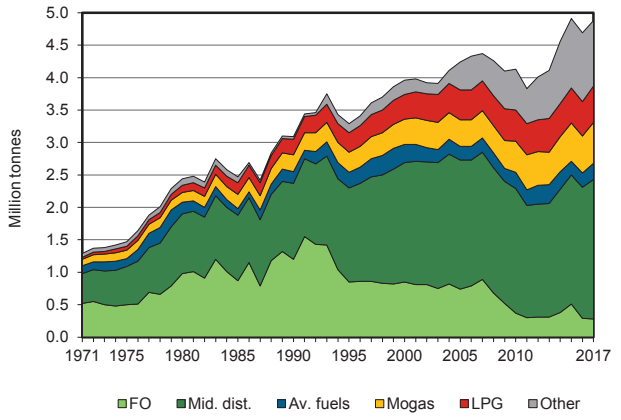


Figure 5. Electricity generation by source

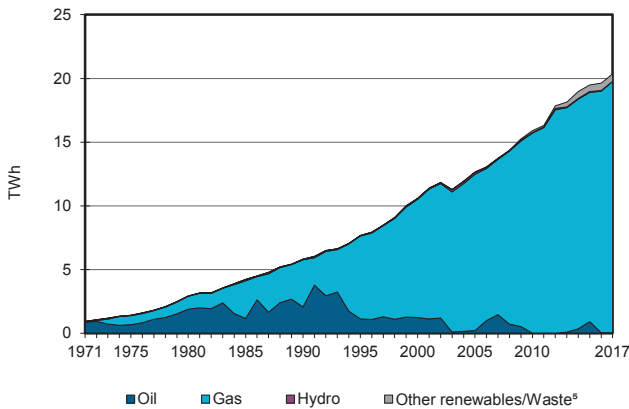
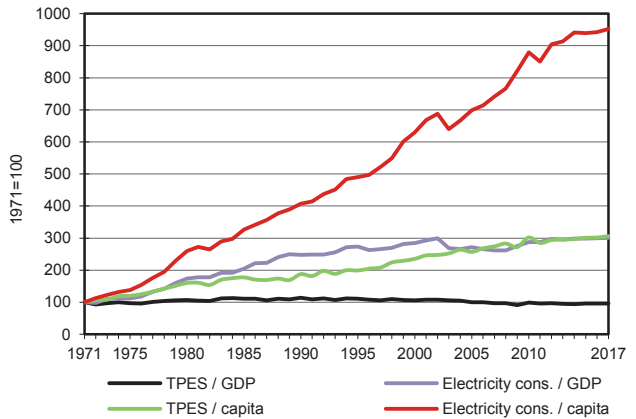


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Tunisia

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	2119	-	2139	-	2	103	1082	-	80	5525
Imports	-	654	4134	3296	-	-	-	-	39	-	8124
Exports	-	-1709	-429	-	-	-	-	-	-42	-	-2179
Intl. marine bunkers	-	-	-8	-	-	-	-	-	-	-	-8
Intl. aviation bunkers	-	-	-260	-	-	-	-	-	-	-	-260
Stock changes	-	81	28	-	-	-	-	-	-	-	109
TPES	-	1147	3466	5436	-	2	103	1082	-3	80	11311
Transfers	-	-127	148	-	-	-	-	-	-	-	21
Statistical differences	-	-75	70	-6	-	-	-	-	-7	-	-18
Electricity plants	-	-	-18	-3696	-	-2	-50	-	1739	-80	-2106
CHP plants	-	-	-	-31	-	-	-	-	31	-	0
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-939	922	-	-	-	-	-	-	-	-17
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-215	-	-	-215
Energy industry own use	-	-5	-35	-148	-	-	-	-	-74	-	-261
Losses	-	-	-	-56	-	-	-	-	-302	-	-357
TFC	-	-	4552	1499	-	-	53	867	1385	-	8356
INDUSTRY	-	-	843	856	-	-	-	-	463	-	2163
Iron and steel	-	-	-	9	-	-	-	-	23	-	32
Chemical and petrochemical	-	-	-	112	-	-	-	-	60	-	172
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	548	489	-	-	-	-	136	-	1173
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	7	-	-	-	-	28	-	34
Food and tobacco	-	-	-	80	-	-	-	-	67	-	147
Paper pulp and printing	-	-	-	53	-	-	-	-	17	-	71
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	62	-	-	-	-	39	-	101
Non-specified	-	-	295	45	-	-	-	-	94	-	434
TRANSPORT	-	-	2329	224	-	-	-	-	8	-	2562
Domestic aviation	-	-	4	-	-	-	-	-	-	-	4
Road	-	-	2308	-	-	-	-	-	-	-	2308
Rail	-	-	18	-	-	-	-	-	6	-	24
Pipeline transport	-	-	-	224	-	-	-	-	2	-	226
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	1084	419	-	-	53	867	914	-	3336
Residential	-	-	586	226	-	-	51	855	426	-	2143
Comm. and public services	-	-	102	170	-	-	2	12	388	-	675
Agriculture/forestry	-	-	396	23	-	-	-	-	99	-	519
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	296	-	-	-	-	-	-	-	296
in industry/transf./energy	-	-	248	-	-	-	-	-	-	-	248
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	47	-	-	-	-	-	-	-	47
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	43	19715	-	17	582	-	-	232	20589
Electricity plants	-	-	43	19352	-	17	582	-	-	232	20227
CHP plants	-	-	-	363	-	-	-	-	-	-	363
Heat generated - TJ	-	-	-	-	-	-	-	-	-	3345	3345
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	3345	3345

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Turkmenistan

Figure 1. Energy production

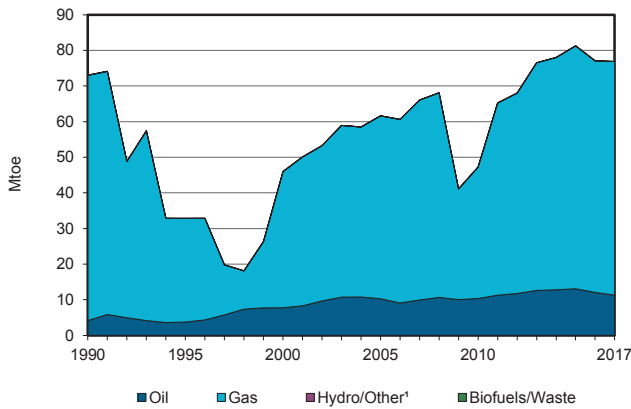


Figure 2. Total primary energy supply²

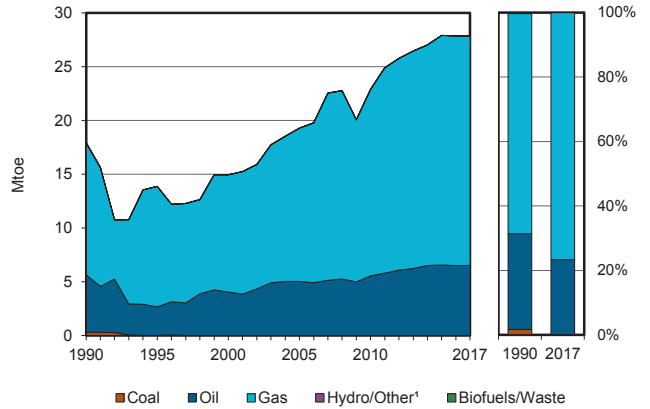


Figure 3. Energy self-sufficiency³

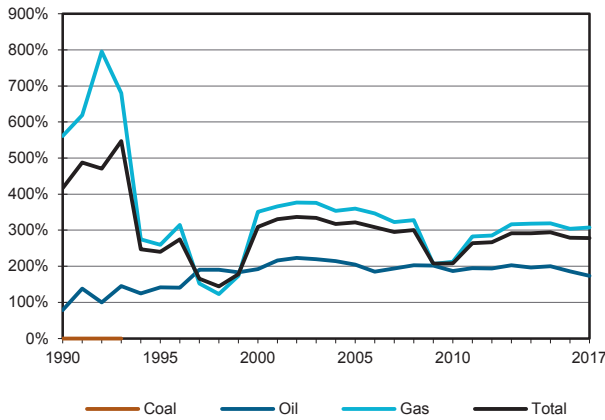


Figure 4. Oil products demand⁴

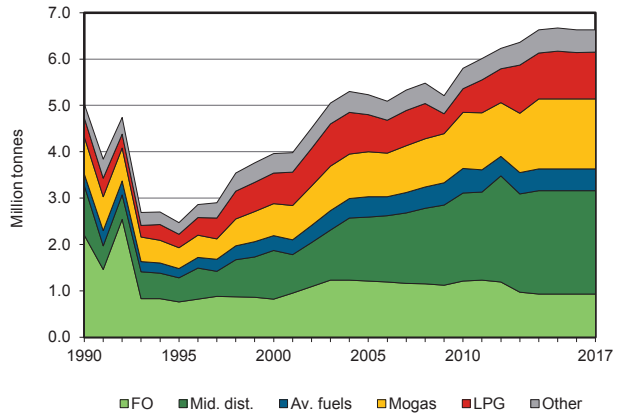


Figure 5. Electricity generation by source

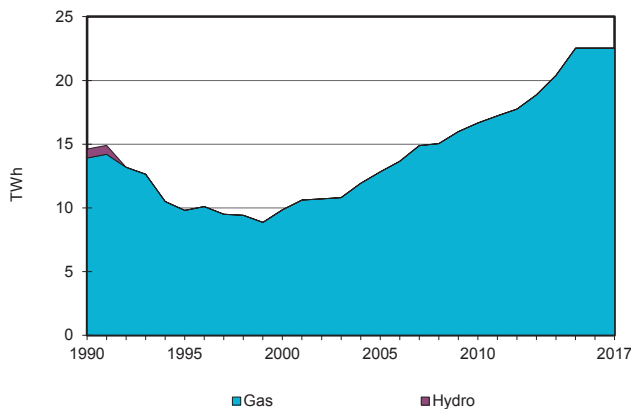
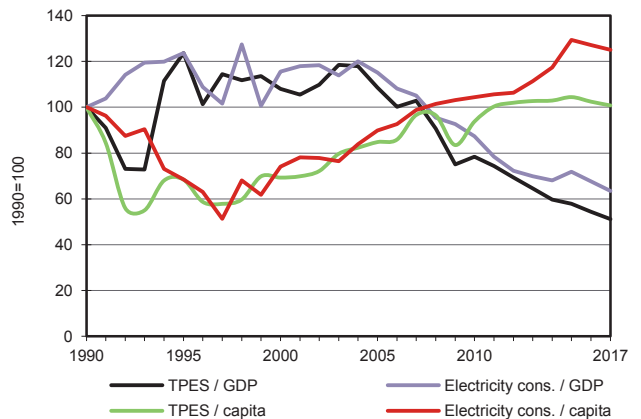


Figure 6. Selected indicators⁵



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. GDP in 2010 USD.

Turkmenistan

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	11295	-	65565	-	-	-	3	-	-	76862
Imports	-	-	-	-	-	-	-	7	-	-	7
Exports	-	-1708	-2588	-44214	-	-	-	-	-275	-	-48786
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-483	-	-	-	-	-	-	-	-483
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	-	9586	-3071	21350	-	-	-	10	-275	-	27600
Transfers	-	-655	719	-	-	-	-	-	-	-	64
Statistical differences	-	-	-	-	-	-	-	-	-	-	-
Electricity plants	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-8830	-	-	-	-	1938	235	-6657
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-8931	8695	-	-	-	-	-	-	-	-237
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-	-	-133	-2073	-	-	-	-	-341	-	-2547
Losses	-	-	-	-	-	-	-	-	-249	-	-249
TFC	-	-	6210	10447	-	-	-	10	1072	235	17975
INDUSTRY	-	-	-	1001	-	-	-	3	387	-	1391
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	126	-	126
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	1001	-	-	-	3	261	-	1265
TRANSPORT	-	-	2640	1658	-	-	-	-	28	-	4326
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	2640	-	-	-	-	-	-	-	2640
Rail	-	-	-	-	-	-	-	-	28	-	28
Pipeline transport	-	-	-	1658	-	-	-	-	-	-	1658
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	3570	7788	-	-	-	7	658	235	12259
Residential	-	-	154	-	-	-	-	7	225	-	387
Comm. and public services	-	-	-	7174	-	-	-	-	-	-	7174
Agriculture/forestry	-	-	-	-	-	-	-	-	341	-	341
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	3416	615	-	-	-	-	91	235	4357
NON-ENERGY USE	-	-	-	-	-	-	-	-	-	-	-
in industry/transf./energy	-	-	-	-	-	-	-	-	-	-	-
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	-	22534	-	-	-	-	-	-	22534
Electricity plants	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	22534	-	-	-	-	-	-	22534
Heat generated - TJ	-	-	-	9846	-	-	-	-	-	-	9846
CHP plants	-	-	-	9846	-	-	-	-	-	-	9846
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Ukraine

Figure 1. Energy production

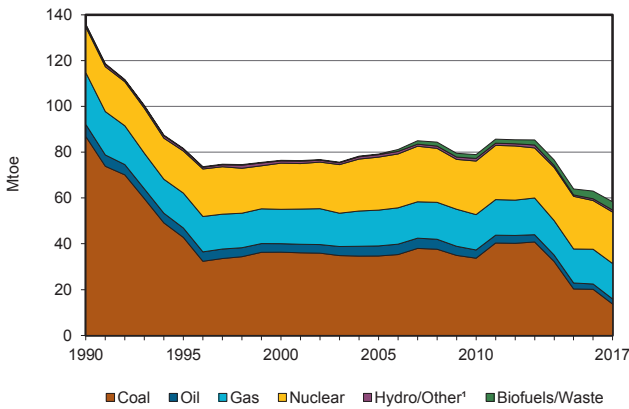


Figure 2. Total primary energy supply²

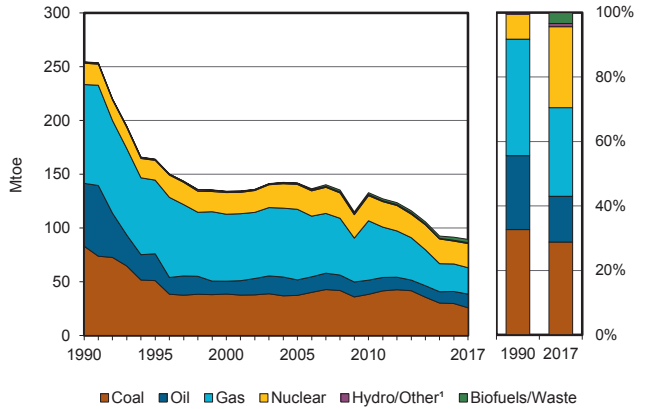


Figure 3. Energy self-sufficiency³

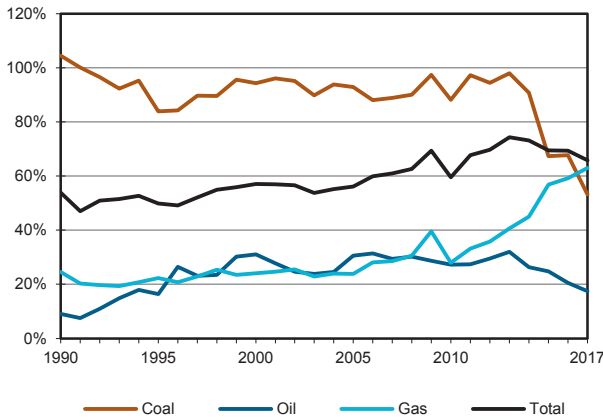


Figure 4. Oil products demand⁴

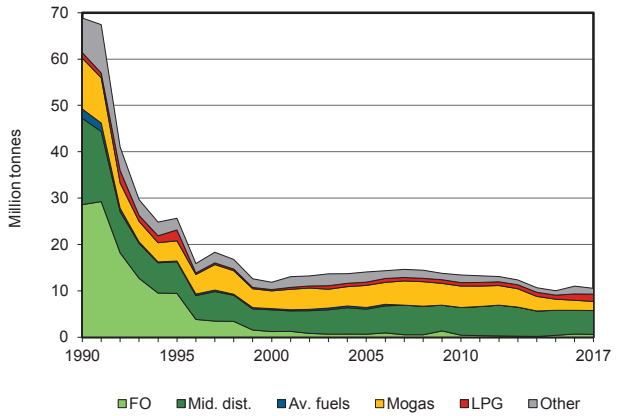


Figure 5. Electricity generation by source

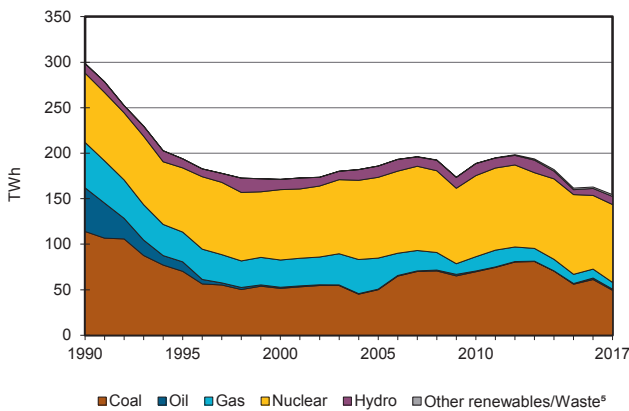
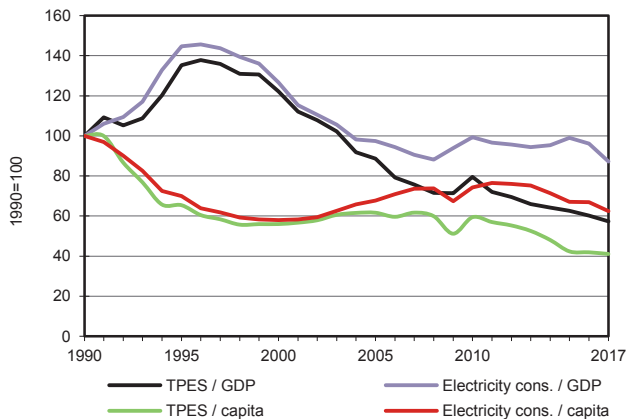


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Ukraine

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	13696	2208	-	15472	22449	769	149	3575	-	546	58863
Imports	12993	1331	9520	11262	-	-	-	35	4	-	35145
Exports	-567	-139	-243	-	-	-	-	-545	-449	-	-1944
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-251	-	-	-	-	-	-	-	-251
Stock changes	-365	-49	319	-2180	-	-	-	-75	-	-	-2351
TPES	25757	3351	9345	24554	22449	769	149	2989	-445	546	89462
Transfers	-	241	-209	-	-	-	-	-	-	-	32
Statistical differences	12	-27	-1622	-194	-	-	-	-0	-	75	-1757
Electricity plants	-11803	-	-64	-131	-22298	-769	-148	-2	12249	-150	-23116
CHP plants	-2139	-	-471	-3007	-151	-	-	-275	1032	3419	-1592
Heat plants	-869	-	-46	-4789	-	-	-	-553	-	5703	-553
Blast furnaces	-2926	-	-	-	-	-	-	-	-	-	-2926
Gas works	-35	-	-	-	-	-	-	-	-	-	-35
Coke/pat.fuel/BKB/PB plants	-1642	-	-	-	-	-	-	-	-	-	-1642
Oil refineries	-	-3666	3009	-	-	-	-	-	-	-	-657
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-109	120	-	-	-	-	-	-324	-	-	-313
Energy industry own use	-490	-6	-53	-959	-	-	-	-	-1301	-1033	-3842
Losses	-475	-7	-1	-502	-	-	-	-	-1443	-721	-3150
TFC	5281	6	9887	14971	-	-	0	1835	10092	7839	49911
INDUSTRY	4371	-	374	2627	-	-	0	52	4319	3354	15098
Iron and steel	3745	-	62	1398	-	-	-	15	1513	1218	7951
Chemical and petrochemical	2	-	9	141	-	-	-	0	248	454	855
Non-ferrous metals	92	-	5	144	-	-	-	-	131	259	631
Non-metallic minerals	500	-	5	338	-	-	-	2	193	71	1109
Transport equipment	-	-	13	21	-	-	-	0	71	48	152
Machinery	2	-	4	122	-	-	-	2	342	91	563
Mining and quarrying	5	-	167	266	-	-	-	0	810	84	1333
Food and tobacco	24	-	27	151	-	-	-	5	351	819	1376
Paper pulp and printing	-	-	1	18	-	-	-	0	85	139	243
Wood and wood products	-	-	5	3	-	-	-	26	60	96	190
Construction	1	-	71	9	-	-	-	1	77	27	185
Textile and leather	-	-	1	6	-	-	-	0	30	18	56
Non-specified	-	-	5	12	-	-	0	1	408	31	457
TRANSPORT	5	-	7356	1612	-	-	-	45	606	-	9624
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	7186	28	-	-	-	45	-	-	7259
Rail	4	-	132	-	-	-	-	-	518	-	654
Pipeline transport	-	-	5	1582	-	-	-	-	57	-	1643
Domestic navigation	-	-	33	-	-	-	-	-	-	-	33
Non-specified	1	-	-	2	-	-	-	-	31	-	34
OTHER	377	-	1345	9564	-	-	-	1738	5167	4485	22675
Residential	267	-	55	8830	-	-	-	1678	3013	2643	16487
Comm. and public services	103	-	137	602	-	-	-	34	1838	1624	4337
Agriculture/forestry	7	-	1152	131	-	-	-	25	313	218	1847
Fishing	-	-	1	0	-	-	-	-	2	0	3
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	528	6	813	1168	-	-	-	-	-	-	2515
in industry/transf./energy	528	6	682	1168	-	-	-	-	-	-	2384
of which: chem./petrochem.	-	-	119	1083	-	-	-	-	-	-	1202
in transport	-	-	11	-	-	-	-	-	-	-	11
in other	-	-	120	-	-	-	-	-	-	-	120
Electricity and Heat Output											
Electr. generated - GWh	49269	-	1314	7381	85576	8945	1722	210	-	45	154461
Electricity plants	45438	-	236	488	85576	8945	1722	8	-	-	142413
CHP plants	3831	-	1078	6892	-	-	-	202	-	45	12048
Heat generated - TJ	74598	-	12978	259869	6329	-	-	26917	1246	22850	404787
CHP plants	43693	-	11509	74753	6329	-	-	6867	-	18242	161393
Heat plants	30905	-	1469	185116	-	-	-	20050	1246	4608	243394

1. Includes peat.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

United Arab Emirates

Figure 1. Energy production

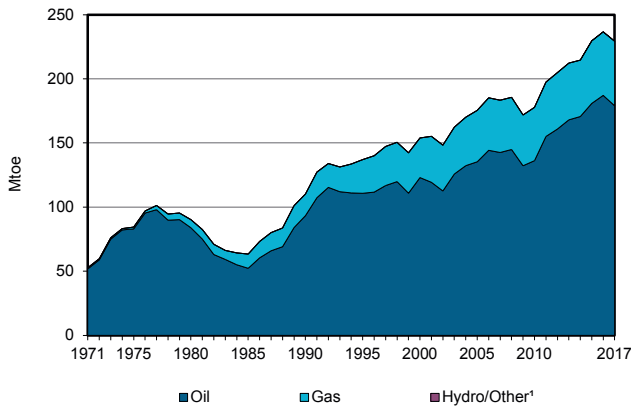


Figure 2. Total primary energy supply²

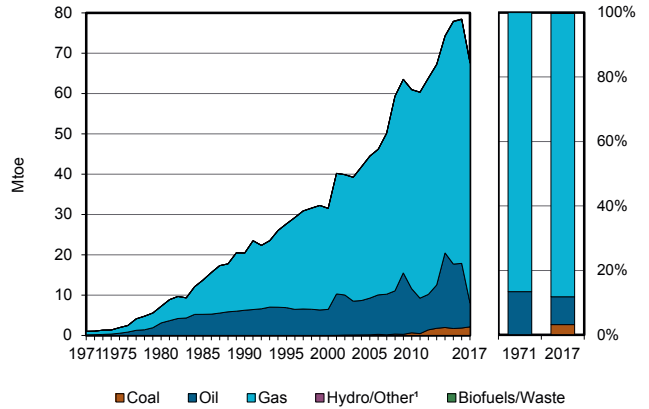


Figure 3. Energy self-sufficiency³

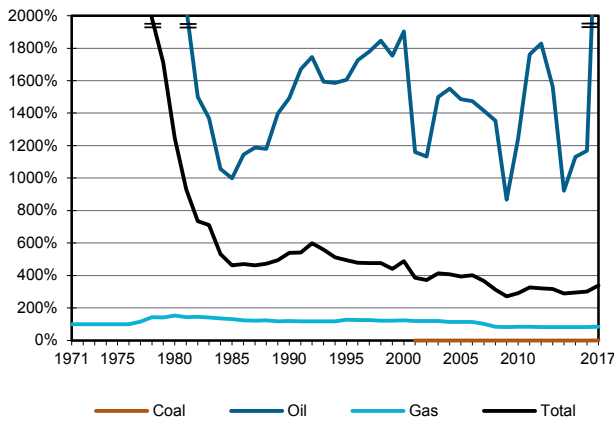


Figure 4. Oil products demand⁴

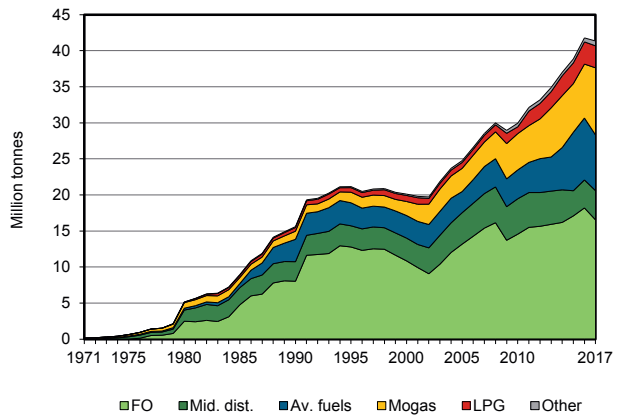


Figure 5. Electricity generation by source

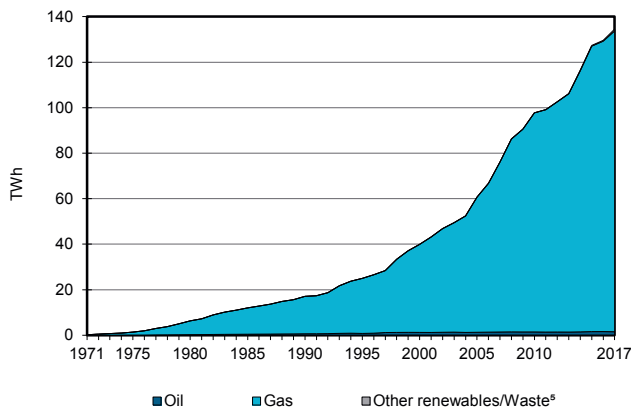
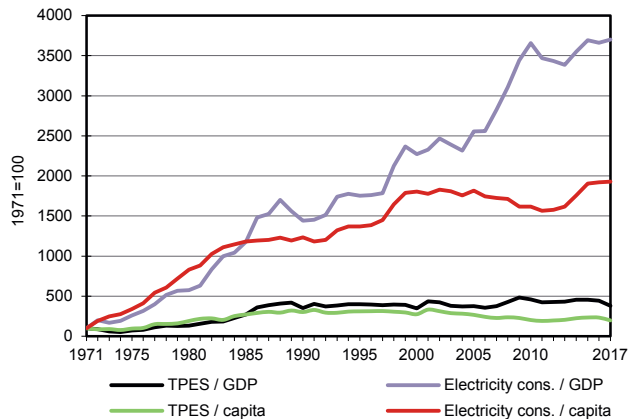


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency. Maximum scale refers to values greater than or equal to 2000%.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

United Arab Emirates

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	178985	-	50263	-	-	113	-	-	-	229361
Imports	2130	-	14665	14990	-	-	-	45	44	-	31873
Exports	-	-120597	-42297	-5759	-	-	-	-	-53	-	-168705
Intl. marine bunkers	-	-	-14774	-	-	-	-	-	-	-	-14774
Intl. aviation bunkers	-	-	-7873	-	-	-	-	-	-	-	-7873
Stock changes	-	-425	-1810	-	-	-	-	-	-	-	-2235
TPES	2130	57964	-52089	59493	-	-	113	45	-9	-	67647
Transfers	-	-15180	16628	-	-	-	-	-	-	-	1449
Statistical differences	-	12243	-318	-	-	-	-	-	-	-	11925
Electricity plants	-	-	-594	-36919	-	-	-113	-	11569	-	-26056
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-55027	55650	-	-	-	-	-	-	-	622
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-	-	-513	-576	-	-	-	-	-644	-	-1733
Losses	-	-	-	-	-	-	-	-	-1008	-	-1008
TFC	2130	-	18764	21999	-	-	-	45	9909	-	52847
INDUSTRY	2130	-	1291	21728	-	-	-	-	1296	-	26445
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	47	177	-	-	-	-	-	-	224
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	404	-	-	-	-	-	-	-	-	-	404
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	1725	-	1245	21551	-	-	-	-	1296	-	25817
TRANSPORT	-	-	13783	-	-	-	-	-	-	-	13783
Domestic aviation	-	-	362	-	-	-	-	-	-	-	362
Road	-	-	13420	-	-	-	-	-	-	-	13420
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	381	-	-	-	-	45	8613	-	9040
Residential	-	-	381	-	-	-	-	-	3797	-	4178
Comm. and public services	-	-	-	-	-	-	-	-	3712	-	3712
Agriculture/forestry	-	-	-	-	-	-	-	-	-	-	-
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	45	1105	-	1150
NON-ENERGY USE	-	-	3309	271	-	-	-	-	-	-	3580
in industry/transf./energy	-	-	3195	271	-	-	-	-	-	-	3465
of which: chem./petrochem.	-	-	3092	271	-	-	-	-	-	-	3362
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	114	-	-	-	-	-	-	-	114
Electricity and Heat Output											
Electr. generated - GWh	-	-	1530	132231	-	-	792	-	-	-	134553
Electricity plants	-	-	1530	132231	-	-	792	-	-	-	134553
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Uruguay

Figure 1. Energy production

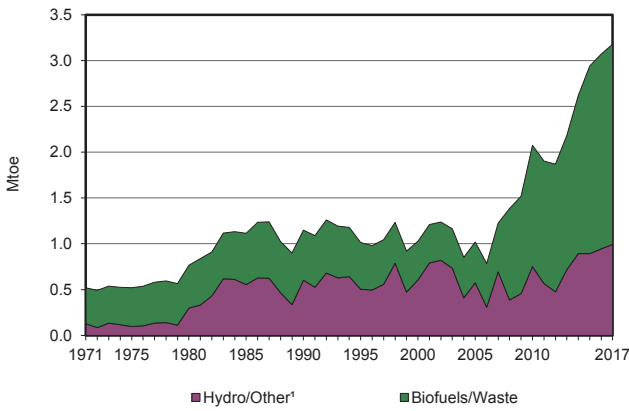


Figure 2. Total primary energy supply²

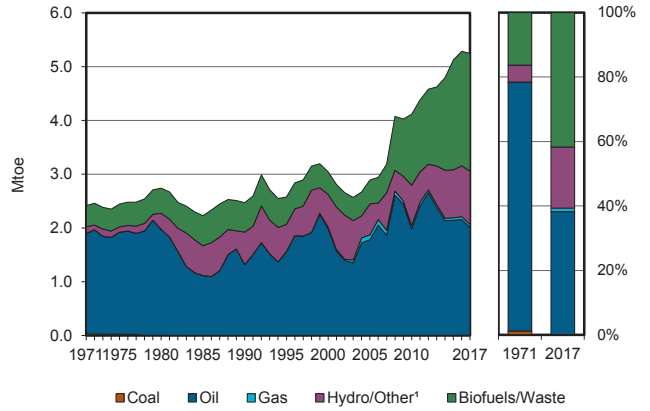


Figure 3. Energy self-sufficiency³

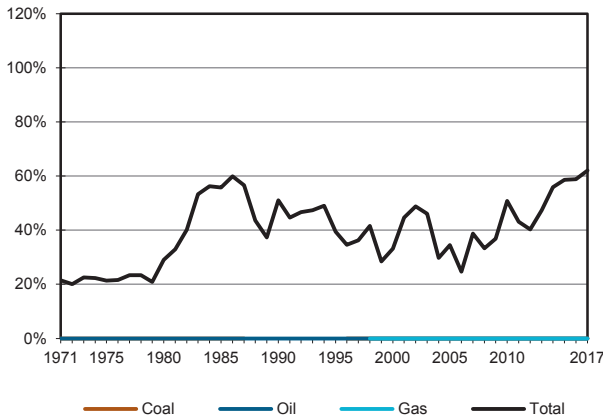


Figure 4. Oil products demand⁴

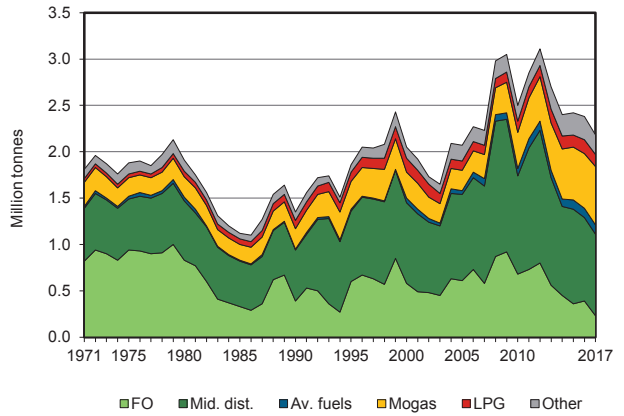


Figure 5. Electricity generation by source

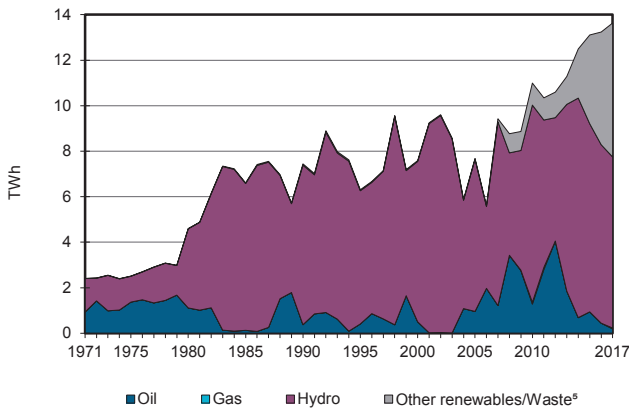
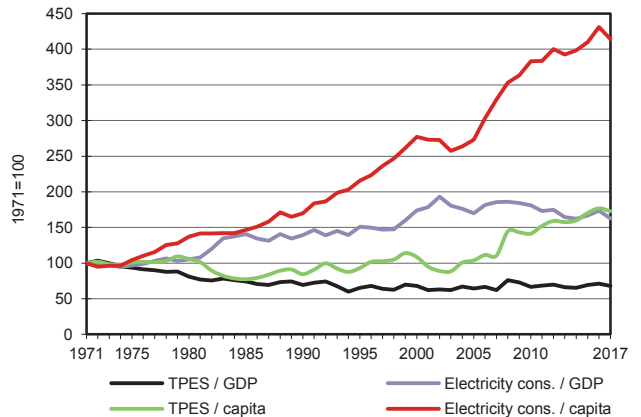


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Uruguay

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	646	348	2184	-	-	3178
Imports	3	533	1558	59	-	-	-	3	0	-	2155
Exports	-	-	-1	-	-	-	-	-2	-126	-	-129
Intl. marine bunkers	-	-	-104	-	-	-	-	-	-	-	-104
Intl. aviation bunkers	-	-	-101	-	-	-	-	-	-	-	-101
Stock changes	-	61	56	-	-	-	-	4	-	-	121
TPES	3	594	1407	59	-	646	348	2190	-125	-	5121
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	3	-8	0	-	-	-	-1	63	-	57
Electricity plants	-	-	-52	-9	-	-646	-348	-121	1032	-	-145
CHP plants	-	-	-	-	-	-	-	-184	141	-	-43
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-595	600	-	-	-	-	-	-	-	5
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-	-	-47	-3	-	-	-	-	-30	-	-80
Losses	-	-2	-16	-0	-	-	-	-3	-146	-	-166
TFC	3	-	1884	47	-	-	-	1881	934	-	4749
INDUSTRY	-	-	223	16	-	-	-	1453	292	-	1984
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	6	1	-	-	-	20	64	-	91
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	4	2	-	-	-	2	10	-	17
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	35	8	-	-	-	106	80	-	230
Paper pulp and printing	-	-	96	3	-	-	-	1081	99	-	1279
Wood and wood products	-	-	3	-	-	-	-	2	13	-	18
Construction	-	-	12	2	-	-	-	1	18	-	33
Textile and leather	-	-	2	1	-	-	-	14	6	-	23
Non-specified	-	-	65	-	-	-	-	227	-	-	292
TRANSPORT	-	-	1252	-	-	-	-	70	-	-	1322
Domestic aviation	-	-	5	-	-	-	-	-	-	-	5
Road	-	-	1245	-	-	-	-	70	-	-	1315
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	1	-	-	-	-	-	-	-	1
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	312	31	-	-	-	359	643	-	1344
Residential	-	-	135	20	-	-	-	294	366	-	814
Comm. and public services	-	-	19	11	-	-	-	22	252	-	304
Agriculture/forestry	-	-	143	-	-	-	-	42	25	-	210
Fishing	-	-	16	-	-	-	-	-	1	-	16
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	3	-	97	-	-	-	-	-	-	-	100
in industry/transf./energy	3	-	95	-	-	-	-	-	-	-	98
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	2	-	-	-	-	-	-	-	2
Electricity and Heat Output											
Electr. generated - GWh	-	-	187	40	-	7518	4043	1847	-	-	13636
Electricity plants	-	-	187	40	-	7518	4043	213	-	-	12001
CHP plants	-	-	-	-	-	-	-	1635	-	-	1635
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Uzbekistan

Figure 1. Energy production

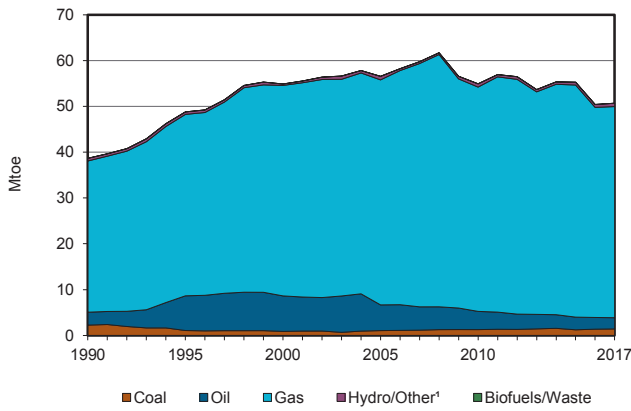


Figure 2. Total primary energy supply²

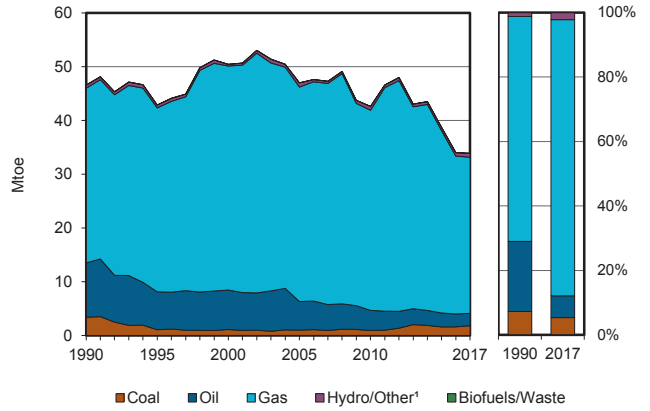


Figure 3. Energy self-sufficiency³

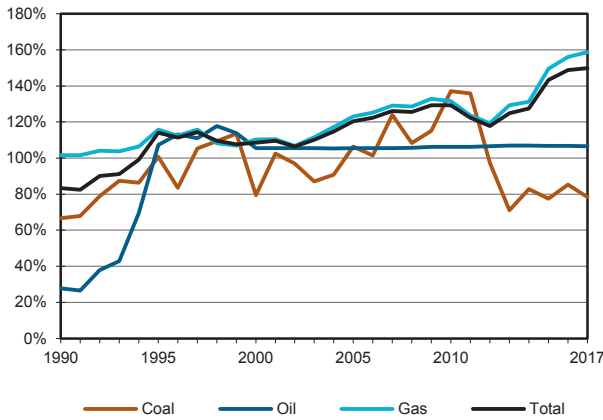


Figure 4. Oil products demand⁴

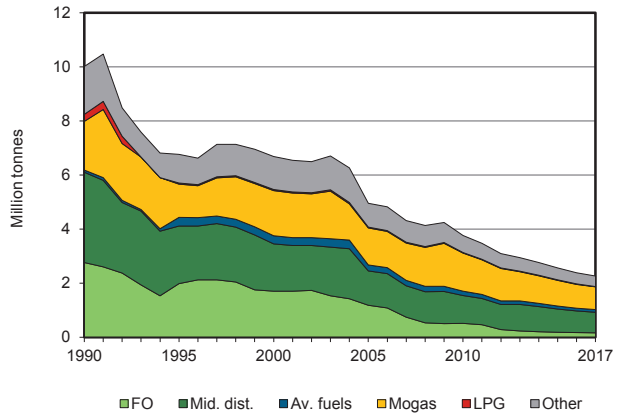


Figure 5. Electricity generation by source

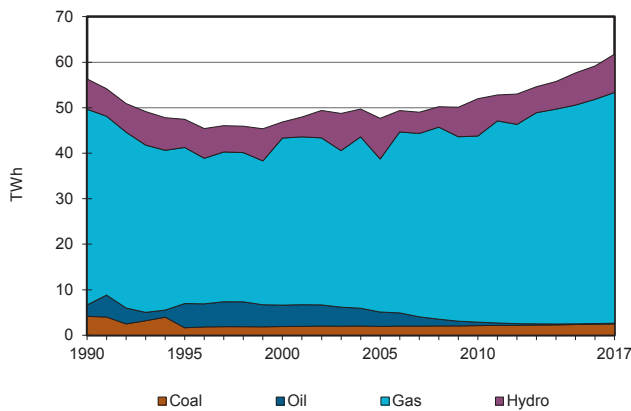
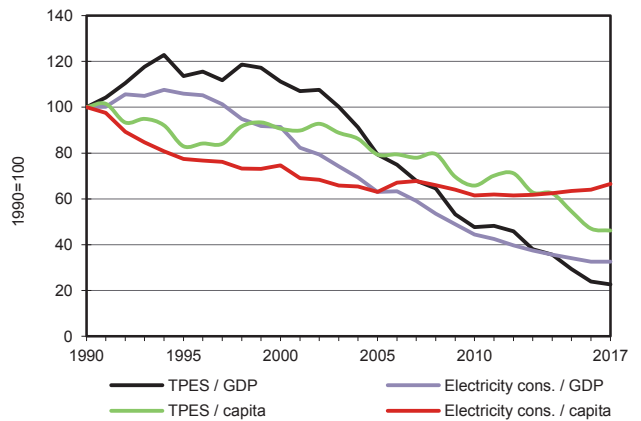


Figure 6. Selected indicators⁵



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. GDP in 2010 USD.

Uzbekistan

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	1425	2444	-	46085	-	725	-	4	-	-	50683
Imports	321	15	-	-	-	-	-	-	597	-	933
Exports	-	-	-166	-17043	-	-	-	-	-652	-	-17862
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-	-	-	-	-	-	-	-	-
Stock changes	74	-	-	-	-	-	-	-	-	-	74
TPES	1821	2458	-166	29041	-	725	-	4	-55	-	33828
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-9	-	2	1160	-	-	-	-	-83	-	1069
Electricity plants	-704	-	-21	-6600	-	-725	-	-	3230	-	-4819
CHP plants	-607	-	-26	-6748	-	-	-	-	2083	1305	-3992
Heat plants	-2	-	-47	-1491	-	-	-	-	-	1361	-178
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-2389	2419	-	-	-	-	-	-	-	30
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-6	-4	-92	-880	-	-	-	-	-458	-	-1441
Losses	-1	-26	-	-826	-	-	-	-	-845	-	-1697
TFC	492	39	2070	13657	-	-	-	4	3871	2666	22800
INDUSTRY	243	-	133	3279	-	-	-	-	1487	-	5142
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	1	-	-	-	-	-	-	-	1
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	3	-	-	-	-	-	-	-	3
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	108	-	-	-	-	-	28	-	135
Textile and leather	-	-	8	-	-	-	-	-	-	-	8
Non-specified	243	-	13	3279	-	-	-	-	1459	-	4995
TRANSPORT	-	-	1150	721	-	-	-	-	105	-	1976
Domestic aviation	-	-	101	-	-	-	-	-	-	-	101
Road	-	-	1005	32	-	-	-	-	-	-	1037
Rail	-	-	44	-	-	-	-	-	57	-	101
Pipeline transport	-	-	-	689	-	-	-	-	48	-	737
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	249	-	574	8986	-	-	-	4	2279	2666	14758
Residential	23	-	71	7422	-	-	-	-	1099	-	8615
Comm. and public services	-	-	-	1485	-	-	-	-	347	-	1832
Agriculture/forestry	7	-	400	79	-	-	-	-	833	-	1319
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	219	-	104	-	-	-	-	-	4	2666	2993
NON-ENERGY USE	-	39	213	671	-	-	-	-	-	-	924
in industry/transf./energy	-	39	170	671	-	-	-	-	-	-	880
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	43	-	-	-	-	-	-	-	43
Electricity and Heat Output											
Electr. generated - GWh	2482	-	156	50723	-	8427	-	-	-	-	61789
Electricity plants	1629	-	76	27433	-	8427	-	-	-	-	37565
CHP plants	853	-	80	23290	-	-	-	-	-	-	24224
Heat generated - TJ	4405	-	1550	105665	-	-	-	-	-	-	111620
CHP plants	4358	-	570	49721	-	-	-	-	-	-	54649
Heat plants	48	-	980	55943	-	-	-	-	-	-	56971

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Venezuela

Figure 1. Energy production

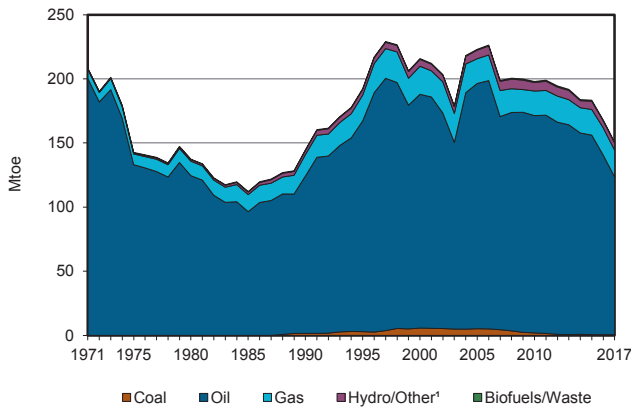


Figure 2. Total primary energy supply²

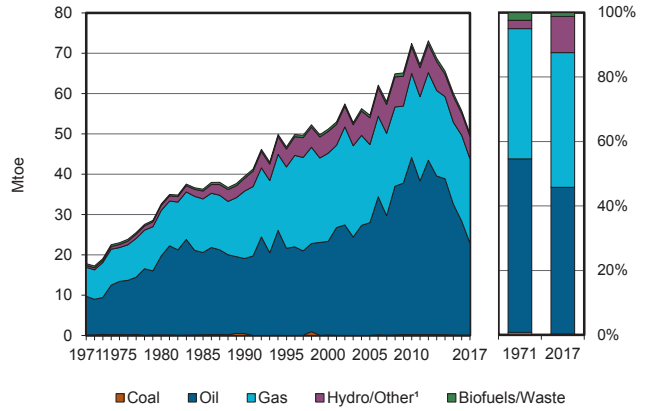


Figure 3. Energy self-sufficiency³

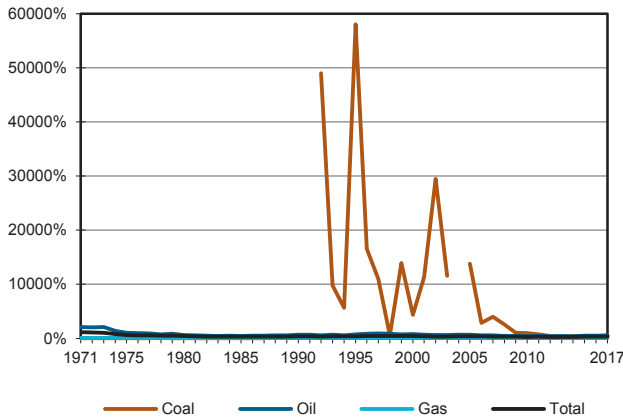


Figure 4. Oil products demand⁴

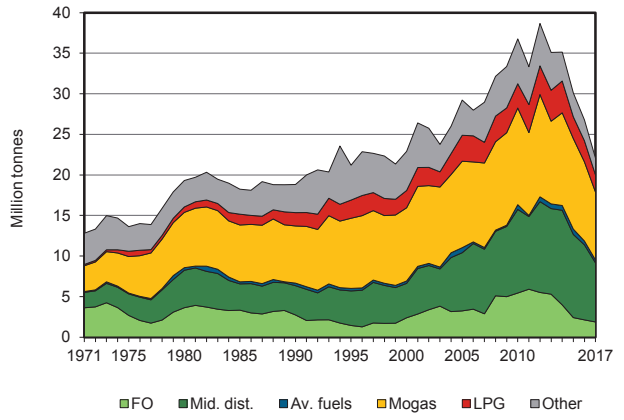


Figure 5. Electricity generation by source

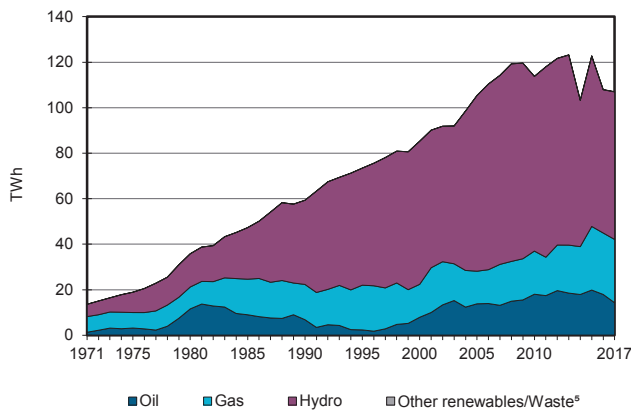
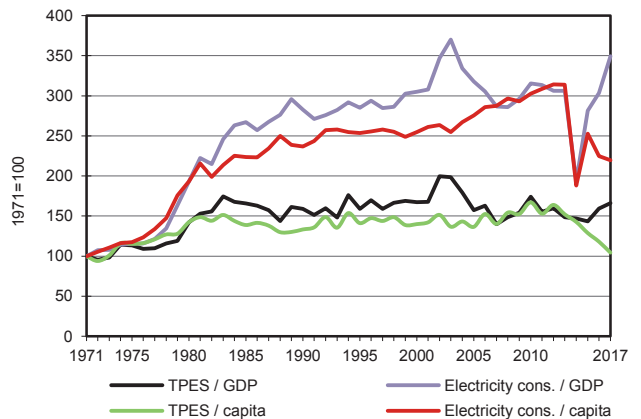


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Venezuela

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	563	122933	-	20898	-	5576	8	609	-	-	150587
Imports	-	-	1462	-	-	-	-	-	-	-	1462
Exports	-436	-87574	-13124	-	-	-	-	-	-98	-	-101232
Intl. marine bunkers	-	-	-633	-	-	-	-	-	-	-	-633
Intl. aviation bunkers	-	-	-380	-	-	-	-	-	-	-	-380
Stock changes	-	-	35	-	-	-	-	-	-	-	35
TPES	127	35359	-12641	20898	-	5576	8	609	-98	-	49838
Transfers	-	-2052	2407	-	-	-	-	-	-	-	356
Statistical differences	-	-	1117	-982	-	-	-	-	42	-	177
Electricity plants	-	-	-4425	-7230	-	-5576	-8	-	9204	-	-8035
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-33307	32404	-	-	-	-	-	-	-	-903
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-5	-	-	-5
Energy industry own use	-	-	-2258	-6330	-	-	-	-	-188	-	-8775
Losses	-	-	-	-	-	-	-	-	-2857	-	-2857
TFC	127	-	16605	6357	-	-	-	604	6102	-	29795
INDUSTRY	127	-	3557	5295	-	-	-	337	1943	-	11259
Iron and steel	-	-	-	1856	-	-	-	-	72	-	1927
Chemical and petrochemical	-	-	1569	1639	-	-	-	-	225	-	3433
Non-ferrous metals	-	-	-	255	-	-	-	-	568	-	823
Non-metallic minerals	127	-	40	402	-	-	-	-	-	-	569
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	337	-	-	337
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	1948	1144	-	-	-	-	1078	-	4169
TRANSPORT	-	-	11455	7	-	-	-	-	-	-	11462
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	11455	-	-	-	-	-	-	-	11455
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	7	-	-	-	-	-	-	7
OTHER	-	-	927	1055	-	-	-	267	4159	-	6408
Residential	-	-	680	804	-	-	-	217	2186	-	3887
Comm. and public services	-	-	247	252	-	-	-	50	1931	-	2480
Agriculture/forestry	-	-	-	-	-	-	-	-	42	-	42
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	666	-	-	-	-	-	-	-	666
in industry/transf./energy	-	-	666	-	-	-	-	-	-	-	666
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	14273	27824	-	64847	95	-	-	-	107039
Electricity plants	-	-	14273	27824	-	64847	95	-	-	-	107039
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Viet Nam

Figure 1. Energy production

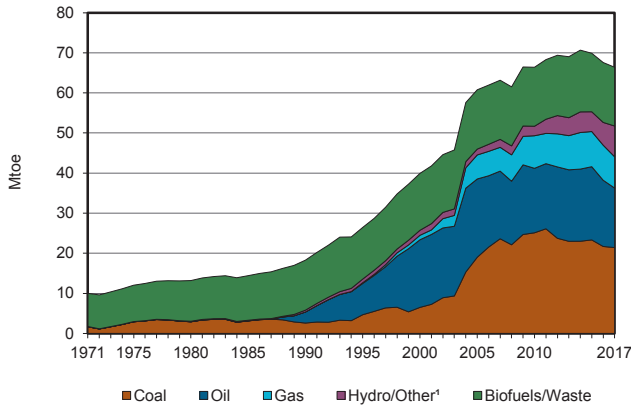


Figure 2. Total primary energy supply²

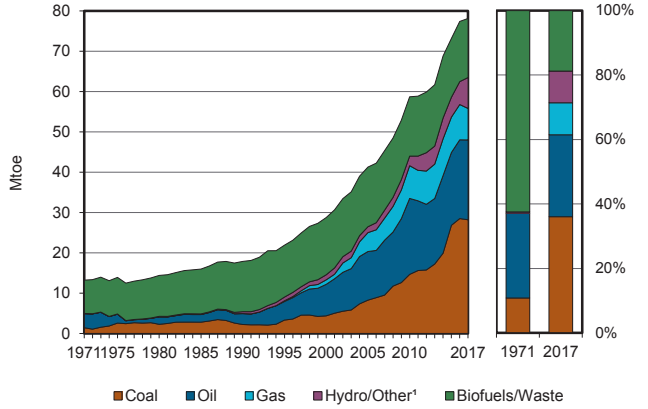


Figure 3. Energy self-sufficiency³

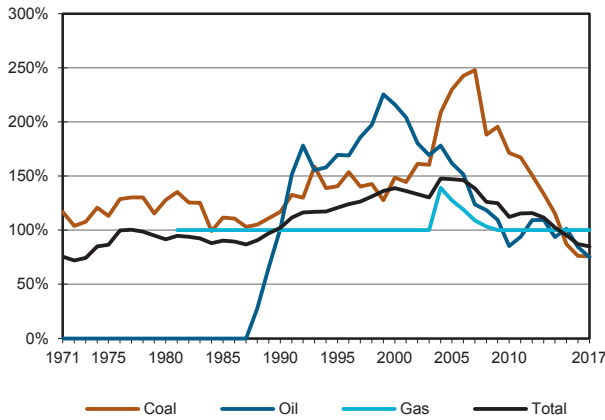


Figure 4. Oil products demand⁴

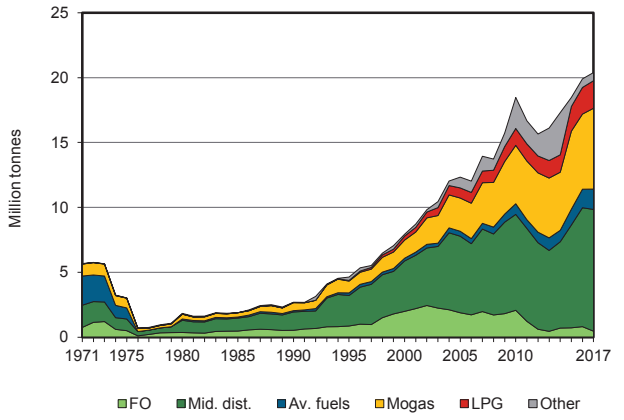


Figure 5. Electricity generation by source

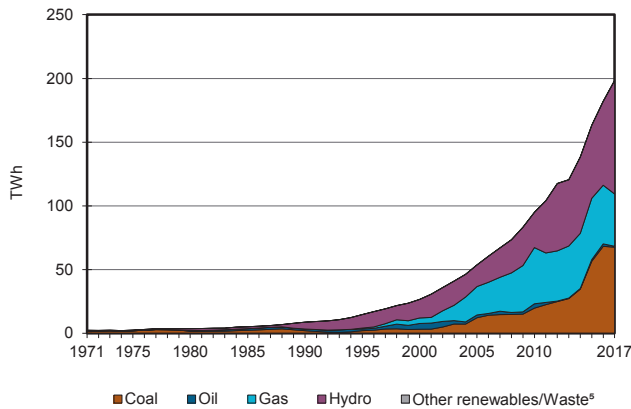
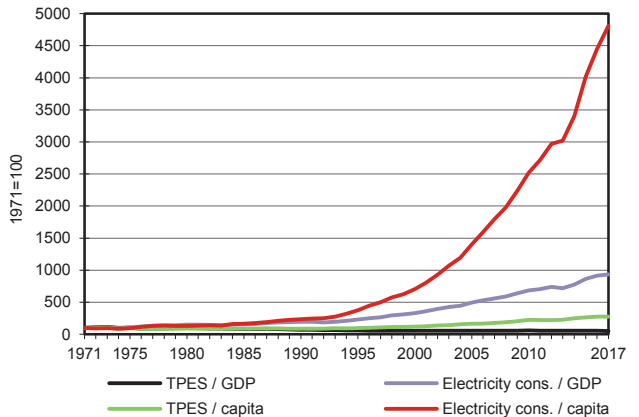


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Viet Nam

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal ¹	Crude oil ²	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	21413	14838	-	7811	-	7651	28	14646	-	-	66387
Imports	7827	1202	15218	-	-	-	-	-	114	-	24360
Exports	-1270	-6929	-1672	-	-	-	-	-	-61	-	-9932
Intl. marine bunkers	-	-	-212	-	-	-	-	-	-	-	-212
Intl. aviation bunkers	-	-	-888	-	-	-	-	-	-	-	-888
Stock changes	230	-1855	92	-	-	-	-	-	-	-	-1532
TPES	28199	7257	12538	7811	-	7651	28	14646	53	-	78183
Transfers	-	-1037	1080	-	-	-	-	-	-	-	43
Statistical differences	0	-	-0	0	-	-	-0	0	-608	-	-607
Electricity plants	-13422	-	-176	-6768	-	-7651	-28	-32	17082	-	-10995
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-6220	6334	-	-	-	-	-	-	-	114
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-1014	-	-	-1014
Energy industry own use	-	-	-	-	-	-	-	-	-478	-	-478
Losses	-	-	-	-	-	-	-	-	-1193	-	-1193
TFC	14778	-	19775	1043	-	-	0	13600	14856	-	64053
INDUSTRY	12413	-	3840	1039	-	-	-	9299	8702	-	35293
Iron and steel	447	-	232	-	-	-	-	-	819	-	1499
Chemical and petrochemical	164	-	209	927	-	-	-	-	646	-	1946
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	6474	-	193	112	-	-	-	-	1341	-	8120
Transport equipment	-	-	91	-	-	-	-	-	280	-	371
Machinery	-	-	270	-	-	-	-	-	907	-	1176
Mining and quarrying	26	-	314	-	-	-	-	-	339	-	679
Food and tobacco	898	-	403	-	-	-	-	3689	844	-	5835
Paper pulp and printing	715	-	63	-	-	-	-	2791	744	-	4313
Wood and wood products	107	-	126	-	-	-	-	-	552	-	786
Construction	-	-	361	-	-	-	-	-	369	-	729
Textile and leather	1973	-	259	-	-	-	-	2819	858	-	5910
Non-specified	1608	-	1317	-	-	-	-	-	1002	-	3928
TRANSPORT	-	-	12663	4	-	-	-	-	-	-	12667
Domestic aviation	-	-	728	-	-	-	-	-	-	-	728
Road	-	-	11882	-	-	-	-	-	-	-	11882
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	53	-	-	-	-	-	-	-	53
Non-specified	-	-	-	4	-	-	-	-	-	-	4
OTHER	2365	-	2657	-	-	-	0	4302	6154	-	15477
Residential	1809	-	1043	-	-	-	0	3987	4956	-	11795
Comm. and public services	543	-	1178	-	-	-	-	-	823	-	2544
Agriculture/forestry	13	-	436	-	-	-	-	315	375	-	1138
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	616	-	-	-	-	-	-	-	616
in industry/transf./energy	-	-	616	-	-	-	-	-	-	-	616
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	67558	-	700	41020	-	88982	323	76	-	-	198659
Electricity plants	67558	-	700	41020	-	88982	323	76	-	-	198659
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes peat.

2. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Yemen

Figure 1. Energy production

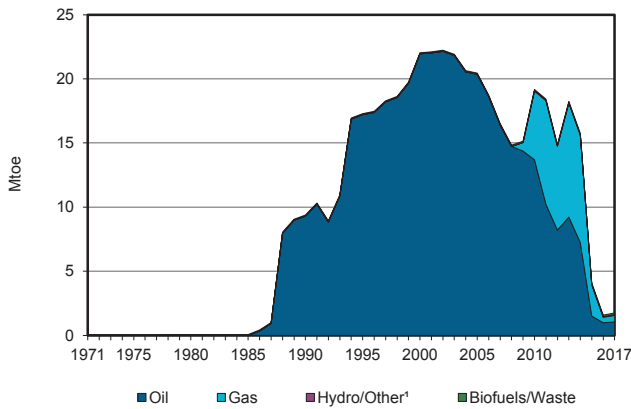


Figure 2. Total primary energy supply²

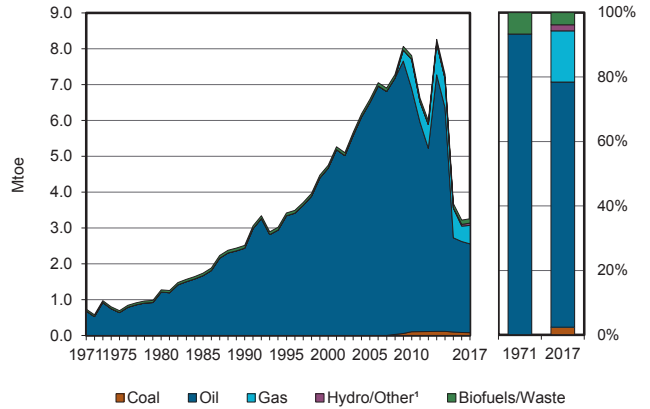


Figure 3. Energy self-sufficiency³

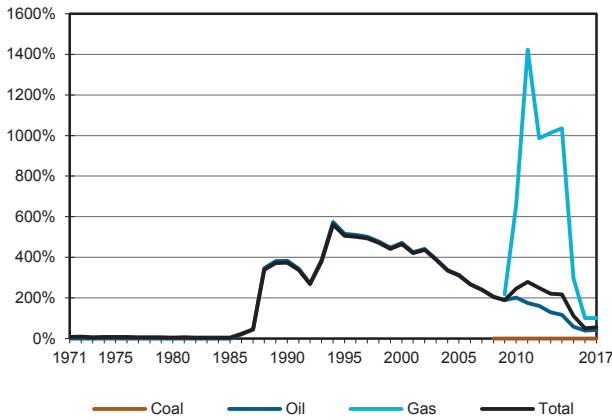


Figure 4. Oil products demand⁴

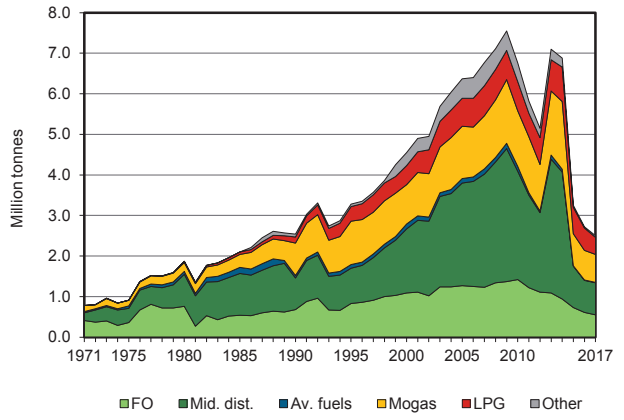


Figure 5. Electricity generation by source

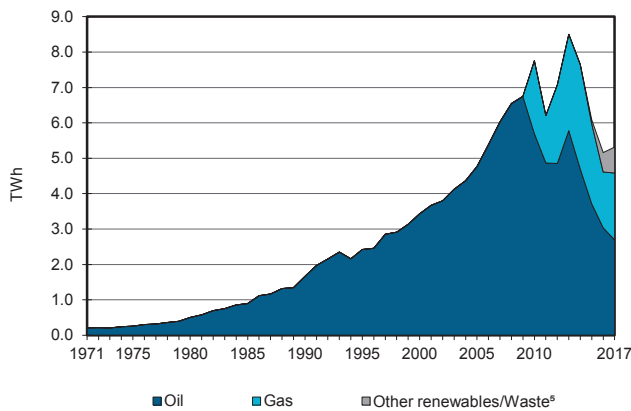
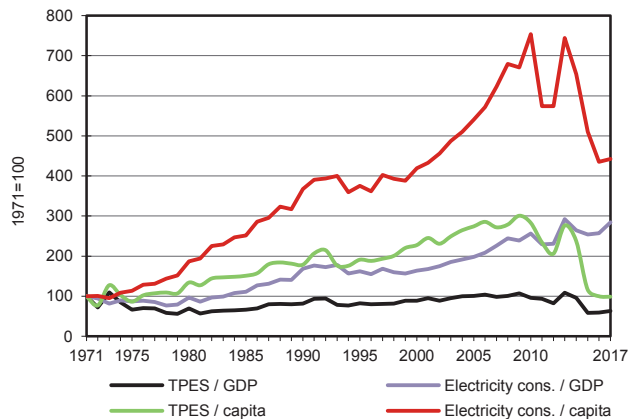


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Yemen

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	1049	-	517	-	-	63	122	-	-	1751
Imports	78	-	1539	-	-	-	-	-	-	-	1617
Exports	-	-	-	-	-	-	-	-	-	-	-
Intl. marine bunkers	-	-	-105	-	-	-	-	-	-	-	-105
Intl. aviation bunkers	-	-	-6	-	-	-	-	-	-	-	-6
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	78	1049	1428	517	-	-	63	122	-	-	3257
Transfers	-	-	404	-	-	-	-	-	-	-	404
Statistical differences	-	-	-247	-	-	-	-	-	55	-	-192
Electricity plants	-	-	-675	-517	-	-	-63	-	457	-	-798
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-1018	875	-	-	-	-	-	-	-	-144
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-61	-	-	-61
Energy industry own use	-	-30	-17	-	-	-	-	-	-62	-	-109
Losses	-	-	-	-	-	-	-	-	-101	-	-101
TFC	78	-	1767	-	-	-	-	61	349	-	2256
INDUSTRY	78	-	234	-	-	-	-	-	8	-	320
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	78	-	-	-	-	-	-	-	-	-	78
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	234	-	-	-	-	-	8	-	242
TRANSPORT	-	-	891	-	-	-	-	-	-	-	891
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	891	-	-	-	-	-	-	-	891
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	636	-	-	-	-	61	341	-	1038
Residential	-	-	529	-	-	-	-	-	275	-	804
Comm. and public services	-	-	66	-	-	-	-	-	39	-	105
Agriculture/forestry	-	-	41	-	-	-	-	-	-	-	41
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	61	27	-	88
NON-ENERGY USE	-	-	7	-	-	-	-	-	-	-	7
in industry/transf./energy	-	-	7	-	-	-	-	-	-	-	7
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	2692	1892	-	-	732	-	-	-	5316
Electricity plants	-	-	2692	1892	-	-	732	-	-	-	5316
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Zambia

Figure 1. Energy production

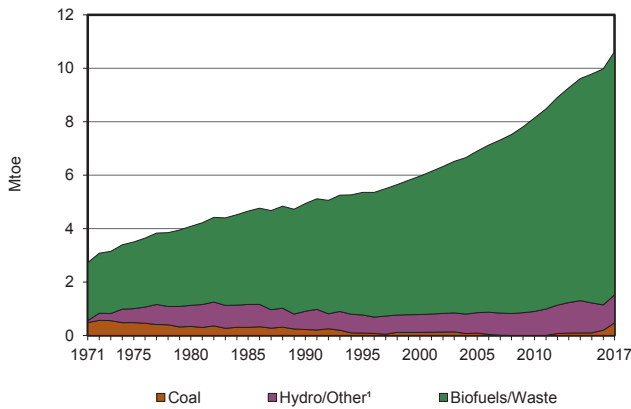


Figure 2. Total primary energy supply²

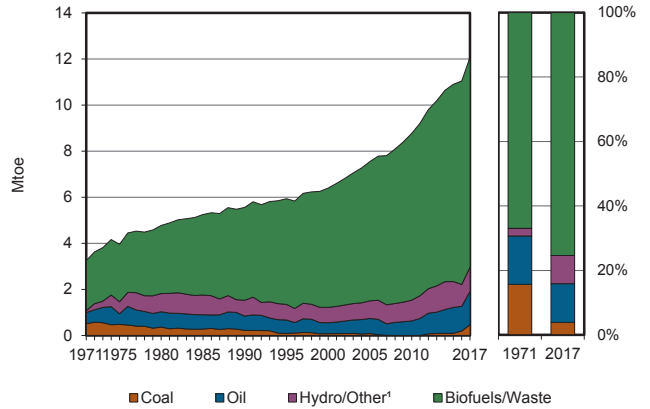


Figure 3. Energy self-sufficiency³

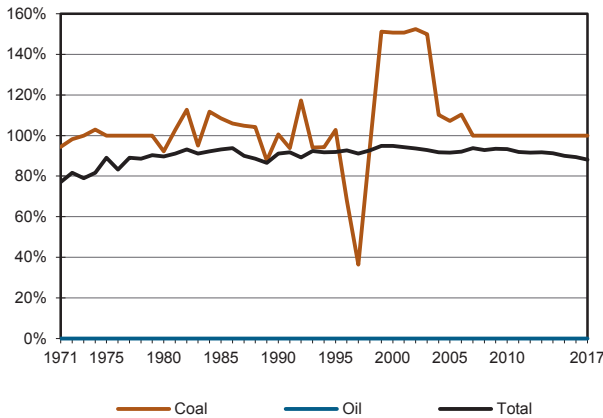


Figure 4. Oil products demand⁴

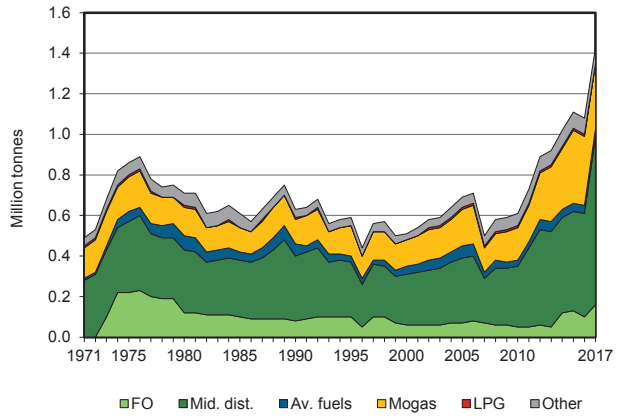


Figure 5. Electricity generation by source

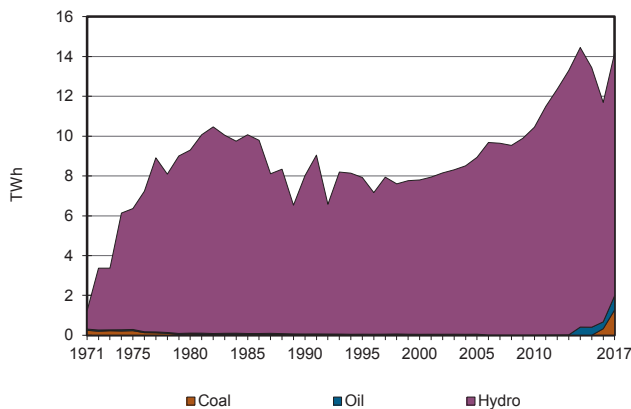
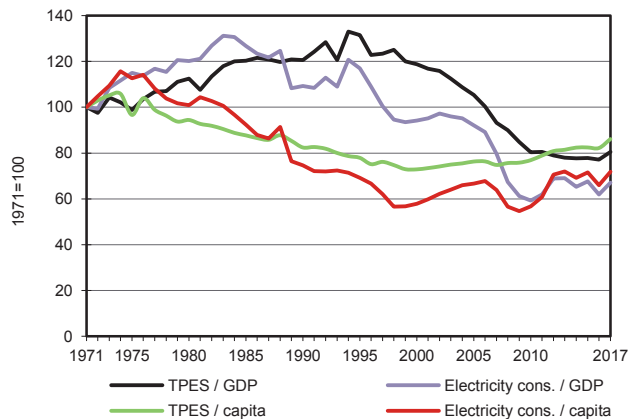


Figure 6. Selected indicators⁵



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. GDP in 2010 USD.

Zambia

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	470	-	-	-	-	1049	-	9106	-	-	10625
Imports	-	531	976	-	-	-	-	-	65	-	1571
Exports	-	-	-14	-	-	-	-	-	-91	-	-106
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-40	-	-	-	-	-	-	-	-40
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	470	531	922	-	-	1049	-	9106	-27	-	12051
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	1	-	-	-	-	-	-	-	1
Electricity plants	-367	-	-128	-	-	-1049	-	-	1220	-	-324
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-531	499	-	-	-	-	-	-	-	-32
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-2005	-	-	-2005
Energy industry own use	-	-	-12	-	-	-	-	-	-30	-	-42
Losses	-	-	-	-	-	-	-	-	-115	-	-115
TFC	104	-	1281	-	-	-	-	7101	1048	-	9534
INDUSTRY	104	-	412	-	-	-	-	1710	588	-	2813
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	27	-	-	-	-	-	534	-	561
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	311	-	-	-	-	2	10	-	324
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	34	-	-	-	-	-	1	-	35
Textile and leather	-	-	-	-	-	-	-	66	-	-	66
Non-specified	104	-	39	-	-	-	-	1641	43	-	1827
TRANSPORT	-	-	391	-	-	-	-	-	3	-	394
Domestic aviation	-	-	0	-	-	-	-	-	-	-	0
Road	-	-	390	-	-	-	-	-	-	-	390
Rail	-	-	-	-	-	-	-	-	3	-	3
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	0	-	-	-	-	-	-	-	0
OTHER	-	-	411	-	-	-	-	5392	457	-	6260
Residential	-	-	4	-	-	-	-	5392	356	-	5752
Comm. and public services	-	-	32	-	-	-	-	-	71	-	103
Agriculture/forestry	-	-	23	-	-	-	-	-	22	-	45
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	352	-	-	-	-	-	7	-	360
NON-ENERGY USE	-	-	67	-	-	-	-	-	-	-	67
in industry/transf./energy	-	-	67	-	-	-	-	-	-	-	67
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	1279	-	708	-	-	12198	-	-	-	-	14185
Electricity plants	1279	-	708	-	-	12198	-	-	-	-	14185
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Zimbabwe

Figure 1. Energy production

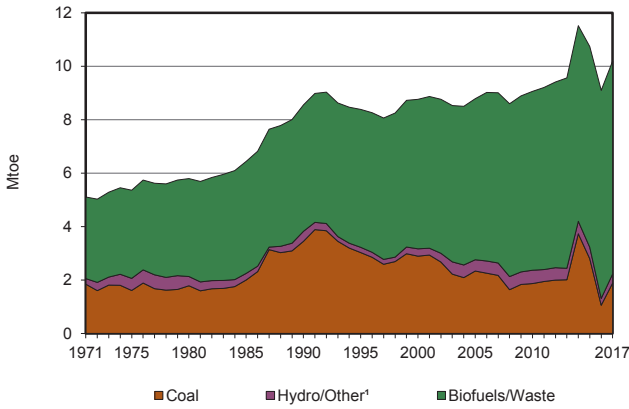


Figure 2. Total primary energy supply²

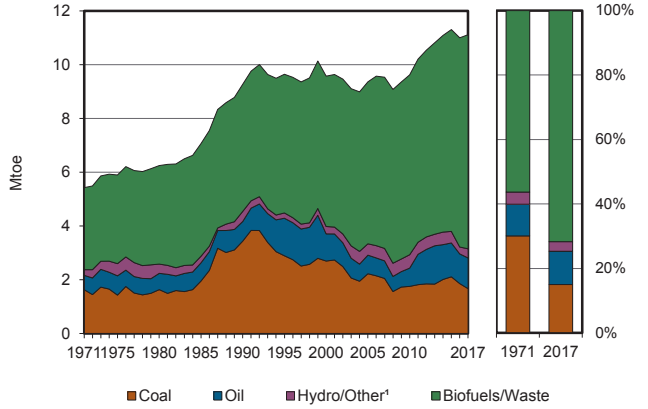


Figure 3. Energy self-sufficiency³

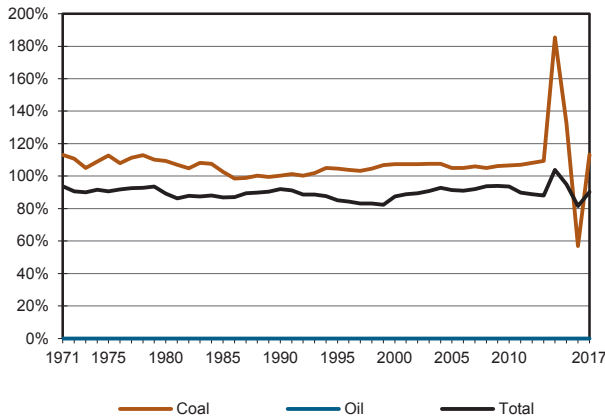


Figure 4. Oil products demand⁴

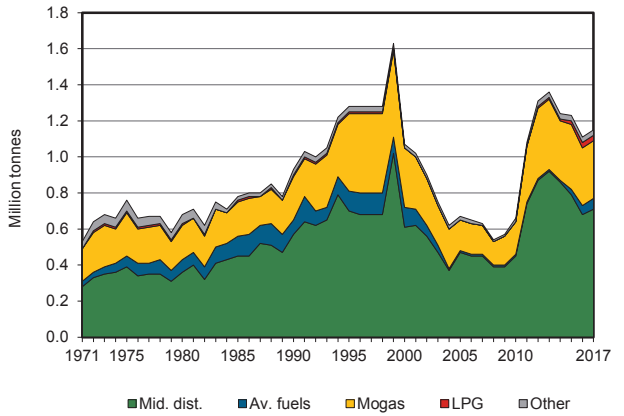


Figure 5. Electricity generation by source

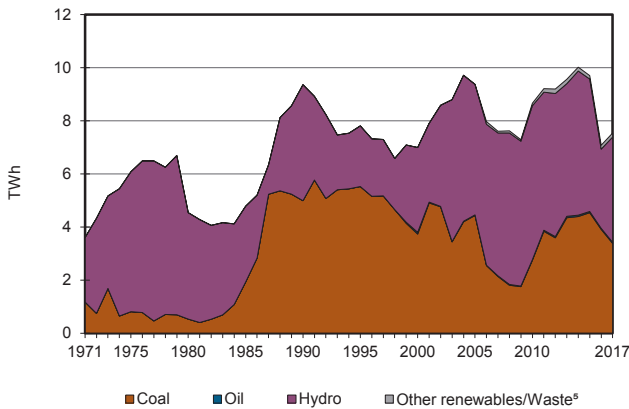
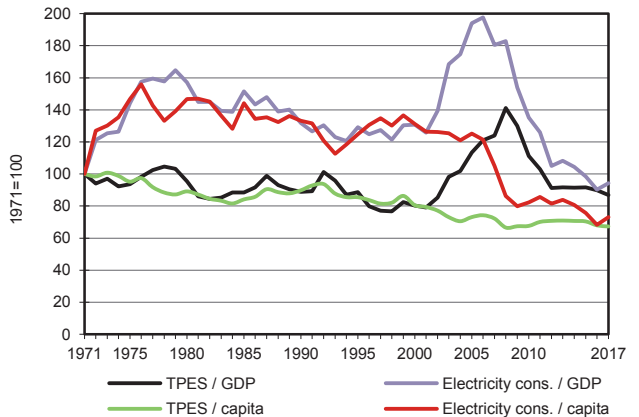


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Zimbabwe

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	1888	-	-	-	-	341	-	7964	-	-	10193
Imports	16	-	1207	-	-	-	-	-	221	-	1444
Exports	-150	-	-	-	-	-	-	-	-30	-	-180
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-65	-	-	-	-	-	-	-	-65
Stock changes	-87	-	-	-	-	-	-	-	-	-	-87
TPES	1667	-	1142	-	-	341	-	7964	191	-	11306
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	6	-	-6	-	-	-	-	-	-14	-	-13
Electricity plants	-1321	-	-14	-	-	-341	-	-52	649	-	-1079
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-65	-	-	-	-	-	-	-	-	-	-65
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-18	-	-	-18
Energy industry own use	-21	-	-14	-	-	-	-	-	-12	-	-47
Losses	-	-	-	-	-	-	-	-	-149	-	-149
TFC	267	-	1109	-	-	-	-	7894	665	-	9935
INDUSTRY	256	-	56	-	-	-	-	146	289	-	748
Iron and steel	70	-	2	-	-	-	-	-	-	-	72
Chemical and petrochemical	1	-	2	-	-	-	-	-	-	-	4
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	55	-	7	-	-	-	-	-	-	-	62
Transport equipment	1	-	-	-	-	-	-	-	-	-	1
Machinery	1	-	2	-	-	-	-	-	-	-	4
Mining and quarrying	1	-	18	-	-	-	-	-	139	-	159
Food and tobacco	67	-	8	-	-	-	-	-	-	-	74
Paper pulp and printing	11	-	2	-	-	-	-	-	-	-	14
Wood and wood products	22	-	1	-	-	-	-	-	-	-	23
Construction	-	-	5	-	-	-	-	-	-	-	5
Textile and leather	2	-	1	-	-	-	-	-	-	-	3
Non-specified	24	-	8	-	-	-	-	146	150	-	327
TRANSPORT	7	-	731	-	-	-	-	25	-	-	763
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	695	-	-	-	-	25	-	-	720
Rail	7	-	36	-	-	-	-	-	-	-	43
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	4	-	300	-	-	-	-	7723	376	-	8403
Residential	-	-	90	-	-	-	-	7321	223	-	7635
Comm. and public services	1	-	-	-	-	-	-	-	111	-	112
Agriculture/forestry	2	-	107	-	-	-	-	402	37	-	548
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	103	-	-	-	-	-	5	-	108
NON-ENERGY USE	-	-	21	-	-	-	-	-	-	-	21
in industry/transf./energy	-	-	21	-	-	-	-	-	-	-	21
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	3383	-	41	-	-	3969	-	151	-	-	7544
Electricity plants	3383	-	41	-	-	3969	-	151	-	-	7544
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

NET CALORIFIC VALUES

OECD country-specific net calorific values

2017

<i>KJ/kg</i>	Australia	Austria	Belgium	Canada	Chile	Czech Republic	Denmark	Estonia	Finland
Crude oil									
Production	43985	42500	-	42790	43203	42400	43000	-	-
Imports	42655	42500	42191	42790	43203	42400	43000	-	42660
Exports	43985	-	-	42790	-	42400	43000	-	-
Average	43282	42500	42191	42790	43203	42400	43000	-	42660
NGL	45410	42500	45200	45220	48127	-	-	-	44000
Refinery feedstocks	43282	41905	42191	42500	44799	40200	42700	-	42500
Additives	-	-	-	25120	22651	39500	-	-	42500
Other hydrocarbons	-	-	-	41868	35198	-	-	39353	42500
Biogasoline	26800	27520	28977	26800	-	27000	-	26800	27932
Biodiesels	36800	37229	37700	36800	-	37000	34660	-	43264
Other liquid biofuels	-	34535	37700	-	-	-	37200	-	44410
Anthracite									
Production	26700	-	-	-	-	-	-	-	-
Imports	26700	26700	28425	26381	-	28393	-	-	-
Exports	26700	26700	28425	-	-	31994	-	-	-
Main activity elec. generation	-	-	-	-	-	-	-	-	-
Industry	26700	26700	28425	26381	-	28393	-	-	-
Other uses	26700	26700	28425	26381	-	28756	-	-	27550
Coking coal									
Production	28500	-	-	24781	-	28580	-	-	-
Imports	28000	29182	28456	28400	29724	29284	-	-	29300
Exports	28500	-	29250	24781	-	28656	-	-	-
Coke ovens	28500	29182	28456	28400	29724	29580	-	-	29300
Main activity elec. generation	-	-	-	-	-	-	-	-	-
Industry	-	-	-	24781	-	-	-	-	-
Other uses	28500	29206	28456	24781	28638	28709	-	-	29300
Other bituminous coal									
Production	25700	-	22664	27226	16952	24192	-	-	-
Imports	28794	27612	30761	27226	23912	23035	24330	22000	25493
Exports	25700	27897	26292	27226	16952	28310	-	-	-
Coke ovens	-	-	-	-	-	-	-	-	-
Main activity elec. generation	25700	26943	-	27222	23654	20288	22385	22000	24637
Industry	25700	27897	26292	27226	27842	25484	24330	22000	24813
Other uses	25700	27897	26292	27226	25216	26567	24330	22000	24813
Sub-bituminous coal									
Production	18478	-	-	17897	-	-	-	-	-
Imports	-	21840	-	17897	-	-	-	-	-
Exports	-	-	-	17897	-	-	-	-	-
Main activity elec. generation	18478	-	-	17897	-	-	-	-	-
Industry	19195	21840	-	17897	-	-	-	-	-
Other uses	18478	21914	-	17897	-	-	-	-	-
Lignite									
Production	9800	-	-	14019	-	12495	-	-	-
Imports	-	9900	-	14019	-	13962	-	-	-
Exports	-	9900	-	14019	-	17796	-	-	-
Main activity elec. generation	9800	-	-	14019	-	11425	-	-	-
Industry	9800	9900	-	14019	-	13699	-	-	-
Other uses	9800	9900	-	14019	-	14502	-	-	-
Patent fuel	-	31000	30480	-	-	-	-	-	-
Coke oven coke	27000	28565	29308	27457	28452	27579	29300	28500	29300
Coal tar	35714	37000	38519	-	40561	37530	-	-	37000
BKB	20995	19800	20682	-	-	20008	18300	-	-
Peat	-	-	-	-	-	-	-	10080	9920
Peat products	-	-	-	-	-	-	-	-	16900
Oil shale	-	-	-	-	-	-	-	8430	-
Charcoal	-	30000	29300	-	28232	-	-	-	-

OECD country-specific net calorific values

2017

<i>KJ/kg</i>	France	Germany	Greece	Hungary	Iceland	Ireland	Israel	Italy	Japan
Crude oil									
Production	42781	42505	38158	41800	-	-	42538	41868	42048
Imports	42781	42505	41540	41800	-	42814	42705	41868	42048
Exports	42781	-	41860	41800	-	42814	-	41868	-
Average	42781	42505	41228	41800	-	42814	42538	41868	42048
NGL	42002	-	-	43000	-	-	-	-	45290
Refinery feedstocks	41855	42496	41318	41800	-	44589	44799	42500	42500
Additives	25121	37079	41318	41800	-	-	-	37000	-
Other hydrocarbons	-	-	-	40000	-	47219	41868	-	-
Biogasoline	28817	26541	-	26600	27000	26500	-	35995	26800
Biodiesels	37658	37079	37980	37500	43614	37273	-	37000	36800
Other liquid biofuels	36789	23528	-	-	-	-	-	36622	-
Anthracite									
Production	-	29700	-	-	-	-	-	-	-
Imports	32322	29700	-	27600	28050	29236	-	26167	27246
Exports	-	29700	-	-	-	31983	-	-	27246
Main activity elec. generation	-	29700	-	-	-	-	-	-	-
Industry	32322	29700	-	27600	28050	-	-	-	-
Other uses	32322	29700	-	26700	28050	28739	-	26586	27246
Coking coal									
Production	-	29000	-	-	-	-	-	-	-
Imports	29500	29000	-	29910	-	-	-	30984	28076
Exports	-	-	-	-	-	-	-	-	-
Coke ovens	29500	29000	-	29910	-	-	-	30984	28076
Main activity elec. generation	-	29001	-	-	-	-	-	-	-
Industry	-	-	-	-	-	-	-	-	28076
Other uses	29500	29000	-	29411	-	-	-	30984	28076
Other bituminous coal									
Production	-	28149	-	-	-	-	-	-	24399
Imports	26000	25772	23291	26351	-	25677	24916	24065	25056
Exports	-	29700	-	-	-	-	-	-	25056
Coke ovens	-	-	-	-	-	-	-	-	25056
Main activity elec. generation	25706	25481	-	-	-	24972	24845	25077	24046
Industry	26000	30158	23291	26351	-	27838	-	25052	25056
Other uses	26000	29201	27216	24237	-	27838	25002	25052	25056
Sub-bituminous coal									
Production	-	-	-	-	-	-	-	-	-
Imports	-	-	-	-	-	-	-	18832	-
Exports	-	-	-	-	-	-	-	-	-
Main activity elec. generation	-	-	-	-	-	-	-	20652	-
Industry	-	-	-	-	-	-	-	-	-
Other uses	-	-	-	-	-	-	-	18853	-
Lignite									
Production	-	8990	5068	6739	-	-	-	-	-
Imports	17000	18384	-	17949	-	-	-	10468	-
Exports	-	-	-	6739	-	-	-	-	-
Main activity elec. generation	-	8809	5010	6659	-	-	-	-	-
Industry	17000	10575	9213	14913	-	-	-	10468	-
Other uses	17000	10709	5068	12465	-	-	-	10468	-
Patent fuel	32000	31400	-	-	-	-	-	-	-
Coke oven coke	28000	28650	-	29754	26670	-	-	29000	29400
Coal tar	37883	-	-	38000	-	-	-	38519	35393
BKB	20097	19727	-	19611	-	19816	-	-	-
Peat	-	-	-	-	9760	13105	-	-	-
Peat products	-	-	-	-	-	18548	-	-	-
Oil shale	-	-	-	-	-	-	2931	-	-
Charcoal	-	32000	31000	-	-	-	30800	30800	29300

OECD country-specific net calorific values

2017

<i>KJ/kg</i>	Korea	Latvia	Lithuania	Luxembourg	Mexico	Netherlands	New Zealand	Norway	Poland
Crude oil									
Production	42203	-	42320	-	43509	42700	43604	43350	42080
Imports	42203	-	42320	-	-	42700	42752	43350	42500
Exports	-	-	42320	-	43509	42700	43707	43350	40634
Average	42203	-	42320	-	43509	42700	43080	43350	42497
NGL	-	-	-	-	41397	44000	45782	43795	-
Refinery feedstocks	47164	-	41503	-	42350	44000	43884	42300	43248
Additives	44079	-	41860	-	34055	37384	-	36800	40190
Other hydrocarbons	-	39350	-	-	41868	-	-	-	42500
Biogasoline	-	26800	27000	26803	-	27000	29657	26800	27000
Biodiesels	41956	37200	37000	38133	-	37000	-	36800	37000
Other liquid biofuels	36800	-	-	39763	-	-	-	36800	36883
Anthracite									
Production	19385	-	-	-	26685	-	-	-	-
Imports	20515	27433	-	26700	26485	29300	-	-	28500
Exports	-	27433	-	-	26685	-	-	-	28000
Main activity elec. generation	20500	-	-	-	-	-	-	-	-
Industry	20515	-	25120	26700	26455	29300	-	-	28652
Other uses	19385	27433	25120	29300	26700	29300	-	-	26700
Coking coal									
Production	-	-	-	-	29299	-	29753	-	29644
Imports	28010	-	-	-	26941	28631	-	-	29610
Exports	-	-	-	-	-	-	29753	-	29700
Coke ovens	28010	-	-	-	27095	28631	-	-	29540
Main activity elec. generation	-	-	-	-	-	-	-	-	29800
Industry	28219	-	-	-	27095	28630	29753	-	29552
Other uses	28010	-	-	-	29299	28630	29753	-	29519
Other bituminous coal									
Production	-	-	-	-	-	-	26561	28100	22534
Imports	23697	24110	25120	24400	25875	25049	26561	28100	22835
Exports	-	24110	-	-	-	-	-	28100	25830
Coke ovens	-	-	-	-	-	-	-	-	-
Main activity elec. generation	24660	24110	25120	-	24741	25049	-	28100	21217
Industry	23697	24110	25120	24400	-	-	26561	28100	22755
Other uses	24660	24110	25120	24400	23483	24676	26561	28100	26246
Sub-bituminous coal									
Production	-	-	-	-	20134	-	20220	-	-
Imports	21353	-	22705	-	19047	-	20220	-	-
Exports	-	-	-	-	-	-	20220	-	-
Main activity elec. generation	21354	-	-	-	22999	-	20097	-	-
Industry	-	-	22705	-	19714	-	20220	-	-
Other uses	21353	-	22705	-	19405	-	20220	-	-
Lignite									
Production	-	-	-	-	11346	-	16304	-	8328
Imports	-	-	-	-	13945	20000	14531	-	8300
Exports	-	-	-	-	-	-	-	-	8328
Main activity elec. generation	-	-	-	-	-	-	-	-	8210
Industry	-	-	-	-	11261	20000	16304	-	10646
Other uses	-	-	-	-	11261	20000	16304	-	8070
Patent fuel	19385	-	-	28200	-	-	-	-	23186
Coke oven coke	28889	26790	29300	28500	26521	28500	29500	28500	27957
Coal tar	37000	-	-	-	37970	41900	-	-	37667
BKB	-	-	-	22200	18000	20000	-	-	17943
Peat	-	10050	11720	-	-	-	-	-	-
Peat products	-	15490	13300	-	-	-	-	-	-
Oil shale	-	-	-	-	-	-	-	-	-
Charcoal	-	30000	30800	-	-	30000	-	-	-

OECD country-specific net calorific values

2017

<i>KJ/kg</i>	Portugal	Slovak Republic	Slovenia	Spain	Sweden	Switzerland	Turkey	United Kingdom	United States
Crude oil									
Production	-	43260	42686	42665	-	-	44270	43371	42686
Imports	43040	42000	-	42665	42161	43225	44320	43371	43582
Exports	-	42130	42686	-	-	-	-	43371	42798
Average	43040	42003	42686	42665	42161	43225	44295	43371	42901
NGL	-	41980	48632	-	-	-	-	45296	46315
Refinery feedstocks	42600	43860	-	42500	44244	43700	43500	42000	43538
Additives	37000	42000	-	-	39947	41325	25120	32102	37863
Other hydrocarbons	120000	41500	-	-	-	-	41868	28230	51004
Biogasoline	27000	21000	33370	26995	26567	26524	26800	26826	32021
Biodiesels	37000	39699	37033	36990	42051	37967	39500	37191	42179
Other liquid biofuels	-	-	-	-	38159	-	39775	-	21583
Anthracite									
Production	-	-	-	20650	-	-	-	-	30470
Imports	30359	26340	-	25840	-	25500	-	-	30327
Exports	-	-	-	25840	-	25500	-	-	30462
Main activity elec. generation	-	25456	-	20054	-	-	-	-	25248
Industry	30359	26341	-	24740	-	25500	-	-	27297
Other uses	30353	26341	-	26500	-	25500	-	-	12765
Coking coal									
Production	-	-	-	-	-	-	26000	30740	28749
Imports	-	29840	-	29250	30000	-	30200	30240	28224
Exports	-	-	-	-	-	-	29400	30740	27589
Coke ovens	-	29840	-	29250	30000	-	30200	30240	32371
Main activity elec. generation	-	-	-	-	-	-	25080	-	-
Industry	-	-	-	-	-	-	27915	30400	-
Other uses	-	29840	-	29300	30000	-	28030	30740	28532
Other bituminous coal									
Production	-	-	-	19020	-	-	22200	24994	26652
Imports	24915	26982	27437	23450	27400	25500	26115	25289	24609
Exports	-	-	-	23450	-	-	24900	29868	27882
Coke ovens	-	-	-	-	-	-	-	-	-
Main activity elec. generation	24914	23865	27437	22132	27900	-	24072	23924	25248
Industry	24915	26945	27437	23950	26860	25500	27500	26412	26426
Other uses	24765	26945	27437	27070	27400	25500	27500	29836	26554
Sub-bituminous coal									
Production	-	-	-	13510	-	-	20908	-	18995
Imports	-	-	18990	-	-	-	-	-	20013
Exports	-	-	-	-	-	-	-	-	20188
Main activity elec. generation	-	-	18283	12923	-	-	20909	-	19820
Industry	-	-	19477	-	-	-	-	-	19906
Other uses	-	-	18686	8621	-	-	20908	-	19035
Lignite									
Production	-	10190	11646	-	-	-	8353	-	13969
Imports	-	14331	-	-	-	23600	-	-	13845
Exports	-	-	-	-	-	-	11936	-	12817
Main activity elec. generation	-	11135	11640	-	-	-	6822	-	14634
Industry	-	11157	-	-	-	23600	17000	-	15182
Other uses	-	11157	11643	-	-	23600	17000	-	15013
Patent fuel	-	28000	-	-	-	-	-	28310	-
Coke oven coke	29567	28357	30084	27342	28080	25500	27000	29800	28865
Coal tar	-	33490	-	38519	-	-	37429	35035	-
BKB	-	17575	-	-	-	-	-	-	-
Peat	-	-	-	-	9754	-	-	-	-
Peat products	-	-	-	-	-	-	-	-	-
Oil shale	-	-	-	-	-	-	-	-	-
Charcoal	29500	28890	-	30800	-	-	-	-	-

Non-OECD country-specific net calorific values

2017

<i>kJ/kg</i>	Albania	Algeria	Angola	Argentina	Armenia	Azerbaijan	Bahrain	Bangladesh
Crude oil								
Production	41868	43292	42747	41868	-	42077	42705	-
Imports	-	42370	-	41868	-	42077	42705	42161
Exports	41868	43292	42747	41868	-	42077	-	-
Average	41868	43292	42747	41868	-	42077	42705	42161
NGL	-	46725	41868	42496	-	41910	42705	42705
Refinery feedstocks	-	-	-	44799	-	-	44799	-
Additives	-	-	-	41868	-	-	-	-
Other hydrocarbons	-	-	-	-	-	-	-	-
Biogasoline	-	-	-	26800	-	-	-	-
Biodiesels	36800	-	-	36800	-	-	-	-
Other liquid biofuels	-	-	-	-	-	-	-	-
Anthracite								
Production	-	-	-	-	-	-	-	-
Imports	25163	-	-	-	26700	-	-	-
Exports	-	-	-	-	-	-	-	-
Main activity elec. generation	-	-	-	-	-	-	-	-
Industry	25163	-	-	-	-	-	-	-
Other uses	25163	-	-	-	26700	-	-	-
Coking coal								
Production	-	-	-	-	-	-	-	-
Imports	-	-	-	30145	-	-	-	-
Exports	-	-	-	-	-	-	-	-
Coke ovens	-	-	-	30145	-	-	-	-
Main activity elec. generation	-	-	-	-	-	-	-	-
Industry	-	-	-	-	-	-	-	-
Other uses	-	-	-	24702	-	-	-	-
Other bituminous coal								
Production	20400	-	-	24702	-	-	-	20926
Imports	-	-	-	27000	-	-	-	20926
Exports	-	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-	-
Main activity elec. generation	-	-	-	27000	-	-	-	20926
Industry	20400	-	-	30145	-	-	-	20926
Other uses	20400	-	-	24702	-	-	-	20926
Sub-bituminous coal								
Production	-	-	-	-	-	-	-	-
Imports	-	-	-	-	-	-	-	-
Exports	-	-	-	-	-	-	-	-
Main activity elec. generation	-	-	-	-	-	-	-	-
Industry	-	-	-	-	-	-	-	-
Other uses	-	-	-	-	-	-	-	-
Lignite								
Production	-	-	-	-	7800	-	-	-
Imports	-	-	-	-	-	-	-	-
Exports	-	-	-	-	-	-	-	-
Main activity elec. generation	-	-	-	-	-	-	-	-
Industry	-	-	-	-	-	-	-	-
Other uses	-	-	-	-	7800	-	-	-
Patent fuel	-	-	-	-	-	-	-	-
Coke oven coke	-	28200	-	28458	-	-	-	-
Coal tar	-	-	-	-	-	-	-	-
BKB	-	-	-	-	-	-	-	-
Peat	-	-	-	-	9760	-	-	-
Peat products	-	-	-	-	-	-	-	-
Oil shale	-	-	-	-	-	-	-	-
Charcoal	30800	-	30800	27214	30800	30800	-	30800

Non-OECD country-specific net calorific values

2017

<i>kJ/kg</i>	Belarus	Benin	Bolivia	Bosnia and Herzegovina	Botswana	Brazil	Brunei Darussalam	Bulgaria
Crude oil								
Production	42077	-	43333	-	-	42705	42747	40721
Imports	42077	-	-	42747	-	42705	-	42538
Exports	42077	-	-	-	-	42705	42747	-
Average	42077	-	43333	42747	-	42705	42747	42538
NGL	41910	-	43333	-	-	45217	42747	-
Refinery feedstocks	44799	-	-	-	-	44506	-	42500
Additives	-	-	-	-	-	-	41868	23027
Other hydrocarbons	-	-	-	-	-	119960	-	41868
Biogasoline	-	-	-	-	-	28261	-	26800
Biodiesels	36800	-	-	-	-	42287	-	36800
Other liquid biofuels	-	-	-	-	-	26377	-	-
Anthracite								
Production	-	-	-	-	-	-	-	-
Imports	-	-	-	-	-	-	-	29772
Exports	-	-	-	-	-	-	-	-
Main activity elec. generation	-	-	-	-	-	-	-	24567
Industry	-	-	-	-	-	-	-	29498
Other uses	-	-	-	-	-	-	-	29498
Coking coal								
Production	-	-	-	-	-	-	-	-
Imports	-	-	-	29065	-	30982	-	-
Exports	-	-	-	-	-	-	-	-
Coke ovens	-	-	-	29065	-	30982	-	-
Main activity elec. generation	-	-	-	-	-	-	-	-
Industry	-	-	-	29065	-	-	-	-
Other uses	-	-	-	29065	-	30982	-	-
Other bituminous coal								
Production	-	-	-	-	23597	23865	-	16287
Imports	24527	25800	-	-	-	23865	-	24000
Exports	24527	-	-	-	23597	-	-	-
Coke ovens	-	-	-	-	-	-	-	-
Main activity elec. generation	-	-	-	-	23597	23865	-	20515
Industry	24527	25800	-	-	23597	23865	-	24000
Other uses	24527	25800	-	-	23597	23865	-	29494
Sub-bituminous coal								
Production	-	-	-	-	-	18388	-	-
Imports	-	-	-	-	-	18631	-	-
Exports	-	-	-	-	-	-	-	-
Main activity elec. generation	-	-	-	-	-	17794	-	-
Industry	-	-	-	-	-	19577	-	-
Other uses	-	-	-	-	-	18388	-	-
Lignite								
Production	-	-	-	10737	-	12926	-	6925
Imports	-	-	-	10737	-	-	-	11900
Exports	-	-	-	10737	-	-	-	17471
Main activity elec. generation	-	-	-	10737	-	12916	-	6872
Industry	-	-	-	10737	-	12826	-	9856
Other uses	-	-	-	10737	-	12861	-	7191
Patent fuel								
Coke oven coke	29015	-	-	28540	-	28889	-	28500
Coal tar	-	-	-	-	-	35797	-	-
BKB	-	-	-	-	-	-	-	16230
Peat	9378	-	-	-	-	-	-	-
Peat products	14654	-	-	-	-	-	-	-
Oil shale	-	-	-	-	-	-	-	-
Charcoal	30800	29308	30354	30800	-	27047	-	26000

Non-OECD country-specific net calorific values

2017

<i>kJ/kg</i>	Cambodia	Cameroon	PR of China	Colombia	Congo	Costa Rica	Côte d'Ivoire	Croatia
Crude oil								
Production	-	42454	41868	42245	42915	-	42622	42600
Imports	-	42454	41868	-	-	-	42622	42600
Exports	-	42454	41868	42245	42915	-	42622	-
Average	-	42454	41868	42245	42915	-	42622	42700
NGL	-	-	42705	41868	45217	-	42622	46059
Refinery feedstocks	-	-	44799	-	-	-	42622	42700
Additives	41868	-	-	-	-	-	-	42700
Other hydrocarbons	-	-	41868	-	-	-	-	48750
Biogasoline	-	-	26800	26800	-	-	-	26800
Biodiesels	-	-	36800	36800	-	-	-	36800
Other liquid biofuels	-	-	-	-	-	-	-	-
Anthracite								
Production	-	-	-	-	-	-	-	-
Imports	-	-	20934	-	-	-	-	27550
Exports	-	-	-	-	-	-	-	-
Main activity elec. generation	-	-	-	-	-	-	-	-
Industry	-	-	18899	-	-	-	-	27550
Other uses	-	-	22659	-	-	-	-	24501
Coking coal								
Production	-	-	26745	27214	-	-	-	-
Imports	-	-	26745	-	-	-	-	-
Exports	-	-	26745	27214	-	-	-	-
Coke ovens	-	-	26745	27214	-	-	-	-
Main activity elec. generation	-	-	-	-	-	-	-	-
Industry	-	-	-	27214	-	-	-	-
Other uses	-	-	26745	27214	-	-	-	-
Other bituminous coal								
Production	-	-	22135	27214	-	-	-	-
Imports	-	-	20934	-	-	25800	-	25088
Exports	-	-	27214	27214	-	-	-	-
Coke ovens	-	-	22155	-	-	-	-	-
Main activity elec. generation	-	-	20586	27214	-	-	-	24850
Industry	-	-	21671	27214	-	25800	-	27280
Other uses	-	-	21246	27214	-	25800	-	25088
Sub-bituminous coal								
Production	19887	-	-	-	-	-	-	-
Imports	19887	-	-	-	-	-	-	-
Exports	-	-	-	-	-	-	-	-
Main activity elec. generation	19887	-	-	-	-	-	-	-
Industry	18900	-	-	-	-	-	-	-
Other uses	18900	-	-	-	-	-	-	-
Lignite								
Production	-	-	-	-	-	-	-	-
Imports	-	-	-	-	-	-	-	17100
Exports	-	-	-	-	-	-	-	-
Main activity elec. generation	-	-	-	-	-	-	-	-
Industry	-	-	-	-	-	-	-	17100
Other uses	-	-	-	-	-	-	-	17100
Patent fuel	-	-	17752	-	-	-	-	-
Coke oven coke	-	-	26796	20097	-	28200	-	29310
Coal tar	-	-	33494	-	-	-	-	-
BKB	-	-	-	-	-	-	-	-
Peat	-	-	-	-	-	-	-	-
Peat products	-	-	-	-	-	-	-	-
Oil shale	-	-	-	-	-	-	-	-
Charcoal	28889	16957	-	30800	30800	30800	30800	30800

Non-OECD country-specific net calorific values

2017

<i>kJ/kg</i>	Cuba	Curaçao ¹	Cyprus ¹	DPR of Korea	DR of the Congo	Dominican Republic	Ecuador	Egypt
Crude oil								
Production	42559	-	-	-	42161	-	41868	42538
Imports	42559	42161	-	42161	-	42161	-	42538
Exports	-	-	-	-	42161	-	41868	42538
Average	42559	42161	-	42161	42161	42161	41868	42538
NGL	41701	42705	-	-	-	-	42454	42538
Refinery feedstocks	-	44799	-	-	-	-	-	-
Additives	-	-	-	-	-	-	-	-
Other hydrocarbons	-	-	-	-	-	-	-	-
Biogasoline	25101	-	-	-	-	-	26800	-
Biodiesels	-	-	36800	-	-	-	-	-
Other liquid biofuels	-	-	-	-	-	-	-	-
Anthracite								
Production	-	-	-	26700	-	-	-	-
Imports	26700	-	-	26700	-	-	-	-
Exports	-	-	-	26700	-	-	-	-
Main activity elec. generation	-	-	-	-	-	-	-	-
Industry	26700	-	-	-	-	-	-	-
Other uses	26700	-	-	26700	-	-	-	-
Coking coal								
Production	-	-	-	-	-	-	-	-
Imports	-	-	-	-	-	-	-	25749
Exports	-	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-	25749
Main activity elec. generation	-	-	-	-	-	-	-	-
Industry	-	-	-	-	-	-	-	-
Other uses	-	-	-	-	-	-	-	25749
Other bituminous coal								
Production	-	-	-	25800	-	-	-	-
Imports	-	-	24680	25800	-	25800	-	-
Exports	-	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-	-
Main activity elec. generation	-	-	-	25800	-	25800	-	-
Industry	-	-	24680	25800	-	25800	-	-
Other uses	-	-	25675	25800	-	25800	-	-
Sub-bituminous coal								
Production	-	-	-	17585	-	-	-	-
Imports	-	-	-	-	-	-	-	-
Exports	-	-	-	-	-	-	-	-
Main activity elec. generation	-	-	-	17585	-	-	-	-
Industry	-	-	-	17585	-	-	-	-
Other uses	-	-	-	17585	-	-	-	-
Lignite								
Production	-	-	-	-	-	-	-	-
Imports	-	-	-	-	-	-	-	-
Exports	-	-	-	-	-	-	-	-
Main activity elec. generation	-	-	-	-	-	-	-	-
Industry	-	-	-	-	-	-	-	-
Other uses	-	-	-	-	-	-	-	-
Patent fuel								
Coke oven coke	28200	-	-	28200	-	28200	-	27214
Coal tar	-	-	-	-	-	-	-	-
BKB	-	-	-	-	-	-	-	-
Peat	-	-	-	-	-	-	-	-
Peat products	-	-	-	-	-	-	-	-
Oil shale	-	-	-	-	-	-	-	-
Charcoal	30229	-	30800	30800	30800	30800	-	-

1. Please refer to section 'Geographical coverage'.

Non-OECD country-specific net calorific values

2017

<i>kJ/kg</i>	El Salvador	Eritrea	Ethiopia	Gabon	Georgia	Ghana	Gibraltar	Guatemala
Crude oil								
Production	-	-	-	42622	42077	42622	-	42454
Imports	-	-	-	-	42077	42622	-	-
Exports	-	-	-	42622	42077	42622	-	42454
Average	-	-	-	42622	42077	42622	-	42454
NGL	-	-	-	-	-	41868	-	-
Refinery feedstocks	-	-	-	-	44799	-	-	-
Additives	-	-	-	-	-	-	-	-
Other hydrocarbons	-	-	-	-	-	-	-	-
Biogasoline	-	-	26800	-	-	-	-	26800
Biodiesels	-	-	-	-	-	-	-	-
Other liquid biofuels	-	-	-	-	-	-	-	-
Anthracite								
Production	-	-	-	-	-	-	-	-
Imports	-	-	-	-	27550	-	-	-
Exports	-	-	-	-	-	-	-	-
Main activity elec. generation	-	-	-	-	-	-	-	-
Industry	-	-	-	-	27550	-	-	-
Other uses	-	-	-	-	27550	-	-	-
Coking coal								
Production	-	-	-	-	-	-	-	-
Imports	-	-	-	-	-	-	-	-
Exports	-	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-	-
Main activity elec. generation	-	-	-	-	-	-	-	-
Industry	-	-	-	-	-	-	-	-
Other uses	-	-	-	-	-	-	-	-
Other bituminous coal								
Production	-	-	-	-	-	-	-	-
Imports	-	-	25800	-	25000	-	-	25800
Exports	-	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-	-
Main activity elec. generation	-	-	-	-	-	-	-	25800
Industry	-	-	25800	-	25000	-	-	-
Other uses	-	-	25800	-	25000	-	-	25800
Sub-bituminous coal								
Production	-	-	-	-	-	-	-	-
Imports	-	-	-	-	-	-	-	-
Exports	-	-	-	-	-	-	-	-
Main activity elec. generation	-	-	-	-	-	-	-	-
Industry	-	-	-	-	-	-	-	-
Other uses	-	-	-	-	-	-	-	-
Lignite								
Production	-	-	-	-	17000	-	-	-
Imports	-	-	-	-	-	-	-	-
Exports	-	-	-	-	17000	-	-	-
Main activity elec. generation	-	-	-	-	17000	-	-	-
Industry	-	-	-	-	17000	-	-	-
Other uses	-	-	-	-	17000	-	-	-
Patent fuel	-	-	-	-	-	-	-	-
Coke oven coke	-	-	-	-	25121	-	-	-
Coal tar	-	-	-	-	-	-	-	-
BKB	-	-	-	-	-	-	-	-
Peat	-	-	-	-	-	-	-	-
Peat products	-	-	-	-	-	-	-	-
Oil shale	-	-	-	-	-	-	-	-
Charcoal	30800	30800	30800	-	-	30800	-	30800

Non-OECD country-specific net calorific values

2017

<i>kJ/kg</i>	Haiti	Honduras	Hong Kong, China	India	Indonesia	Islamic Rep. of Iran	Iraq	Jamaica
Crude oil								
Production	-	-	-	42789	42663	42663	42831	-
Imports	-	-	-	42789	42663	-	-	42161
Exports	-	-	-	-	42663	42663	42831	-
Average	-	-	-	42789	42663	42663	42831	42161
NGL	-	-	-	42998	42768	42538	42831	-
Refinery feedstocks	-	-	-	40000	44799	44799	-	-
Additives	-	-	-	-	-	41868	-	-
Other hydrocarbons	-	-	-	-	-	-	-	-
Biogasoline	-	-	-	26800	-	-	-	26800
Biodiesels	-	-	36800	36800	36800	-	-	-
Other liquid biofuels	-	-	-	-	-	-	-	-
Anthracite								
Production	-	-	-	-	-	-	-	-
Imports	-	-	-	-	-	-	-	-
Exports	-	-	-	-	-	-	-	-
Main activity elec. generation	-	-	-	-	-	-	-	-
Industry	-	-	-	-	-	-	-	-
Other uses	-	-	-	-	-	-	-	-
Coking coal								
Production	-	-	-	20454	28200	28200	-	-
Imports	-	-	-	28168	28200	28200	-	-
Exports	-	-	-	20454	28200	28200	-	-
Coke ovens	-	-	-	27880	-	28200	-	-
Main activity elec. generation	-	-	-	20454	-	-	-	-
Industry	-	-	-	27880	28200	-	-	-
Other uses	-	-	-	27880	28200	28200	-	-
Other bituminous coal								
Production	-	-	-	15826	25800	25800	-	-
Imports	-	25800	25800	25545	-	25800	-	25800
Exports	-	-	-	15826	25800	25800	-	-
Coke ovens	-	-	-	-	-	-	-	-
Main activity elec. generation	-	25800	25800	15081	-	-	-	-
Industry	-	25800	25800	18353	25800	25800	-	25800
Other uses	-	25800	25800	15826	25800	25800	-	25800
Sub-bituminous coal								
Production	-	-	-	-	21151	-	-	-
Imports	-	-	-	18000	-	-	-	-
Exports	-	-	-	-	22000	-	-	-
Main activity elec. generation	-	-	-	18000	18780	-	-	-
Industry	-	-	-	-	18780	-	-	-
Other uses	-	-	-	9797	18780	-	-	-
Lignite								
Production	-	-	-	9546	-	-	-	-
Imports	-	-	-	-	-	-	-	-
Exports	-	-	-	9546	-	-	-	-
Main activity elec. generation	-	-	-	9546	-	-	-	-
Industry	-	-	-	9546	-	-	-	-
Other uses	-	-	-	9546	-	-	-	-
Patent fuel	-	-	-	-	-	-	-	-
Coke oven coke	-	28200	-	28200	-	28200	-	-
Coal tar	-	-	-	-	-	38000	-	-
BKB	-	-	-	20000	20000	-	-	-
Peat	-	-	-	-	-	-	-	-
Peat products	-	-	-	-	-	-	-	-
Oil shale	-	-	-	-	-	-	-	-
Charcoal	30800	30800	30800	30800	30800	30800	30800	30800

Non-OECD country-specific net calorific values

2017

<i>kJ/kg</i>	Jordan	Kazakhstan	Kenya	Kosovo	Kuwait	Kyrgyzstan	Lebanon	Libya
Crude oil								
Production	42705	42876	-	-	42538	42077	-	42998
Imports	42705	42673	42077	-	-	42077	-	-
Exports	-	42920	-	-	42538	42077	-	42998
Average	42705	42823	42077	-	42538	42077	-	42998
NGL	-	46000	-	-	42622	-	-	42998
Refinery feedstocks	-	-	-	-	-	-	-	-
Additives	-	-	-	-	-	-	-	-
Other hydrocarbons	-	-	-	-	-	-	-	-
Biogasoline	-	-	-	-	-	-	-	-
Biodiesels	-	36800	-	-	-	-	-	-
Other liquid biofuels	-	-	-	-	-	-	-	-
Anthracite								
Production	-	-	-	-	-	-	-	-
Imports	26700	-	-	-	-	18581	-	-
Exports	-	-	-	-	-	18581	-	-
Main activity elec. generation	-	-	-	-	-	-	-	-
Industry	26700	-	-	-	-	18581	-	-
Other uses	26700	-	-	-	-	18581	-	-
Coking coal								
Production	-	18581	-	-	-	-	-	-
Imports	-	18581	-	-	-	-	-	-
Exports	-	18581	-	-	-	-	-	-
Coke ovens	-	18581	-	-	-	-	-	-
Main activity elec. generation	-	19226	-	-	-	-	-	-
Industry	-	18581	-	-	-	-	-	-
Other uses	-	18581	-	-	-	-	-	-
Other bituminous coal								
Production	-	18581	-	-	-	18581	-	-
Imports	-	18581	25800	22525	-	20882	27675	-
Exports	-	18581	-	-	-	18581	-	-
Coke ovens	-	-	-	-	-	-	-	-
Main activity elec. generation	-	18581	-	-	-	18581	-	-
Industry	-	18581	25800	22525	-	18581	27675	-
Other uses	-	18581	25800	22525	-	20882	27675	-
Sub-bituminous coal								
Production	-	-	-	-	-	-	-	-
Imports	-	-	-	-	-	-	-	-
Exports	-	-	-	-	-	-	-	-
Main activity elec. generation	-	-	-	-	-	-	-	-
Industry	-	-	-	-	-	-	-	-
Other uses	-	-	-	-	-	-	-	-
Lignite								
Production	-	14654	-	7802	-	14654	-	-
Imports	-	-	-	7802	-	14654	-	-
Exports	-	14654	-	7802	-	14654	-	-
Main activity elec. generation	-	14654	-	7802	-	14654	-	-
Industry	-	14654	-	7802	-	14654	-	-
Other uses	-	14654	-	7802	-	14654	-	-
Patent fuel	-	-	-	-	-	-	-	-
Coke oven coke	28200	25121	-	-	-	-	-	-
Coal tar	-	38000	-	-	-	-	-	-
BKB	-	-	-	-	-	-	-	-
Peat	-	-	-	-	-	-	-	-
Peat products	-	-	-	-	-	-	-	-
Oil shale	-	-	-	-	-	-	-	-
Charcoal	30800	30800	30800	-	-	-	30800	-

Non-OECD country-specific net calorific values

2017

<i>kJ/kg</i>	Malaysia	Malta	Mauritius	Moldova	Mongolia	Montenegro	Morocco	Mozambique
Crude oil								
Production	43300	-	-	42077	42161	-	38937	-
Imports	42613	-	-	-	-	-	-	-
Exports	43333	-	-	-	42161	-	-	-
Average	43333	-	-	42077	42161	-	42460	-
NGL	44413	-	-	-	-	-	-	-
Refinery feedstocks	42538	-	-	44799	-	-	-	-
Additives	-	-	-	-	-	-	-	-
Other hydrocarbons	42119	-	-	-	-	-	-	-
Biogasoline	-	-	-	-	-	-	-	-
Biodiesels	36800	36800	-	-	-	-	-	-
Other liquid biofuels	-	-	-	-	-	-	-	-
Anthracite								
Production	-	-	-	-	-	-	-	-
Imports	-	-	-	24770	-	-	-	-
Exports	-	-	-	-	-	-	-	-
Main activity elec. generation	-	-	-	-	-	-	-	-
Industry	-	-	-	24770	-	-	-	-
Other uses	-	-	-	24770	-	-	-	-
Coking coal								
Production	-	-	-	-	28200	-	-	28200
Imports	-	-	-	-	-	-	-	-
Exports	-	-	-	-	28200	-	-	28200
Coke ovens	-	-	-	-	28200	-	-	-
Main activity elec. generation	-	-	-	-	-	-	-	-
Industry	-	-	-	-	-	-	-	-
Other uses	-	-	-	-	28200	-	-	28200
Other bituminous coal								
Production	26394	-	-	-	28596	-	-	24995
Imports	26394	-	25958	22655	28596	-	27633	-
Exports	26394	-	-	-	28596	-	-	24995
Coke ovens	-	-	-	-	-	-	-	-
Main activity elec. generation	26394	-	-	-	28596	-	27633	-
Industry	26394	-	25958	22655	28596	-	27633	-
Other uses	26394	-	25958	22655	28596	-	27633	24995
Sub-bituminous coal								
Production	-	-	-	-	-	-	-	-
Imports	-	-	-	-	-	-	-	-
Exports	-	-	-	-	-	-	-	-
Main activity elec. generation	-	-	-	-	-	-	-	-
Industry	-	-	-	-	-	-	-	-
Other uses	-	-	-	-	-	-	-	-
Lignite								
Production	-	-	-	-	14403	9210	-	-
Imports	-	-	-	-	-	9210	-	-
Exports	-	-	-	-	14403	9210	-	-
Main activity elec. generation	-	-	-	-	14403	9210	-	-
Industry	-	-	-	-	14403	9210	-	-
Other uses	-	-	-	-	14403	9210	-	-
Patent fuel	-	-	-	-	-	-	-	-
Coke oven coke	-	-	-	-	28200	-	-	-
Coal tar	-	-	-	-	-	-	-	-
BKB	-	-	-	-	-	-	-	-
Peat	-	-	-	-	-	-	-	-
Peat products	-	-	-	-	-	-	-	-
Oil shale	-	-	-	-	-	-	-	-
Charcoal	28889	-	30800	30800	30800	30800	30800	30019

Non-OECD country-specific net calorific values

2017

<i>kJ/kg</i>	Myanmar	Namibia	Nepal	Nicaragua	Niger	Nigeria	Rep. of North Macedonia	Oman
Crude oil								
Production	42245	-	-	-	42161	42747	-	42705
Imports	-	-	-	40863	-	-	-	-
Exports	42245	-	-	-	-	42747	-	42705
Average	42245	-	-	40863	42161	42747	-	42705
NGL	42705	-	-	-	-	42747	-	42705
Refinery feedstocks	-	-	-	-	-	44799	-	44799
Additives	-	-	-	-	-	-	-	41868
Other hydrocarbons	-	-	-	-	-	41868	-	-
Biogasoline	-	-	-	-	-	-	-	-
Biodiesels	-	-	-	-	-	-	36800	-
Other liquid biofuels	-	-	-	-	-	-	-	-
Anthracite								
Production	-	-	-	-	-	-	-	-
Imports	-	-	-	-	-	-	27147	-
Exports	-	-	-	-	-	-	26905	-
Main activity elec. generation	-	-	-	-	-	-	-	-
Industry	-	-	-	-	-	-	27144	-
Other uses	-	-	-	-	-	-	25052	-
Coking coal								
Production	-	-	-	-	-	-	-	-
Imports	-	-	-	-	-	-	-	-
Exports	-	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-	-
Main activity elec. generation	-	-	-	-	-	-	-	-
Industry	-	-	-	-	-	-	-	-
Other uses	-	-	-	-	-	-	-	-
Other bituminous coal								
Production	-	-	25121	-	-	25800	-	-
Imports	25800	22692	25121	-	-	-	26107	-
Exports	-	-	-	-	-	-	26107	-
Coke ovens	-	-	-	-	-	-	-	-
Main activity elec. generation	25800	22692	-	-	-	-	-	-
Industry	-	-	25121	-	-	25800	26107	-
Other uses	25800	22692	25121	-	-	25800	27891	-
Sub-bituminous coal								
Production	18900	-	-	-	-	-	-	-
Imports	-	-	-	-	-	-	22915	-
Exports	-	-	-	-	-	-	22915	-
Main activity elec. generation	-	-	-	-	-	-	-	-
Industry	18900	-	-	-	-	-	22915	-
Other uses	18900	-	-	-	-	-	22915	-
Lignite								
Production	11900	-	-	-	11900	-	7007	-
Imports	-	-	-	-	-	-	8568	-
Exports	-	-	-	-	-	-	9025	-
Main activity elec. generation	11900	-	-	-	11900	-	6917	-
Industry	11900	-	-	-	-	-	10149	-
Other uses	11900	-	-	-	11900	-	10149	-
Patent fuel	-	-	-	-	-	-	-	-
Coke oven coke	-	-	-	-	-	-	26855	-
Coal tar	-	-	-	-	-	-	-	-
BKB	-	-	-	-	20000	-	-	-
Peat	-	-	-	-	-	-	-	-
Peat products	-	-	-	-	-	-	-	-
Oil shale	-	-	-	-	-	-	-	-
Charcoal	30800	30800	29730	30800	30800	30800	-	-

Non-OECD country-specific net calorific values

2017

<i>kJ/kg</i>	Pakistan	Panama	Paraguay	Peru	Philippines	Qatar	Romania	Russian Federation
Crude oil								
Production	41990	-	-	42747	41471	42873	40639	42077
Imports	43415	-	-	42161	41471	-	41857	-
Exports	41990	-	-	42747	41471	42873	40645	42077
Average	42937	-	-	42747	41471	42873	41430	42077
NGL	42873	-	-	42747	-	44800	49458	41910
Refinery feedstocks	-	-	-	-	-	-	44799	-
Additives	25121	-	-	-	-	-	36792	-
Other hydrocarbons	-	-	-	-	-	41868	49457	-
Biogasoline	-	-	26800	26800	29655	-	26800	-
Biodiesels	-	-	-	36800	39423	-	36800	-
Other liquid biofuels	-	-	-	-	-	-	-	-
Anthracite								
Production	-	-	-	-	-	-	-	29000
Imports	-	-	29308	-	-	-	25533	29000
Exports	-	-	-	-	-	-	-	29000
Main activity elec. generation	-	-	-	-	-	-	-	-
Industry	-	-	29308	-	-	-	25533	-
Other uses	-	-	29308	-	-	-	25533	29000
Coking coal								
Production	-	-	-	-	-	-	-	28500
Imports	-	-	-	-	-	-	27502	28500
Exports	-	-	-	-	-	-	-	28500
Coke ovens	-	-	-	-	-	-	-	28500
Main activity elec. generation	-	-	-	-	-	-	-	-
Industry	-	-	-	-	-	-	27501	-
Other uses	-	-	-	-	-	-	27500	28500
Other bituminous coal								
Production	18810	-	-	29308	-	-	-	24901
Imports	27645	25800	-	29308	25121	-	-	25000
Exports	-	-	-	29308	-	-	-	26107
Coke ovens	-	-	-	-	-	-	-	-
Main activity elec. generation	24379	25800	-	29308	24325	-	-	24009
Industry	24379	-	-	29308	-	-	-	24009
Other uses	24379	25800	-	29308	24325	-	-	24009
Sub-bituminous coal								
Production	-	-	-	-	22098	-	23636	-
Imports	-	-	-	-	22098	-	24603	-
Exports	-	-	-	-	22098	-	-	-
Main activity elec. generation	-	-	-	-	22098	-	24604	-
Industry	-	-	-	-	22098	-	24603	-
Other uses	-	-	-	-	22098	-	24604	-
Lignite								
Production	11900	-	-	-	-	-	7262	14918
Imports	-	-	-	-	11900	-	8333	14918
Exports	-	-	-	-	-	-	8000	14918
Main activity elec. generation	-	-	-	-	-	-	7265	14918
Industry	11900	-	-	-	11900	-	10220	14918
Other uses	11900	-	-	-	11900	-	7029	14918
Patent fuel	-	-	-	-	-	-	-	-
Coke oven coke	-	-	-	28200	28200	-	26370	29015
Coal tar	-	-	-	-	-	-	-	-
BKB	-	-	-	-	-	-	-	-
Peat	-	-	-	-	-	-	8790	9965
Peat products	-	-	-	-	-	-	-	17585
Oil shale	-	-	-	-	-	-	-	-
Charcoal	30800	30800	28889	27214	25104	-	-	30800

Non-OECD country-specific net calorific values

2017

<i>kJ/kg</i>	Saudi Arabia	Senegal	Serbia	Singapore	South Africa	South Sudan	Sri Lanka	Sudan
Crude oil								
Production	42538	-	44194	-	40520	42622	-	42622
Imports	-	42622	44194	42705	40520	-	43124	42622
Exports	42538	-	-	42705	-	42622	-	42622
Average	42538	42622	44194	42705	40520	42622	43124	42622
NGL	44924	-	46000	-	42743	-	-	-
Refinery feedstocks	-	-	43324	42833	-	-	-	-
Additives	-	-	35109	-	-	-	-	-
Other hydrocarbons	-	-	119960	-	40520	-	-	-
Biogasoline	-	-	-	-	-	-	-	-
Biodiesels	-	-	-	-	-	-	-	-
Other liquid biofuels	-	-	-	-	-	-	-	-
Anthracite								
Production	-	-	-	-	23597	-	-	-
Imports	-	-	25107	-	-	-	-	-
Exports	-	-	-	-	27993	-	-	-
Main activity elec. generation	-	-	-	-	-	-	-	-
Industry	-	-	25410	-	26996	-	-	-
Other uses	-	-	25410	-	26996	-	-	-
Coking coal								
Production	-	-	-	-	30995	-	-	-
Imports	-	-	-	-	30995	-	-	-
Exports	-	-	-	-	30995	-	-	-
Coke ovens	-	-	-	-	30995	-	-	-
Main activity elec. generation	-	-	-	-	-	-	-	-
Industry	-	-	-	-	-	-	-	-
Other uses	-	-	-	-	30995	-	-	-
Other bituminous coal								
Production	-	-	-	-	23597	-	-	-
Imports	-	25916	25740	25800	-	-	29308	-
Exports	-	-	-	-	27993	-	-	-
Coke ovens	-	-	-	-	-	-	-	-
Main activity elec. generation	-	-	24216	25800	20097	-	29308	-
Industry	-	25916	22092	25800	26996	-	29308	-
Other uses	-	25916	22092	25800	26996	-	25800	-
Sub-bituminous coal								
Production	-	-	-	-	-	-	-	-
Imports	-	-	-	-	-	-	-	-
Exports	-	-	-	-	-	-	-	-
Main activity elec. generation	-	-	-	-	-	-	-	-
Industry	-	-	-	-	-	-	-	-
Other uses	-	-	-	-	-	-	-	-
Lignite								
Production	-	-	7590	-	-	-	-	-
Imports	-	-	8094	-	-	-	-	-
Exports	-	-	8088	-	-	-	-	-
Main activity elec. generation	-	-	7477	-	-	-	-	-
Industry	-	-	11586	-	-	-	-	-
Other uses	-	-	9028	-	-	-	-	-
Patent fuel	-	-	-	-	-	-	-	-
Coke oven coke	-	-	26262	-	26498	-	-	-
Coal tar	-	-	39933	-	-	-	-	-
BKB	-	-	17607	-	-	-	-	-
Peat	-	-	-	-	-	-	-	-
Peat products	-	-	-	-	-	-	-	-
Oil shale	-	-	-	-	-	-	-	-
Charcoal	30800	28889	30800	-	30800	30145	30800	30145

Non-OECD country-specific net calorific values

2017

<i>kJ/kg</i>	Suriname	Syrian Arab Republic	Chinese Taipei	Tajikistan	Tanzania	Thailand	Togo	Trinidad and Tobago
Crude oil								
Production	42161	42035	42370	42077	-	42226	-	42245
Imports	-	42035	42370	-	-	42226	-	42245
Exports	-	-	-	-	-	42226	-	42245
Average	42161	42035	42370	42077	-	42226	-	42245
NGL	-	42035	-	-	-	46850	-	41868
Refinery feedstocks	-	-	43961	-	-	44799	-	-
Additives	-	-	41868	-	-	-	-	-
Other hydrocarbons	-	-	-	-	-	-	-	-
Biogasoline	-	-	26800	-	-	26800	-	-
Biodiesels	-	-	-	-	-	36800	-	-
Other liquid biofuels	-	-	36800	-	-	-	-	-
Anthracite								
Production	-	-	-	29310	-	-	-	-
Imports	-	-	27424	-	-	26377	-	-
Exports	-	-	25958	-	-	26377	-	-
Main activity elec. generation	-	-	-	-	-	-	-	-
Industry	-	-	26377	29310	-	26377	-	-
Other uses	-	-	26796	29310	-	26377	-	-
Coking coal								
Production	-	-	-	-	-	-	-	-
Imports	-	-	27424	-	-	-	-	-
Exports	-	-	-	-	-	-	-	-
Coke ovens	-	-	28889	-	-	-	-	-
Main activity elec. generation	-	-	-	-	-	-	-	-
Industry	-	-	-	-	-	-	-	-
Other uses	-	-	26796	-	-	-	-	-
Other bituminous coal								
Production	-	-	-	25000	25800	-	-	-
Imports	-	-	27424	25000	-	26377	-	-
Exports	-	-	-	25000	-	26377	-	-
Coke ovens	-	-	28889	-	-	-	-	-
Main activity elec. generation	-	-	26796	25000	-	26377	-	-
Industry	-	-	26377	25000	25800	26377	-	-
Other uses	-	-	26796	25000	25800	26377	-	-
Sub-bituminous coal								
Production	-	-	-	-	-	-	-	-
Imports	-	-	18900	-	-	-	-	-
Exports	-	-	-	-	-	-	-	-
Main activity elec. generation	-	-	18900	-	-	-	-	-
Industry	-	-	18900	-	-	-	-	-
Other uses	-	-	18900	-	-	-	-	-
Lignite								
Production	-	-	-	17000	-	10571	-	-
Imports	-	-	-	17000	-	12142	-	-
Exports	-	-	-	-	-	-	-	-
Main activity elec. generation	-	-	-	-	-	10371	-	-
Industry	-	-	-	17000	-	18250	-	-
Other uses	-	-	-	17000	-	12142	-	-
Patent fuel	-	-	-	-	-	-	-	-
Coke oven coke	-	28200	28200	-	-	28200	-	-
Coal tar	-	-	-	-	-	-	-	-
BKB	-	-	-	-	-	-	-	-
Peat	-	-	-	-	-	-	-	-
Peat products	-	-	-	-	-	-	-	-
Oil shale	-	-	-	-	-	-	-	-
Charcoal	30800	30800	-	-	30800	30800	30800	30800

Non-OECD country-specific net calorific values

2017

<i>kJ/kg</i>	Tunisia	Turkme- nistan	Ukraine	United Arab Emirates	Uruguay	Uzbekistan	Venezuela	Viet Nam
Crude oil								
Production	43124	42077	42077	42622	-	42077	44736	42622
Imports	43124	-	42077	-	42223	-	-	42622
Exports	43124	42077	42077	42622	-	-	44736	42622
Average	43124	42077	42077	42622	42462	42077	44736	42622
NGL	43124	41910	41910	42622	-	-	41994	42705
Refinery feedstocks	-	-	44799	-	-	-	-	-
Additives	-	-	41868	-	-	25121	-	-
Other hydrocarbons	-	-	41868	-	-	41868	-	-
Biogasoline	-	-	26800	-	26796	-	-	-
Biodiesels	-	-	-	-	39775	-	-	-
Other liquid biofuels	-	-	-	-	-	-	-	-
Anthracite								
Production	-	-	-	-	-	-	-	23446
Imports	-	-	24093	26700	-	-	-	23446
Exports	-	-	24093	-	-	-	-	23446
Main activity elec. generation	-	-	24093	-	-	-	-	23446
Industry	-	-	24093	26700	-	-	-	23446
Other uses	-	-	24093	26700	-	-	-	23446
Coking coal								
Production	-	-	28604	-	-	-	-	-
Imports	-	-	28604	28200	-	-	-	-
Exports	-	-	28604	-	-	-	-	-
Coke ovens	-	-	28604	-	-	-	-	-
Main activity elec. generation	-	-	28604	-	-	-	-	-
Industry	-	-	-	28200	-	-	-	-
Other uses	-	-	28604	28200	-	-	-	-
Other bituminous coal								
Production	-	-	21983	-	-	18581	30564	-
Imports	-	-	21983	25800	25800	18581	-	23446
Exports	-	-	21983	-	-	-	30564	-
Coke ovens	-	-	-	-	-	-	-	-
Main activity elec. generation	-	-	21983	-	-	-	-	23446
Industry	-	-	21983	25800	-	18581	30564	23446
Other uses	-	-	21983	25800	25800	18581	30564	23446
Sub-bituminous coal								
Production	-	-	-	-	-	-	-	-
Imports	-	-	-	18900	-	-	-	18900
Exports	-	-	-	-	-	-	-	-
Main activity elec. generation	-	-	-	-	-	-	-	-
Industry	-	-	-	18900	-	-	-	18900
Other uses	-	-	-	18900	-	-	-	18900
Lignite								
Production	-	-	-	-	-	14654	-	-
Imports	-	-	-	-	-	14654	-	-
Exports	-	-	-	-	-	-	-	-
Main activity elec. generation	-	-	-	-	-	14654	-	-
Industry	-	-	-	-	-	14654	-	-
Other uses	-	-	-	-	-	14654	-	-
Patent fuel	-	-	-	29000	-	-	-	-
Coke oven coke	-	-	25121	28200	-	-	-	28200
Coal tar	-	-	38000	38000	-	-	-	-
BKB	-	-	-	-	-	-	-	-
Peat	-	-	9703	-	-	-	-	9760
Peat products	-	-	14655	-	-	-	-	-
Oil shale	-	-	-	-	-	-	-	-
Charcoal	30800	30800	30800	30800	31401	-	30800	30800

Non-OECD country-specific net calorific values

2017

<i>kJ/kg</i>	Yemen	Zambia	Zimbabwe	Other Africa	Other non-OECD Amer.	Other non-OECD Asia
Crude oil						
Production	42998	-	-	42161	42161	42161
Imports	-	42702	-	-	-	42161
Exports	-	-	-	42161	42161	42161
Average	42998	42702	-	42161	42161	42161
NGL	-	-	-	42705	-	42705
Refinery feedstocks	-	-	-	-	-	-
Additives	-	-	-	-	-	-
Other hydrocarbons	-	-	-	-	-	-
Biogasoline	-	-	26800	-	-	-
Biodiesels	-	-	-	-	-	-
Other liquid biofuels	-	-	-	-	-	36800
Anthracite						
Production	-	-	-	-	-	-
Imports	-	-	-	-	-	-
Exports	-	-	-	-	-	-
Main activity elec. generation	-	-	-	-	-	-
Industry	-	-	-	-	-	-
Other uses	-	-	-	-	-	-
Coking coal						
Production	-	-	26996	-	-	-
Imports	-	-	-	-	-	-
Exports	-	-	-	-	-	-
Coke ovens	-	-	26996	-	-	-
Main activity elec. generation	-	-	-	-	-	-
Industry	-	-	-	-	-	-
Other uses	-	-	26996	-	-	-
Other bituminous coal						
Production	-	24706	26996	25800	-	25800
Imports	25800	-	26996	25800	-	25800
Exports	-	-	-	25800	-	-
Coke ovens	-	-	-	-	-	25800
Main activity elec. generation	-	24706	26996	25800	-	25800
Industry	25800	24706	26996	25800	-	25800
Other uses	25800	24706	26996	25800	-	25800
Sub-bituminous coal						
Production	-	-	-	-	-	-
Imports	-	-	-	-	-	-
Exports	-	-	-	-	-	-
Main activity elec. generation	-	-	-	-	-	-
Industry	-	-	-	-	-	-
Other uses	-	-	-	-	-	-
Lignite						
Production	-	-	-	-	-	14403
Imports	-	-	-	-	-	-
Exports	-	-	-	-	-	-
Main activity elec. generation	-	-	-	-	-	14403
Industry	-	-	-	-	-	14403
Other uses	-	-	-	-	-	14403
Patent fuel	-	-	-	-	29000	-
Coke oven coke	-	-	25121	-	-	28200
Coal tar	-	-	-	-	-	-
BKB	-	-	-	-	-	-
Peat	-	-	-	9760	9760	-
Peat products	-	-	-	-	-	-
Oil shale	-	-	-	-	-	-
Charcoal	30800	32594	30800	30800	30800	30800

Regional and country-specific net calorific values for oil products

2017

kJ/kg	OECD	OECD	OECD	Non- OECD ²	Algeria	Argen- tina	Brazil	Cam- bodia	PR of China	Colombia	Cuba
	Europe ¹	Americas	Asia Oceania								
Refinery gas	49500	48100	48100	48100	-	-	35169	-	46055	-	-
Ethane	49500	49400	49400	49400	-	-	-	-	-	-	-
Liquefied petroleum gases	46000	47300	47700	47300	49404	46055	46473	49404	50242	46139	47650
Motor gasoline	44000	44800	44600	44800	-	43543	43543	42488	43124	43570	44945
Aviation gasoline	44000	44800	44600	44800	-	43543	44380	-	43124	-	44945
Gasoline type jet fuel	43000	44800	44600	44800	-	43543	-	-	43124	-	-
Kerosene type jet fuel	43000	44600	44500	44600	-	43124	43543	43015	43124	44158	44150
Other kerosene	43000	43800	42900	43800	-	43124	43543	42643	43124	43100	44150
Gas/diesel oil	42600	42600	42600	43300	-	42705	42287	43158	42705	43102	43155
Fuel oil	40000	40200	42600	40200	-	41031	40151	41868	41868	41268	40570
Naphtha	44000	45000	43200	45000	-	43333	44506	-	43124	-	44945
White spirit	43600	43000	43000	43000	-	-	47060	-	38519	-	44945
Lubricants	42000	42000	42900	42000	-	-	42370	41064	38519	-	40968
Bitumen	39000	40000	38800	39000	-	-	40989	-	-	-	40968
Paraffin waxes	40000	40000	40000	40000	-	-	-	-	-	-	-
Petroleum coke	32000	32000	33800	32000	-	30145	35127	-	-	-	-
Non-specified oil products	40000	40000	40000	40000	-	-	42825	-	38519	-	-
	Egypt	Iran	Jordan	Lebanon	Malaysia	Mozam- bique	Namibia	Nepal	Nica- ragua	Oman	Pakistan
Refinery gas	-	-	58615	-	-	-	-	-	-	-	-
Ethane	-	-	-	-	-	-	-	-	-	-	-
Liquefied petroleum gases	-	-	46557	-	45544	45594	-	49240	47018	-	45427
Motor gasoline	-	43546	43543	-	43961	-	46892	47270	44129	-	-
Aviation gasoline	-	-	43543	-	43961	-	51498	-	-	-	43752
Gasoline type jet fuel	-	-	-	-	-	-	-	-	-	-	-
Kerosene type jet fuel	45636	-	43585	44673	43199	-	44213	46600	42915	-	43292
Other kerosene	45469	-	43292	-	43208	-	-	46060	42915	-	43292
Gas/diesel oil	44631	-	42663	45217	42496	-	45427	45890	42747	-	44087
Fuel oil	40696	-	40486	-	41500	-	41742	44210	41324	-	40863
Naphtha	44799	-	-	-	44129	-	-	-	-	-	44841
White spirit	-	-	-	-	43208	-	-	-	-	-	-
Lubricants	-	-	-	-	42140	-	-	-	-	-	-
Bitumen	-	-	-	-	41800	-	-	-	-	-	-
Paraffin waxes	-	-	-	-	43333	-	-	-	-	-	-
Petroleum coke	-	-	-	-	36400	-	-	-	-	-	-
Non-specified oil products	-	-	-	39775	42496	-	-	-	-	47015	-
	Paraguay	Philip- pines	Senegal	South Africa	Sri Lanka	Thailand	Tunisia	Uruguay	Vene- zuela	Viet Nam	Zambia
Refinery gas	-	-	-	-	-	-	-	-	-	-	-
Ethane	-	-	-	-	-	46892	-	-	-	-	-
Liquefied petroleum gases	45845	45050	-	46767	44380	49296	46306	46055	49271	45552	45421
Motor gasoline	-	44254	-	44045	45636	43196	43878	43899	46942	43961	43002
Aviation gasoline	-	44254	-	45552	45636	-	43878	44162	47107	-	-
Gasoline type jet fuel	-	44254	-	40738	45636	-	43878	-	47156	-	-
Kerosene type jet fuel	40528	41688	43961	41073	43961	-	43333	43528	46092	43208	43332
Other kerosene	-	41261	43961	43250	43961	43703	43208	43214	45928	43208	43332
Gas/diesel oil	42873	42073	43543	42915	43961	42331	42998	41780	45245	42496	42772
Fuel oil	41031	41110	-	41826	41031	42304	40989	-	43286	41491	40892
Naphtha	39942	46185	44799	44924	45636	-	44129	44568	47090	-	43951
White spirit	-	-	-	42496	-	-	43585	-	-	-	-
Lubricants	-	-	-	-	-	-	42705	-	44852	-	-
Bitumen	-	38720	-	-	-	-	42705	40361	44158	-	42702
Paraffin waxes	-	-	-	-	-	-	-	-	-	-	-
Petroleum coke	-	-	-	-	-	-	-	-	28889	-	-
Non-specified oil products	-	41299	-	-	-	-	42705	42262	41868	-	-

1. Defaults for Europe were applied to non-OECD Europe and Eurasia.

2. Unless country-specific net calorific values are available.

COUNTRY NOTES AND SOURCES

OECD COUNTRIES

General notes

The notes given in this document refer to data for the years 1960 to 2018 published in the book, as well as in the on-line data service. In general, more detailed notes are available for data starting in 1990.

Data are obtained through annual submission of five fuel questionnaires from national administrations, as indicated for each country in the section on sources.

In some instances it has been necessary for the IEA Secretariat to estimate some data; explanations of the estimates are provided in the country notes. For more information on fuel-specific methodologies, please refer to the various IEA information books. Energy data reported for 2018 (shown as 2018p) in the final release are provisional supply data based on submissions received in early 2019 and on monthly submissions to the IEA from member countries.

This section lists a few specific notes that apply to all countries, and it is followed by a time series of comprehensive country-specific notes by fuel and flow.

Prior to 1974, most fuel inputs and electricity and heat outputs for autoproducers are included in main activity producers. The figures for the quantities of fuels used for the generation of electricity and heat and the corresponding outputs in CHP and heat plants should be used with caution. Despite estimates introduced by the IEA Secretariat, inputs and outputs are not always consistent. Please refer to notes below under *Electricity and heat*.

Data for anthracite, coking coal, other bituminous coal, sub-bituminous coal and lignite are available separately from 1978. Prior to 1978, only data for hard coal and brown coal (lignite/sub-bituminous coal) are available.

In 1996, the IEA Secretariat extensively revised data on coal and coke use in blast furnaces, and in the iron and steel industry (for those countries with blast furnaces), based on data provided to the OECD Steel Committee and other sources. The quantities of fuels transformed into blast furnace gas have been estimated by the IEA Secretariat based on its blast furnace model.

For biofuels and waste (i.e. solid biofuels, biogases, liquid biofuels, industrial waste and municipal waste), there may be breaks in time series between 1988 and 1989, as in 1997 the IEA Secretariat extensively revised these data based on data from Eurostat (for the EU-15 member countries) and on other national sources for other OECD member countries, and data from Eurostat were generally available from 1989. Generally, data on biofuels and waste are reported in non-specified prior to 1989.

Australia

Source

Department of Environment and Energy, Canberra.

General notes

All data refer to the fiscal year (e.g. July 2016 to June 2017 for 2017).

Starting with the 2013 edition and following, data for Australia were revised back to 2003 due to the adoption of the National Greenhouse and Energy Reporting (NGER) as the main energy consumption data source for the Australian Energy Statistics. As a result, there are breaks in the time series for many data between 2002 and 2003. The revisions have also introduced some methodological issues, including identifying inputs and outputs to certain transformation processes such as gas works plants, electricity plants and CHP plants. Energy industry own use and inputs to the

transformation processes are sometimes not reported separately in the correct categories. More detail is given in the notes below.

Coal

General notes

- In the 2017 edition, the Australian administration revised data on **coal tar** back to 2010 resulting in breaks in time series between 2009 and 2010.
- In the 2016 edition, extensive revisions were made to 2010 to 2013 data for many primary and manufactured products causing breaks in production, trade and consumption between 2009 and 2010. Time series which begin in 2010 may be reported in other flows until 2009. 2014 data were reported on the same basis as 2010 to 2013.
- In the 2015 edition, increases of production and consumption of **other bituminous coal** for 2013 are due to both new mine capacity and improved classification data. In the 2016 edition, these revisions were extended back to 2010. Apparent switching between **sub-bituminous coal** and **other bituminous coal** between 2009 and 2010 suggests that some **other bituminous coal** was reported as **sub-bituminous coal** prior to this, across several flows.
- In the 2013 edition, production data for all **manufactured gases** were revised downwards as part of the new national methodology, leading to significant statistical differences.
- Reclassification of some **coal** types in the 2013 edition were calculated on an energy basis and resulted in a net increase of quantities of primary coal from 2003 to 2011.
- Breaks in the time series for **gas works gas** between 2008 and 2009 are due to a change of survey, while reduced production and consumption between 2006 and 2008 are due to the removal of some **natural gas** inputs.
- Data on **blast furnace gas** for electricity production by autoproducers begins in 1986.
- **Hard coal** data prior to 1978 may include **sub-bituminous coal**.

Supply

- In 2018, a substantial stock draw of **coking coal** followed a 2017 stock build caused by meteorological phenomena.
- The decrease of **lignite** production and consumption in 2017 and 2018p was due to the closure of

brown coal fired Hazelwood power plant in early 2017, contributing to a higher consumption of **other bituminous coal**.

- Only **anthracite** exports are reported separately; the remainder that is consumed domestically is included with **other bituminous coal**. For 2018p anthracite exports and consequently production are unavailable.
- Export trade in **coke oven coke** between 2005 and 2011 exists, but data are unavailable for reasons of confidentiality. From 2012 onward exports are estimated by the Australian administration but without providing information on the destination country.

Transformation

- In 2015, a new plant within the mining sector started its operations increasing the consumption of **coke oven coke**.
- The one company producing **BKB** closed its operation during 2015. As such, production and consumption declined significantly.
- For 2003 to 2012, **coke oven gas** reported as energy industry own-use in electricity or CHP plants is used for generation purposes, while **natural gas** used for own-use plant support is reported in the transformation sector.
- **Natural gas** consumed to fuel the distribution of **natural gas** in natural gas networks is reported as transformation for **gas works gas** production until 2005.
- The drop in **BKB** production in 2004 was due to a fire in the main production plant.

Consumption

- In the 2016 edition, revisions for 2010 onwards have increased the quantities of **sub-bituminous coal** and decreased the quantities of **other bituminous coal** being used in the non-metallic minerals industry as more accurate information has become available.
- Consumption in wood and wood products is included in paper, pulp and print from 2001 onwards.

Oil

General notes

- There are breaks in series between 2017 and 2018p due to a change in reporting methods, which

involves new mandatory reporting for refineries and companies in the oil sector.

- Moreover, in the 2019 edition the Australian administration introduced several revisions to the time series back to 2011 as a result of new and updated data sources becoming available.
- In 2017, the Australian administration added new companies to their reporting. This primarily impacts the stocks of **motor gasoline** and **gas/diesel oil**.
- Between 2009 and 2010 some breaks in time series may occur due to changes in methodologies and to improved data sources, with major revisions explained below.
- **Other hydrocarbons** reported under *from other sources natural gas* correspond to hydrogen used in refineries from 2011 to 2016, also represented as the output of *non-specified transformation* in the balances format.
- An in-depth review of Australian oil statistics, in particular investigation of amounts currently reported under recycled products as well as statistical differences for **motor gasoline** and **bitumen**, is on-going and may result in further improvements in the next editions.

Supply

- **Crude oil** production and imports continued to decline in 2016 following the closure of domestic refining capacity in New South Wales (Kurnell Refinery) and Queensland (Bulwer Island Refinery). Refinery outputs also fell as a result. These two sites have been converted to import terminals helping Australia expanding its import capacity. As a result refined products imports increased considerably in 2016.
- From 2010 **crude oil** production estimates for selected companies have been replaced by actual data.
- Imports of **fuel oil** have been estimated by the Australian administration.
- In the 2015 data, **fuel oil** imports dropped significantly due to the closure of the two large consumers of this product, the Gove alumina refinery and the Point Henry aluminium smelter.
- There is a break in the time series for **crude oil** and **NGL** between 2001 and 2002.
- The drop in the production of **crude oil** in 1999 is due to a gas explosion at the Longford plant.

- Prior to 1992, part of the **NGL** production is included in **crude oil**.

Transformation

- There is a break in the refinery balance between 2010 and 2011 due to the reclassification of a facility from upstream to downstream.
- As a result of a new methodology adopted to split **gas/diesel oil** inputs between main activity and autoproducer plants, breaks in series appear between 2009 and 2010.

Consumption

- In 2017 the Queensland Nickel refinery closed down and the Portland Aluminium refinery was reduced for an extended period due to a power fault. As a result **fuel oil** consumption in the *non-ferrous metal* sector declined in 2017.
- In the 2019 edition the bitumen time series was revised with higher levels of consumption for 2015 and 2016. This is based on the monthly Australian Petroleum Statistics which now has better coverage of the consumption data.
- Breaks in the time series appear between 2009 and 2010 in transport consumption due to a change in methodology.

Natural gas

General notes

- In the 2019 edition, the Australian administration proceeded to major revisions on the supply side from 2013 onwards due to a change in methodology on production quantities and more recent sources on calorific values. Additionally the *Oil and gas extraction*, and *Liquefaction (LNG) / regasification plants* on the demand side were revised from 2003 onwards, which resulted in increased statistical differences. Work is undertaken by the administration in order to provide new revisions in the 2020 edition that will address this gap.
- In the 2016 edition, the Australian administration revised **natural gas** demand data for some flows back to 2010, resulting in breaks in time series between 2009 and 2010.
- In 2015, the Australian administration revised production and certain consumption data back to 2006. The production figures now include previously uncaptured flows.
- Prior to 1991 **natural gas** data include **ethane**.

Supply

- For 2018p, there is a continuation of the increase in *indigenous production* (+15%) and *exports* (+18%) of gas, which started in 2017 due to the LNG exporting capacity coming online in 2016 and 2017.
- Around 30% of the production (mainly coal seam gas) is estimated by the Australian administration.

Transformation

- From 2011 to 2016, the *Non-specified transformation* of **natural gas** represents amounts used to produce hydrogen for hydrodesulphurization in refineries.
- Until 2005, **natural gas** consumed to fuel the distribution of natural gas in natural gas networks was reported as transformation for **gas works gas** production.

Consumption

- Consumption in the *residential* and *agriculture/forestry* sectors is estimated by the Australian administration based on models.
- There are breaks between 2002 and 2003 in due to major revisions made in the *Oil and gas extraction*, and *Liquefaction (LNG) / regasification plants* in the context of the 2019 edition.
- Between 2009 and 2010 some breaks in time series may occur due to changes in methodologies and to improved data sources. Revisions to the consumption data include changes to energy use in liquefaction plants, and a shift of *gas works gas (transformation)* to *non-specified energy* from 2006 onwards. Revisions to previous years are pending.
- Between 2001 and 2002 there are breaks in time series for consumption data due to an industry structural shift and changes in methodology.
- Data for 1999 and 2000 end-use consumption are estimated by the Australian administration.

Biofuels and waste

General notes

- In the 2018 edition, **biogases** were revised downward by the Australian administration back to 2015 as a result of the removal on 1 July 2015 of a production subsidy for domestic ethanol. The subsidy was equal to the excise rate on unleaded petrol.

- A large **biogas** production facility did not report any production in 2016-2017. In 2017, this led to reductions in the consumption of **biogases** in auto CHP plants and the commercial and public services sector.
- Increases in production of **solid biofuels** since 2014 are related to incentives under the Renewable Energy Target legislation, which went into effect in 2001 and aims to increase the share of electricity generation from renewable sources. More information is available here: <http://www.cleanenergyregulator.gov.au/RET>.
- The data for **biogasoline** and **biodiesel** are not available before 2003 and 2004 respectively.
- From 1996, a different industry consumption breakdown for biofuels and waste is available and leads to breaks in time series.

Supply

- **Biogas** production data at sewage treatment works are not available.
- Indigenous production of **biodiesel** has decreased substantially in 2016 because one of the major **bio-diesel** producers ceased production in January 2016. The trend continues in 2017, when, according to Bioenergy Australia, low oil prices and higher feedstock prices created a difficult market for the remaining **biodiesel** producers. The trend continues in 2018p data.
- Production of **biogasoline (ethanol)** decreased since the Ethanol Production Grants Programme ended on 30 June 2015. On 1 July 2015, the fuel excise on domestically produced ethanol was reduced to zero and will be increased by 2.5 cents per litre until it reaches 12.5 cents per litre. Additionally, 2017 quantities were also affected by low oil prices.

Consumption

- In the 2018 edition, **solid biofuels** were revised back to 2010 by the Australian administration, expanding the scope from the revisions in the 2016 and 2017 editions to *indigenous production* and consumption sectors which weren't previously revised. This results in a break in time series between 2009 and 2010.
- In the 2017 edition of this publication, there has been a revision to the time series of **solid biofuels** consumption in "*Paper, pulp and printing*" sector. This time series has been revised back to 2010 resulting in break in time series between 2009 and 2010.

- In the 2016 edition of this publication, the Australian administration revised **primary solid biofuels** back to 2010 which impact mostly final consumption in *food and tobacco*. This created breaks in time series.
- The consumption data of **biogases** in industry is not available before 2003.

Electricity and heat

General notes

- In the 2016 edition, several combustible fuel electricity production time series as well as some electricity consumption time series were revised by the Australian administration back to 2010 in order to limit the use of estimated data and are causing some breaks.
- From 1992 onwards, heat data are not available.

Supply

- Data for production of electricity from **wind** are available from 1994.
- Data for electricity production from **solar photovoltaic** start in 1992 and from **solar thermal** in 2003.

Transformation

- In 2018p data, electricity output from **lignite** declined due to the closure of the Hazelwood power plant. In addition, there was no output from **BKB** due to the closure of both Hazelwood power plant, and the only briquette manufacturer in Australia.
- Fuels used for generation by autoproducers represent single fuel-fired units only. The use of fuel in multi-fired units operated by autoproducers is included in industry consumption.
- In the 2018 edition, new methodologies were introduced by the Australian administration for reporting electricity production from solar sources. First, the methodology for reporting electricity production from **solar PV** and **solar thermal** was changed between 2009 and 2010, resulting in a break in time series. Prior to 2010, the ratio of electricity production from **solar thermal** to total solar was assumed to be the same each year. After 2010, **solar PV** autoproducer electricity production is the residual after the main activity **solar PV** and **solar thermal** are deducted from total solar production. There is an additional break in time series between 2013 and 2014 for **solar** production

when a new methodology for determining large-scale **solar PV** production was introduced for main activity **solar PV** plants.

- In the 2017 edition, following an extended review of past data, the Australian administration revised electricity outputs of **blast furnace gas** autoproducer electricity plants for the period 2003-2004 and of autoproducer CHP plants fuelled by **other oil products** for 2009, resulting in more realistic efficiency rates for these plants.
- In 2002, the Australian administration started to use a new survey methodology and reclassified the types of plants between main activity producers and autoproducers.
- Prior to 1995, electricity production from **biogases** is included in natural gas.
- Prior to 1986, inputs and outputs from autoproducer CHP plants are not available.

Consumption

- The significant growth in **electricity** consumption at LNG/regasification plants in 2016 and 2017, is due to the commencement of large-scale production at Australia's new east coast LNG plants.
- Prior to 2006, **electricity** consumption in mining and quarrying includes consumption in liquefaction/regasification plants.
- From 1990 to 2008, **electricity** consumption in wood and wood products is included together with paper, pulp and printing.
- The direct use of **solar heat** (mostly domestic solar panels) is available from 1974.
- **Electricity** consumption in coke ovens has been estimated by the Australian administration from 1974 to 1999.
- Prior to 1974, the breakdown of **electricity** consumption in industry and energy sub-sectors is not available and energy industry consumption is included in industry.
- **Electricity** consumption in the *non-specified transport* sector represents transport support services, including those for air and water transport, and for transport for mining operations.
- Prior to 1971 **electricity** consumption in the commercial and public services sector is included in industry.
- Reported **electricity** consumption in the oil and gas extraction section may include some consumption in LNG/regasification plants.

Austria

Source

Bundesanstalt Statistik Österreich, Vienna.

General notes

- Starting with the 2016 edition and following, widespread data revisions were received due to enhanced reporting from 2005 onwards as a consequence of improved Austrian Final Energy Consumption surveys. For some time series, these revisions were extrapolated back to 1990. As a consequence, there may be breaks between 2004 and 2005, and 1989 and 1990. For more details on the methodologies in the revisions in the energy balance, there is more information here: http://www.statistik.at/wcm/idc/idcplg?IdcService=GET_PDF_FILE&RevisionSelectionMethod=LatestReleased&dDocName=036412. For more details on the methodologies related to consumption in households, there is more information here: http://www.statistik.at/wcm/idc/idcplg?IdcService=GET_PDF_FILE&RevisionSelectionMethod=LatestReleased&dDocName=078265

Coal

General notes

- In the 2019 edition, revisions concerning the iron and steel industry were received for data since 2005. The revisions impacted the energy sector for **coke oven gas** and **blast furnace gas**.
- In 2018 provisional data, **blast furnace gas** decreased following maintenance work in one of the blast furnaces. Additionally, other recovered gases (LD-gas) are now reported separately following an improvement in reporting. Historical revisions are pending.
- In the 2016 edition, revisions concerning the iron and steel industry were received for data since 1990. The following flows were impacted by these revisions: inputs to blast furnaces, the breakdown between transformation and own-use energy support, and calorific values.
- The last **lignite** mine closed in the second quarter of 2004 and **lignite** use for power generation ceased in 2006.
- Since 1996, **gas works gas** data are reported with **natural gas** because it is distributed in the same

network. The amount of **gas works gas** is negligible and it is mostly consumed by households.

- “Trockenkohle” is included with **BKB** because of its high calorific value.
- LD gas, which should normally be reported as **other recovered gases**, is reported with **blast furnace gas**.

Oil

Supply

- Exports of **naphtha** are no longer reported from 2014, past values may refer to exports of petrochemical raw material.
- Deliveries of **gas/diesel** to international marine bunkers were revised back to 1990 after implementation of a new study results.
- Prior to 1990, a portion of **naphtha** is included with **other oil products**.

Transformation

- In the 2019 edition the administration incorporated revisions as a result of improved reporting from the refinery to Statistics Austria. As a result there may be breaks in the time series between 2004 and 2005.

Natural gas

Supply

- Export amounts are calculated by the national administration by subtracting *stock changes* and domestic consumption from *import* figures.

Transformation

- In the 2018 edition, the time series for *blast furnaces* was reclassified from 1990 onwards, and thus moved from the Transformation to the Energy sector. This has resulted in increasing the efficiency of the blast furnaces process.
- Between 1995 and 1996 there is a break in time series for *autoproducer electricity and CHP* plants due to the availability of more detailed data.

Consumption

- In the 2019 edition, Austrian administration revised *oil and gas extraction* and *oil refinery natural gas* consumption data for 2005 onwards based on data reported to the Emissions Trading Scheme (ETS). Additionally, it revised data since

2005 for *other sectors'* flows since 2005 and *industry sector* since 2012 based on a combination of the results of sample surveys and data from the regulator.

- Any inconsistencies in the time series for *commercial/public services* until 2011 are the result of this sub-sector being computed as a residual. Since 2012 the *commercial/public services* consumption figures are surveyed annually and the consumption quantities in small and medium enterprises in *industry* are the projected results of biannual sample surveys. The increase in *pipeline transport* consumption for 2013 is due to a new methodology of data collection. Historical revisions are pending. Prior to 2000, differences due to measurement are included with *distribution losses*.

Biofuels and waste

General notes

- Data for 1986 to 1989 for **solid biofuels**, **industrial waste**, **biogases** and **liquid biofuels** are IEA Secretariat estimates based on information published by OSTAT in *Energieversorgung Österreichs Endgültige Energiebilanz*.

Consumption

- In the 2016 edition, improvement in the iron and steel industry data have allowed more precision in the consumption, among other for **industrial waste** in blast furnaces.
- In the 2016 edition, the consumption of **solid biofuels** in the residential sector was revised down from 2005 data.

Electricity and heat

Supply

- Amounts for both net electricity production and plant own use are calculated by the Austrian administration by applying a fixed percentage multiplier to the gross production of all plants in the public grid, regardless of plant type or fuel.
- Electricity production from **geothermal** main electricity plants only refers to electricity that is fed into the grid. Total production is not known as these plants are below the reporting threshold.

Transformation

- Electricity plants data may include some CHP plants operating in **electricity** only mode.

- Fluctuating efficiencies from year to year for **solid biofuel** and **industrial waste** plants are related to operational decisions which are governed by a formula described in the *Standard documentation Meta information on Energy balances for Austria and the Laender of Austria* published in June 2016 on the Statistics Austria website.
- In the 2018 edition, electricity production from **municipal waste** main activity electricity plants was revised from 2003-2009. Additionally, electricity production from **municipal waste** main activity CHP plants was revised in 2014.
- A large autoproducer electricity plant was reclassified as an autoproducer CHP plant and therefore creates a break in time series for **municipal waste** in 2011.
- In 2009, inputs of **other oil products** to autoproducer CHP plants were reclassified as **refinery gas** and **natural gas**.
- Due to a change in the survey methodology, the **heat** produced in small plants (capacity inferior to 1 MW) is not reported starting in 2002.
- **Heat from chemical processes** used for **electricity** production is available from 2004.
- Electricity generation from **geothermal** started in 2002.
- Prior to 2002, data for **biogases** only include plants of 1 MW or larger.
- Prior to 1981, inputs to main activity producer electricity plants include inputs to CHP plants. All electricity production by CHP plants is included in electricity plants, and only production from combustible fuel sources is taken into account. Auto-producer CHP heat production is included in main activity producer CHP plants. For heat, own use is included in distribution losses.

Consumption

- In the 2019 edition, Austria revised data back to 2005 in order to present international reporting as consistent as possible with the national energy balances. In addition, consumption figures were revised based on more recent surveys of energy consumption in small and medium-sized enterprises. Outliers and the extrapolation methodology will be revised following the results of the next survey.
- **Electricity** consumption in oil refineries includes consumption in gas works plants prior to 1991.

- From 1990 to 2009, small amounts of **electricity** used in heat pumps have been included in the residential sector.
- Starting in 1990, consumption of **electricity** in the field of electricity supply, district heating and water supply are included in *other energy industry own use*, prior to that it was included in commercial/public services.
- Also prior to 1991, **electricity** consumption in the iron and steel industry includes consumption in coke ovens and blast furnaces.

Belgium

Source

Observatoire de l'Energie, Brussels.

Coal

General notes

- In the 2019 edition, provisional 2018 data include **sub-bituminous coal**, previously reported under **other bituminous coal**. Historical revisions are pending in the coming edition.
- In the 2016 edition, improved data collection has led to some breaks in time series. These revisions include **hard coal** classifications, products and processes in integrated iron and steel manufacture and may be extended further back in future editions.
- Data for **anthracite** prior to 2014 may include a small portion of **other bituminous coal**.
- **Hard coal** data prior to 1978 may include **sub-bituminous coal**.
- **Other bituminous coal** and **sub-bituminous coal** data reported in *from other sources* refer to coal recuperated from coal dumps.

Supply

- Supply-side data are obtained through surveying questionnaires instead of customs data.
- In the 2019 edition, the calorific values of imported **bituminous coal** were revised upwards by the Belgian administration since 2015, resulting in a significant increase in the coal primary energy supply. Historical revisions are pending.
- 2018 provisional data include “Oil shale & Oil sands” production from other sources to capture

previously unknown quantities of low-grade coal products (“tailings”). Historical revisions are pending. Conventional production of **other bituminous coal** ceased on 31 August 1992.

Transformation

- In the 2019 edition, **anthracite** previously reported as consumption in the *iron and steel industry* was reclassified as part of the transformation process in *blast furnaces* since 2013.
- In 2016, the decrease of **other bituminous coal** inputs to main activity producer electricity plants was due to the permanent closure of Langerlo, Belgium’s last coal-fired main activity electricity.
- In 2015, the decrease of **coke oven gas** inputs to autoproducer CHP plants is due to a power plant closure in 2015.
- In 2014 and 2015, **coking coal** inputs to coke ovens decreased due to a coke oven closure in June 2014.
- In 2014, the decrease of **other bituminous coal** inputs to main activity producer electricity plants is due to a power plant closure in 2014.

Consumption

- In the 2018 edition, industrial consumption for the period 2013 through 2015 was revised for **coking coal** and **anthracite**, as more accurate consumption data became available. Data for **coking coal** prior to 2013 may include a small portion of **anthracite**.
- The decrease of **other bituminous coal** and **coke oven coke** in the iron and steel industry in 2002 is due to the closure of several plants.
- The use of **coke oven gas** in chemical and petrochemical activities ceased in 1996.

Oil

General notes

- Between 2008 and 2009 breaks in series occur for **naphtha** and **LPG** in both transformation and final consumption in the petrochemical sector as a result of methodological improvements made by the Belgian administration.
- Data on biofuels are not available before 2009.

Supply

- In 2017 new legislation increased the biofuel blending target for **motor gasoline** from 4% of volume to 8.5% of volume. As part of this E10

gasoline was introduced and became the new standard product in the country.

- In the 2019 edition, the Belgian administration included new companies in their reporting; some of which are particularly active in the production and trade of **lubricants** and **bitumen**.
- Consumption in *international marine bunkers* dipped in 2014 and 2015 due to the closure of several bunkering companies. During 2015 these were replaced by new companies which became fully operational in 2016.
- Starting from 2013, a new data source was introduced for petroleum coke trade.

Transformation

- In 2017 the upgrade project of Antwerp refinery and petrochemical plant was completed. Two key projects were completed: new refinery capacity for the conversion of heavy fuel oil into low sulphur light products and increasing steam cracker flexibility to maximize the processing of low cost advantaged feedstock. The latter is reflected in feedstock needs. Output of lighter end products as well as petroleum coke is impacted by these upgrades.
- In 2002, patent fuel plants used fuel oil to increase the calorific value of patent fuel.

Consumption

- The decrease of fuel oil in industry consumption since 1993 is due to the introduction of an excise tax as well as increased use of natural gas.

Natural gas

Supply

- In the 2019 edition, 2018p trade data include transit figures as a result of a change in methodology.
- Since 2009 gas trade in Belgium includes imported LNG which is regasified and subsequently exported to other countries.
- In the 2019 edition, the LNG consumption data in *international marine bunkers* are confidential.

Transformation

- The Belgian administration is in the process of revising 2010 and 2011 transformation sector data. As such, an unusually high quantity of **natural gas** is reported under not elsewhere specified (transformation).

- Between 2008 and 2009, there is a break in efficiency of **natural gas** autoproducer CHP plants due to a change in methodology regarding the reporting of unsold **heat**.

Consumption

- Consumption in the transport equipment sector decreased in 2015 due to the closure of a large industry of this sector in December 2014.
- In 2003, the large decrease in *non-specified industry* consumption is due to improvements in data collection.
- Since 2000, **natural gas** began to replace **blast furnace gas** in the *iron and steel* industry.

Biofuels and waste

General notes

- Renewable **municipal waste** includes a share of renewable **industrial waste**.
- Data for **biodiesels** and **biogasoline** are available starting in 2009.

Supply

- Data on pure **biogasoline** and **biodiesels** trade are not available for 2009 and 2010.

Transformation

- In 2015, part of the law regulating the blending of biodiesel with diesel was temporarily suspended but in 2016, this law was reinstated.

Consumption

- Consumption of **bioethanol** increased in 2017 due to legislation coming into effect on 1 January 2017, which increased the blending obligation for gasoline products.
- **Industrial waste** consumption in the chemical sector started in 2011.
- **Other liquid biofuels** consumed in power plants reported before 2011 can include **biodiesel**.
- New data on consumption cause breaks in time series for **primary solid biofuels** between 2011 and 2012.

Electricity and heat

Supply

- Electricity production from **other sources** mainly comprises production at a gas expansion station with heat recovery and at a hydraulic turbine in a waste water treatment plant.

- From 2013 onwards, reported **heat** distribution losses decreased due to a more precise estimation method.
- The production of electricity from **wind** is available from 1987.

Transformation

- In 2018, electricity output from **nuclear** decreased due to outages at a number of reactors.
- Langerlo, Belgium's last **coal**-fired main activity electricity producer closed permanently in March 2016.
- **Heat** production from chemical processes used for electricity production is available from 2005.
- In 2012, **heat** production from chemical sources has been estimated by the IEA Secretariat.
- 2009 was the first year of **offshore wind** production in Belgium. 2010 is the first year data are available.
- Prior to 2009 some unsold **heat** was reported in **natural gas** autoproducer CHP plants, together with the associated natural gas input. This causes the drop in efficiency in 2009.
- In 2007 data, no information was available on heat production in main activity CHP plants for **industrial waste**.
- In 2003, combustion of municipal waste for electricity and heat generation purposes increased significantly. However, because a large portion of the heat produced is not used (sold), plant efficiencies dropped significantly between 2002 and 2003.
- In 2000, most autoproducer electricity plants using combustible fuels were reclassified as autoproducer CHP plants; the heat production from these plants was used for internal industrial processes and not sold to third parties until 2005.
- For 1998 and 1999, **electricity** production at main activity producer CHP plants with annual heat output below 0.5 TJ is reported with main activity producer electricity only plants.
- Prior to 1982, **electricity** production in main activity producer CHP plants is included in production from electricity plants. Also, inputs of fuels for electricity generation in main activity producer electricity plants include inputs for heat production in CHP plants.

Consumption

- In the 2019 edition, revisions were implemented for the direct use of **solar thermal** in other sectors back to 2010 due to improved data availability.

- For 2012, **electricity** consumption in the mining and quarrying sector has been estimated by the IEA Secretariat.
- For 2012, oil refineries **electricity** consumption has been estimated by the IEA Secretariat based on refinery activity data. Part of the estimated amount has been removed from consumption in the chemical and petrochemical sector.
- Breaks in time series may exist between 2007 and 2008 due to revisions of the Classification of the Economic Activities in the European Community (NACE) classifications.
- There is no **heat** consumption starting in 2007 in the iron and steel industry because the installation concerned became an autoproducer in July 2006 and the heat is no longer sold.

Canada

Source

Natural Resources Canada, Ottawa.

General notes

- In the 2018 edition, data for Canada were revised back to 2005 following a ten year revision of the Report on Energy Supply and Demand (RES-D), the main set of Canadian annual data. The revision standardizes the methodology used for the IEA data submission and has mainly affected the demand side. Additional details are given under each fuel.
- From the 2014 edition, the Canadian administration revised time series back to 2005, using additional data from the Annual Industrial Consumption of Energy, the Annual Survey of Secondary Distributors, the Report on Energy Supply and Demand and the Natural Resources Canada Office of Energy Efficiency. Breaks in time series also between appear 1989 and 1990, due to changes in methodology, incorporated in 2002.

Coal

General notes

- Due to the extensive revisions of the Report on Energy Supply and Demand (RES-D), significant statistical differences can be observed for several coal products for the period 2005-2015. This issue is under investigation and further improvements are expected in future editions.

- In the 2016 and 2017 edition, extensive revisions for the period 2005 to 2015 were received as more data became available due to improvements in data collection.
- In the 2014 and 2015 editions, some revisions to the 2004 to 2006 data were received in addition to some time series and products for 2007 to 2011.
- Due to a Canadian confidentiality law, it is not possible for the Canadian administration to submit disaggregated time series for all of the **coal** types. Between 2002 and 2006, the IEA Secretariat has estimated some of the missing time series. The data for 2007 onwards are given directly as reported, however data may be present in non-representative products, and additionally these ad hoc reclassification methodologies contribute significantly to larger than normal statistical differences across products.
- At this point in time, **oil shale and oil sands** data are not submitted, and this energy source is deemed to enter the supply stream as shale oil (**other hydrocarbons**).

Supply

- Due to confidentiality constraints, from 2014 the breakdown of production by type of coal is estimated by the Canadian administration, while stock changes and statistical differences are estimated since 2001.

Transformation

- In December 2018, Canada announced regulations to phase-out traditional coal-fired electricity by 2030.
- Injection of pulverized coal into blast furnaces (PCI) occurs, but is not available for confidentiality reasons. Coals consumed in this manner are reported in the iron and steel industry along with other consumption.
- Before 1978, **lignite** inputs to main activity producer heat plants are included in final consumption. Starting in 1979, these inputs are included in main activity producer electricity plants.

Consumption

- Since 2001, consumption of **anthracite** in non-energy use is estimated by the Canadian administration. Statistical differences include consumption in iron and steel.

- Due to the unavailability of data, non-energy use of **coke oven coke** and **hard coal** is included with final consumption sectors prior to 1978 and 1980, respectively.

Oil

General notes

- The 2018 edition includes numerous time series revisions for the years 2005-2016. This is due to the 10 year revision of the Report on Energy Supply and Demand, which is the main set of Canadian annual data. The majority of these revisions were applied to the demand side.
- In the 2016 edition, the Canadian administration was able to reconcile some historical inconsistencies by reporting inputs and outputs to upgraders. In the supply side, these quantities are reported under **other hydrocarbons**. In the demand side, they are reported under the respective output products (**refinery gas, road diesel, and petroleum coke**).
- Time series for **other non-specified oil products** may fluctuate as they have been computed as residuals.
- Receipts from non-reporting companies are currently represented in the statistical difference flow, work is ongoing with the Canadian administration to address gaps in the coverage that lead to increasing statistical differences.

Supply

- The Sturgeon refinery began operations in late 2017. The refinery produced its first diesel fuel in December 2017. It is still under construction and can currently only process synthetic crude oil and not bitumen.
- In the 2018 edition the domestic supply of crude oil was revised due overall revisions to the Report on Energy Supply and Demand and the inclusion of additional data sources in the reporting.
- From 2014 data the Canadian administration started using customs based trade data to report crude oil imports. In the 2017 edition, **crude oil** imports data have been revised back to 2005 following this methodology. Some revisions to imports of secondary products have already been made and further revisions are expected.
- Condensates and pentanes plus are included in **crude oil** from 2005, in **NGL** 1990 to 2004 and in **LPG** prior to 1990. Historical revisions are pending.

- From 2005 primary oil products include direct imports of condensates by crude oil producers.
- Production of **other hydrocarbons** represents synthetic crude oil produced from tar sands.
- From 2005, **other hydrocarbons** from other sources natural gas corresponds to natural gas used for the upgrading of synthetic crude oil (reported under GTL transformation in the natural gas consumption data) and natural gas used to upgrade petroleum products (reported under non-specified transformation in the natural gas consumption data). Revisions to this flow were introduced in the 2019 edition. From 1990 to 2005, these quantities are reported in indigenous production of **other hydrocarbons**. Prior to 1990, they are included in the natural gas supply.
- Imports of **other hydrocarbons** from 1994 to 2000 correspond to orimulsion imports from Venezuela.
- Refinery output from **gas/diesel oil** and **petroleum coke** includes output from oil sands and upgraders.
- The Canadian administration is currently unable to provide a figure for the domestic production of additives, but is working on solutions which will make this possible. Meanwhile, significant statistical differences can be observed for several secondary oil products.

Consumption

- Due to confidentiality issues, consumption data for selected products and flows, such as fuel oil and gas/diesel consumption in iron and steel from 2009, are not available. For the same reason, selected products may include estimates provided by the Canadian administration, such as Fuel Oil and Bitumen data for 2014.
- In the 2019 edition the data series for consumption in oil and gas extraction was revised back to 2005 by the Canadian administration as new data sources meant a more accurate distribution between this sector and mining is now possible.
- International marine bunkers are included with inland waterways prior to 1978.

Natural gas

General notes

- In the 2019 edition, the Canadian administration proceeded to data revisions from 2005 onwards based on the revised source statistics from Statistics Canada and with the aim of achieving greater consistency with the Energy Efficiency Indicators data submission to IEA.

Supply

- *Indigenous production* is measured by the Canadian administration by upscaling the marketable production by approximately 11% to account for own-use in the extraction process.
- *Associated gas* has been estimated by the Canadian administration for 2016 and 2017.
- *Non-associated gas* production data include *colliery gas* as well as associated gas produced in Alberta.

Transformation

- For 2000, the increase in *main activity producer electricity* is due to new generation plants in Alberta and Ontario.
- Due to confidentiality reasons, the Canadian administration estimated **natural gas** consumption in *oil refineries* for the 2014-2017.
- *Gas-to-liquids (transformation)* represents quantities of **natural gas** consumed in the production of synthetic crude oil.
- *Non-specified transformation* represents quantities of **natural gas** used for the upgrading of refined oil products.

Consumption

- In the 2019 edition, the *oil and gas extraction* consumption was revised back to 2005 in order to more accurately separate it from other mining/extractive activities.
- In the 2019 edition, an improved methodology was applied to *industry sector* for 2005 onwards resulting in a share of the *not elsewhere specified (industry)* being allocated to various industrial sub-sectors and creating breaks between 2004 and 2005.
- Starting with 2014 data, **natural gas distribution losses** will no longer be reported by Canada as this flow was historically computed as a balancing variable.
- Due to confidentiality reasons, the Canadian administration estimated **natural gas** consumption in the following sectors for 2014-2017: *iron and steel, non-ferrous metal, transport equipment and machinery*.
- For 2011, the increase consumption by *non-metallic mineral* production is due to switching from **coal** to **natural gas** in cement manufacturing.
- Prior to 1990 data for consumption of **natural gas** for *construction* are not available.

- Prior to 1978, consumption in *non-specified industry* includes gas used as fuel in *oil refineries*.
- Prior to 1978, agriculture is included in industry, and no detailed industry sub-sector data are available.

Biofuels and waste

General notes

- The split of **municipal waste** reported assumes 65% renewable and 35% non-renewable.
- The IEA Secretariat has estimated the data for **biogases, industrial and municipal waste** from 1990 to 2004, **biogasoline** (ethanol) from 1998 to 2004 based on information supplied by Natural Resources Canada.

Supply

- Canadian **biodiesel** production increased significantly in 2014 because a large producer came online at the end of 2013. In 2016 again, there was a big increase in production of **biodiesel** due to a large plant coming online in Alberta. This is also the reason for the increase in export, as Canada exports most of its **biodiesel** to the US.
- There were no exports of **biogasoline** since 2013.

Consumption

- The **solid biofuels** consumption data for the residential sector in 2015 - 2017 are equal to 2014 data because firewood data are delayed.

Electricity and heat

General notes

- The Canadian administration has undertaken revisions of many parts of the electricity time series back to 2005, based on the results of the Report on Energy Supply and Demand in Canada (RESD). In particular, revisions were made on the inputs and outputs of power plants fuelled by combustible fuels and on the breakdown of final electricity consumption, resulting in possible breaks in time series.

Supply

- For the 2019 edition, gross electricity output from **wind** in 2017 shows a 6% decline over 2016. However, downward revisions to historical data are pending, which would alter this trend.

- Autoproducer solar PV electricity generation is available from 2016. Prior to 2016, data are included in main activity producers. As a result, a break in series occurs for main activity producer solar generation between 2015 and 2016.
- In the 2018 edition, revisions were made to electricity production from **wind** back to 2013.
- Starting in 2009, a new source has been used for electricity production from **solar, wind, and tide**. This new source covers production from **solar and wind** only from plants with capacity higher than 500 kW.
- **Heat** production includes **heat** produced by **nuclear** power stations for distribution to other consumers up to 1997.
- Discrepancies occur between respective reported figures for electricity trade between the US and Canada for 2016.

Transformation

- For the 2019 edition, breaks in series appear for **solid biofuel** inputs to autoproducer electricity plants because of the availability of improved data. Historical revisions are pending.
- In the 2016 edition of this publication, there was a reclassification from autoproducer to main activity producer for plants fuelled by **biogases and municipal waste**.
- For autoproducers generating electricity with process steam produced from biofuels and waste, the energy required to produce the initial steam is not taken into account by the Canadian administration and as a result the efficiencies are overstated.
- The breakdown of electricity and heat generation between natural gas and oil products in main activity producer CHP plants has been estimated by the Canadian administration starting in 1990. This may cause breaks in the time series between 1989 and 1990.
- Net electricity production by autoproducers prior to 1990 includes production from combustible fuel sources only.
- Inputs of fuels to heat plants are not available for 1979 to 1987.

Consumption

- In 2017, the decrease in **electricity** consumption in the chemicals sector is partially due to a large consumer having been rotated out of the source sample survey used to compile the data.

- *Non-specified (Other sectors)* is being partly treated as a residual under the new methodology introduced in the 2018 Edition. Data submitted by Canada for 2015 were for negative -19,998 GWh, which is not possible, so this has been revised to zero by the IEA Secretariat, with the increased consumption being removed from *Statistical differences*.
- **Electricity** transmission and distribution losses could include statistical difference for certain years.
- Consumption of **electricity** in oil and gas extraction is not available prior to 1987.
- Consumption of **electricity** in coal mines is not available between 1982 and 1986.
- Breaks in the time series occur between 1973 and 1974 in agriculture, and between 1987 and 1988 in the industry sector.

Chile

Source

Energía Abierta, Comisión Nacional de Energía, Ministerio de Energía, Santiago.

General notes

- Data are available starting in 1971.
- In the 2017 edition, data for 2014 and 2015 were revised to replace figures previously estimated by the Secretariat.
- From 1990, consumption in paper and pulp includes forestry and consumption in agriculture is included in *non-specified industry*. In general, a new methodology has been applied for data since 1990, leading to other breaks in time series between 1989 and 1990.

Coal

General notes

- **Other bituminous coal** data includes **sub-bituminous coal** for all years, if present.

Consumption

- Since 1990, consumption in paper and pulp includes forestry and consumption in agriculture is included in non-specified industry.

Oil

General notes

- There are breaks in time series between 2008 and 2009 due to a change in methodology by the Chilean administration.

Supply

- Receipts from other sources of other hydrocarbons correspond to natural gas used in refineries. These quantities are the results of *not-elsewhere specified transformation* in the Balances format.

Consumption

- Starting with 2017 reference year data the administration can now identify consumption in construction and agriculture. Prior to these quantities were reported under not elsewhere specified.

Natural gas

General notes

- The 2017 values for *not elsewhere specified transformation* and *oil refineries* have been estimated by the IEA secretariat.

Supply

- Chile started reporting *exports* of **natural gas** with 2016 data.
- Data representing **LPG** injected into the **natural gas** distribution network are available starting in 2009. They are reported in *from other sources - oil*.

Transformation

- For 2009 and 2010, inputs of **natural gas** to *auto-producer CHP* plants were estimated by the Chilean administration. For other years, these inputs are included in *auto-producer electricity* consumption.
- *Not elsewhere specified transformation* represents **natural gas** that is blended with **refinery gas**.

Consumption

- **Natural gas** used for *oil and gas extraction* is included in gas consumption for energy use in *oil refineries*.
- *Non-specified transport* corresponds to marine transport.

Biofuels and waste

Supply

- Production of **landfill gas** ceased from 2001 - 2014 as landfill sites stopped producing adequate gas to continue collection.

Transformation

- A new survey on primary **solid biofuels** causes breaks in production and input to autoproducer CHP between 2011 and 2012.

Consumption

- **Charcoal** production and consumption have been estimated by the IEA Secretariat until 2013. From 2014 data, only **solid biofuels** input to **charcoal** production plant is estimated.
- The Chilean administration applied a new revised methodology for *final consumption* of **primary solid biofuels**. This may lead to data breaks in time series between 2013 and 2014.

Electricity and heat

Supply

- Electricity production from **geothermal** started at Cerro Pabellón in 2017.
- In 2014, the Chilean administration applied a new methodology in the reporting of electricity generation from **solar PV** and **wind**, resulting in breaks in time series between 2013 and 2014. Revisions for previous years are pending.
- The majority of electricity generation *from other sources* is from a conveyor belt transporting crushed rock from high altitude to lower altitude in a mine. A small amount from waste heat is also included.
- **Solar thermal heat** production has been estimated by the IEA Secretariat using data published by Chilean ministry of energy.
- Heat production from **solid biofuels** and **biogas** use in Main CHP plants is not available.
- Electricity production from autoproduction **hydro** is self-declared, and as such, subject to variation.

Transformation

- In 2014, data inputs to transformation processes were taken from the published energy balance, and the output was estimated based on the efficiency reported in previous years.

- Electricity production from **other bituminous coal** includes sub-bituminous coal.
- Production of **chemical heat** used for electricity generation started in 2013. Besides chemical heat, data for heat production in CHP and heat plants are not available.
- Increases in electricity from **natural gas** in 2010 are due to the openings of new LNG terminals.
- The split of electricity generation by main activity and autoproducer by fuel was estimated by the Chilean administration for the period 1990 to 2003.
- The variability of electricity output from **oil products** is in part due to the fact that oil-fired power plants are used for backup generation.

Consumption

- Consumption in *agriculture/forestry, and construction* are available from 2017. For prior years, data are reported under *Industry (non-specified)*.
- Increases in **electricity** consumption in the *road transport* sector from 2014 onwards are the result of a new estimation methodology, while electric vehicles used for the transportation of ores are reported as consumption within the mining and quarrying industry.
- **Solar thermal** consumption data are not available so all consumption data are allocated to the *non-specified other* sector.
- Prior to 2009, most statistical differences are included in distribution losses.

Czech Republic

Sources

- Czech Statistical Office, Prague.
- Ministry of Industry and Trade, Prague.

General notes

- Due to ongoing review of energy data for 2010-2014, revisions have been made in the 2017 edition. Full details are given under each fuel.
- Data are available starting in 1971.

Coal

General notes

- **Other bituminous coal** data include **sub-bituminous coal** for all years, if present.

- In the 2018 edition, data for the Czech Republic were revised back to 2010 based on administrative data causing breaks in time series between 2009 and 2010. These revisions impacted mainly industrial consumption for **lignite**, **BKB** and **other recovered gases**.
- In the 2017 edition, coal consumption in the residential sector has been revised back to 2010 due to a new survey in households made by Czech Statistical Office, creating breaks in time series between 2009 and 2010.
- Increased production and consumption of other recovered gases in 2014 is due to improved tracking of by-products from various transformation processes. Tail gases from the production of carbon black from coal tar are reported here, as are off gases from the manufacture and cleaning of syngas from lignite for an IGCC plant.
- Coal which had been previously classified as **sub-bituminous coal** until the 2008 edition is now reported under **lignite** for all years.
- Revisions by the Czech administration have resulted in some breaks in time series between 2001 and 2002.
- Data for 1990 to 1995 were estimated based on the Czech publication Energy Economy Year Book.
- In 1995, town gas production (included in **gas works gas**) ceased.
- Since 2010 **BKB** includes multipurpose brown coal dust for both supply and consumption.

Supply

- **Other recovered gases** are combustible gases obtained during the production of **gas works gas** and as a result of chemical processes.
- Production *from other sources* of **other bituminous coal** is from coal slurries, however these data are not available for 2018p.
- A portion of **other bituminous coal** reported under *from other sources* for the period 2010-2015 correspond to reclassified **coking coal**.
- Statistical differences for **coking coal** for the period 2010-2015 are partly due to the reclassification of coking coal to **other bituminous coal**.

Consumption

- In the 2019 edition, **coke oven gas** in energy own-use consumed by electricity, CHP and heat plants was revised for 2016 resulting in a break in the series.

- In the 2015 edition, improved reporting enabled revisions to be made for certain primary **coal** consumption flows between 2010 and 2012.
- In the 2014 edition, residential consumption for the period 1990 through 2011 was revised for **other bituminous coal**, **lignite**, **coke oven coke** and **BKB**, as more accurate consumption data became available.
- Due to economic restructuring in consumption in the late 1990s (big state enterprises subdividing and/or privatising and the utilisation of new technologies by businesses), there may be breaks in time series in these sectors.

Oil

General notes

- Data prior to 1994 are estimated by the IEA Secretariat.
- In 2016 both Czech refineries were affected by accidents which resulted in decreased refinery throughput, increased refinery losses and a large decrease in imports of **crude oil** offset by increased imports of finished products. The second accident affected the ethylene production unit and led to decreased activity in the petrochemical sector.
- In 2017, the units previously affected by accidents were upgraded and operations resumed with increased output

Transformation

- From 2002 data onwards, some amounts of **fuel oil** have been reclassified under **other products**. This change mainly affects the transformation sector.

Consumption

- Between 1998 and 1999, breaks in **gas/diesel** final consumption time series are due to a new data management system implemented by the Czech administration.

Natural gas

General notes

- Between 1993 and 1994 there are some breaks in time series due to a change in the energy balance methodology between former Czechoslovakia and the Czech Republic. Since 1993, data have been officially submitted by the Czech Statistical Office.

Supply

- From 2013 all *non-associated gas* production was reclassified as *colliery gas* production.

Transformation

- In 1996 **natural gas** inputs into *gas works (transformation)* ended.

Consumption

- Prior to 1994 data in *transport sector* are for former Czechoslovakia.
- There is a break in time series in the *industry and transformation sectors* between 2009 and 2010 due to new available data from distribution companies.
- Starting with 2008 data, hydrogen production is reported in *chemical and petrochemical* feedstocks as non-energy use. Up to 2007, *chemical and petrochemical* consumption includes both energy and non-energy use.

Biofuels and waste

General notes

- The restructuring of the Czech electricity market leads to breaks in the time series in all sectors between 1998 and 1999.
- Data for **municipal waste** and **solid biofuels** are not available prior to 1990 and **liquid biofuels** data are not available prior to 1992.

Supply

- The increase in the indigenous production of **industrial wastes (non-renewable)** in 2018p is related to increased demand from cement companies.

Transformation

- For 2016 data, an increased excise duty was imposed on **biofuels**, causing a decline in consumption.
- In 2016, a main activity producer CHP incineration plant fired by **municipal waste** was in test operation at Chotikov.

Consumption

- In the 2017 edition, due to a new survey in households made by the Czech Statistical Office in 2015 (ENERGO 2015), **solid biofuels** consumption in residential sector has been considerably revised upwards since 1990.

- Hospital waste previously reported as **municipal waste** is reported under **industrial waste** since 2008.
- New survey systems cause breaks in final consumption in 1999 and in 2002. Breaks in both supply and consumption of biofuels and waste occur again in 2003.

Electricity and heat

General notes

- In the 2017 edition, data for the Czech Republic were revised back to 2010 due to the acquisition of new administrative data, allowing access to more accurate and detailed data sources. As a result, there are breaks in several time series between 2009 and 2010.
- Data from 1990 onwards have been officially submitted by the Czech administration. This may lead to breaks in time series between 1989 and 1990.
- Electricity statistics from 1971 to 1989 have been estimated by the IEA Secretariat except for final consumption and trade which were submitted by the Czech administration.
- For 2017, apparent declines in autoproducer **heat** production by the *chemical and petrochemical* sector, and in consumption by *petroleum refineries*, occur due to the incorporation of an oil refinery into a neighbouring petrochemical enterprise.

Supply

- The amount of heat reported under **other sources** is primarily waste heat from the glass industry until 2009.
- From 1999 onwards, small amounts of **heat** have been exported to Slovak Republic.

Transformation

- For 2017, **heat** production from electric boilers and heat pumps is based on new survey data, whereas, data for prior years have been estimated by the Czech administration. As a result, some breaks in series may occur. Historic revisions are pending.
- Electricity generated from **waste heat** in CHP plants is included with the total production from **combustible fuels**.
- In the 2017 edition, a revision of the methodology for reporting the production of autoproducer plants running on **combustible fuels** causes multiple breaks in time series between 2009 and 2010 for CHP and electricity only plants.

- Data on **heat** own use and **heat** imports start in 2010 and 2009 respectively, following extensive revisions by the Czech administration in the 2017 edition due to the acquisition of new administrative data. Prior to this period, data are not available due to lack of sources.
- The production of electricity reported in the category **other fuel sources** refers to electricity produced from turbines driven by the mixture of air, ammonia and other non-coal gases derived from the petrochemical industry.
- From 2014, some autoproducer **heat** plants production figures became too small to appear in data collected.
- From 2012 data, new autoproducer **heat** plants were added to the data collection, causing a break in time series.
- In 2012, a main activity producer electricity plant using **solid biofuels** started to produce also heat and was reclassified as main activity CHP plant.
- A different reporting methodology used by the Czech administration for **biofuels and waste** causes some breaks in time series between 2002 and 2003.
- In 1999 and 2000, various big enterprises have been divided, sold and merged. This causes breaks in the time series of all types of plants.
- **Industrial waste** use in main activity producer electricity plants is included with **solid biofuels** from 1996.
- Data on **biogases** and waste used in main activity producer CHP and autoproducer heat plants start in 1993.
- Prior to 1990, electricity production in main activity producer CHP and autoproducer CHP plants is included in main activity producer electricity plants.
- Prior to 1990, heat production excludes heat sold by industry. In addition, heat production prior to 1990 is reported under main activity heat plants because the breakdown by producer and plant type is not available before then.
- The breakdown of net **electricity** production by source is not available prior to 1990.
- Data on **heat** production, and the corresponding fuel inputs, have been estimated from 1980 to 1989 based on consumption in residential and commercial/public services. Prior to that, inputs are included in industry.

Consumption

- Data on **electricity** consumption by cable cars (reported under *non-specified transport*) are available from 2017.
- Data for direct use of **solar energy** are available from 2003.
- Prior to 2000, the split of *rail transport* and *non-specified transport* is not available.

Denmark

Source

Danish Energy Agency, Copenhagen.

General notes

- In the 2004 edition, major revisions were made by the Danish administration for the 1990 to 2001 data, which may cause breaks in time series between 1989 and 1990.

Coal

Supply

- A large increase of **steam coal** imports in 2003 was related to a drought in Scandinavia. Thermal power plants were operated more intensively to replace hydro-generated electricity that was consumed in the country. Additionally, more coal-generated electricity was exported to other countries in the region. Significant fluctuations in demand are also evident for other years for similar reasons, including 2006 and 2013, but exist to a lesser extent.
- Declines in stocks of **steam coal** stem from extensive deployment of renewable generation technologies and policy to further reduce Denmark's utilisation of coal-fired power and implement co-firing with renewable fuels as a part of their *Energy Strategy 2050*.

Oil

General notes

- Starting with 2013 data the Danish administration reports products transferred to refinery feedstocks. In previous years refinery output is reported net of product transfers.

- From 2012, due to confidentiality issues, all liquid biofuels are reported under **biodiesel**
- Between 1995 and 2004, **other hydrocarbon** imports and inputs to main activity producer CHP plants represent orimulsion.
- From 1990 onwards, Greenland and the Danish Faroes are not included in the oil data.
- Information on waste oil recycling and final consumption begins in 1989 and is reported in other oil products.
- In 1988, consumption of **gasoline type jet fuel** ceased.
- As of 1987, separate data for **paraffin waxes** are no longer available.
- Prior to 1975, **refinery gas** is reported net of consumption in refineries.

Supply

- Quantities of other hydrocarbons represent **natural gas** used by refineries.

Transformation

- Due to improved survey methods, inputs to electricity and heat generation have been reclassified, causing a break in time series between 1993 and 1994. The oil inputs used in industrial sub-sectors for producing surplus heat, which is delivered to district heating networks, are allocated to these industrial sub-sectors.
- In 1994, the marked increase in inputs to CHP production is due to increased electricity exports to Norway.
- From 1974 to 1979, consumption of fuel oil for the CHP production by autoproducers has been estimated.

Consumption

- Consumption data are based on a detailed survey sent to companies in Denmark every other year. For non-survey years, the consumption figures are estimated by the Danish Energy Agency
- **White spirit** and **lubricants** deliveries are estimated by Denmark.
- For 1994 and 1995, industry detail is based on a new survey.
- Prior to 1990, **gas/diesel oil** and **fuel oil** consumption for fishing are included in domestic navigation

Natural gas

Consumption

- The consumption of LNG for marine transport and *international marine bunkers* is not reported due to confidentiality.
- The breakdown for industrial consumption for the latest year is estimated by the Danish administration using the previous year's *industry sector* sub-sectoral shares and updated the following year.
- *Gas Works (Transformation)* represents **natural gas** blended and distributed as "town gas". Revisions to this flow are expected for the 2020 edition.

Biofuels and waste

Transformation

- From 2012, **biogasoline** trade designated to be blended with motor gasoline is included under bio-diesels, for confidentiality reasons.
- From 2012, **biodiesel** production was confidential and gathered with imports.

Consumption

- In the 2016 edition, the Danish administration revised energy consumption in industry sectors causing some breaks in **solid biofuels** consumption between 2010 and 2011.
- The data on the consumption of **municipal waste** in the industry sector are delayed by one year and the Danish administration duplicates the previous year's data until the data become available.
- The Danish administration estimates the growth in consumption of **solid biofuels** in the industry sector for the most recent year based on the growth in the transformation sector.

Electricity and heat

General notes

- **Heat** data are not available prior to 1976.

Supply

- In 2017, the declines in **electricity** and **heat** output from **other bituminous coal** and the corresponding increases in output from **solid biofuels** are attributable to fuel switching in co-fired plants.

- The amount of **heat** reported under *other sources* is heat recovered from industrial processes and sold for district heating.
- **Heat** produced for sale by heat pumps starts in 1994.
- **Geothermal** and **solar heat** production for sale is available from 1989.
- From 1984 onwards, small amounts of **heat** have been imported from Germany.
- The production of electricity from **wind** is available from 1978.

Transformation

- Fish oil used in main activity producer heat plants is included with **solid biofuels**.
- Due to the high number of heating companies burning wood chips that are equipped with boilers with flue-gas condensation, the **solid biofuels** heat plants show a high efficiency. The efficiency decline evident in 2016 was due to two less efficient plants switching to biofuels.
- For some years, heat plants fired by **natural gas**, **municipal waste**, **biogases**, and **other oil products** show efficiencies greater than 100%, on a net calorific value basis, due to the use of condensing boilers and other flue gas condensation technologies that recover the latent heat of vaporisation.
- **Biodiesels** and **biogasoline** consumption for electricity and heat production are reported under **other liquid biofuels**, for confidentiality reasons.
- Data for **other liquid biofuels** main activity heat plants are available back to 1994.

Consumption

- In the 2016 edition, the Danish administration revised **electricity** and **heat** consumption in the industry sector from 1990.
- For 2015 and 2016 data, the breakdown of **electricity** and **heat** total final consumption is estimated by the Danish administration based on 2014 data and will be revised in the following reporting cycle once their new industry survey results are released.
- The direct use of **solar thermal** energy is available from 1978.
- **Electricity** consumption in *non-specified industry* includes consumption in district heating plants and for the distribution of electricity.

Estonia

Source

Statistics Estonia, Tallinn.

General note

- Data for Estonia are available starting in 1990. Prior to that, they are included in Former Soviet Union.

Coal

General notes

- Fuels reported as **coke oven coke** and **gas works gas** are the solid and gaseous by-products of oil shale liquefaction. Inputs of **oil shale** to “gas works”, “coke ovens” and for coal liquefaction plants, while reported separately, combined, are the inputs for retorting in liquefaction plants.
- In the 2013 edition, data for **oil shale** production for the period 1991 to 1997 were revised to match Estonian GHG National Inventory values. Consumption data remained unchanged.

Supply

- Indigenous production of **peat products** stopped in 2017.

Oil

General notes

- In 2012 data, breaks in time series occur for trade figures, now including re-exports, and for international bunkers.
- For 1990 to 2007, oil data are based on direct communication with Statistics Estonia and UNECE.

Natural gas

Consumption

- Consumption reported under *not elsewhere specified (Energy)* represents consumption of different activities of companies in the energy sector (NACE 35) for own uses without transformation.
- There are inconsistencies in the time series for *residential* consumption as this sector is computed as a residual.

- In 2014 Estonia's main company in the *chemical and petrochemical* sector ceased activity, resulting in no non-energy use of natural gas.
- In 2009 Estonia's main producer of fertilisers ceased activity, resulting in a sharp decrease in the non-energy use of **natural gas**. The plant reopened in 2012.

Biofuels and waste

General notes

- Data for **biogases** include **landfill gas** starting in 2005.

Electricity and heat

Transformation

- Fuels reported as **coke oven coke** and **gas works gas** are the solid and gaseous by-products of **oil shale** liquefaction, and main activity heat and electricity generation from these fuels is tightly associated with liquefaction plants.
- Inputs of **fuel oil** and **gas works gas** to transformation processes include **shale oil**.
- In the 2018 edition, the surge in main activity heat from **solid biofuels** was related to reclassification from autoproducer heat plants, where previously autoproducer own use heat and associated fuel inputs are not reported, and the fuel consumption appears in the main economic activity of the autoproducer.
- From 1990 to 1999, some of the **electricity** and **heat** production are reported under **other oil products** while the inputs are reported under the individual fuels.

Consumption

- **Electricity** consumption in the non-specified energy sector includes consumption in the Classification of the Economic Activities in the European Community (NACE) 3512 and 3513 categories.

Finland

Source

Statistics Finland, Helsinki.

General notes

- In 2014, a new survey system and a reclassification of the data lead to breaks in the time series between 1999 and 2000 for most products and sectors. The new survey system is more detailed and has better product coverage, especially in electricity, CHP and heat production, as well as in industry.

Coal

General notes

- **Coal tar** used for non-energy purposes or exported is not reported in either production or consumption.
- In the 2015 edition, revisions were received for some consumption flows of **other bituminous coal** and **coke oven coke**, while **other recovered gases** (from ferrochromium manufacture) were reported separately for the first time, with revisions back to 2000. Prior to 2000, off-gases from ferrochromium manufacture are included in blast furnace gas, and inputs of **coke oven coke** for ferrochromium manufacture in inputs to blast furnaces instead of *non-specified transformation*.
- Prior to 2008, **peat products** are included with peat data.
- A large increase of steam coal imports in 2003 is related to a drought in Scandinavia. Thermal power plants were operated more intensively to replace hydro-generated electricity that is consumed in the country. Additionally, more coal-generated electricity was exported to other countries in the region.
- The increase of **other bituminous coal** inputs into main activity producer electricity plants from 1993 to 1994 was due to coal replacing imported electricity and hydro power.
- Production of **gas works gas** ceased in April 1994.
- Hard coal data prior to 1978 may include sub-**bituminous coal**.

Transformation

- In 2017, the consumption of coal in main activity producer electricity plants decreased considerably following the move of a large plant to the national capacity reserve.
- In the 2017 edition, fuel inputs and heat production from **peat** main activity heat plants have been revised from 2000 as a result of new data access for smaller peat heat plant units.

- The significant increases and decreases of **other bituminous coal** inputs into main activity producer electricity plants from year to year are due to coal replacing imported electricity and hydro power.
- Likewise, **peat** production is highly dependent upon favourable weather conditions and the pricing of other fuels. The decrease in **peat and other bituminous coal** usage in main activity electricity plants in 2008 was due to record electricity generation from hydro plants. A similar circumstance occurred in 2012.
- The first coking plant started operation in 1987, hence imports of **coking coal** and production of **coke oven coke** and **coke oven gas** started in that year.

Oil

General notes

- The 2018 edition includes revisions to data for several products from 1999 onwards.
- Several revisions to petrochemical data were introduced, including a reclassification of quantities between energy and non-energy use. Further revisions are pending.
- In spring 2015, the Porvoo refinery had the largest shut down in its history for maintenance works. This is the reason for the large decrease in refinery throughput in 2015.
- In 2014, the Finnish administration revised the time series for **refinery gas** from 2000 and included flaring of petrochemical gases under *distribution losses*.
- Prior to 2002, **petroleum coke** used as *refinery fuel* was included with refinery gas.
- In 1995, there is a break in time series for **oil products** trade due to the aligning of the National Board of Customs trade data collection system with the European Union's Intrastat system.
- **Other hydrocarbons** reported under *from other sources natural gas* correspond to hydrogen used in refineries, also represented as the output of *non-specified transformation* in the balances format.

Consumption

- Data on non-energy transformation of naphtha in the petrochemical sector is now available from 1990 onwards.
- Due to a new calculation model, there is a break in **fuel oil other consumption** between 1998 and 1999.

Natural gas

General notes

- Finland imports LNG since September 2016. As there is only one company operating in this market, LNG supply data is confidential and have been excluded from the supply side flows.
- Between 1999 and 2000 there are some breaks in the time series due to a new survey system and a reclassification of the data.

Supply

- Data for *international marine bunkers* consumption started being reported in 2017.
- The opening and closing stock levels data are confidential and stock changes data for 2017 are estimates by the Finnish administration. Transformation
- *Non-specified transformation* data represent **natural gas** used for hydrogen manufacture. This hydrogen is used for hydrodesulphurization and hydrocracking in oil refineries

Consumption

- *Distribution losses* for 2017 include the quantities of boil-off **natural gas** originating from the natural evaporation of LNG in tanks.
- *Not elsewhere specified (transport)* includes LNG consumption for domestic navigation.
- Since 1995 data, the breakdown between *residential* and *commercial/public services* is available due to a new system of data collection.
- Prior to 1989, **natural gas** consumption in *residential* and *agriculture/forestry* had been estimated by the Finnish administration.

Biofuels and waste

General notes

- Prior to 2004, **industrial waste** also included other energy forms such as hydrogen, heat from chemical processes, natural gas and blast furnace gas.
- Data for **biogases** and **industrial waste** are available from 1996.

Supply

- Due to confidentiality, the **biodiesel** production includes trade figures and stock changes starting with 2015 data. **Biogasoline** import for the same

time period covers production, exports and stock changes.

Transformation

- The amount of **biodiesel** used for blending with diesel fell greatly in 2016 after record levels for the past two years. Annual variation in the consumption of biofuels is possible and caused by Finland's biofuel legislation, which gives distributors the possibility to fulfil the bio obligation flexibly in advance.

Electricity and heat

Supply

- **Electricity** production in Finland is affected by the connection to the Nord Pool. In period of high waterfalls, importing electricity from other Nordic countries is more economic than producing it. This can cause breaks in the time series.
- **Other sources** include hydrogen, purchased steam, and heat recovered from flue gas scrubbers. For 2017, the increase in heat production from other sources is due to the reporting of heat recovered from flue gas scrubbers for the first time.
- The increasing **heat** production from heat pumps in 2007 and 2008 is from the new Katri Vala district heating and cooling plant.
- **Heat from chemical processes** and associated electricity generation are available from 2000.

Transformation

- Electricity plants data may include some CHP plants operating in electricity only mode. Likewise, heat plants data may include some CHP plants operating in heat only mode.
- In the 2017 edition, fuel inputs and heat production from **peat** main activity heat plants have been revised since 2000 as new data became available for small peat heat plant units.
- In the 2016 edition, the allocation of **solar photovoltaic** between main activity and autoproducer plants was revised.
- From 2014 data, an autoproducer in the field of iron and steel industry running on **coke oven gases** and **blast furnace gases** was sold and is now reported as main-activity producer.
- The increase in heat production from **municipal waste** in 2014 is due to the opening of a new plant.

- In 2014, the new consumption of **other liquid biofuels** in main activity electricity plant corresponds to biopyrolysis oil made from wood chips.
- Data on **peat products** electricity and heat generation are available since 2008. Prior to that, they are included in **peat**.
- **Heat** output from autoproducer CHP plants is available starting in 1996 and from autoproducer heat plants starting in 2000; corresponding inputs may be under-reported.
- Before 1999, all electricity production from autoproducers running on **fuelwood** is allocated to CHP plants.
- Electricity and heat production from **biogases** are available from 1996.
- Prior to 1992, outputs from the use of **combustible renewables and waste** to generate electricity and/or heat were included in peat. Therefore, the IEA Secretariat estimated the breakdown of outputs from **municipal waste** and **solid biofuels** based on reported inputs.
- Inputs of **liquid fuels** and **natural gas** to CHP plants are included with the inputs of these fuels to main activity producer electricity only and heat only plants prior to 1978.
- Electricity production from **biofuels and waste** is not available between 1974 and 1976.

Consumption

- For 2016 data, the production of **heat** from oil refineries in autoproducer plants ceased, following the change of ownership of these plants and their reclassification to main activity producers. This result in the consumption of (sold) heat under the oil refineries sector to jump as most heat formerly produced by oil and gas autoproducers are now purchased.
- In the 2017 edition and following, an extended review of NACE sector encoding by the Finnish administration resulted in the revision of the sectoral **heat** consumption time series back to 2007, leading to breaks in time series between 2006 and 2007 in some heat consumption sectors.
- A new survey of the agriculture and forestry sector leads to breaks in the **electricity** consumption between 2007 and 2008.
- The split of **heat** consumption in the different industry sectors is available starting from 2007. Prior to that, it is aggregated in *non-specified industry*.

- Prior to 2000, consumption of **heat** in *residential* includes consumption in *agriculture/forestry* and *commercial/public services*.
- Consumption of **electricity** in the industry sub-sector *machinery* includes consumption in transport equipment prior to 1995.

France

Source

Ministère de la Transition Écologique et Solidaire, Paris.

General notes

- In the 2018 edition, data for France were revised back to 2011 following changes in methodology and procedures used by the energy statistics sub-department (SDSE) within the Ministry for the ecological and inclusive transition. As a result, the revisions, to bring the reporting more in line with the international standards, impacted all fuels. Additional details are given under each fuel.
- From 2012, the energy consumption is more detailed due to a more precise national survey.
- From 2011 data onwards, France now includes Monaco, and the following overseas departments (Guadeloupe; French Guiana; Martinique; Mayotte; and Réunion); and excludes the overseas collectivities (New Caledonia; French Polynesia; Saint Barthélemy; Saint Martin; Saint Pierre and Miquelon; and Wallis and Futuna).

Coal

General notes

- In 2018 edition, the calorific value of coking coal has been revised in agreement with Eurostat and the IEA. The revision was made for the period 1990 to 2016.
- In the 2017 edition, the French administration undertook comprehensive revisions on sectoral coal consumption back to 2011. Starting this edition, new information became available for **anthracite**, **BKB** and **other recovered gases**.
- From 2012, the energy consumption is more detailed due to a more precise national survey.
- Prior to 2011, **other manufactured gases** (oxygen steel furnace gas) are included in **blast furnace gas**.

- For 1989 to 1998, the IEA Secretariat has estimated industry consumption based on *Consommations d'Énergie dans l'Industrie*, SESSI.
- Prior to 1985, consumption of colliery gas is included with the use of **coke oven gas** by autoproducers.
- Hard coal data prior to 1978 may include **sub-bituminous coal**.

Transformation

- In 2017 the use of **other bituminous coal** into transformation for electricity increased by more than 20% to compensate lower generation from nuclear and hydro plants.
- In 2016 the company that consumed **blast furnace gas** for electricity and heat generation ceased its activity.

Consumption

- In the 2018 edition, the split of energy consumption between the residential sector and the commerce and public services sector has been revised back to 1990 by the French administration for **other bituminous coal**, **lignite**, **coke oven coke**, **BKB** and **patent fuel**.
- **Blast furnace gas** and **coke oven gas** used for energy purposes in blast furnaces are no longer reported under the iron and steel industry. As of the 2018 edition these quantities are reported under the energy sector.
- Final consumption in industry is estimated by the Secretariat from 1986 to 2001 for some products.

Oil

General notes

- *Statistical differences* observed for motor gasoline and naphtha are partly due to the absence of a specific naphtha category in the customs classification.
- Statistical differences appear for other products as a result of different definitions used for this residual category between the customs, refineries, power plants and petrochemical industry.
- From 2013, information is available for imports of condensates used by the petrochemical sector. These are reported under imports of NGL, inter-product transfers of NGL to other oil products, and consumption of other products.
- From 1991, **additives and oxygenates** data are available.

Supply

- Higher than usual seasonal maintenance in the spring of 2018 impacted refinery intake and output.
- From 2009, transfers of **kerosene type jet fuel** to **white spirit** correspond to kerosene used as a base for making white spirit.
- From 2008 data, refinery intake of **refinery feedstock** and refinery output of **refinery gas** output figures exclude natural gas used in the steam reformer of the Gonfreville refinery.
- From 2008 data, **ethane** refinery output is reported
- From 2002 data onwards, ethylene produced in Lacq is not included in NGL.
- From 1998 data, a different treatment of transfers was adopted. Imported oil products needing further refinery processing are no longer reported as **refinery feedstock** imports but as oil product imports and products transferred. **Fuel oil** includes part of the amounts previously reported in **other oil products** from 1999 and various other products from 2001.

Transformation

- Starting in 2012, separate data on main activity heat plants inputs are available.

Consumption

- The breakdown between international and domestic marine bunkers is estimated by the French administration.
- Between 2005 and 2006, a break is visible in **LPG** time series, as consumption from one chemical company was re-classified from energy use to non-energy use. Breaks in **LPG** time series also appear in 2001 due to improved data collection.
- From 2000 data, **petroleum coke** consumption in the non-ferrous metals industry is no longer available separately. Prior to 1982, no breakdown between energy and non-energy use is available for this product.
- From 1998 data, military consumption of **kerosene type jet fuel** is reported separately from domestic aviation.
- Prior to 1988, **LPG** includes ethane consumption.
- Prior to 1985, the residential sector consumption of **gas/diesel oil** is reported under the commerce/public services sector, as no separate data were available.

Natural gas

General notes

Starting from the 2018 edition, the French administration revised the methodology used in the 2018 edition to bring it more in line with the international standards. More specifically, (i) Supply figures were revised for the period 2007-2016, (ii) *transformation sector* consumption for 2007-2016, (iii) *energy sector* consumption for 2011-2016, (iv) transport and *commercial/public services* for 2000-2016, (v) *industry sector* for 2011-2016 and (vi) *imports and exports* for 2011-2016.

In the 2019 edition, the French administration revised the demand side from 2011 onwards by improving the methodology with the consolidation of data from SDSE surveys and additional official sources.

Until 2007, some statistical differences reported by the French utilities were included in *distribution losses*. Since 2008, these amounts are included under *statistical differences*.

Between 1999 and 2000, there are some breaks in time series due to a new methodology for preparing the **natural gas** balances.

The data include the French overseas departments, however **natural gas** is neither produced, nor consumed in these departments.

Supply

- The total *imports* and *exports* data include transit amounts.
- From 1990 to 1998, *statistical difference* includes gas consumption which is not broken down by sector.

Consumption

- The increase in **natural gas** consumption in the electricity sector for 2016 and 2017 has been mainly driven by the decrease in nuclear generation due to maintenance operations, which was compensated by gas-fired power plants.
- Gas for pipelines is included in *distribution losses*.
- Between 2005 and 2006, there is a break in the time series of the industry sub-sectors.

Biofuels and waste

General notes

- In the 2018 edition, following an analysis of **biogases** in the energy sector by the French

administration, there are revisions in **biogas** indigenous production, inputs to the transformation sector, heat production and final consumption back to 2005. Electricity production from **biogases** is revised back to 2011. This causes breaks in time series between 2004 and 2005 as well as 2010 and 2011.

- Indigenous production, transformation and final consumption of **industrial waste** are reported from 2013. In the 2018 edition, indigenous production and transformation of **industrial waste** were added from 2007 - 2012. It follows that there is a break in time series between 2012 and 2013.
- In the 2018 edition, **solid biofuels'** indigenous production and inputs to main activity and autoproducer heat plants have been revised back to 2007. Electricity production has been revised back to 2013. This causes breaks in time series between 2006 and 2007 as well as 2012 and 2013.
- In the 2018 edition, indigenous production and inputs to main activity heat plants have been revised back to 2007 for **municipal waste**. Electricity production has been revised back to 2011. This causes breaks in time series between 2006 and 2007 as well as 2010 and 2011.
- Prior to 2007, production and consumption of **industrial waste** were included in municipal waste.

Transformation

- Plants using **municipal waste** were reclassified as autoproducer CHP plants from 1995, which leads to a break in time series.
- Breaks in time series in 2005 for **municipal waste** and **solid biofuels** are caused by sectoral reclassifications.

Consumption

- A revision of the **solid biofuels** and **biogases** time series created breaks in the direct use time series between 2004 and 2005.
- The breakdown of the final energy consumption of **biogases** was estimated by the French administration from 1970 to 2003.

Electricity and heat

Supply

- In the 2019 edition, **heat** supply and consumption data were revised due to improved information on heat production from renewables.

- All **solar photovoltaic** plants with capacity above 1 MWp are considered as main activity producers, while all plants with capacity below that value are considered autoproducers.
- Electricity production from *other sources* is available starting in 2007, representing production of electricity from purchased steam. The input is shown under *non-specified transformation*.
- Data on electricity production from **wind** are available from 1990. For 2013, the split between electricity generation from main activity and autoproducer **wind** plants has been estimated, pending receipt of revised data.

Transformation

- For 2014 onwards, the implied efficiencies of heat pumps are much lower than expected. This is under investigation by the French administration, and revisions are expected in future editions.
- The methodology for reporting inputs to CHP plants is under currently under review by the French administration and historical revisions are expected.
- For the 2018 edition, revisions for **heat** production in all plant types were received and accepted for many fuels from 2007 onwards, with the exception of **natural gas**, where the planned revisions for 2007 and 2008 are still pending implementation by the Secretariat.
- In the 2018 edition, electricity production from **hydro** was revised back to the year 2000, in some cases only amounting to plant reclassification.
- Electricity production from the *Bouillante* **geothermal** main electricity plant in Guadeloupe is included from 2011 onwards, when data coverage for France is extended to include the overseas departments. Electricity production from autoproducer **geothermal** started in 2011 and stopped in 2012 due to the maintenance of the only plant. This production restarted in 2016.
- The amount of **heat** not sold in autoproducer plants is included in total heat production up to 2007.
- In 2005, autoproducer CHP efficiencies for **biogases** drop due to the opening of a larger, less efficient plant.
- From 2000 several plants have been reclassified from electricity only to CHP plants. This causes breaks in the time series between 1999 and 2000.

- Prior to 2000, inputs and outputs of **oil products** are not available separately and are reported together under **other oil products**. From 2000 to 2008, there are further classification problems for inputs and outputs of electricity and heat from oil products. The French administration is working to reconcile their data collection methods for the inputs and the outputs for electricity generation.
- A new method of survey and a reclassification between main activity producer electricity plants and autoproducer electricity plants may cause breaks in the time series for **other bituminous coal** between 1998 and 1999.
- There was re-classification on autoproducer plants using **municipal waste** in 1995, which leads to a break in the time series.
- Net electricity production by autoproducer CHP plants is available from 1989.
- Net **electricity** production by autoproducers prior to 1983 includes production from combustible fuel sources only.

Consumption

- In the 2019 edition, revisions for 2011 onwards were received for all **electricity** consumption flows, based on a correction to a survey. This has introduced a wider statistical difference than previously published, and is under review.
- In the 2018 edition, revisions for 2011 onwards were received for all **electricity** consumption flows, based on an improved survey. This has led to breaks in time series between 2010 and 2011. Similarly, **heat** consumption from 2007 onwards was revised to account for autoproducer own use heat generation in its correct economic activity.
- In the 2017 edition, the French administration undertook comprehensive revisions on sectoral **electricity** consumption time series, for some sectors revising back to 1990. Electricity consumption at railway and bus stations, shipping piers and airports is no longer included in the transport sector but in the commercial and public services sector. Road electricity consumption has also been revised back to 1990, following an extended review of NACE sector encoding by the administration. These revisions created breaks in time series for several sectors, which the administration anticipates to address in subsequent reporting cycles.
- For the 2014 edition of this publication, the French administration revised **electricity** consumption

data in the agriculture sector back to 2004, resulting in breaks in time series.

- Consumption of **electricity** in uranium treatment plants is confidential for the period 2003 through 2010, and unavailable prior to 1980.
- Data on **heat** distribution losses are available only starting from 2007. Prior to that, they were included in final consumption.
- Prior to 2005, all the **geothermal** heat consumption was reported as direct use. From 2005 data, some quantities are reported as output of heat plants, resulting in breaks in time series for production, transformation and consumption.
- Consumption of **electricity** for oil and gas extraction includes that used in oil refineries from 1988 to 2000.
- *Non-specified other* consumption includes exports to Monaco prior to 1992 and defence-related activities, among others.
- The industry classifications used by the French administration were changed in 1986.
- There are major breaks in the time series in 1965 when more detailed breakdown of data on **electricity** consumption became available.

Germany

Source

Federal Ministry for Economic Affairs and Energy, Berlin.

General notes

- Data starts in 1960. German data include the new federal states of Germany from 1970 onwards.

Coal

General notes

- Comprehensive official data are only collected for the aggregate of hard coal. Due to the unavailability of detailed data, the split into **anthracite**, **coking coal** and **other bituminous coal** is partly estimated by the national administration.
- In the 2014 edition, significant revisions were submitted for all primary coal types, derived products and manufactured gases for the period 2003 to 2011 as previous estimations were updated with more accurate information. Revisions primarily

affected consumption, including industry and other sectors; but also supply, statistical differences and weighted calorific values.

- Up to 2002, **other bituminous coal** includes **anthracite**.
- Between 1998 and 2005, breaks in time series may occur for **coke oven gas** and **blast furnace gas**.
- Between 1990 and 1992, breaks in time series may occur due to earlier reclassification of several sectors by the German administration; this particularly affects **BKB**, **lignite** and **coke oven coke**.

Supply

- Hard coal mining in Germany ceased in 2018 with the last two hard coal mines being closed on December 21, 2018 due to profitability reasons.

Transformation

- Breaks in time series between 2014 and 2015 for **coke oven gas** and **blast furnace gas** are due to a reclassification of main activity producers and autoproducers.
- In 1997, **BKB** inputs to gas works plants stopped.

Consumption

- Consumption of **non-renewable municipal waste** and **other solid biofuels** as a reductant occurs in German blast furnaces, but is not currently quantified. Likewise, **coal tar** is a by-product of coke ovens, but not currently reported.

Oil

General notes

- In 2017, the German administration included additional firms in the chemical sector to their data collection system. As a result, for 2017 data there is an increase in deliveries of oil products to the petrochemical sector.
- In 2016 the German administration reclassified the consumption of a chemical company from **fuel oil** to **other oil products**. This leads to a decrease in the supply and consumption of fuel oil with a corresponding increase for other oil products. Due to the assumptions made by the German administration about the energy consumption of the respective products, this also creates a break in time series in the split between energy and non-energy consumption for the chemical sector.

- In 2016 there are breaks in time series for **white spirit** due to an increase in data coverage. Historical revisions are expected in the next edition.
- From 2000 data, part of the product *Andere Rückstände* (other residues) is included with fuel oil instead of other oil products.
- Starting from 1994 data, there has been a reclassification of jet gasoline to kerosene type jet fuel.
- Prior to 1979 data, **other products** include **paraffin waxes**, **bitumen**, **white spirit** & **SBP** and **lubricants** for eastern Germany.
- The methodology to determine net calorific values has been changed for 2015 data. The values for crude oil and refinery feedstocks were revised back to 2003.

Consumption

- The data for the sectors of construction, agriculture/forestry and fishing is subsumed within the commercial and public services sector.
- Between 2002 and 2003, breaks in time series in consumption data are due to structural changes in energy statistics following the newly introduced Energy Statistics Act.
- In 1995 data, a break in **gas/diesel oil** consumption occurs as a result of an alignment with the Classification of the Economic Activities in the European Community (NACE).
- Beginning in 1994, final consumption by individual sector has been improved due to new survey methods instituted by the *Minerölwirtschaftsverband*.
- In 1989, end-use consumption of **gas/diesel oil** decreased due to an exceptionally warm winter and a lowering of consumer stocks.
- Prior to 1980 data, consumption of **fuel oil** in blast furnaces was included in the iron and steel sector
- Prior to 1970 data, consumption of **refinery gas** in the chemical industry is included with refineries' own consumption.

Natural gas

General notes

- Between 2009 and 2010, there is a break in time series due to a new, more comprehensive legal framework that resulted in methodological

changes for production and new calorific values for **natural gas**.

Supply

- *Imports* include all the gas purchased by German companies, whether it is finally consumed in Germany or not.
- *Exports* include all the gas sold by German companies (these are mainly re-exports).

Transformation

- In 2003, there is a break in time series for input to electricity and CHP plants (both autoproducers and main activity producers).
- Prior to 1995, inputs of **natural gas** for *main activity producer heat* plants are included with *main activity producer CHP* plants.

Consumption

- Since 2003, there are no official data for the *construction* sector.
- Since 2003, consumption in *agriculture* and *non-specified other*, which were previously estimated, are no longer shown, and losses data have been included in *statistical differences*.
- Since 2003, gas consumption in *coke ovens (transformation)* was negligible.
- Between 2002 and 2003, there are breaks in time series for some sectors due to modifications in reporting methodology.
- Between 1994 and 1995, there are some breaks in time series due to the fact that the industry sub-sector breakdown is based on the 1995 NACE classification.
- Also, prior to 1995, end-use consumption data are based on Arbeitsgemeinschaft Energiebilanzen.
- Before 1970 there is no detailed breakdown available for the *industry* sector with the exception of *iron and steel* and *chemical and petrochemical* industries.

Biofuels and waste

General notes

- In 2011, numerous changes to methodology and classifications have caused many breaks in time series.

- Starting in 2008, **municipal waste** and **industrial waste** data were collected separately. This leads to breaks in the time series between 2007 and 2008.
- Between 1996 and 1997, a new survey for renewables causes breaks in the time series.

Supply

- Trade data for **biogasoline** are available from 2004 and for **biodiesels** from 2003.

Consumption

- For **solid biofuels** consumption in the commercial and public services sector, new data were derived in cooperation with the Federal Research Institute for Rural Areas, Forestry and Fisheries by applying a different calculation approach based on the total demand for material and energy use of the resource wood in Germany. This had resulted in break in time series between 2013 and 2014.

Electricity and heat

General notes

- In the 2014 edition, the German administration performed some major revisions back to 2003. This led to breaks in the time series between 2002 and 2003.
- The German administration has changed the methodology for reporting **heat** over time:
- Starting in 2007, more information is available on main activity heat plants and additional inputs started to be reported for this category. This causes breaks in time series between 2006 and 2007.
- Between 2003 and 2006, autoproducer **heat** output was provided, but no inputs.
- Between 2002 and 2003 and between 2003 and 2004, breaks in time series occur, due to the implementation of the Energy Statistics Act, collection concerning **heat** produced in heat plants and district heating plants became more efficient and more complete.
- Prior to 1970, **heat** production and consumption have been estimated by the Secretariat based on Energie-bilanz der Bundesrepublik für das Jahr 1990 provided by the German Institute for Economic Research.

Supply

- In some instances, **electricity** generation from **nuclear, hydro, solar, wind** and **biogases** in

autoproducer electricity plants is confidential or not available and therefore is included in main activity producer electricity plants.

- For 2017 onwards, own-use consumption of **electricity** by **wind** plants is assumed to be 2% at onshore and 1.5% for off-shore wind farms. For prior years, own-use only included electricity drawn from the grid while the turbines were not in operation.
- Since 2011, due to a reclassification of **wind** energy and **solar photovoltaic** in the official data of the German Federal Statistical Office, the production is now only reported under main activity producer plants.
- **Electricity** production from *other sources* is available starting in 2003. This refers to the production of electricity from turbines which are located at pressure drops in fluid transport and from purchased waste heat.
- Prior to 1991, **electricity** trade data includes only trade of the Former Federal Republic of Germany.
- Data on electricity production from **wind** and **solar** are available from 1986 and 1990, respectively.
- Starting in 1984, small amounts of **heat** have been exported to Denmark.

Transformation

- For 2018p, the increase in electricity output from **solar PV** was in part due higher than average solar radiation during that year.
- For 2018p, the increase in heat output from **biogases** was mainly due to an increase in survey coverage following an amendment to the Energy Statistics Law in 2017
- **Electricity** inputs to both mixed **hydro** and pure pumped storage pumping plants are reported under inputs to pure pumped storage. Disaggregated data will be available starting with 2018.
- Detailed data by fuel are not available for total **heat** production. The non-allocated part is reported as heat production from **non-specified combustible fuels**.
- Weather conditions were not favourable for **wind** and **solar** generation in 2016.
- In 2015, a reclassification of some main activity producer electricity and CHP plants to autoproducer **CHP plants** powered by **coke oven gas** results in a break in time series for this period. Similarly, a reclassification of **blast furnace gas**

main activity **electricity plants** into autoproducer plants results in a break in time series for the same period.

- From 2003 onwards, all **heat** production in autoproducers is considered as non-sold (i.e. for self-use) and, therefore, not reported. Inputs for this heat production are no longer reported in the transformation sector.
- For 2002 and 2003, the German administration did not submit the breakdown of electricity and heat production from **combustible fuels**. The data were estimated as follows: renewables and waste were taken from the Renewables and Waste Questionnaire and the other combustible fuels were estimated pro rata based on 2001 estimates.
- Prior to 2003, **electricity** production in electricity plants includes production from CHP plants and heat production in CHP plants includes production from heat plants.
- Due to the implementation of the Energy Statistics Act, collection concerning heat produced in **heat** plants and district heating plants became more efficient and more complete. This leads to breaks in time series between 2002 and 2003 and between 2003 and 2004.
- A new survey for the renewable products can cause breaks in the time series between 1998 and 1999.
- Prior to 1993, all heat production from **BKB/peat briquettes** is included in main activity producer CHP plants.

Consumption

- Breaks in time series appear between 2015 and 2016 in the *road transport* sector **electricity** consumption following the introduction of a new model for this consumption sector. The German administration plans to revise the historical series in subsequent cycles.
- Increases in 2016 **electricity** generation by autoproducers within the *transport equipment* manufacture industrial sector are due to reclassification from main activity generation, rather than development of new plant.
- More information on district heat became available, causing breaks in the time series between 2006 and 2007.
- Data on **geothermal heat** production and direct consumption are only available starting in 2003.

- From 2002, **electricity** consumption in the commercial and public sector includes the construction sector, and the fishing, agriculture and forestry sectors for the whole time series.
- In 2000, revisions from the German administration to the **electricity** consumption data may cause breaks in the time series.
- In 1995, the German Federal Statistics Office reclassified some industrial branches which may cause a break in time series in industry sub-sectors.
- Between 1971 and 1980 **electricity** consumption in coal mines includes consumption in coke ovens and BKB plants.

Greece

Source

Ministry for Environment and Energy, Athens.

Oil

General notes

- In the 2016 edition, the Greek administration reclassified gasoline-type jet fuel as aviation gasoline starting from 2009 data.
- Between 2012 and 2013, breaks time in time series for biodiesel, lubricants and stocks appear due to the introduction of a new reporting system.

Supply

- **Crude oil** production stopped on 30 November 1998 and started again in December 1999.
- From 1986 data onwards, information on **refinery feedstocks** is available

Transformation

- From 1990 onwards, there has been an increased use of **refinery gas** in electricity generation, replacing **fuel oil**.

Consumption

- In 2013 data, the drop of **gas/diesel oil** residential consumption is linked with changes in the taxation of heating oil.
- From 1993 data onwards, more information is available on the allocation of **fuel oil** to specific industrial sub-sectors. Fuel oil consumption in the agriculture and residential sectors has been replaced by **gas/diesel oil** starting in 1993.

- Prior to 1987 data, consumption in the commerce/public services sector is included with residential. Peaks in residential sector consumption in 1978 and 1982 are due to unusually cold winters.

Natural gas

General notes

- **Natural gas** produced in Greece has a higher than average gross calorific value due to a high content of C₂/C₄ hydrocarbons.

Supply

- In November 1998 the *indigenous production* of **natural gas** stopped in and started again in December 1999.
- In 1997, Greece started importing natural gas as a result of a new operational pipeline between Russia and Greece.

Consumption

- In 2011 there is a break in time series for the *non-ferrous metals* due to a new methodology for measuring gas consumption in this sub-sector.
- Since 2017, **natural gas** has started to be consumed in the *construction* sub-sector as well.
- For 1998 data, consumption in the *residential* sector is included with *commercial/public services*.

Biofuels and waste

General notes

- New information on **solid biofuels** is available from 1996 and leads to breaks between 1995 and 1996.
- Data for **biogases** are available from 1990 and data for **industrial waste** from 1992.

Supply

- Indigenous production of **solid biofuels** is estimated by the IEA Secretariat for 2015 based on consumption.

Transformation

- The big increase in delivery of **industrial waste** to autoproducer CHP plant in 2010 is mainly due to the opening of a new plant.
- Inputs of **solid biofuels** to **charcoal** production are estimated for 2007 to 2010 by the IEA Secretariat assuming an efficiency of 40%.

- **Industrial waste** used in autoproducer CHP plants decreased substantially in 2006 because a plant closed.

Consumption

- **Solid biofuels** consumption in commercial/public services is included in residential until 2011.
- The consumption of **solid biofuels** in the paper, pulp and printing industry is not available from 2003 to 2012.

Electricity and heat

Supply

- For 2016, **gross electricity** generation from **combustible fuels** in main activity electricity and autoproducer CHP units was estimated by the IEA Secretariat, based upon the gross to net ratio for combustible fuels for these plant types in 2015. This increase in production was assigned to lignite-fired and natural gas-fired plant.
- No production of **solar heat** is reported.

Transformation

- In 2008 a new plant using refinery gas started operating in an experimental phase, causing a low efficiency.
- Production and consumption of distributed heat (heat sold) that is produced from lignite is available from 1997.
- Data for **biofuels and waste** input and output to transformation are available from 1992.

Consumption

- Transmission and distribution losses of electricity increased between 2013 and 2016 due to growth in non-technical losses. Data reported for 2017 show a noticeable decline in losses. However, this is under review.
- Electricity consumption in road is available from 2013.
- A break in time series exists between 1991 and 1992 for electricity consumption in transport.
- Direct use of **geothermal** heat in residential is available starting in 2004.
- Electricity consumption in iron and steel and in the non-ferrous metals industry prior to 1971 has been estimated by the Secretariat.

Hungary

Source

Hungarian Energy and Public Utility Regulatory Authority, Budapest.

General notes

- Data are available starting in 1965.
- The Hungarian administration submitted questionnaires to the IEA Secretariat for the first time with 1993 data.

Coal

General notes

- From 1992, the production of **sub-bituminous** coal has been included with lignite due to the low quality of the coal. From 1990 to 1999, the use of this domestic coal in main activity producer electricity and CHP plants has also been reclassified to lignite. Since 2017, imports, transformation and consumption of sub-bituminous coal was reclassified as lignite by the Hungarian administration to align with foreign trade statistics.

Transformation

- In 2017, a main activity CHP plant using **other bituminous** coal was merged with an industrial unit of the pulp, paper and print sector and was since reclassified as an autoproducer.
- Autoproducer heat and power plants using **coke oven gas** and **blast furnace gas** were reclassified in 1998 as main activity power plants.

Oil

General notes

- From 2010, *from other sources - natural gas* of **other hydrocarbons** correspond to hydrogen used in refineries for hydrodesulphurization, also represented as the output of *non-specified transformation* in the balances format.
- Starting from 1998, data for additives and aviation gasoline are available.
- From 1994 onwards, other products include aromatics and other products that were previously included mainly under white spirit. Prior to 1993, **white spirit** is included in motor gasoline. Data

for **refinery gas, paraffin waxes and lubricants** are partly estimated by the Secretariat.

Consumption

- In the 2016 and 2017 editions, revisions to consumption data back to 2010 were provided by the Hungarian administration following a survey introduced in 2014. This results in breaks in time series between 2009 and 2010.

Natural gas

General notes

- Between 2012 and 2013 there are some breaks in time series for the *energy, transport and industry sectors* consumption due to a new methodology. Historical revisions are pending.
- Between 1996 and 1997 some breaks in time series exist due to a new methodology applied by the Hungarian administration.

Supply

- *Imports and Exports* data are reported according to the TSO's data, which include transit volumes.

Transformation

- Since 2010, data reported for *non-specified transformation* represent **natural gas** used for hydrogen manufacture used in refineries for hydrodesulphurization. Prior to this year, these quantities are reported under *oil refineries*.
- Since 1997 two *autoproducer heat* plants have been reclassified to *main activity producer heat* plants.

Consumption

- Beginning in 2016, electricity consumption under the *non-specified other* sector includes military usage, following recent clearance to disseminate these data.
- Prior to 2004 *iron and steel* consumption includes transformation of **natural gas** in *blast furnaces (transformation)*.

Biofuels and waste

General notes

- Data for **biogases** are available from 2000; for **industrial waste** from 2003; for **biodiesel** production from 2007.

Supply

- A 2012 change in **biogasoline** reporting methodology results in break in time series between 2011 and 2012.

Consumption

- In the 2018 edition, the Hungarian administration has revised **solid biofuels** consumption in other sectors back to 2005 based on the new survey from Hungarian Central Statistical Office (HCSO). This resulted in break in time series between 2004 and 2005.
- A new reporting methodology for the direct use of **geothermal** energy was applied from 2014 resulting in break in time series between 2013 and 2014.

Electricity and heat

Supply

- For 2017 onwards, inputs and outputs from power plants are reported at a unit level, while for prior years, data are reported at a plant level. As a result, breaks in series are observed between 2016 and 2017. In particular, for electricity output from main activity producer CHP and main activity producer **nuclear** power plants, and for heat output from **industrial waste** at autoproducer CHP and autoproducer heat plants.
- In 2017, a main activity producer CHP plant was reclassified as an autoproducer. As a result, declines are observed in **heat production from other bituminous coal and industrial waste**, as heat reported as previously sold may now be considered as used onsite.
- *Other sources* electricity and heat production is available from 2013 and represents generation from residual tail gases from the manufacturing of soot as well as from hydrogen.
- **Geothermal** heat production from main activity producer heat plants is available from 1995.
- **Nuclear** electricity production in main activity producer electricity plants is available from 1983.

Transformation

- In late 2017, a new **geothermal** power plant began operations.
- For 2017, the decline in heat production from **industrial waste** is partly due to the reclassification of a main activity producer as an autoproducer.

- **Heat** and **electricity** consumption by military services is reported under *Other sectors - non-specified* for the first time in 2015. The change is due to the recent authorization to disseminate these data. Previously they were included under *Commercial and public services*.
- From 2014 data onwards, more data suppliers were involved in submitting energy data to the national administration, causing new autoproducer time series to appear for **geothermal** and **industrial waste** plants.
- In 2014 data, some CHP plants running on **solid biofuels** produced only heat and were reclassified to heat plants.
- The Hungarian administration reclassified some of their plants between 1996 and 2000, which may lead to breaks in the time series.
- Prior to 2000, electricity output from **sub-bituminous coal** is included with **lignite**.
- Data on electricity and heat production from **solid biofuels** in autoproducer CHP plants are available from 1995.
- Autoproducer electricity, CHP, and heat plants using **coke oven gas** and **blast furnace gas** were reclassified as main activity power plants in 1998.

Consumption

- Data for direct use of **solar thermal** heat are available from 2001 and from 1990 for **geothermal** heat.

Iceland

Source

National Energy Authority, Reykjavik.

General notes

- Prior to 1970, final consumption includes inputs and outputs to heat production.
- The industrial classifications used by the Icelandic administration were changed in 1987.

Coal

General notes

- Hard coal data prior to 1978 may include **sub-bituminous coal**.

Consumption

- Final consumption increased in 2000 as a new iron and steel plant came on-line.

Oil

General notes

- In 2014, the Icelandic administration revised petroleum coke data from 1990 to exclude imports of anodes for the aluminium industry.
- Oil supply and consumption data for 2008 and 2009 are estimated by the IEA Secretariat.

Biofuels and waste

General notes

- 2013 is the first year of data availability for the supply and consumption of **solid biofuels**.

Consumption

- **Biodiesel** consumption data for 2014 are estimated by the Icelandic administration based on 2013.
- **Biogases** used for transport purposes were reported for the first time in 2007.

Electricity and heat

Supply

- The increase in **hydro** and **geothermal** electricity production from 2007 is due to the expansion of the aluminium industry.

Transformation

- For 2016, access to improved data revealed considerably better heat plant efficiencies than previously inferred, with increases in heat production seen during this period. The Icelandic administration plans to revise previous years' figures in succeeding editions.
- From 2013 data, the Hellisheidi **geothermal** power plant, previously reported under main activity electricity plant, was categorised as main activity CHP plant.
- Heat production from **municipal waste** is available from 1993 and stops in 2010.
- In 1998, 60 MW of generating capacity was installed in the **geothermal** CHP plant at Nesjavellir. Since the plant was inoperable for four months, production of **geothermal** heat decreased compared to 1997. The extra electricity capacity

caused electricity production from **geothermal** to almost double over the same period.

- Electricity production from **geothermal** sources in main activity producer CHP plants is available from 1992.

Consumption

- For 2017, the split between **electricity** consumption in the *iron and steel*, and *non-metallic minerals* sectors has been estimated by the IEA Secretariat.
- The significant increase in electricity consumption in the *commercial and public services* sector from 2015 onwards is due to the growth of cryptocurrency mining.
- In the 2015 edition, the **heat** consumption breakdown by sector for the years 1990 onwards has become available following reviews by the Icelandic administration. In addition, heat consumption was revised significantly upwards as more information became available. This has caused large breaks in time series across the heat balance between 1989 and 1990.
- Direct use of **geothermal** in the industrial sector is reported under *non-specified industry*, as the Icelandic administration decided not to estimate the allocation amongst the sub-sectors of industry.
- Revisions in direct use of **geothermal heat** starting in 2013 create breaks in time series between 2012 and 2013.
- **Electricity** consumption in *non-specified transport* includes consumption for ferries and cruise lines.
- Non-specified consumption of **electricity** within the energy sector refers mainly to the use of electricity by the **geothermal** industry to pump hot water from underground sources, and from 1991, also includes electricity used for the transport by pipeline of hot water from Nesjavellir to Reykjavik.
- The increase of **electricity** consumption in the construction sector from 2004 to 2007 is due to the drilling of tunnels for the Kárahnjúkar power plant.
- The consumption of **electricity** reported in *non-specified other* corresponds to a NATO base at Keflavik airport which closed in 2005.
- Prior to 1990, all **heat** for space heating was reported in residential.
- The residential sector includes agriculture prior to 1983.

- Prior to 1970, total final consumption includes inputs to and outputs from **heat** production and non-energy use. After 1970, data on inputs and outputs in CHP plants and in main activity producer heat plants (district heat plants) and for non-energy use are separately specified.

Ireland

Sources

- Department of Communications, Energy and Natural Resources, Dublin.
- Sustainable Energy Authority of Ireland, Cork.

Coal

General notes

- Due to confidentiality reasons, inputs of **anthracite**, **other bituminous coal** and **peat briquettes** for patent fuel transformation are reported with residential consumption, while production and consumption of **patent fuel** is not reported.
- Prior to 1990, any imports of **BKB** were included with imports of **peat products**, as is the case for consumption.

Supply

- Rainfall in 2012 led to the lowest **peat** harvest since IEA records began in 1960, requiring large stock drawdown and increased use of **biofuels** for electricity generation. In 2013, production targets were met before the end of the year however production continued in order to further build stocks to alleviate the potential impacts of future weather events.
- Low production of **peat** in 1985 was due to a poor “harvest”, due to an unusually wet summer.
- Production data for **peat products** (briquettes) are available from 1975.

Transformation

- A reclassification caused a break in the time series for peat consumption in the energy industry own use in BKB/peat product plants from 1989 to 1990.
- The production of gas works gas ceased in 1987 due to fuel switching to natural gas.

- Other bituminous coal inputs to main activity producer electricity plants increased from 1986 due to three new generating units at Moneypoint coming on-line.

Oil

General notes

- In the 2018 edition the Irish administration revised the methodology for reporting final consumption of oil products. This leads to some breaks in series between 2015 and 2016. Revisions to historical data are expected in the next edition.
- *From other sources - natural gas* of **other hydrocarbons** correspond to natural gas blended with refinery gas.
- For confidentiality reasons, inputs of **petroleum coke** into patent fuel transformation are reported with residential consumption.

Consumption

- In 2014, the drop of fuel oil consumption in non-metallic minerals sector is linked with the replacement of HFO boilers by natural gas boilers as the primary source of steam for alumina production.
- In 2013 and 2014, bitumen consumption data are not available and calculated as residual.
- Between 2008 and 2009, there is a break in time series for **gas/diesel oil, LPG, kerosene-type jet fuel and petroleum coke** due to a new methodology being applied to sectoral demand by Sustainable Energy Ireland (SEI). This change also explains breaks between 2006 and 2007 for **bitumen, lubricants, white spirit, and paraffin waxes**.
- Between 1989 and 1990, breaks in time series appear for consumption of **gas/diesel oil, LPG, other kerosene and fuel oil** as a result of a detailed consumption survey done for 1993. Data for historical years back to 1990 were revised by the national administration based on the results of this survey.
- From 1986, **gas/diesel oil** consumption in the agricultural sector is available.
- From 1970 to 1977, the split between commercial and public services and agricultural use of **other kerosene** has been estimated by the Secretariat. Consumption in commercial/public services includes quantities used by state-owned agricultural companies.

Natural gas

General notes

- Since April 2017 there is no gas storage facility in Ireland.

Supply

- **Natural gas** production has been increasing since 2015, as the Corrib Gas field began production at the end of that year.
- Since 1996, the increase in imports is due to the depletion of the Kinsale gas field and the availability of a new pipeline system to the United Kingdom.

Transformation

- Since 2006, a different methodology for allocating unsold steam from *autoproducer CHP* is used.
- *Non specified transformation* corresponds to **natural gas** blended with **refinery gas**.

Consumption

- In the 2019 edition, the Irish administration revised the distribution losses based on new data coming from the Emissions Trading Scheme (ETS), which had a knock-on effect in the final consumption data, primarily for the industry sector.
- In 2011 the increase in non-ferrous metals consumption is due to a fuel switch to **natural gas**.
- Since 2009, the disaggregation of consumption into all the industry sub sectors excluding non-ferrous metals is done according to data from the Census of Industrial Production (CIP). The last energy consumption data available from the CIP are from 2009 and therefore the 2009-2015 sub-sector breakdown is the same every year.
- In 2007 the increase in machinery consumption is due to changes in industry sub-sector structure and fuel usage.
- In 2004, there is a break in the time series in food, beverages and tobacco consumption due to a change in methodology.
- In 2003, feedstock use in the chemical and petrochemical industry stopped due to the shutdown of a fertiliser plant.
- In 2001, **natural gas** consumption in the iron and steel industry stopped due to the shutdown of Ireland's main steel plant.

- Prior to 1986, detailed consumption figures for the use of **natural gas** in industry and other sectors are not available.

Biofuels and waste

General notes

- Data for **municipal waste** are available from 2009.
- Data for **solid biofuels** and **biogases** are available from 1990.

Supply

- Due to increased demand from a second waste to energy electricity plant which began operation in 2017, production of **municipal waste** increased sharply starting in late 2017.
- Prior to 2011, production and trade of **biogasoline** and **biodiesels** cannot be distinguished due to confidentiality issues.

Transformation

- Starting in 2016, the increase of electricity production of **solid biofuels** is a result of a decarbonisation programme and comes from a plant which is co-firing peat and biomass.
- In 2012 and 2013, the renewable fraction of tyre-derived fuel (12%) used by a cement plant was reported by the administration under **renewable municipal waste**; the non-renewable fraction (88%) was reported under **industrial waste**.

Consumption

- The Biofuels Obligation Scheme places an obligation on suppliers of mineral oil to ensure that 8.695% (by volume) of the **gas/diesel oil** they place on the market in Ireland is produced from renewable sources, e.g. **bioethanol** and **biodiesel**. The obligation was increased from the 1st January, 2017, from the previous level of 6.383%.
- Despite the Biofuels Obligation Scheme, **bioethanol** consumption decreased in 2017 because there was a reduction in overall motor gasoline use and of fuel tourism.
- Increases in **biodiesel** consumption in 2017 are related to the Biofuels Obligation Scheme and to increases in road freight, which is heavily dependent on **diesel oil**.
- The consumption of pure **biodiesel** in the industry sector and in road transport refers to one site, which is no longer in operation since 2014.

Electricity and heat

Supply

- In the 2019 edition, revisions were made by the Irish administration for the indigenous production of **solar thermal** for the years 2011 – 2016.
- Electricity production from **wind** begins in 1992 and from **biogases** in 1996.

Transformation

- In 2018p, electricity output from **other bituminous coal** declined due to a 3-month shutdown at Moneypoint power station.
- In 2017, a new **municipal waste**-fired main activity producer electricity plant (Dublin waste-to-energy) began operations.
- In the 2016 edition, revisions were introduced in the **electricity** generation by fuel from 2010 due to improved data available from the transmission system operator.
- In 2015, a new combined cycle gas turbine plant began commercial operations at Great Island power station, replacing the existing heavy fuel oil power plant.
- In 2012, a new **municipal waste**-fired main activity producer electricity plant (Meath waste-to-energy) began operations.
- In 2011, very little electricity was produced from **pumped hydro** following Turlough Hill, Ireland's pumped storage station, being taken offline in late 2010 up until February 2012. The 2011 values appear as zero due to rounding.
- From 1984 to 1989, inputs of **hard coal** in auto-producer CHP plants have been estimated by the Secretariat.

Consumption

- In 2004, the increase of **electricity** consumption is due to the new light rail transit system in Dublin.
- The decrease of **electricity** consumption in the iron and steel industry from 2001 onwards is due to Ireland's main steel plant ceasing production.
- Prior to 1990, **electricity** consumption in agriculture is included with residential.
- **Electricity** consumption in the iron and steel industry includes consumption in the non-ferrous metals industry prior to 1990.
- Data for direct use of **geothermal heat** and **solar thermal heat** are available from 1989 and 1990, respectively.

Israel

Source

Israel Central Bureau of Statistics, Jerusalem.

General notes

- Data are available starting in 1971.
- The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli administration. The use of such data by the OECD and/or the IEA is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.
- Due to the unavailability of data for certain fuels, IEA estimations are also present in Israel data. In particular this is valid for oil data in 2014 and 2015, **natural gas** data from 2012 onwards, **renewables and waste** data in 2013.

Coal

Supply

- Due to confidentiality constraints, imports of **other bituminous coal** have been estimated by the IEA Secretariat for 2018p.

Oil

General notes

- Supply data for 2013 to 2017 has been provided by the Israel Central Bureau of Statistics. Demand data for 2013 to 2017 was revised estimated based on Israel's national energy balance and the partial data made available by the Israel Central Bureau of Statistics. As a result, breaks in time series may appear between 2012 and 2013. Israel's national energy balance aggregates bitumen, petroleum coke and other oil products.
- The split of these products was estimated by the IEA secretariat for all flows. The split of refinery output between jet kerosene and other kerosene was also estimated by the IEA Secretariat, as was the sectoral breakdown of consumption of liquefied petroleum gases.
- Supply and consumption of kerosene type jet fuel for 2011 and 2012 have been estimated by the IEA Secretariat.

- From 2007 to 2009, oil data are estimated by the IEA Secretariat based on information from the Ministry of National Infrastructures.

Supply

- In 2018 the CDU 3 unit and hydrocracker facility at Bazan refinery was under maintenance. In 2017 the catalytic reformer unit underwent maintenance.
- Quantities of **other hydrocarbons** represent **natural gas** used in refineries, including for the operation of the cogeneration power stations.
- From 2010 onwards, white spirit is included in other products.

Transformation

- In 2017 Bazan refinery underwent maintenance to upgrade its continuous catalytic reformer, isomerization units and the naphtha catalytic hydrotreating unit.

Consumption

- From 2013, consumption data are based on a new and detailed classification system and on estimations made by the Israeli administration.

Natural gas

General notes

- From 2012, all natural gas data, except inputs to electricity production, have been estimated by the IEA Secretariat.
- For the 2018 edition, gas data have been revised back to 2013 based on a publication by the Israeli Natural Gas Authority. As a result, breaks in time series appear between 2012 and 2013. More specifically, this revision impacted *oil refineries*, the *industry sector* and *other sectors*. Finally, all *industry* is categorised as *non-specified industry* and all *other sectors* as *non-specified other*, because no disaggregation is available.
- The 2019 edition includes 2017 data and revisions in consumption for 2016 based on the Energy Balances published by the Israeli Central Bureau of Statistics (CBS).

Supply

- Imports of **natural gas** began in 2008.

Transformation

- In the 2017 edition, the Israeli administration revised *transformation sector* data back to 2013, introducing breaks in the series between 2012 and 2013.
- In the 2019 edition, the *not elsewhere specified (transformation)* since 2013 refers to quantities of **natural gas** used for the generation of hydrogen, which is subsequently used for hydrodesulphurization in oil refineries. In the previous editions, these figures were reported as energy consumption of gas in *oil refineries*.
- In the 2019 edition the 2016 and 2017 data for inputs to electricity production were estimated by the IEA Secretariat.

Biofuels and waste

General notes

- For 2018p, all data have been estimated by the IEA Secretariat.
- Data on imports and consumption of **charcoal** are estimated since 1992 using data from the Forestry Production and Trade database from the Food and Agriculture Organization of the United Nations.

Electricity and heat

Supply

- For 2018p, all data have been estimated by the IEA Secretariat.
- Electricity production from **wind** begins in 2001.
- Autoproducer electricity generation from chemical heat (production of sulfuric acid) occurs, but is not reported separately or included elsewhere in national totals, with the exception of 2017.

Transformation

- For 2017 data, due to confidentiality reasons, electricity production reported under auto producer **wind** includes generation from main activity **wind**, total **hydro**, and autoproducer **biogases**. Similarly, for 2016 data, reported auto producer solar PV generation includes total generation from **hydro** and **wind**.
- For 2013 and 2014, **other oil products** inputs to autoproducer electricity plants were estimated by the IEA Secretariat.

Consumption

- Since the 2017 edition, **solar thermal** production and direct consumption were revised, and are now estimated by the IEA Secretariat from 2012 onwards, using data published in the IEA-Solar Heating and Cooling Programme Annual Report. These estimations may create breaks in time series between 2011 and 2012.
- For 2013 onwards, for reasons of confidentiality, electricity consumption in *non-ferrous metals* is included under *mining and quarrying*, and consumption in *chemical (including petrochemical)* and *construction* is included under *not elsewhere specified (industry)*.
- For 2013, and 2015 onwards, the split of **electricity** consumption in industry has been estimated by the IEA Secretariat. In addition, electricity consumption in agriculture/forestry for 2015 onwards has also been estimated by the IEA Secretariat.
- **Electricity** own use, as well as transmission and distribution losses were estimated by the IEA Secretariat from 2010 to 2012.

Italy

Sources

- Ministry of Economic Development, Rome.
- Terna, Rome.

General note

A change in methodology lead to breaks in time series for industry and transformation between 2003 and 2004.

Coal

General notes

- The increase in production of **coke oven gas** in 2012 was the consequence of improvements in scope of reporting. As such, coke oven gas data in prior years should be viewed as under-representing production and consumption, and coke oven efficiencies will likewise appear lower than actual.
- Due to a change in the survey system, breaks in time series may occur between 1997 and 1998 for final consumption.
- From 1986 onwards, figures from **lignite** are given using the same methodology as in the *Bilancio Energetico Nazionale*.

Supply

- In the 2018 edition, production of **coke oven coke**, **coke oven gas**, **coal tar** and **other recovered gases** was revised back to 2014 due to new available information. The revisions increased efficiencies of coke ovens and blast furnaces and led to breaks between 2013 and 2014.
- **Other bituminous coal** production ceased in 2016 due to the closure of the one coal mine in 2015.

Transformation

- Breaks in the time series between 2014 and 2015 for **coke oven gas**, **blast furnace gas** and **other recovered gases** are due to a reclassification of main activity producers and autoproducers.
- Prior to 2009, sub-bituminous coal used in main activity electricity plants was included with other bituminous coal consumption.
- For data since 2001, calorific values for imports of **other bituminous coal** and **sub-bituminous coal** are derived from inputs to main activity electricity generation.

Consumption

- In 1991, all industrial activities were reclassified on the basis of ISTAT/NACE 91. This has implied some transfers of activities which may result in some anomalies between 1991 and earlier years.

Oil

General notes

- For **crude oil**, statistical difference may arise as trade corresponding to stock held for Austria and Germany in the Port of Trieste are not included.
- Inputs to electricity and heat generation have been estimated by the IEA Secretariat for the years 1984 to 1997 based on submissions of the Electricity and heat Questionnaire. All other data for the years 1992 to 1997 and the detailed consumption breakdown for other years have been estimated by the IEA Secretariat based on *Bilancio Energetico Nazionale*.

Supply

- In 2016 and 2017, the closure of the Val d'Agri oil centre lasting several months led to a decrease in production of **crude oil**.
- From 2009 onwards, transfers of **lubricants** could not be disaggregated from refinery output data.
- From 2004 onwards, increased production of **non-specified oil** products is due to methodological changes.

- A new survey to determine the split between international marine bunkers and domestic navigation caused a break in time series for **gas/diesel oil** in 1999 and **fuel oil** in 1996.

Consumption

- For **gas/diesel oil**, non-specified use is included in commercial/public services.
- Between 1998 and 1999, due to new surveys, breaks appear in the consumption time series.

Natural gas

Transformation

- Prior to 2008, inputs of **natural gas** to all heat production in *industry* were reported in final consumption.
- Between 2003 and 2004 there are breaks in time series in *industry* and *transformation* due to a new data reporting methodology.
- From 2000 to 2002, for confidentiality reasons, autoproducers are included in main activity producer plants.
- In 1996 the production of **gas works gas** from **natural gas** in *gas works (transformation)* ceased.

Consumption

- Since 2007, a more detailed breakdown of consumption for *energy industry own use* is available.

Biofuels and waste

Supply

- **Biogasoline** includes bio-ETBE.
- From 2014, a distinction between trade and production became available for **other liquid biofuels**.

Transformation

- 2017 is the first year that **biogas** is blended with natural gas.
- In 2008, data for **biofuels and waste** were reclassified, which results in several breaks in the time series for transformation.

Consumption

- From 2018p, the increase in **biodiesel** demand is related to blending obligations.
- The final consumption of **biogas** has been constant from 2013 to 2015, as these figures are the result

of a survey which is not carried out annually. Figures are expected to be revised after the next survey.

- In the 2016 edition, the methodology used to calculate **solid biofuels** consumption in the residential sector for 2002 to 2014 was updated and this created a break in time series between 2001 and 2002. This also affects the indigenous production of **solid biofuels**. The revisions were limited backwards to 2002 because of reliability issues.

Electricity and heat

Supply

- For 2017, more information became available on **fossil fuel** use in heat plants allowing additional inputs to be reported for this category. This causes breaks in time series between 2016 and 2017.
- The production of electricity reported in the category *other fuel sources* refers to electricity produced from turbines which are located at pressure drops in fluid transport.
- The methodology of data collection for **photovoltaic** electricity production changed in 2009 and the distinction between main activity and autoproducer plants could not be determined, causing a break in the time series.
- **Electricity** trade with Malta commenced in 2015, following the opening of the Malta-Sicily interconnector submarine power cable in the same year.

Transformation

- For 2018p, the decrease in electricity output from **Solar PV** was due to lower than normal solar radiation.
- Prior to 2000, **electricity used for pumped storage (mixed plants)** is included under *used for pumped storage (pure hydro pumping plants)*.
- In 2016, the decline in autoproducer **electricity** generation and sold **heat** production by oil refineries is partly due to the activities of these units being split off and reclassified as main activity enterprises.
- The methodology of data collection for the **geothermal** sector changed in 2010, causing a break in time series between 2009 and 2010.
- Prior to 2009, **sub-bituminous** coal used in main activity electricity plants was included under other bituminous coal.
- With the introduction of a new survey in 2008, amounts of **naphtha** and **other kerosene** that were

previously included in *other oil products* have been reported separately in autoproducer CHP plants.

- Prior to 2004, **electricity** production from **orimulsion** is confidential and is included with **fuel oil**.
- **Heat** production is reported starting in 2004 and includes self-generation in industry.
- From 2000 onwards, the Italian administration defines **electricity** and **heat** production from autoproducers as generation from producers that consume more than 70% of their own electricity production. However, for the 2000 to 2002 period, all electricity production from autoproducers is reported with main activity producers.
- The breakdown of **renewables** and **waste** inputs into electricity, heat and CHP plants is available from 1989 only. Prior to that year, the total of the different fuels involved is reported as non-specified renewables.
- Prior to 1984, net electricity production by autoproducers includes production from combustible fuel sources only.

Consumption

- *Non specified energy industry own use* includes **electricity** consumption for blast furnaces. From 2000, it also includes consumption for the distribution of gas and prior to 1989 consumption for uranium extraction.
- The breakdown of **heat** consumption by sector is estimated by the Italian administration.
- Revisions of the final consumption of **heat** by the Italian administration led to breaks between 2010 and 2011.
- From 1981, consumption of **electricity** in transport includes electricity used for pumping in oil pipelines.

Japan

Source

The Institute of Energy Economics Japan, Tokyo.

General notes

- In the 2019 edition, data for Japan were revised back to 1990 based on new methodology. Additional details are given under each fuel.
- From 1990, data are reported on a fiscal year basis (e.g. April 2015 to March 2016 for 2015).

- Consumption data for commercial/public services may include consumption in small and medium-sized industries. The Japanese administration expects that this shortcoming will be corrected in the near future.

Coal

General notes

- **Other bituminous coal** includes sub-bituminous coal.
- The net calorific values for **coal** and **coal products** have been recalculated by the IEA Secretariat based upon gross values submitted by Japan.
- In the 2019 edition, imports of **other bituminous coal** and **coking coal** –by partner country - have been estimated by the IEA Secretariat for data from 1990 to 2018, based on customs data and total imports by coal type.
- **Hard coal** data prior to 1978 may include sub-bituminous coal.

Supply

- Statistical differences for **hard coal** include stock changes since 2001. Large positive differences for several years since 2004 are partly due to stock build by final consumers.

Transformation

- The inputs of **coke oven coke** to blast furnaces as well as the final consumption of **coke oven coke** in the iron and steel industry have been estimated by the IEA Secretariat since 1990.
- From 1998, inputs of **coke oven gas**, **blast furnace gas** and **other recovered gases** into auto-producer electricity plants include the amount used to produce electricity with TRT technology (Top pressure Recovery Turbines) which was previously included in industry.
- Inputs of manufactured gases (**coke oven gas**, **blast furnace gas** and **other recovered gases**) to main activity electricity and heat plants are calculated based on outputs and using efficiencies of main activity producers from other fuels. For auto-producers, the specific inputs are known, however the specific electricity production by each gas is estimated based on a pro-rata of the total electricity generation from all gas types.
- Coal injected in blast furnaces (PCI) is classified as **coking coal** in order to be consistent with Japanese trade statistics.

- In 2016 the liberation of the power market resulted in electricity autoproducers becoming main activity producers.

Consumption

- In the 2019 edition coal tar consumption in the Chemical and Petrochemical Industry was estimated by the IEA since 1990.

Oil

General notes

- In the 2019 edition, data for Japan were revised back to 1990 by the Japanese administration based on new methodology for the Energy Balance Table.
- In the 2016 edition, the Japanese administration revised several NCVs of both primary and secondary **oil products** back to 1990. The Japanese administration reviews calorific values every five years, with the other most recent revisions occurring in 2005 and in 2013.

Supply

- In 2018 refinery runs were impacted by heavier than usual maintenance season.
- The high statistical difference for **crude oil** in 2013 and 2014 is explained by large amount of stocks held on board incoming vessels in port or at mooring in March 2014 (end of Japan's 2013 financial year). These amounts are included in the stock change but not in the imports in 2013 annual data.
- Orimulsion was imported for electricity generation between 1991 and 2006.

Transformation

- Other hydrocarbons in *non-specified transformation* represents orimulsion burnt for power generation. Historical revisions are pending.
- In 2016 the liberalisation of the power market resulted in electricity autoproducers becoming main activity producers.

Consumption

- Oil consumption continued to fall in 2018 as more nuclear capacity came back online.
- Demand for heating oil and other kerosene fell driven by a warmer than usual winter in 2018.

- Road consumption, is based on the “Automobile fuel consumption survey” from the Ministry of Land, Infrastructure, Transport and Tourism (MLIT).
- **Lubricants** consumption is estimated by the Japanese administration since 2000.

Natural gas

General notes

- The 2019 edition contains major revisions to time series which go back to 1990. These reflect the revisions in the Energy Balance Table from the Ministry of Economy, Trade and Industry, which is the data source.
- Since 1990 most of the **gas works gas** production and consumption has been included with **natural gas**.

Supply

- In the 2019 edition, *indigenous production, receipts from other sources*, import data, *stock changes* and stock levels were revised back to 1990.

Transformation

- In the 2019 edition, *main activity* and *auto-producer electricity* plants were revised back to 1990. Similarly, flows of the *energy sector* were revised back up to 1990.

Consumption

- In the 2019 edition, own consumption in *electricity, CHP and heat* plants was subject to a major revision since 1990.
- In the 2019 edition, all the *transport sector, industry sector* and *other sectors* flows were revised back to 1990.

Biofuels and waste

General notes

- In the 2019 edition, data for Japan were revised back to 1990 based on new methodology.
- There was a large revision in **municipal waste** data in the 2016 edition of this publication. This revision has removed data for **municipal waste** for the entire time series up to 2010.
- For **municipal waste** data, the breakdown between renewable and non-renewable **municipal waste** is

estimated by the IEA Secretariat, assuming a 50% split in transformation and supply.

Transformation

- Input data of **solid biofuels** to charcoal production are estimated by the IEA Secretariat assuming an efficiency of 40%.
- The **industrial waste** consumption in the *non-specified transformation* sector surged in 2013, because of the increase in use of waste plastics for coke production.

Electricity and heat

Supply

- In the 2019 edition, **electricity** data were revised back to 1990 to include additional autoproducer production previously excluded.
- Due to the liberalisation of the **electricity** market in April 2016 some generation previously reported under autoproducer plants is reported as main activity producer from 2016 onwards. As a result, breaks in series occur between 2015 and 2016. In particular, for **solar PV** and **wind**.
- In the 2019 edition, the methodology used to estimate **heat** production from other sources was revised.
- Generation of electricity and heat from combustible fuels is calculated by removing electricity and heat generation from other sources, such as wind, solar and nuclear, making it a residual item. Splits between combustible fuel types and consumption flows are also calculated.
- Due to the events related to the March 2011 tsunami, the Japanese administration decided to scale back the level of their **nuclear** programme. As a consequence, there was no nuclear electricity generation in 2014. The nuclear electricity generation started again at a greatly reduced scale in 2015, while significant increases were observed in 2017 and 2018, with generation resuming at several facilities (2017: Takahama 3 and 4, Ooi 3, and Genkai 3; 2018: Genkai 4, Ikata 3, Ooi 4).
- Other sources electricity represents electricity generated with purchased steam. Other sources heat represents heat derived from waste heat.
- Net and Gross electricity generation from autoproducers equal, as no information is collected concerning autoproducer own use.

- Total **heat** output from heat plants is available, but the breakdown by fuel is not. From 1990 onwards, where possible, heat outputs have been allocated on the basis of the share of inputs. However, due to data issues, such as the lack of disaggregated data on inputs and outputs to heat pumps, this methodology can lead to implausible efficiencies. For this reason, from 2010 onwards, the efficiencies of heat output from **natural gas, fuel oil, and other kerosene-fired** main activity heat plants, and electric boilers have been capped at 100%, and the excess output allocated to statistical differences.
- The Japanese administration estimate the electricity input of electric boilers based on 100% efficiency.
- Autoproducer **solar photovoltaic** capacity is derived from data from the Japanese administration as well as the IEA Photovoltaic Power Systems Programme (IEA-PVPS) report, “Trends in Photovoltaic Applications” published in 2017.
- Data on electricity production from **wind** began in 1992.
- Heat produced for sale in main activity producer heat plants from **waste heat** and from **electric boilers** is available from 1977 and 1983, respectively.

Transformation

- Data on **heat** produced for sale by autoproducer heat plants are not available.
- Fuels used and corresponding electricity and heat produced in CHP plants are not included in the CHP data time series, but instead are reported as separate **electricity** or **heat** components, leading to some plant efficiency figures not to be accurately calculated.
- Inputs of **biofuels and waste** for electricity production and related outputs are available from 1982.
- Net electricity production by autoproducers prior to 1982 includes production from **combustible fuel** sources only.
- Between 1972 and 1976, the use of **combustible fuels** in main activity producer heat plants is included in non-specified.

Consumption

- Consumption of **electricity** in *non-specified industry* includes wood and wood products and construction prior to 1982.

Korea

Sources

- Korea Energy Economics Institute, Ulsan.
- Korea National Oil Corporation, Ulsan.

General notes

- Data are available starting in 1971.
- Data for 2002 onwards have been reported on a different basis, causing breaks in time series between 2001 and 2002, especially for inputs and outputs to electricity generation and consumption in the iron and steel industry. The Korean administration is planning to revise the historical time series as time and resources allow.

Coal

General notes

- Data for **coal** and **coal products** from 1971 to 2001 are based on information provided by the Korean administration, as well as information from the *Yearbook of Energy Statistics 2002*, the *Yearbook of Coal Statistics 2001* (both from the Ministry of Commerce, Industry and Energy), and *Statistics of Electric Power in Korea 2001* (from the Korea Electric Power Corporation). During this period, import data by coal type were estimated by the IEA Secretariat, based on statistics of the exporting countries.
- **Hard coal** data prior to 1978 may include **sub-bituminous coal**.

Transformation

- Statistical differences for **manufactured gases** for 2012 are partly the result of classification issues. The Korean administration is working to improve reporting of coal-derived gases production and consumption.

Consumption

- Data on **blast furnace gas** used for energy purposes in blast furnaces prior to 2007 are reported in the iron and steel industry.
- Consumption of imported **coke oven coke** starting in 2002 is reported under *non-specified industry*.
- Consumption of **manufactured gases** in the iron and steel industry starting in 2002 includes the

consumption in blast furnaces, oxygen steel furnaces and other iron and steel processing plants.

Oil

Supply

- The production of heavy distillates has been declining due to the expansion of heavy oil upgrading facilities.
- In 2017, due to constraints to imports of condensate, Korean refineries used **naphtha** into the refinery process.
- The Korean refinery balance shows increasing refinery losses, the problem is under investigation by the Korean administration and is likely related to the density used to convert refinery inputs from volumetric to mass units.
- From 1997, stock levels include vessel stocks.

Transformation

- Inputs of **fuel oil** to autoproducer electricity and autoproducer CHP are included with final consumption.

Consumption

- From 1990 to 1995, **kerosene type jet fuel** split between international civil aviation and domestic air transport has been estimated.

Natural gas

Supply

- Korea reports production of **natural gas** since 2005.
- The *receipts from other sources* from 2006 to 2012 represent the amount of **LPG** that are either blended with **natural gas** or are directly used in city gas distribution networks.
- Similarly, the *receipts from other sources* in 2018 represent quantities of **LPG** blended with **natural gas** for calorific upgrade of imported low calorific gas.

Consumption

- Energy industry own use in liquefaction plants includes losses and measuring errors.
- Prior to 2007, consumption of **natural gas** in *machinery* was included with *transport equipment*.

- From 1987 to 1991, the breakdown of final consumption has been estimated by the IEA Secretariat, as well as the *residential* subsector for 1992.

Biofuels and waste

General notes

- Due to the change of reporting methodology, breaks in time series may occur between 2013-2014 and 2014-2015.
- Heat data are available starting in 1993.

Transformation

- Inputs to *autoproducer* heat plants have been estimated by the IEA Secretariat because of efficiency issues for municipal waste prior to 2011 and in 2012 and for biogas in 2008, 2011 and 2012.
- New plants were included in the Korean survey creating breaks in time series in 2011.
- In 2007, some main activity heat plants and autoproducers in the commercial/public services sector were reclassified as main activity CHP plants, resulting in a break in the time series between 2006 and 2007 for **biogases**.

Electricity and heat

General notes

- Electricity statistics from 1971 to 1993 have been estimated by the IEA Secretariat based on the Korean National Statistics. Data from 1994 have been submitted by the Korean administration. This leads to breaks in time series between 1993 and 1994.

Supply

- The own use of **heat** in heat plants is very irregular due to a lack of data.
- Electricity generation reported under *other sources* is from fuel cells.
- Production of **tidal** electricity began in 2013.
- Data for **heat from chemical processes** that is sold is available from 2008.
- Data for electricity production using **heat from chemical processes** in copper and zinc plants are available from 2005. The corresponding heat inputs were estimated until 2013 data. In 2014, the company concerned switched to diesel oil for electricity generation.

Transformation

- For 2018p, the decrease in electricity output from **nuclear** was due to a combination of shutdowns for maintenance, and the closure of the Kori and Wolsong nuclear power plants in June 2017 and June 2018 respectively.
- For 2018p, the increase in heat production from **natural gas** was in part due to the commencement and expansion of operations at two CHP plants (Hwaseong Dongtan and Anyang).
- For 2017, the decrease in electricity production from **residual fuel oil** is due to the closure of two main activity producer plants.
- Some data discrepancies currently exist for **residual fuel oil**, between the oil databases and the electricity and heat databases. The Korean administration envisages remedying this situation in a coming cycle.
- Prior to 2009, autoproducer **heat** production includes amounts of unsold heat.
- Data for electricity and heat production by autoproducers using **natural gas** and **liquid fuels** are available from 2000.
- In 2000, the Korean administration started to report **heat** statistics for some heat plants which were not reported before.
- Between 1993 and 1999, the breakdown of **heat** output by type of fuel was estimated by the IEA Secretariat.
- Before 1994, **electricity** production from main activity producer CHP plants is included with main activity producer electricity-only plants.

Consumption

- Data for direct use of **geothermal heat** are available from 2002. **Geothermal** direct use data are overstated as it refers to heat production by geothermal heat pumps, which include inputs of electricity and/or gas in the transformation process.
- **Heat** consumption by subsector was reclassified in 2010 due to new information available on heat sales from autoproducers to end-users by sector.
- Prior to 2008, sales of **electricity** by Korea's main electricity distributor, KEPCO, to the non-ferrous metals sector are included in iron and steel consumption.
- Data on production and consumption of **electricity** and **heat** in oil refineries and LNG liquefaction/

regasification plants are included in the industry sector. From 2007, oil refinery **electricity** and **heat** production and consumption started to be reported under the correct energy sector.

- Data for **heat** consumption by sector are available from 2000.
- Data for **electricity** consumption in the transport equipment sector are included in machinery from 1994 to 1999.

Latvia

Source

Central Statistical Bureau, Riga.

General notes

- Data for Latvia are available starting in 1990. Prior to that, they are included in Former Soviet Union in the publication *World Energy Statistics*.
- Breaks in the time series appear for inputs to and outputs from electricity generation between 2016 and 2017 due to a change in methodology. This is most notable for main activity producer CHP and Heat plants. Data for 2017 onwards are reported on a unit basis, whereas data for previous years are reported on a plant basis.

Coal

Supply

- The increase of distribution losses for **peat** in 2003 is due to a fire in one of the warehouses.

Consumption

- The drop in the iron and steel industry in 2014 is due to the bankruptcy of the major company in the market.

Oil

Supply

- **Other hydrocarbons** data represent shale oil.
- In 2018 one of the main players in marine bunkering at Latvia's largest port ceased operations. As a result deliveries of oil products to marine bunkers decreased in that year. As of 2019 the issues have been resolved and bunkering activity is expected to resume.

Natural gas

Consumption

- The consumption in the *iron and steel industry* decreased in 2014 due to the bankruptcy of the major company in the market.

Transformation

- In 2017 there was a steep decrease/break reported in *main activity producer CHP* consumption and a respective increase/break in *main activity producer heat* consumption due to the classification of **natural gas** inputs according to the individual units of the plants instead of the plants as a whole that was previously used.

Biofuels and waste

Supply

- For 2018p data, the increase in the indigenous production of **solid biofuels** is due to wood pellet production.
- In 2017, a **biodiesel** producer exported amounts produced in 2017 and also some amounts from stocks.

Transformation

- Due to a reclassification in 2004, there was break in time series of electricity production from auto-producer electricity plant fuelled by biogas between 2003 and 2004.

Consumption

- The increase in inland consumption of **biodiesel** in 2018p data are related to the implementation of favourable legislation (the “Biofuel Law”).
- The increase in supply for **solid biofuels** from 2016 to 2017 is due to increased usage in the industry sector.
- From 2014, **biodiesel** consumption has been decreasing due to policies which support the sale of arctic diesel fuel without renewable additives.

Electricity and heat

Supply

- For 2017, higher rainfall resulted in a significant increase in electricity output from **hydro**, and a decrease in both imports of electricity and output from **combustible fuels**.

- **Heat** production from *other sources* represents waste heat recovered from industry, and heat produced by condensing economisers.

Transformation

- From 2012 onwards, the increase in electricity production from **solid biofuels** is due to the deployment of six new main activity producer CHP plants running on wood chips.

Consumption

- For 2012, the increase in electricity consumption in the iron and steel sector is due to switching from open earth furnace to electricity furnace of a factory.

Lithuania

Source

Statistics Lithuania, Vilnius.

General notes

- Data for Lithuania are available starting in 1990. Prior to that, they are included in Former Soviet Union in the publication *World Energy Statistics*.

Natural gas

Supply

- The export quantities since 2014 represent imported LNG which is regasified and subsequently exported to other countries.

Transformation

- *Not elsewhere specified (transformation)* data represent **natural gas** used for methanol manufacture, which is used as input in oil refineries.

Consumption

- There is a break between 2010 and 2011 in the *not elsewhere specified (energy)* timeseries due to **natural gas** being consumed for heat that was used to destroy radioactive waste after the decommissioning of the only Lithuanian nuclear plant at the end of 2009.

Biofuels and waste

Supply

- The production of **charcoal** has been over-estimated prior to 2017 due to the fact that it was not possible to report data less than 1 kt.
- Starting from 2016, some **industrial waste (renewable)** was collected via sorting. These wastes consist of non-recyclable paper, textiles and wood wastes and their production is included in **solid biofuels**.

Transformation

- The *Fortum Klaipėda* CHP plant produces electricity and heat from **industrial waste (non-renewable)**, **municipal waste** and **solid biofuels** since the end of 2013. Since its inception, structural optimisation has been sought. Additionally, before 2016, calorific values of the fuels were calculated by taking samples of fuels and after this period, calculations were made from steam. For these reasons, there are fluctuations in fuel inputs, energy production and fuel ratios between **industrial waste (non-renewable)**, **municipal waste** and **solid biofuels** since 2013.
- In 2013, an incinerator combusting **industrial waste (non-renewable)** and **municipal waste** began operations.

Electricity and heat

Transformation

- In 2009, the *Ignalina* **nuclear** power plant, the only nuclear plant in Lithuania, closed down.
- In March 2017, the *Geoterma* **geothermal** heat plant, the only geothermal heat plant in Lithuania, closed down.

Luxembourg

Source

STATEC, Institut national de la statistique et des études économiques du Grand-Duché du Luxembourg, Luxembourg.

Coal

General notes

- For the 2011 edition, the Luxembourgian administration revised the time series from 2000 for

most **coal** and coal products. Time series for **BKB** consumption were revised from 1990.

- Prior to 1978, some **sub-bituminous coal** may be included in **hard coal**.
- Steel production from blast furnaces ceased at the end of 1997.

Oil

Consumption

- In the late 1970s, the reduction in consumption of **fuel oil** in the iron and steel industry was due to substitution by coal.

Natural gas

General notes

- In 1982 there is a break in the time series in transformation and industry due to a change in methodology.

Transformation

- In the 2017 edition a *main activity producer CHP* plant was reclassified as one *main activity electricity producer* plant and one *main activity producer heat* plant. Data were revised back to 2014.
- Since 2002, the increase in the transformation sector is due to a new 350-MW combined cycle power plant.
- The last *main activity producer electricity* gas-consuming plant closed in 2016.

Consumption

- In 2015, Luxembourg integrated supplementary data from ETS companies and industrial consumption was revised back to the year 2000.
- The breakdown of total final consumption for the latest year is preliminary and will be finalised in the next edition of the book.
- Since 2012, the methodology to determine final consumption was changed in order to integrate basic data from National Accounts.
- Since 2000, a more detailed breakdown of final consumption data is available due to a change in methodology.
- Since 2000, consumption in the *non-ferrous metals* sub-sector is included in iron and steel for reasons of confidentiality.

- Since 2000 consumption in *not elsewhere specified (Industry)* includes activity of companies reclassified to preserve the confidentiality.
- Prior to 2000, *residential* consumption includes consumption in *commercial/public services* and *agriculture/forestry*.

Biofuels and waste

General notes

- The Luxembourgian administration started including trade figure of wood chips in trade figure of **solid biofuels** from 2015 data. This creates breaks in time series between 2014 and 2015.
- Data on **solid biofuels** are available from 1992.

Transformation

- In 2011, the blending of **biogases** with **natural gas** started.

Electricity and heat

General notes

- Data for **solar thermal** are available starting in 2001 and for **solar PV** starting in 2000.
- A revision in the classification of power plants by type and the production and consumption data for both **electricity** and **heat** back to 2000 causes breaks in the time series.

Supply

- Most of the **hydro** production shown for Luxembourg is from the Vianden pumped storage plant and is exported directly to Germany.
- Starting in 2005, data for **electricity** transmission and distribution losses were obtained from the network operator. Prior to that, they were estimated by the Luxembourgian administration.
- In the 2017 edition, following plant reclassification, **heat** production by main activity plants were revised from 2011 onwards.

Transformation

- A **natural gas**-fired, main activity electricity plant (TGV Twinerg) closed in 2016.
- The production of electricity from **solid biofuels** from 2013 corresponds to the opening of a new plant burning wood wastes.
- Data on electricity production from biogases are available from 1998 and heat production from 2010.

- In 2002, the increase in electricity production is due to a new **natural gas** combined cycle power plant.
- At the end of 1997, the iron and steel industry stopped production of **electricity**.
- Electricity data for **natural gas** autoproducer CHP plants are available starting in 1995, and for main activity CHP plants starting in 1996.
- Prior to 1990, **net electricity** production by auto-producers includes production from combustible fuel sources only.

Consumption

- **Heat** consumption in industry is estimated based on National Accounts. When not available, heat consumption figures for the most recent year reported are estimated based on data for the preceding year.
- In 2015, the observed declines in the **heat** used in the textiles and leather sector and the chemical and petrochemical sector lead to the closure of two industrial main CHP plants. The heating needs of these sectors were met through direct purchase of natural gas, due in part to attractive pricing during this period.
- In 2015, following the procurement of new information, data for **heat** distribution losses and **heat** consumption in industry and energy sectors were revised from 2000 onwards.
- A change in the data source caused some breaks in the industry **electricity** consumption time series between 2010 and 2011.
- The breakdown of **electricity** consumption in industry is not available from 1990 to 1999.

Mexico

Source

Secretaría de Energía, Mexico City.

General notes

- Data are available starting in 1971.
- The Mexican administration submitted data directly by questionnaire for the first time with 1992 data. As a result, some breaks in time series may occur between 1991 and 1992. For prior years,

data are partly estimated based on the publication *Balance Nacional - Energía*.

- In the 2016 edition, the Mexican administration completed a major work on revisions of the time series back to 1990. More revisions to historical data are pending.

Coal

General notes

- The Mexican administration is currently undertaking major work on revisions of the time series back to 1990. For several products, revisions back to 2003 were provided in the 2016 edition. Further revisions to historical data are pending.
- The time series for **blast furnace gas** and inputs of **coke oven coke** to blast furnaces start in 1991.
- **Hard coal** data prior to 1978 may include **sub-bituminous coal**.

Consumption

- Use of pulverised coal injection in blast furnaces occurs in Mexico, but is not currently reported.
- Oxygen steel furnace gas production and production of **other recovered gases** occur as by-products of heavy industry, but are not reported.

IEA estimations

- Imports by country of origin for other **bituminous coal** and **coking coal** for 2016 have been estimated by the IEA Secretariat, based on partner data.
- For **coking coal**, amounts reported for consumption in main activity electricity generation and associated imports for the years 2003 to 2016 have been reallocated to **other bituminous coal** by the IEA Secretariat.
- **Blast furnace gas** production and consumption have been estimated by the IEA for 1990 to 2017 based on inputs of **coke oven coke** to blast furnaces.
- **Coke oven coke** production was estimated by the IEA for some years between 1999 and 2012 based off historical and commodities data, as were inputs of **coking coal** to coke ovens between 1990 and 2012.
- The methodology currently used by Mexico to estimate production of **coal tar** and **coke oven gas** for recent years uses **coke oven coke** production as a guide. This was extended to the time series from 1990 to 2001, and to the years where **coke oven coke** production was estimated by the IEA.

Oil

General notes

- In the 2016 edition, major revisions were carried by the Ministry of Energy on the time series back to 1990 based on updated information available from PEMEX, the Mexican Institute of Petroleum and the Federal Electricity Commission (CFE). Revisions include notably crude production, refinery output, gas separation plant production, autoproducer generation and road consumption.
- New data reported as **additives** from 1990 correspond to methyl tertiary butyl ether.
- From 1993, data for production *from other sources (natural gas)* of **other hydrocarbons** correspond to hydrogen used at the Minatitlan refinery, also represented as the output of *non-specified transformation* in the balances format.
- The split between domestic and international aviation consumption of **kerosene-type jet fuel** is not available. By default, all **kerosene-type jet fuel** consumption is reported under international aviation.

Supply

- In 2017 Minatitlán refinery was offline for several months and later operating well below capacity as a result of an accident on site. The refinery at Tula was also temporarily offline. Both these events impact refinery throughput in 2018.
- Refinery intake of **crude oil** was estimated by the IEA Secretariat for the years 2016, 2017 and 2018 based on growth rates from SENER and PEMEX published data.
- In 2017, production of **crude oil** and **NGL** was impacted by heavy maintenance at the Ku-Maloob-Zaap field and decline at the Cantarell field in the Gulf Mexico which was affected by several force majeure events.
- For 2017 import data of **LPG**, **naphtha**, **road diesel** and **fuel oil**, the received data was supplemented with estimates by the IEA Secretariat based on published data from SENER.
- 2017 and 2018 imports of **petroleum coke** were estimated by the IEA Secretariat based on information from the U.S. Energy Information Agency.
- From 2016 onwards trade information is based on daily customs data now available to the Ministry of Energy. Historical revisions are pending.

- The large refinery losses from 2005 onwards are the result of the downward revisions to refinery output of **gas/diesel oil** carried out in 2017.
- **NGL** production reported in the IEA publications may be different from what is reported in the Mexican energy publications as the IEA includes in its oil data liquids produced in conjunction with natural gas.
- In the 2016 edition, main revisions were carried to **NGL, LPG, naphtha, ethane** supply. New data became available on input of NGL to refineries prior to 2011. Data on ethane production from gas separation plants (positive transfers from NGL) was revised upwards for 1990 to 1998. LPG gas separation plant production was revised down. Naphtha refinery output was revised upwards from 1990.

Transformation

- For several months in 2017, the Salina Cruz refinery was under extensive maintenance following operational problems and structural damage as a result of the September 2017 earthquake.
- The Madero refinery closed for maintenance in August 2017 and remained close through the start of 2018.
- 2017 refinery gross output of **gas/diesel oil, bitumen, lubricants and paraffin waxes** was estimated by the IEA Secretariat based on SENER and PEMEX published data.
- In the 2016 edition, data for crude oil refinery input and refinery output of **gas/diesel, naphtha, refinery gas, bitumen, paraffin wax and other products** were revised back to 1990 (see general notes).
- Data for **fuel oil** and **gas/diesel** inputs to auto-producer CHP generation are available from 1999.
- In 2003, a new facility was added to a refinery to produce **petroleum coke**.

Consumption

- 2017 consumption of **naphtha** for feedstock purposes in the chemical and petrochemical sector was estimated by the IEA Secretariat based on ethylene production figures.
- Consumption of **motor gasoline** and **road diesel** was impacted by changes to fuel subsidies introduced on January 1, 2017.
- Consumption of **lubricants** and **bitumen** for 2017 was estimated by the IEA Secretariat based on sales data from SENER.

- In the 2016 edition, **naphtha** non-energy use consumption in the chemical/industry was revised significantly revised down from 1990 to 2008 based on PEMEX information.
- In the 2016 edition, **gas/diesel** and **motor gasoline** road consumption data were revised back to 1990 based on updated information from the Mexican Institute of Petroleum and PEMEX.
- Consumption of **lubricants, bitumen and paraffin waxes** are available from 1990 and **petroleum coke** from 1993.
- Prior to 1987, the split of **LPG** consumption between residential and commercial/public services has been estimated by the IEA Secretariat.

Natural gas

General notes

- **Natural gas** reported in the IEA publications may be different from what is reported in the Mexican energy publications, as IEA includes only dry gas and excludes natural gas liquids, which are considered as part of oil.

Transformation

- The split of **natural gas** used for hydrogen manufacture and used in refineries is not currently available and it will be provided in the 2020 edition of this publication.

Consumption

- Losses and pipeline transport have been included in oil and gas extraction.
- From 1993 to 1999, part of energy industry own use and non-specified industry data were estimated.
- Since 1993, the breakdown of the energy sector and of other sectors is available.

Biofuels and waste

General notes

- The Mexican administration believes the fuels categorised as **industrial wastes** (non-renewable) are likely residual gas, however more investigation is needed. Revisions, if applicable, are expected next cycle.

Supply

- Prior to 2017 data, some **bagasse** production has been attributed to **other vegetal materials and residues**. This causes a break in series between

2016 and 2017. Revisions prior to 2017 are expected in the future.

- Data for **bagasse** production are available from 2008.

Consumption

- Increased consumption in the industry and transformation sectors for **solid biofuels** in 2017 is attributed to **bagasse**.
- Data for **solid biofuels** used in autoproducer electricity plants from 1991 to 2005 have been estimated by the Mexican administration.
- Data on **biogases** consumption are available from 1997.

Electricity and heat

General notes

- The Mexican administration is currently undertaking revisions of the **electricity** time series back to 1996. Revisions include changes on inputs and outputs on power plants fuelled mainly by **combustible fuels** and the reclassification of main electricity plants previously reporting **sub-bituminous coal** as fuel to **other bituminous coal** for the period 2003-2015.

Supply

- Electricity generation from **other sources** mainly represents generation from recovered waste heat from industry, and also a small amount of electricity production from regenerative braking in suburban trains.
- The decrease in electricity produced from **wind** in 2017 data is due to an earthquake which damaged infrastructure in the south of the country.
- Production of main activity producer electricity plants from **wind** is available from 1994.
- Electricity production from **wind** and **solar photovoltaic** is available from 1990.
- Discrepancies occur between respective reported figures for electricity trade between the US and Mexico from 2013 onwards.

Transformation

- New autoproducer electricity plants fuelled with **coke oven gases** were put on-line in 1999.
- Electricity production from **solid biofuels** and **biogases** data are available respectively from 1991 and 1997.

Consumption

- Some electricity consumption in energy industry is included in the industry sub-sector where it was generated (e.g. the chemical industry, as well as in *non-specified industry*).
- Direct use of **solar thermal** heat is available from 1990.

Netherlands

Source

The Netherlands Central Bureau of Statistics, The Hague.

General notes

- The Netherlands Central Bureau of Statistics has conducted reviews and revisions of their energy balance three times; in 2005, 2011 and 2015. The 2005 revisions were to improve basic energy statistics, particularly with respect to carbon and CO₂ reporting, while the 2011 revisions were part of a harmonization program with international energy statistics. The 2015 revisions were the result of increased data collection, availability of new source information, and further alignment with international energy definitions. More details are available here: www.cbs.nl.

Coal

General notes

- International trade into and through the hub ports of Amsterdam and Rotterdam is complicated by the capacity to purchase coal directly at these points. The majority of coal passing through these ports is intended for consumption in European countries other than the Netherlands, which is neither the country of origin or destination, therefore these data have been removed where possible. In the 2019 edition, the Central Bureau of Statistics proceeded to major revisions of trade and stock changes for anthracite, coking coal, other bituminous coal and lignite since 1990. Imports now should only relate to coal for inland consumption according to Eurostat's statistical regulation, thus eliminating transits to other countries and stock changes of trading companies.
- Following revisions made in the previous edition to data for 1995 onwards, this edition includes

further revisions made by the Dutch administration for the period 1990 to 1994. These revisions are the result of increased data collection, availability of new source information, and further alignment with international energy standards.

Supply

- From 2013 onwards, trade reported by the Central Bureau of Statistics includes **coal** in transit, to align more closely with gross trade data.
- In the 2013 edition, non-specified exports for 2011 were estimated by the Central Bureau of Statistics due to a lack of information from key market players.
- For data prior to 2011, stock changes for primary coal types were estimated by the Dutch administration based on trade and consumption data.
- For 1984 to 1986, production *from other sources* of **other bituminous coal** represents a stock of “smalls” washed for re-use.

Transformation

- At the end of 2015 three low-efficiency plants running on bituminous coal input closed down. In the course of 2017 another two old installations ceased operating. These closures were part of the so-called Agreement on Energy for Sustainable Growth in the Netherlands agreed upon by the Social and Economic Council of the Netherlands (SER) and more than forty representative organisations and stakeholders.

Consumption

- Prior to 1989, non-energy use is included with industry consumption.

Oil

General notes

- In 2017, large amounts of **fuel oil** were reclassified as other products due to their chemical properties.
- Data for gas/diesel road consumption become more difficult to collect in 2013, as the distinction in taxation between road diesel and gasoil was abolished.
- Following revisions made in the previous edition to data for 1995 onwards, this edition includes further revisions made by the Dutch administration for the period 1990 to 1994. These revisions are the result of increased data collection, availability

of new source information, and further alignment with international energy definitions

- Motor gasoline includes other light oils until 1990.
- Some breaks in time series occur in 1990 when the Dutch administration started to report the petrochemical industry according to IEA methodology.
- From 1990 onwards, naphtha includes aromatics, naphtha and other light oils.

Supply

- Data for deliveries of fuel oil to international marine bunkers were revised downwards in the 2019 edition back to 2015. This was due to an improvement in the underlying data and figures available to CBS Statistics Netherlands.
- In 2017 the main plant producing **lubricants** closed as a result there is no more refinery gross output of this product.

Consumption

- In the 2019 edition several revisions were introduced to flows relating to the chemical and petrochemical industry. Energy consumption in the chemical industry has been revised upwards back to 2012, following an internal audit of the data that revealed gaps in coverage. Non-energy consumption in the chemical industry has been revised downwards back to 1990 following a review of the data submitted by one of the main companies.
- Refinery gas includes chemical gas and is included in chemical industry consumption.

Natural gas

General notes

- In the 2018 edition, the Dutch administration revised the supply side data for 1990-2016 in order to (i) better account for flows from underground storages which used to be incorporated in the *indigenous production* data, and also (ii) handle inflows/outflows of **natural gas** stored in Germany as imports/exports.
- In the 2019 edition, the Dutch administration revised the *opening and closing stock levels* based on a dedicated questionnaire used. Additionally, industrial consumption was revised since 2012 based on inputs coming from the Emissions Trading Scheme (ETS) data
- Between 1981 and 1982, and between 1983 and 1984 there are breaks in time series due to the

introduction of more comprehensive surveys on end-use consumption.

Supply

- A production cap of **natural gas** was set by the government in 2015, which has been extended and gradually tightened for 2016, 2017 and 2018.
- Dutch trade figures include transit volumes.
- In the past, the amounts reported under *indigenous production* also included quantities coming from *stock changes*. The reason was that the Dutch administration could not distinguish between quantities of **natural gas** falling under marketable production and amounts being moved from offshore fields to onshore fields without undergoing any purification and/or other necessary production processes. From 2015, the data reported distinguish between amounts to be reported as production and amounts that should be classified as stock changes.
- *International marine bunkers* were reported for the first time in the 2019 edition.

Transformation

- Data for *non-specified (energy own-use)* represent **natural gas** combusted by the distribution operator for the purpose of operating the gas distribution grid.
- The 2009 increase in input to *main activity electricity producer* consumption is due to the opening of a new plant in the second half of 2008.

Consumption

- In the 2018 edition, the Dutch administration provided data for the *non specified (other) non-energy use* flow for the years 2007-2014, which represent the volume of gas injected as *cushion gas* in a new underground storage.

Biofuels and waste

Supply

- Increases in **biodiesel** production for 2017 are related to increased capacity of existing plants and increased demand.
- From 2009 to 2012, and again from 2014 the production and trade of pure **biogasoline** were confidential; net imports were estimated by the Dutch administration based on consumption.

Transformation

- In 2017, the increase in heat production from solid biofuels in main activity CHP plants is because there were two additional companies reporting data.
- Trade data for **municipal waste** are available from 2011.

Consumption

- From 2014, a better allocation of heat own-use was available for **biogas** digester prewarming, and in **municipal waste** burning plants for flue gas cleaning.
- The final consumption of **solid biofuels** in the residential and agriculture sector increased in 2014 and again in 2016 due to the results of new surveys and parameters.

Electricity and heat

General notes

- In the 2017 edition, following an extended review of old national publications, data for the Netherlands were revised for the years 1990-1994 to follow on the revisions entered in the previous edition, covering period 1995-2013. This revision endeavours to maintain data comparability throughout the entire time series. As part of these revisions, most of the time series for the consumption sectors in both **electricity** and **heat** were revised using newly obtained data from grid operators' client files by the Dutch administration.

Supply

- For 2018p, the declines in heat generation from **municipal waste**, and heat used for electricity generation, and also the increase in electricity output from municipal waste, are due to a change in ownership of a company which sold heat.
- Data on **heat** production from chemical sources are available from 2017.
- The decrease in electricity production from **nuclear** plants in 2017, 2013, and 1997 is due to the Netherlands' only nuclear power plant undergoing a shutdown for maintenance.
- Electricity **from other sources** represents generation from expansion gases and chemical waste gases.
- The large increase in **electricity** trade in 1999 is due to the liberalisation of the Dutch electricity market. Until 2003, trade data are based on contracted quantities instead of physical flows.

- The increase of **heat** produced in main heat plants in 1995 is due to a change in ownership of one large installation, resulting in its reclassification from being an autoproducer to a main activity plant.
- Electricity production from **solar photovoltaic** is available from 1990.

Transformation

- In mid-2017, two **other bituminous coal**-fired power stations closed, as a result output from other bituminous coal declined in 2018p.
- The efficiency of **blast furnace gas**-fired autoproducer CHP plants increases between 2015 and 2016 due to improved methods for allocating inputs between sold and unsold heat.
- Heat used for electricity production represents waste heat bought from other industries that was generated from **combustible fuels**. The corresponding electricity output is included with that of **natural gas**.
- Autoproducer heat plants using **refinery gases** are included with autoproducer CHP plants because data are considered confidential for 1990.
- **Heat** production in commercial and public services includes production in agriculture.
- All **municipal waste** autoproducer electricity and heat only plants have been reclassified by Statistics Netherlands as autoproducer CHP from 2012, causing breaks in the time series.
- Prior to 2008, a few small autoproducer electricity plants using **solid biofuels** were included with main activity plants for reasons of confidentiality.
- In 2006, some **municipal waste** plants changed ownership and were reclassified from electricity only to CHP plants as they started heat projects.
- A new main activity producer CHP plant fuelled by **refinery gas** started up in 1999 and there was a fuel reclassification in 2000.
- For **natural gas**, all electricity production prior to 1998 is included in CHP plants.
- For **biofuels and waste**, all electricity and heat produced prior to 1995 is included in CHP plants.
- Data for heat produced from **biofuels and waste** are available from 1990.
- Prior to 1990, all electricity and heat produced from **coal** is included in CHP plants.
- Inputs of **hard coal** for electricity production from 1981 to 1989 in terajoules (TJ) are estimated by

the Secretariat based on data submitted in kilotonnes (kt) by the Dutch administration.

- Net electricity production by autoproducers prior to 1988 includes production from **combustible fuel** sources only.
- Data for **heat** production by fuel in heat plants prior to 1987 are estimated by the Secretariat based on fuel inputs submitted by the Dutch administration.
- Data for **heat** production from main activity producer CHP plants and heat plants are available from 1982.
- Prior to 1982, **electricity** production from and inputs to main activity producer CHP plants are included with main activity producer electricity plants.
- For 1970 to 1973, **electricity** output from autoproducer CHP plants has been included with main activity producer CHP plants.

Consumption

- In 2018, there were four new **geothermal** installations producing heat which warmed greenhouses. As in the past, these would be categorised in the *agriculture/forestry* sector.
- For data from 2015 onwards, there is improved data availability for **heat**. This causes breaks in series for transmission and distribution losses, and heat consumption in the non-ferrous metals sectors,
- Increasing **electricity** consumption in agriculture/forestry is due to expansion of greenhouse farming.
- Direct use of **geothermal heat** in agriculture/forestry starting in 2008 is due to a new project extracting deep **geothermal** heat. The heat produced has been used for heating greenhouses.
- Prior to 1979, **electricity** consumption in agriculture is included in commercial and public services.

New Zealand

Source

Ministry of Business, Innovation and Employment, Wellington.

General notes

- Prior to 1994, data refer to fiscal year (April 1993 to March 1994 for 1993). From 1994, data refer to calendar year.

Coal

General notes

- **Peat**, although produced in New Zealand, is not used as a fuel, and is used for agricultural purposes only.
- In the 2014 edition, the definition of **hard coal** was aligned with the International Recommendations for Energy Statistics. Prior to this, **hard coal** for New Zealand from 1960 to 1977 had contained **sub-bituminous coal**. The portion of **sub-bituminous coal** production and residential consumption has been estimated by the IEA Secretariat for this period and moved to **brown coal**.
- In the 2011 edition, the New Zealand administration has revised some of the **coal**, natural gas, oil, renewable and electricity time series back to 1990.

Supply

- In 2017 the underground mine producing coking coal switched to opencast operation.
- Breakdown of exports of **coking coal** by country of destination in 2018p has been estimated by the IEA Secretariat, based on partner data.
- The decrease of **other bituminous coal** production in 2015 is due to a temporary shutdown in one of the coal mines at the beginning of 2015 and another one at the end of 2015.
- A detailed breakdown of exports of **coking coal** by country of destination between 2001 and 2011 is estimated by the IEA, based on secondary sources and partner data.

Transformation

- **Sub-bituminous coal** inputs into coke ovens refers to coal that is merged with iron sands and limestone to form the inputs for the multi-hearth-furnaces, kilns and melters that produce direct reduced iron (Glenbrook Steel Site), with off-gases and supplemental and natural gas driving CHP plants. This method, while not the typical iron and steel process, produces similar by-products. The **sub-bituminous coal** inputs are reported under coke oven coke transformation and the resulting off-gases are reported as production of **coke oven gas** and **blast furnace gas**.
- **Blast furnace gas** production and distribution losses prior to 1998 are IEA Secretariat estimates. Portions of this gas will have been used for energy purposes in the multi-hearth furnaces or elsewhere

in the plant. Some transformation efficiencies will appear higher than normal due to non-reporting of certain inputs, including some confidential data.

Consumption

- In final consumption, some industry data are reported in *non-specified industry* for confidentiality reasons.
- In 2014, the increase in consumption of **sub-bituminous coal** in mines included the combustion of some unsold coal fines for safety reasons.
- Prior to 2010, the construction sector is included with commercial/public services.
- Prior to 2009, mining and quarrying is included in agriculture.

Oil

General notes

- For 2016, the following data were estimated by the IEA Secretariat: consumption of **lubricants**; imports of **bitumen**; and refinery output, and inter-product transfers of **other oil products**.
- For 2015, the following data were estimated by the IEA Secretariat: stock changes and consumption of **lubricants**; consumption of **bitumen**, and all figures for petroleum coke and **other oil products**.
- From 1998, **gas/diesel oil** includes light fuel oil. Until 1997, light fuel oil is under fuel oil.
- Until 1997, other hydrocarbons from natural gas sources correspond to synthetic gasoline production (ceased in February 1997).
- For reasons of confidentiality, beginning in 1994, the New Zealand administration no longer reports data on the production of methanol.

Supply

- Between 2013 and 2014, the jump in imports of **kerosene-type jet fuel** can be explained by an anticipated strike at the refineries.

Consumption

- Between 2009 and 2010, a break in time series appears for demand of **gas/diesel** as the administration changed its methodology for commercial/public services
- For 1960 to 1973, Consumption data have been estimated by the Secretariat.

Natural gas

General notes

- 2018p data were estimated based on monthly data submitted to the IEA Secretariat.

Supply

- There are neither imports nor exports of **natural gas** for New Zealand.

Transformation

- The large 1998 increase in input to *autoproducer CHP* plants is due to two new autoproducer CHP plants.
- In February 1997, production of synthetic **gasoline** from **natural gas** ended.

Consumption

- Between 2012 and 2013 there are breaks in time series for the final consumption breakdown due to the introduction of a new survey.
- In 2005, the decline in *chemical and petrochemical* industry consumption was due to the closure of the Motunui methanol production plant, which was then reopened in late 2008.
- Prior to 2003, gas consumed in industry includes some gas for *energy industry* own-use. Since 1990, detailed consumption breakdown for industry is available. From 1977 to 1979 and from 1986 to 1989, losses are included in *statistical differences*.

Biofuels and waste

General notes

- Due to improved wood data collection starting with 2016 data, increases in **solid biofuels** in transformation, supply and consumption may not be a true increase but more representative of increased data survey respondents. This results in a break in time series between 2015 and 2016.

Transformation

- In the 2019 edition, data on electricity production from **biogases** were significantly revised by the New Zealand administration following an internal review of systems and methodologies.

Electricity and heat

General notes

- For the 2019 edition, the New Zealand administration submitted extensive revisions back to 1990 following an internal review of their systems and methodologies.

- There are several breaks in the time series between 1987 and 1988 due to a reorganisation of government departments during 1987.

Supply

- **Heat** outputs from main activity and autoproducer CHP plants are not available.

Transformation

- For 2018p, a shortage of natural gas resulted in decreased use of natural gas for electricity generation, and increased use of sub-bituminous coal.
- In late 2015, two natural gas-fired power stations used for baseload demand closed. As the remaining natural gas-fired plants are used more for peak demand, there is a reduction in generation efficiency between 2015 and 2016.
- Electricity and heat production from other sources represents waste heat recovered and used for electricity production. This includes heat from recovered from chemical processes at acid plants in the fertiliser industry, where sulphur is the main input.
- In 1999, a reclassification of autoproducer plants causes some breaks in the time series.
- Data for geothermal electricity production by autoproducers are available from 1990.
- The New Zealand administration has updated efficiencies for electricity production from geothermal heat from 10% to 15% from 1990 onwards; this causes a break in the time series between 1989 and 1990.
- In the 2018 edition, revisions in electricity production in hydro plants back to 2002 are related to a change in methodology. This results in a break in time series between 2001 and 2002.
- Electricity production by autoproducers from natural gas and from oil has been estimated by the Secretariat from 1970 to 1973.

Consumption

- A new survey starting with the 2013 data can cause breaks in data for final consumption of **electricity**.
- The consumption of **electricity** by the transport sector is collected under the Australian and New Zealand Standard Industrial Classification (ANZSIC) 2006 system's "Transport, Postal and Warehousing" category. As this covers commercial services as well as transport, MBIE

estimates the amount of this that can be allocated to transport. At present this data does not allow for the disaggregation by transport sub-sector.

- Beginning in 2013, the falling **electricity** consumption in the pulp, paper and printing sector follows with the permanent closure of a paper machine in one of New Zealand's larger energy users, following decreased demand for newsprint.
- Data on direct use of **geothermal heat** are available from 1990 and direct use of **solar thermal heat** from 2002.
- From 1974 to 1993 distribution losses include the statistical differences.
- The classifications used by the administration of New Zealand were changed in 1991.
- **Electricity** consumption in paper, pulp and printing is included in wood and wood products prior to 1990.

Norway

Source

Statistics Norway, Oslo.

General Notes

- In the 2018 edition, data for Norway were revised back to 2010, following the introduction of a new system for energy balances and energy accounts. Breaks in series may appear between 2009 and 2010 as a result. For more detailed information regarding the methodological changes, please refer to the documentation of statistics production since statistics year 2010 on the Statistics Norway website. At the time of writing, the document was available in Norwegian as "Dokumentasjon av statistikkproduksjonen fra statistikkår 2010 og fremover".

Coal

General notes

- **Other bituminous coal** includes **lignite**.
- Production of **coking coal**, **coke oven coke** and **coke oven gas** ceased in the late 1980s.

Supply

- The decrease of **other bituminous coal** production in 2017 is due to economic problems faced by Norway's mines.

- The decrease of **other bituminous coal** production in 2015 is due to a temporary shutdown in one of the coal mines.
- The decrease of **other bituminous coal** production in 2005 is due to a fire in one of the coal mines; this entailed a break in the production for a large part of the year.

Oil

General notes

- In the 2018 edition, the Norwegian administration made widespread revisions to their data back to 2010, following the introduction of a new system for energy balances and energy accounts. Breaks in series may appear between 2009 and 2010 as a result.
- A major project is being carried by Statistics Norway in order to reduce the statistical differences observed between calculated supply and demand of oil. Starting with 2014 data, new methodologies have been introduced for reporting **crude oil**, **NGL** and **naphtha** (see details below). Balances for **motor gasoline**, **gas/diesel oil**, **kerosene-type jet fuel** and **fuel oil** are also under investigation. Further improvements are expected in future editions.
- The IEA Secretariat estimates the net calorific value for Norwegian **crude oil** based on the oil product outputs of the oil refineries.
- Prior to 1990, **ethane** is included with **LPG**.

Supply

- In 2017 the Goliat field was offline from September through October for planned and unplanned maintenance.
- **Crude oil** production includes condensates.
- Starting with 2014 data, Statistics Norway has changed the source for annual **crude oil** exports to include shipping information collected by the National Petroleum Directorate.
- Starting from 2014 data, there is a break in **naphtha** supply time series due to a change in reporting methodology adopted by Statistics Norway.
- Prior to 2002 data, a part of **LPG** exports was reported as **NGL** exports.
- Since 1986, imports of **refinery feedstocks** are reported under the relevant oil product imports.

Transformation

- In 2016 the Slagen refinery underwent maintenance which led to a decrease in refinery throughput for that year.
- In 2014, the strong decrease in **crude oil** refinery intake is linked to heavy maintenance work carried in the refineries in fall 2014.
- Starting with 1990 data, **gas/diesel oil** used for autoproduced electricity on oil and gas platforms are reported under energy industry own use.
- From 1970 to 1975, **gas/diesel oil** for electricity generation has been estimated by the Secretariat.

Consumption

- Data on **naphtha** consumption in Norway are currently unavailable.
- Consumption of lubricants is reported within industry, as no further breakdown is available.
- In 2005 data, breaks in **petroleum coke** consumption time series appear due to reallocation in the industry sector. Refinery fuel is reported from 2001 data.
- In 2003 and 1993 data, breaks in time series appear for consumption in the chemical/petrochemical industry due to newly available information.
- Prior to 2000, **gas/diesel oil** used in fishing is included in agriculture/forestry.

Natural gas

General notes

- For Norway, the supply of **natural gas** is the residual of two very large and opposite amounts: *indigenous production* and *exports*. As a result, large *statistical differences* in some years may lead to discrepancies in the growth rates of supply and demand of natural gas.

Supply

- Since 2008 data on *opening and closing stock levels* are available.

Transformation

- Since 2007, **natural gas** inputs to all electricity and CHP plants are included in *autoproducer electricity plants* for confidentiality reasons.
- The last *main activity electricity producer* closed down in 2016.

Consumption

- Prior to 2008, **natural gas** amounts used in gas extraction by offshore platforms were not included in production data.
- Since 2002 domestic navigation is included under *non-specified transport*.
- The 2007 increase in *non-specified transport* is due to the wider use of gas-powered sea vessels.
- Before 2000, energy use in *oil and gas extraction* also included some final consumption amounts.
- In 1992 the increase in *oil and gas extraction* is due to the start-up of new fields.
- Consumption for *pipeline transport* is included in energy industry own use.

Biofuels and waste

General notes

- The Norwegian administration expects to revise 2017 data for **biogases** in the next reporting cycle.
- Some of the data reported under **solid biofuels excluding charcoal** includes **charcoal**. Efforts are being made by the Norwegian administration to separate this data in the future.
- Prior to 2007, equal shares of renewable and non-renewable **municipal waste** were estimated because the actual split was not known.
- Data for **industrial waste** and **biogases** are available from 1991.

Supply

- The data for the indigenous production of **biogases** is based on consumption data.
- In 2014, the **biodiesel** production facility closed.
- Data for **liquid biofuels** imports are available starting in 2006.

Consumption

- Distribution losses for **biogases** are included in commercial/public services prior to 2003.

Electricity and heat

Supply

- No data on electricity production from **solar** energy are submitted to the IEA by the Norwegian administration.

- The electricity generated from **other sources** represents electricity from waste heat.
- Until the 2018 edition, distribution losses included statistical differences. Statistical differences now exist for 2010 onwards.
- **Heat** produced by autoproducer heat plants from chemical processes and from *other sources* and used for electricity production has been estimated by the IEA Secretariat for the period 1990 to 2006.
- Electricity production from **wind** is available from 1993.
- Data for **heat** production from heat pumps and electric boilers (including the electricity used for this production) are available from 1989.
- Data for **heat** production are not available prior to 1983.

Transformation

- In the 2016 edition, Norway corrected the **industrial waste** consumption in heat plants, and reclassified some the corresponding heat output under other sources.
- Starting in 2007, data for **natural gas** electricity and CHP plants are aggregated in autoproducer electricity plants for confidentiality reasons. The revisions received for the 2018 edition partially altered these data for the period 2010 to 2016, but no explanations were given.
- Breaks in the time series between 1996 and 1997 and between 2001 and 2002 and now 2009 and 2010 are due to a reclassification of main activity producers and autoproducers. This includes the apparent cessation of autoproducer **pumped hydro** and **hydro** electricity generation since 2010, where this generation has been reclassified as main activity.
- Data for heat production from **biogases** are available from 1995.
- Prior to 1991, net **electricity** production by autoproducers by industry sub-sector was estimated by the Secretariat based on data submitted by the Norwegian administration.
- Data on inputs and outputs in **heat** plants are not available prior to 1983 for main activity heat plants and prior to 1988 for autoproducer heat plants.

Consumption

- For the 2019 edition, **heat** consumption in the *chemical (incl. petrochemical)* and *commercial*

and public services sectors was revised back to 2007. Historical revisions for other sectors are pending. As a result, breaks in series occur for heat consumption in some sectors between 2016 and 2017.

- Consumption of **electricity** for pipeline transport is included in oil and gas extraction.
- The breakdown of **heat** consumption by industry sub-sector was expanded in 1992, reclassified in 1994 and collected by a new reporting system in 1997.

Poland

Source

Central Statistical Office, Warsaw.

Coal

General notes

- **Other recovered gases** which appear in the balances as output from blast furnaces also include off-gases from zinc and copper smelting, ceramics kilns and steel production, thus artificially increasing the overall efficiency of blast furnaces when calculated.
- Prior to 2016 data, **other bituminous coal** includes **anthracite**.

Transformation

- In the past two editions, the Central Statistical Office has revised their methodology which accounts for sold heat produced from autoproducer heat plants using **coking coal** and **other bituminous coal**, resulting in lower, but more accurate data for 2007 onwards.

Consumption

- Consumption in agriculture/forestry for **BKB**, and own use in power stations for **lignite** are residual flows, so may contain statistical differences and other consumption not reported elsewhere. As a consequence, changes in these time series may not be wholly representative of the activities shown.
- Prior to 2010, own use in coal mines included workers' take home allowance, which should be included in residential consumption.

Oil

General notes

- From 1997, production *from other sources (natural gas)* of **other hydrocarbons** corresponds to hydrogen used in refineries, also represented as the output of *non-specified transformation* in the balances format.

Supply

- In 2018 new legislation introduced a biofuel blending obligation for liquid fuels. The effects of this policy can be seen throughout 2017 as companies prepared for the implementation of the new directive.

Transformation

- In 2017 lower refinery activity is linked to maintenance activities at several refinery installations across the country.
- Prior to 1998, inputs of **gas/diesel oil** and heavy **fuel oil** to autoproducer CHP in petroleum refineries have been included in the transformation.

Consumption

- In 2016 regulatory changes affecting the customs and tax authorities meant that consumption of fuel in the informal economy decreased.
- In 2015, a new flue-gas desulphurisation unit was installed. As this unit facilitates high sulphur fuel oil burning in place of natural gas, this explains the increase in **fuel oil** consumption in oil refineries.

Natural gas

Supply

- *Exports* include all the **natural gas** sold by companies operating in Poland (these are mainly re-exports).
- **Natural gas** reported in *associated production* contains some heavier hydrocarbons. This results in a high gross calorific value for production.

Transformation

- *Non-specified transformation* data represent **natural gas** used for hydrogen manufacture. This hydrogen is used for hydrodesulphurization in oil refineries.

- In 2013 and 2014 some CHP plants were used as backup reserve plants, resulting in a decrease in consumption under main activity producers CHP plants.
- In 2004 and 2005 small amounts of **natural gas** were used to start up main activity electricity plants.
- In the 2017 data, local small-CHP & heat plants were reclassified from the *commercial/public services* to the *transformation sector* and the *residential* sub-sector.

Consumption

- Distribution losses may include some statistical differences.
- *Non-specified energy* includes gas used for heating and pumping operations in the distribution network.

Biofuels and waste

- General notes
- Several breaks in the **industrial waste** time series are caused by difficulties in the classification of wastes.
- In the 2018 edition, **solid biofuels** were corrected for 2015 data.
- There is a break in time series between 2015 and 2016 for **biogases** due to reclassification from autoproducer to main activity plants.
- The increases in **municipal wastes** starting in 2016 are related to two new plants.
- Data on **biodiesels** are available from 2005; **bio-gasoline** data from 2003; and **other liquid bio-fuels** data from 2009.
- In 2008, a new questionnaire was launched which increased the coverage of renewable and waste data.

Supply

- Under current Polish law, only producers and importers of **biodiesel** are obliged to fulfil the National Indicative Target of share of biofuels in the total usage of transportation fuels. Since the regulation is currently not applied to retail distributors they, for economic reason, rather export the **biodiesel** than sell it domestically. This results in low domestic consumption and increase of exports in 2016.

- Production of **other liquid biofuels** increased in 2015 because new companies started to report their biofuels production to the Polish administration.

Transformation

- In 2017, heat production from autoproducer CHP and heat plants burning **municipal wastes** increased due to two new plants.
- Before 2000, industrial waste was used interchangeably with light fuel oil in some plants, which might result in breaks in the time series.

Consumption

- The decrease in the consumption of **biodiesel** in the road sector in 2017 is related to an unfavourable pricing scheme on the domestic market, causing consumers to choose **diesel** and producers to export or blend the **biodiesel** they produced.
- The consumption of **solid biofuels** in non-metallic minerals decreased in 2017 because modern clinker ovens have been replacing **solid biofuels** with **municipal wastes**.
- Increases in consumption of **biodiesel** in 2016 are related to a policy change in the middle of the year.
- Data for **biogases** refer only to the gas from fermentation of biomass.
- Until 1998, data for industrial waste include other recovered gases which have to be reported in Coal questionnaire, causing a break between 1997 and 1998.
- Between 1992 and 1993, due to data availability, there is a large increase in solid biofuels for residential, commercial/public services and agriculture/forestry.

Electricity and heat

General notes

- Prior to 2010, **heat** supply and consumption can include autoproducers unsold heat. Previous attempts to address such issue may have caused breaks for heat production and fuel in autoproducer heat plants (1993) and in autoproducer CHP plants, and for heat consumption in industry sub-sectors.

Supply

- Electricity and heat from **chemical heat** and other sources are available from 2011. Prior to that, these amounts could be included under different categories.
- **Heat** distribution losses are available from 2010 and prior to that they are included in consumption.
- **Heat** production from heat pumps is available from 2009.

Transformation

- For 2018p, data on heat production from **municipal waste** are provisional and may be revised upwards next cycle.
- Starting with 2017 edition and following, the Polish administration revised electricity production data from power plants run by combustible fuels, reclassifying those that were previously reported as main activity CHP as main activity electricity plants. These revisions mainly affected **coal**-fired power plants and created breaks in time series from 2004 onwards.
- State support for biomass co-firing was reduced in 2016, resulting in electricity production from **solid biofuels** falling during this period.
- Due to a reclassification of plant types, there is a break in time series in 2015 for the generation of heat in autoproducer CHP plants in the iron and steel sector.
- In 2008 and 2014, a number of CHP plants were reclassified from autoproducer to main activity producer due to an industry re-organisation.
- Data for **electricity** production in autoproducer electricity plants are available from 1986.
- Prior to 2013, electricity used for pumped storage (mixed plants) is included under used for pumped storage (pure hydro pumping plants). Consumption
- **Heat** consumption in energy industry own use includes process heat not sold before 1995.
- Data for direct use of **geothermal heat** are available from 2000 and direct use of **solar thermal heat** in commercial/public services from 2002 and in residential from 2009.
- In the 2017 edition, the Polish administration reclassified some amounts of electricity consumption from the chemical and petrochemical sector to oil refineries, following access to improved survey methods.

Portugal

Source

Direcção-Geral de Energia e Geologia, Lisbon.

Coal

General notes

- **Hard coal** data prior to 1978 may include **sub-bituminous coal**.

Consumption

- Between 1997 and 2001 **gas works gas** was gradually replaced by **natural gas** in the commercial/public service and residential sectors.
- The production of pig iron ceased in the first quarter of 2001, leading to decreases in supply and consumption of **coking coal**, **coke oven coke**, **coke oven gas** and **blast furnace gas** in 2001.

Oil

General notes

- The increase in refinery throughput in 2015 is a result of increased refinery capacity linked to the expansion of the Sines refinery.
- A new hydrocracking unit started operations in Sines Refinery in April 2013. This explains the 2013 increase in **refinery feedstock** imports, as well as middle distillate production.

Supply

- Production from other sources (natural gas) of **other hydrocarbons** corresponds to hydrogen used in refineries, also represented as the output of non-specified transformation in the balances format.
- Scheduled refinery maintenance through the months of September and October 2018 affected the refinery intake and output in 2018.

Consumption

- Consumption of **gas/diesel oil** in industry and commercial/public services represents diesel use in mobile fleets.

Natural gas

Supply

- In February 1997, Portugal started to import **natural gas**.

- The surge in 2017 *imports* is attributed to the consumption of gas-fired power plants that filled in the gap of decreased hydro-generation due to a drought.

Transformation

- Since 2012, data reported for *non-specified transformation* represent **natural gas** used for hydrogen manufacture. Prior to this year, these quantities are reported under *oil refineries*.
- The 2002 decrease in **natural gas** used for *gas works (transformation)* is due to the closing of the Lisbon gas works plant in May 2001.

Biofuels and waste

General notes

- Data for **solid biofuels** were revised in a previous publication by the National administration from 1990 to 2001, which may result in breaks in time series between 1989 and 1990.
- Data are available from 1994 for **biogases**, from 1999 for **municipal waste** and from 2003 for **industrial waste**.

Consumption

- The use of **biogasoline** for blending decreased in 2017 because it is no longer compulsory to use biofuels in gasoline.
- Data for **solid biofuels** were further revised based on a new survey on industry, resulting in breaks in sub-sectoral consumption for 2012.
- Between 2009 and 2010 a new survey on energy consumption in households creates a break in time series in the **solid biofuels** consumption in residential time series.

Electricity and heat

Supply

- Data for production of electricity from **solar photovoltaic** and **wind** are available from 1989.
- The large decrease in electricity output from **hydro** for 2017 is due to decreased rainfall.

Transformation

- For 2016 data onwards, **heat** and **electricity** production from chemical sources have been reclassified as autoproducer CHP production from **industrial waste**, causing cessation of the heat and

electricity generated from heat from chemical processes time series, and causing breaks in the industrial waste time series between 2015 and 2016.

- Electricity production from other oil products refers to methanol.
- In the 2017 edition, the data for production of **electricity** by autoproducer **hydro** plants were revised between 1990 and 1999, according to a new national methodology.
- In 2007, some power plants that were previously reported as main activity CHP have been reclassified as autoproducer CHP.
- In 2007, the power station that burns **industrial waste** started to work as a CHP plant, whereas previously it was only producing electricity.
- New plants fuelled by **solid biofuels** and by **municipal waste** started in 1999.
- Prior to 1992, data for net electricity production by autoproducers include production from combustible fuel sources only.
- Data for production of **electricity** in main activity producer CHP plants and the associated fuel inputs are not available prior to 1980.

Consumption

- In the 2017 edition, the Portuguese administration reclassified some amounts of heat consumption from the residential to the commercial and public services sector for the period 1998 to 2014 following a new national methodology.
- Data for direct use of **solar thermal heat** is available from 1989 and direct use of **geothermal heat** from 1994.

Slovak Republic

Source

Statistical Office of the Slovak Republic, Bratislava.

General notes

- Data are available starting in 1971.
- The Slovak Republic became a separate state in 1993 and harmonised its statistics to EU standards in 2000. These two facts lead to several breaks in time series between 1992 and 1993, and between 2000 and 2001.

Coal

General notes

- Data for **anthracite**, **patent fuel** and **coal tar** all begin in 2005. Prior to this, **anthracite** was included with other hard coals, and **patent fuel** and **coal tar** data were not reported.
- Since 2005, data for **coal tar** and **patent fuel** are based solely on trade receipts. Production of **coal tar** which is consumed within the national boundary is not reported. Consumption of **patent fuel** adopts the residual methodology for statistical differences described above.
- Breaks in time series may exist between 2000 and 2001 as the result of the implementation of a new survey system.
- Commercial/public services also includes statistical differences for **other bituminous coal**, **lignite**, **patent fuel** and **coke oven coke** from 1980 onwards and **BKB** from 1989 onwards.

Oil

General notes

- Starting with 2016 data **ethane** is included with **refinery gas**.
- From 2001 onwards, **kerosene type jet fuel** includes small amounts of **other kerosene**.

Transformation

- Between 2008 and 2009, one of the companies changed its status from autoproducer CHP plant to main activity producer CHP plant, resulting in a decrease in **fuel oil** consumption for autoproducer CHP.

Consumption

- For **gas/diesel** oil, road data include rail use.
- Small quantities of **kerosene-type jet fuel** used for domestic aviation are included in international aviation bunkers data.
- Data for energy use of **white spirit** are not available.

Natural gas

General notes

- Data for losses were not available between 2009 and 2013.

- Between 1970 and 1971 and between 1978 and 1979, there are breaks in time series due to a revision of data for 1968-1969 and 1979-92 made in 2003. Data for 1970 were estimated by the Secretariat.

Supply

- In 2002 the gross calorific value (GCV) of production increased significantly as extraction from a field with a low GCV ended.
- Imports include gas used for pipeline compressor stations.

Transformation

- In 2014, the decrease in *autoproducer CHP* plants consumption was due to a plant closure.
- *Autoproducer electricity* plants stopped operation in 2016.
- Amounts in *non-specified transformation* represent **natural gas** used for hydrogen manufacture. This hydrogen is used for hydrodesulphurization and for hydrocracking in oil refineries.

Consumption

- In 2016, non-energy use of **natural gas** in the *chemical and petrochemical* industry decreased due to a two-month stoppage in ammonia production.
- In 2001, there is a break in time series for energy use in *oil and gas extraction* due to the application of the IEA's definition starting that year.
- There are inconsistencies in the time series of *commerce/public services* as this sub-sector was computed as a residual.

Biofuels and waste

General notes

- Prior to 2001, the data reported as **industrial waste** include **biogases** and **municipal waste**.

Electricity and heat

General notes

- Data for **solar photovoltaic** are available from 2010.

Supply

- For 2018p, heat supply declined due to the closure of a large producer in January 2018.

Transformation

- For 2018p, the distribution of electricity and heat production across combustible fuels is provisional and subject to revision.
- Electricity and heat production from combustible fuels from 1990 to 2003 have been estimated based on the data on fuel used for electricity and heat plants reported in the annual fuel questionnaires.
- Prior to 2001, electricity generation from primary **solid biofuels**, **municipal waste** and **biogases** are included with **industrial waste**.

Consumption

- The low electricity consumption in oil refineries in 2003 and 2004 is due to a change in ownership and work carried out on a refinery.
- Data for direct use of **geothermal heat** are available from 2001 and direct use of **solar thermal heat** from 2005.

Slovenia

Source

Statistical Office of the Republic of Slovenia, Ljubljana.

General notes

- A new energy data collection system was implemented in January 2001, causing some breaks in time series between 1999 and 2000.
- Data for Slovenia are available starting in 1990. Prior to that, they are included in Former Yugoslavia.

Coal

Transformation

- In 2015, one of the main activity electricity plants burning **lignite** ceased its operations.

Oil

Supply

- Between 2013 and 2014, a break in imports and exports time series for **kerosene-type jet fuel** and **fuel oil** appears due to improvements in reporting methodology. New trade corresponds to imports

that are first stocked on Slovenian territory and later re-exported.

Consumption

- Time series for **motor gasoline** and **gas/diesel** consumption in road fluctuate as they are computed by the Slovenian administration as residual between the supply and the total consumption of all other categories.

Natural gas

Transformation

- In 2014, improvements in a *main activity producer* CHP plant resulted in a substantial reduction of **natural gas** consumption in this sector.

Consumption

- In 2011, the decrease in the *chemical and petrochemical* sector non-energy use consumption is due to minimal use of gas for production of methanol.
- There are inconsistencies in the time series for *commercial/public* services as this sub-sector is computed by the Slovenian administration as a residual.

Biofuels and waste

Consumption

- Increases in consumption of **biodiesel** starting from 2017 are the result of an amended energy policy, which went into effect in mid-2017.
- The break in time series between 2008 and 2009 for **solid biofuels** is due to revisions based on a new household survey which is to be carried out on an annual basis.
- Breaks in total final consumption for **industrial waste** prior to 2008 are a result of a sectoral reclassification.

Electricity and heat

Consumption

- Data on electricity consumption in Road are available from 2017.
- The increase in electricity consumption in Rail for 2017 is due to a new survey started by the Ministry of Infrastructure in 2018.
- Direct use of **solar thermal** and **geothermal heat** is available from 2009.

- Surveys for data on heat consumption are available from 2003 onwards for the residential, industry and energy sectors. Prior to 2003, the data have been estimated by the Slovenian administration.

Spain

Source

Ministerio de Energía, Turismo y Agenda Digital, Madrid.

General notes

- Spain is currently working on improving its data collection system. Therefore breaks in time series are present in the data and historical revisions are expected in future editions.

Coal

General notes

- The calorific values for **sub-bituminous coal** are correct on an as received basis, and comply with definitions of **sub-bituminous coal** on a moist, but ash free basis.
- **Coke oven coke** indigenous production and consumption in the iron and steel industry were estimated by the IEA Secretariat from 2016 to 2017 pending revisions by the Spanish administration.

Supply

- **Lignite** mining ceased in 2008.
- Underground production of sub-bituminous coal ceased in 2016.

Transformation

- In 2018 edition, a reclassification of plants from autoproducer to main activity has led to breaks between 2015 and 2016.

Oil

General notes

- A change in the reporting system occurred mid-1996 resulting in some breaks in time series.

Supply

- The rise in crude production in 2013 is linked with the development of the Montanazo-Lubina deep off shore field.

Consumption

- A more detailed breakdown in some consumption time series appears between 2012 and 2013 due to an update and improvement in the reporting methodology.

Natural gas

General notes

- Spain has implemented a new tool in data collection, so there are currently breaks in the time series for 2014 and 2015 in transformation and industry respectively.

Transformation

- The increase in the *transformation sector* consumption for 2017 comes from more gas-fired plants being used to compensate decreased hydro generation due to a drought.
- Due to the implementation of an updated tool for gathering information on electricity generation plants in 2013 many *autoproducer electricity* plants were reclassified as *autoproducer CHP* plants.
- In 1997, the increase in input to *main activity producer electricity* is due to two main activity producer electricity producers running on **natural gas**.
- Between 1993 and 1994 there is a break in time series in *autoproducer CHP* plants consumption, since a new survey revealed a large number of CHP autoproducers that were previously included in *industry* consumption.
- Since 1990 the decrease of **natural gas** inputs into **gas works gas** production is due to the substitution of **natural gas** by manufactured gas.

Consumption

- Since 2001, the final consumption breakdown is estimated by the Spanish administration.
- Between 2005 and 2006 there are some breaks in time series for the energy industry own use and for final consumption due to a change in the estimation methodology.
- Since 1988 the increase of **natural gas** used as feedstock is due to a substitution of **naphtha** for the production of fertilisers.
- Prior to 1982 **natural gas** consumption in textiles and leather, transportation equipment and

machinery has been included in non-specified industry.

Biofuels and waste

General notes

- The Spanish administration verifies that production and consumption of **industrial waste** do exist but data are not available after 2001.

Transformation

- 2017 is the first year that data are available for the blending of **biogas** with natural gas. An update to the time series is expected in the future.
- Based on studies from the Institute of Cork, Wood and Charcoal (IPROCOR), the efficiency of **charcoal** production plants is assumed to be 20%.
- From 2013 data, a revision of the industry sector of some companies causes breaks in time series for **solid biofuels**, **municipal waste** and **biogases**.

Consumption

- Increased consumption of **biofuels** from 2016 to 2017 is a result of increased demand for motor gasoline/diesel.
- Prior to 2006, inputs of **biogases** used to generate process heat were erroneously included as inputs to transformation when they should have been reported in the appropriate industry in final consumption.
- The breakdown of **solid biofuels** direct use in the industry sector prior to 1999 is not available.

Electricity and heat

Supply

- Electricity reported under *other sources* is from waste heat.
- Transmission and distribution losses are estimated by the Spanish administration.
- Data for electricity from **solar thermal** plants are available from 2007.
- Starting in 2006, a new method was used to estimate the losses from final consumption, resulting in a break in time series between 2005 and 2006.
- From 2005, residential rooftop **solar photovoltaic** electricity production data, previously reported under autoproducer, are included in main activity electricity plants according to the Spanish administration classification.

- Electricity production from **wind** and **solar** are reported from 1989 when data became available.

Transformation

- In the 2017 edition, a change in reporting methodology resulting in reclassification of plants from autoproducer **electricity** to autoproducer CHP has led to breaks in electricity production in autoproducer electricity plants between 2012 and 2013 and 2014 and 2015. The administration anticipates further revisions to the time series in subsequent cycles.
- The National Energy Commission reclassified plants that consume **biogases**, leading to breaks in time series between 2007 and 2008.
- In 2000 and 2006, many plants were reclassified from main activity producer to autoproducer or vice versa.
- For 2004 and 2005, electricity production from gas/diesel oil is included with **fuel oil**.
- The large increase in electricity output from main activity producer electricity plants fuelled by **natural gas** in 1997 is due to the opening of a new plant.
- Prior to 1989 inputs and outputs from the use of **biofuels and waste** to generate electricity and/or heat (i.e. comprising **solid** and **liquid biofuels, industrial waste, municipal waste** and **biogases**) are reported under non-specified **biofuels and waste**.
- Prior to 1987 **electricity** production in main activity producer CHP plants is included with production from main activity producer electricity plants.
- From 1983, net **electricity** production by autoproducers has been estimated by the Spanish administration, and includes production from combustible fuel sources only and net electricity production by autoproducer CHP plants is included in electricity plants.

Consumption

- For 2012, the **electricity** consumption data are estimated by the Spanish administration.
- Data for direct use of **geothermal** and **solar thermal heat** are available from 1990.
- **Electricity** consumption under the *non-specified industry* category includes the consumption for the manufacture of rubber and plastic products, furniture, repair and installation of machinery and

equipment (except repair and maintenance of ships and boats) and other manufacturing. This aligns with the Classification of the Economic Activities in the European Community (NACE) group code 22 and 31 to 33 (excluding class 33.15).

Sweden

Sources

- Statistics Sweden, Örebro.
- Swedish Energy Agency (Energimyndigheten), Eskilstuna.

Coal

General notes

- **Peat products** data may be reported under the category of **peat**, particularly for imports.
- Autoproducer inputs to waste heat production that are sold are reported in the respective final consumption sectors and not in transformation.
- Some mixture of LNG with air to form a lower calorie product is reported as **gas works gas** production replacing traditional gas works gas manufacture.

Supply

- **Other bituminous coal** production until 1992 is coal recovered during the quarrying of clay.

Oil

General notes

- 2018p data was estimated based on monthly data submitted to the IEA. From January 2018, monthly submissions of data are based on a new data collection survey rolled out by Statistics Sweden which incorporates new companies and has a higher level of detail available resulting in new flows being reported and some breaks in the time series.
- In 2017 Statistics Sweden added more companies to their new data collection system; these have been progressively included in the reporting through 2018 reference year data.
- Swedish stock data include peacetime crisis stocks. Since these stocks may be held in **crude oil** instead of oil products, there may be occurrences of negative stock levels for products.

- Data are available from 2003 for **refinery gas** and from 2000 for **additives** and **ethane**.
- Beginning in 2002, Sweden has changed some of the conversion factors for some products. That explains the small breaks in time series between 2001 and 2002.

Supply

- There is a break in stocks between 2017 and 2018 for **refinery feedstocks** and **additives/oxygenates** reflecting additional information collected by the Swedish administration.
- Quantities of receipts from other sources of **other hydrocarbons** correspond to **natural gas** used by refineries.

Transformation

- In 2014, **gas/diesel oil** inputs to main activity CHP electricity plants are confidential and aggregated with **fuel oil**.
- In 2013 data, the drop in **crude oil** refinery intake is related with maintenance in August and September 2013 at the Swedish refineries.
- From 2011, the country's gas works plants stopped using **naphtha**.

Consumption

- Starting from 1995 data, Sweden has changed its standard classification of industry sub-sectors
- Between 1985 and 1986, there are breaks in consumption time series of **fuel oil** due to more detailed reporting.
- In 1984 data, consumption of **other kerosene** in the road sector is discontinued due to product re-classification.

Natural gas

Supply

- **Natural gas** consumption in *international marine bunkers* are available for the first time for the year 2017.

Transformation

- Since 2005, the **natural gas** inputs to *gas works (transformation)* has been estimated by the IEA Secretariat.

- Autoproducer inputs to waste-heat production that are sold are reported in the respective end-use sectors and not in the transformation sector.

Consumption

- For 2013, data for the energy use of gas by *oil refineries* have been estimated by the IEA Secretariat.
- For 2008, data for total final consumption and its breakdown have been estimated by the IEA Secretariat based on other Statistics Sweden publications.
- For years prior to 1993, *road transport* is included in *commercial/public services*.

Biofuels and waste

General notes

- For 2018p data, the survey of Swedish energy providers was redesigned, leading to some breaks in series.
- There are some breaks in time series between 2015 and 2016 in pumped hydro, **industrial waste** and **other liquid biofuels** figures due to the lack of data. The figures are expected to be modified in the 2018 edition.
- From 1990 to 2006, **municipal waste** was reported as 60% non-renewable and 40% renewable. In 2007, reanalysis of the waste revealed the content was 40% non-renewable and 60% renewable. This was re-analysed again starting from 2016 data, when the result of the analysis revealed the split should be 52% renewable and 48% non-renewable. This results in breaks in the time series between 2006 and 2007 and also 2015 and 2016 for both renewable and non-renewable **municipal waste**.
- In the 2018 edition, data for **biodiesels** were revised from 2006 to 2015 while **biogasoline** and **bioethanol** were revised from 2005 to 2015. The revisions affected indigenous production due to increased information about net trade, as well as the transformation sector, for blending with motor gasoline/diesel/kerosene and consumption in the road sector.

Supply

- Due to a change of tax regulations in 2017, it was no longer profitable to produce fatty acid methyl ester (FAME) in the same capacity as before, so

there was a drop in **biodiesel** production. This drop in production was substituted by imports to meet increased demand.

- In the 2018 edition, trade data were added for **primary solid biofuels** starting from 2012. As the net trade used to be reported together with indigenous production, this has resulted in a downward revision of indigenous production for 2012-2015.

Consumption

- Changes in tax regulations as of 1 July, 2018 has contributed to decreased consumption of **biodiesel** in 2018p data.
- Due to confidentiality issues, **solid biofuels** consumption in food, beverages and tobacco is reported with paper, pulp and printing for 2014 data.
- Consumption data by sector for biogases are available from 2011.
- In 2011 data, there was a change in the reporting methodology for consumption of solid biofuels and waste in the residential sector, which is responsible for breaks in time series between 2010 and 2011.

Electricity and heat

Supply

- For 2018p, electricity and heat production data are based on surveys which do not have the same coverage as the annual survey. Therefore data are provisional and subject to revision. In particular, due to this difference in coverage, the distribution of output across combustible fuels shows breaks in-series compared with data for previous years.
- For 2017, electricity inputs to and outputs from pumped **hydro** storage plants are based on a revised methodology. As a result, breaks occur between 2016 and 2017. Prior to 2017, electricity inputs to mixed hydro storage plants are reported under pure pumped plants. Historical revisions are pending.
- Inputs to **heat pumps** include heat recovered from industry and from ambient sources (including sewage and seawater).
- Ambient heat is shown as the indigenous production of **heat**.
- Information on heat for sale produced in **heat pumps** and **electric boilers** is available starting in 1992.

Transformation

- In Sweden, heat produced in **heat pumps** is sold to third parties (as district heat) and is therefore included in transformation.
- The electricity used to drive **heat pumps** is considered to be transformed and appears as output in transformation rather than as electricity used in energy industry own use.
- Heat production from **solid biofuels** in auto-producer CHP includes waste heat and chemical heat.
- For 2012 and 2013, small quantities of bio-methanol used to produce electricity are included in **other liquid biofuels**, under production, as well as input and output of autoproducer CHP.
- For 1997 and 1998, heat production from **liquid fuels** in main activity producer CHP plants includes heat recovered from flue-gas condensing.
- Prior to 1992, data on electricity production from **biogases** is included with **solid biofuels**.
- Heat produced for sale by autoproducer CHP plants is reported starting in 1992.
- From 1987, the breakdown of net **electricity** production by industry for autoproducer electricity plants is available.
- Prior to 1987 net **electricity** production by autoproducer plants includes data for CHP plants only.
- Prior to 1980, **heat** produced in main activity producer heat plants is not available.
- Prior to 1974, **heat** produced in main activity producer CHP plants is not available.

Consumption

- Consumption of electricity for distribution of district heat is included with other energy industry own use.
- Fuel inputs to the **heat** that is recovered by the heat pump are reported in the appropriate industry sub-sector (i.e. chemical and paper, pulp and printing).
- In 2014, consumption of **electricity** in the mining and quarrying and the pulp, paper and printing sectors are confidential and were incorporated under the *non-specified industry* sector.
- Data on direct use of **solar thermal** are available from 1989.
- Consumption of **heat** in industry and other sectors is available from 1984.

Switzerland

Sources

- Swiss Federal Office of Energy (SFOE), Ittigen.
- Carbura - Swiss Organisation for the Compulsory Stockpiling of Oil Products, Zurich.

General notes

- From 1999, data on consumption result from a new survey and are not comparable with data for previous years.

Coal

General notes

- Calorific values for **anthracite**, **other bituminous coal** and **coke oven coke** are taken from a common default figure. Calorific values for **lignite** are also default, but are based on dried **lignite** fines which have a higher calorific value.

Consumption

- From 1985, industrial consumption of **gas works gas** is reported in *non-specified industry* to prevent the disclosure of commercially confidential data.
- The allocation of consumption between certain coal types is estimated by the Swiss administration.

Oil

General notes

- The statistical differences for gas/diesel oil are partly due to changes in consumer stocks.
- In 2004, petroleum coke production started due to the installation of a cracking unit in a refinery
- As of 1993, the Swiss administration has reported figures for **naphtha** that are net of quantities used for blending into motor gasoline. For 1994, 1995, 1997, 1999, 2001 and 2002 this reporting has led to negative production numbers for naphtha. For these years, the IEA Secretariat has moved the data into transfers and reduced the production of motor gasoline by corresponding amounts.

Supply

- There is a break in stocks between 2017 and 2018 for **refinery feedstocks** as more detailed information of refinery activity is collected by the national administration.

- In 2015, low refinery throughput is due to maintenance in May and June and to an unplanned outage in October due to a leak in a heat exchanger at the Cressier refinery. The closure of the Collombey refinery from March 2015 also contributed. As a result, imports of many oil products increased in 2015.
- The Collombey refinery remained closed in 2016, resulting in decreased refinery throughput and increased imports in this year. Refinery output of **petroleum coke** stopped as this product was only produced at the Collombey refinery.
- Data for refinery losses at the remaining Cressier refinery are low and are under investigation.
- Since 2013 oil importers are obliged to compensate parts of the CO₂ emission that are produced by the transport fuels they sell. The biofuel components are exempt from this obligation, which together with tax exemptions on biofuels, partly explains the increase in biofuel blending since.

Transformation

- **Gas/diesel oil non-specified transformation** represents inputs to mobile and stationary power generators, of which the electricity output is unknown at this stage.
- In 2012, low refinery intake is due to the temporary shutdown of the refinery in Cressier in the first semester of 2012 and maintenance at Collombey refinery.
- In 1988, the reduction in refinery intake of refinery **feedstocks** in 1988 is partly due to a switch to crude oil and partly to a shutdown for maintenance of a refinery.

Consumption

- In the 2019 edition the Swiss administration revised data back to 1990 for **road diesel** consumption in rail and domestic navigation, and **motor gasoline** consumption in domestic navigation.
- In 1994, the increase in consumption of **gas/diesel oil** is due to consumer stock-building prior to the introduction of a value-added excise tax on heating fuels as of 1 January 1995.

Natural gas

General notes

- In the 2019 edition, the *non-specified other* flow is calculated as residual flow for **natural gas**. Up

until the 2018 edition, the statistical differences used to be absorbed by *agriculture/forestry*.

Transformation

- Since 2013 there are fluctuations in gas consumption of main activity producers CHP plants due to the fuel flexibility of a plant.
- In 1996, the increase of gas input to main activity CHP plants is due to more complete accounting for all producing entities.

Consumption

- Between 1977 and 1978, there are breaks in time series due to the introduction of a new survey by industry type.

Biofuels and waste

Supply

- Due to favourable taxation in Switzerland, the imports of **biodiesel** and **bioethanol** intended to be blended with oil products increased significantly from 2016 to 2017.
- Due to a new program launched in September 2014 in which CO₂ emissions due to traffic can be compensated by substituting fossil gasoline and diesel by biofuels, the imports and road consumption of **biodiesels** and **biogasoline** increased sharply starting in 2015.

Consumption

- Consumption data for **biogases** in the transport sector are available from 1996 to 2012 as a biogas fuel station had stopped selling biogas in 2013.

Electricity and heat

Supply

- **Heat** production includes heat produced by nuclear power stations and distributed to other consumers.
- Data for electricity production from wind are available from 1996.
- Data for solar electricity production by auto-producers are available from 1990.

Transformation

- For 2018p, gross heat production from heat pumps declined due closure of the larger of two such facilities in Switzerland.

- For 2016 and 2017, electricity output from **nuclear** sources declined due to shut downs at two of Switzerland's five nuclear power plants (Beznau 1 and Leibstadt). For 2018p, output increased due to higher availability at these two plants.
- **Electricity** used for pumped storage (pure hydro pumping plants) is included under used for pumped storage (mixed plants).
- In 2016, two new **pumped hydroelectric** plants went into operation.
- For 2015, the large decline in **electricity** and **heat** production from **industrial waste** is due to one large main activity CHP plant significantly reduces their activity. This plant eventually closed in 2016, further lowering **electricity** and **heat** generation for this fuel.
- From 2012, the **municipal waste** autoproducer plant previously reported as electricity plant met the CHP requirements and was reclassified as such.
- Biogas is no longer being used for heat production as of 2011.
- The decrease in the use of natural gas in main activity CHP plants in 2007 is caused by the reduced operation of one plant after the start-up of a new waste-incineration plant and the shutting down of another plant. Use increases again in 2008 due to the re-starting of a district heating plant.
- The autoproducer heat plant that produced heat for sale using **municipal waste** was closed in 2006.
- The breakdown of electricity and heat generation from autoproducers by sector is not available after 1990.
- Prior to 1978, data for heat output from CHP plants are not available.
- The allocation of **electricity** production in main activity producer electricity only and CHP plants between 1967 and 1973, and in main activity producer CHP and autoproducer CHP plants in 1974 are Secretariat estimates.
- All **hydro electricity** production is reported under large scale hydro (> 10 MW) due to the fact that production data are not being collected by different size capacity categories.
- Consumption
- **Electricity** consumption in the transport equipment industry is included with machinery. **Geothermal** direct use is overstated as it refers to heat production by **geothermal heat** pumps,

which include inputs from electricity and/or gas in the transformation process.

- The breakdown of final consumption of electricity in the industry sector from 2000 to 2001 was estimated by the Secretariat.
- Data for direct use of **geothermal** heat and **solar thermal** heat are available from 1990.

Turkey

Sources

- Ministry of Energy and Natural Resources (Enerji ve Tabii Kaynaklar Bakanlığı), Ankara.
- Petrol İşleri Genel Müdürlüğü, Ankara.

Coal

General notes

- In the 2018 edition, revisions were conducted by the Turkish administration back to 1990 impacting the transformation and industrial sector. The revisions in the transformation sector were the result of new data submitted by the Turkish Electricity Transmission Company (TECT).
- In the 2017 edition, historical revisions on **coal tar** data were conducted by the Turkish administration due to new available information.
- In the middle of 2014, most autoproducer electricity, heat and CHP plants in Turkey were reclassified as main activity producer due to a change in the legislation. Although the licences of these plants changed, the administration decided to restore the affected plants' classification back to autoproducer in 2017 to harmonise with plant definitions in the IEA questionnaire.
- Data from 2012 onwards utilised the latest census data, causing breaks in time series between 2011 and 2012.
- Data from 2008 are provided from the results of an improved questionnaire. Significant changes occur in consumption patterns within the iron and steel industry, coal mining as well as across industry, residential and commercial/public services for **other bituminous coal**.
- Calorific values for fuels used for electricity, CHP and heat plants are obtained from data submitted to the Ministry of Energy and Natural Resources (MENR) by the Turkish Electricity Transmission Company, and these values may differ significantly

from production and import values provided by MENR, causing imbalances for some years.

- Production of **gas works gas** declined in 1989 due to plant closures; the last plant closed in 1994. Use of **gas coke** and **gas works gas** ceased in 1994.
- Due to government regulations in industry and residential, in particular, there has been a shift from the use of domestically produced **coal** to imported **coal** and **natural gas**.

Supply

- Breakdown of imports of **coke oven coke** by country of origin in 2017 and 2018p has been estimated by the IEA Secretariat.

Transformation

- In the middle of 2014, most autoproducer plants in Turkey were reclassified as main activity producer due to a change in the legislation. Amongst other things, this brought the reporting of unsold heat and prorated inputs in line with IEA methodology.

Consumption

- In the 2018 edition, revisions on industrial coal consumption were conducted by the Turkish administration back to 2010 due to new available information.
- Privatisation of state owned coke ovens in recent years results in incomplete information on **coke oven gas** distribution.
- In the 2017 edition, consumption of **sub-bituminous coal** in construction has been reclassified by the Turkish administration as consumption in the non-metallic minerals industry.
- In 2015, a new survey was introduced by the Turkish administration to collect more detailed industrial consumption data, resulting in breaks in time series between 2014 and 2015.

Oil

General notes

- A project to upgrade the İzmit refinery was completed in 2015. This resulted in considerably higher refinery throughput in 2015, compared to previous years. The project included a new unit to convert high sulphur fuel oil into higher grade products, such as gas/diesel oil and motor gasoline, and producing petroleum coke as a by-product.
- In the 2016 edition, the Ministry of Energy revised time series for **kerosene-type jet fuel** from 2013.

Sales to foreign airlines, previously accounted for under exports, are now reported under international aviation according to the IEA methodology. Data could not be revised for prior years. Exports of **jet kerosene** up to 2012 years may include international aviation consumption.

- In the 2016 edition, the Ministry of Energy revised crude oil net calorific values from 2010 due to a new methodology for calculating them.
- Production *from other sources (natural gas)* of **other hydrocarbons** corresponds to hydrogen used in refineries, also represented as the output of *non-specified transformation* in the balances format.
- From 2013, marine fuels are reported under **fuel oil** instead of **gas/diesel oil**.
- From 2012, **petroleum coke** data are reported.

Supply

- In 2018 Izmir refinery underwent maintenance for several months impacting the overall throughput quantities.
- In 2014, the drop in **lubricants** imports and consumption is related to a legislation change effective 1st of January 2014 regarding base oil imports.
- From 2012, new information on **additives** imports (MTBE) data became available.
- From 2012, no exports breakdown is available for **white spirit**, **lubricants**, **bitumen** and **other products**.
- From 2010 data, more accurate NCVs for crude oil are available due to the implementation of a new survey.
- For the years 1978, 1980, 1981, 1983, 1984, international marine bunkers are included in exports.

Transformation

- **Gas/diesel oil** and **fuel oil** consumed to produce electricity are used in both oil and coal-fired plants.

Consumption

- In the 2019 edition consumption of **petroleum coke** was reclassified from non-energy to energy use.
- For the 2015 data, new surveys were used to create a more detailed breakdown of the industry and

other sectors. This led to breaks in time series between 2014 and 2015.

- From 2014, information on gas/diesel consumption in fishing is available.
- From 2013, additional information on **petroleum coke** cement consumption is available.
- Prior to 2012, consumption of **other oil products** in the chemical sector was included under *non-specified industry*.
- Between 2010 and 2011, breaks in consumption time series for **LPG**, **motor gasoline** and **gas/diesel oil** appear due to improved survey methods.
- Between 1977 and 1978, the end-use classification of **gas/diesel oil** and **fuel oil** were changed in the Turkish national statistics resulting in breaks in time series.

Natural gas

Supply

- *Exports* reported by the Turkish administration represent transit gas.
- In 2008, there is a break in time series for *stock changes* due to a revision of storage capacity data.
- In December 2016, the first Floating Storage and Regasification Unit (FSRU) terminal started to work, allowing thus greater import quantities and stock levels.

Transformation

- *Non-specified transformation* of natural gas represents amounts used to produce hydrogen for hydrocracking in refineries.
- In the 2018 edition, Turkish administration revised 2014 and 2015 data, as some main activity producing plants in Turkey were reclassified as autoproducers.

Consumption

- In 2015, a new survey was introduced by the Turkish administration to collect industrial consumption data, resulting in a substantial decrease of consumption reported under *non-specified industry*.
- In 2013, energy use of **natural gas** in *blast furnaces* was zero, as gas was replaced by coal and coke.
- From 2009, there are some breaks in time series across all sectors, as consumption data started

being collected by a different institution, the Turkish Energy Market Regulatory Authority.

- In 2006, there is a break in time series for non-energy use in chemical and petrochemical industry due to improvements in the classification.
- Prior to 2000, data for *commercial/public services* were included in the *residential* sector.
- Between 1999 and 2001, the decrease in **natural gas chemical and petrochemical** feedstocks is linked to the activity of the fertiliser industry.
- Since 1988, data for **natural gas** consumption in the *chemical and petrochemical* industry (for fertilisers) and in *non-specified industry* (dye industry) are available.
- *Non-specified industry* includes the natural gas distributed by OIZ (Organised Industrial Zones).

Biofuels and waste

General notes

- The Turkish administration only intermittently surveys **renewables and waste** used for power and heat. Due to this fact, some breaks may appear in the **biofuels and waste** time series.

Transformation

- In 2017, the increase in electricity production in main activity producers burning **solid biofuels** is related to new plants.

Consumption

- Prior to 1998, consumption in the **wood and wood products** sector includes that of the paper, pulp and printing industry.

Electricity and heat

Supply

- *Other sources* **heat** production represent purchased steam (waste heat) from the industry, mainly from cement and glass manufacturing, while *other sources* **electricity** is the proportion of generation by plant obtained from this heat.
- Electricity production from **wind** is available starting in 1998.

Transformation

- In 2017, the increase in electricity production from **solar PV** main activity producers is related to new plants coming online, mostly unlicensed.
- In the 2006 edition, the Turkish Statistical Office started providing **electricity** and **heat** output on

the basis of a new survey that revised time series back to 2000. This causes breaks in the time series between 1999 and 2000. Not all of the input time series have been revised.

- A new gas-fired main activity producer CHP plant was put into operation in 1999 and a new auto-producer electricity plant fuelled with **coking coal** started in 2000.
- Data for **blast furnace gas** for electricity and heat generation are available from 1995.
- Data on electricity generated from **biofuels** are available from 1991.
- In 1995, the Turkish administration reclassified autoproducer plants by type and source to be consistent with IEA definitions. This causes breaks between 1994 and 1995 for electricity production, most notably in plants fuelled by **biogases**.

Consumption

- Consumption data in the machinery sector includes transport equipment.
- Comprehensive data on electricity consumption are available from 1973. This causes a break in the time series between 1972 and 1973.

United Kingdom

Source

Department for Business, Energy and Industrial Strategy (BEIS), London.

Coal

General notes

- Oxygen steel furnace gas data are reported with **blast furnace gas** rather than as **other recovered gases**.
- In the 2017 edition, calorific values of **other bituminous coal** were revised for the period 2002-2015 due to a change in the methodology, impacting all flows.
- Prior to 1994, the consumption of substitute natural gas is included with **natural gas** while its production is included with **gas works gas**.

Supply

- Underground production of **other bituminous coal** in 2016 decreased due to the closure of Hatfield, Thoresby and Kellingley mines.

Transformation

- The consumption of **solid biofuels** increased in 2015, as the largest power station in the UK converted a further unit from **coal** to **biomass** mid-year, and the previously converted unit had a full year of operation in 2015 rather than just the last few months of 2014.
- The market decline in use of **other bituminous coal** from 2013 onwards for autoproducer electricity generation was due to a plant being sold to a dedicated main-activity electricity producer.

Consumption

- Consumption shown for the commercial/public services includes consumption of some of *non-specified other*.

Oil

General notes

- Breaks in time series occur for **LPG** between 2007 and 2008 due the inclusion of additional information from the petrochemical sector.
- For international marine bunkers and domestic navigation, a different bunkers methodology is applied from 2008, in line with UK's National Atmospheric Emissions Inventory. From 2013 onwards, improved data are available for international marine bunkers. Deliveries to international marine bunkers may be underestimated in previous years.
- For consumption of oil products, the UK administration revised its methodology from 2008 to better track consumption of imported oil products and domestically refined oil products sold through third parties to final consumers.
- Breaks in time series appear in 2013 for **ethane, naphtha, white spirit, lubricants, bitumen, petroleum coke** and **other oil products**, as new information became available on the energy use of these products.

Supply

- Indigenous production of **crude oil** and **natural gas liquids** increased in 2018 primarily due to multiple new projects coming online at the end of 2017.
- Refinery output of total oil products decreased in 2018 due to relatively high levels of maintenance throughout 2018.

- From 2008 data on **naphtha** and **motor gasoline** better reflects the blending of these products. Breaks in series may appear between 2007 and 2008.
- Between 2007 and 2008 breaks in time series appear for **NGL** as a result of the UK administration obtaining additional information on the destination of some upstream **NGL**. Previously classified as exports, these amounts now appear as transfers, mainly to **LPG**, then as consumption in the petrochemical sector.
- Between 2002 and 2004 products transferred include backflows and interproduct transfers. From 2005 onwards backflows are estimated by the UK administration.
- Condensates are reported in **NGL** from 1980 and in crude oil until 1979.
- **LPG** includes ethane until 1980.
- **Other hydrocarbons**, reported until 1994, correspond to bitumen production from coal.

Consumption

- Breaks in time series may occur in the consumption of **gas/diesel oil** between 2011 and 2012, following the UK administration's improved access to customs trade data, in particular duty figures for demand in agriculture.

Natural gas

General notes

- Since 1992, *distribution losses* include metering differences and losses due to pipeline leakage.

Supply

- In the 2018 edition, UK administration revised the supply balance back to 2008 to update Norwegian imports from two terminals previously reported as *indigenous production*.
- In 2002, the increase in *imports* is due to increased supplies from the Norwegian sector of the North Sea through the Vesterled pipeline, which was commissioned in the 4th quarter of 2001.
- In 2017 data the decreased *closing stock level* is related to the cessation of storage operations in Rough, UK's single largest storage facility.

Transformation

- The **natural gas** reported in *coke-oven (transformation)* is used to form synthetic **coke oven gas** rather than undergoing a coking process.

Consumption

- In the 2018 edition, natural gas consumption in the sectors of *industry, residential, commercial/public services*, was revised back to 2008 to include information from other data sources such as the Purchases Inquiry, EU ETS and ONS Index of Services and Production.
- In the 2019 edition, the UK administration proceeded to revisions back to 2015 based on improved data from the Purchases Inquiry annual survey of the Office of National Statistics (ONS).
- Before 2008, the commercial sector consumption is included in *non-specified other*, while that of public services is shown separately.
- Between 2007 and 2008 there are some breaks in time series in sectoral consumption due to a new methodology of data estimation.
- **Natural gas** consumption includes substitute natural gas made at gas works and piped into the natural gas distribution system.
- *Non-specified industry* represent to sales by independent gas suppliers unallocated by category.
- Consumption by the mining and quarrying and the wood and wood products sectors is included in non-specified industry.
- *Non-specified energy* includes gas used for heating and pumping operations in the distribution network.

Biofuels and waste

General notes

- In the 2017 edition, the UK government revised the data time series for **municipal waste** and **solid biofuels** back to 2001. As a result, breaks in time series may occur between 2000 and 2001.

Transformation

- From 2015, the UK administration started collecting data from the main-activity **solar PV** companies. Prior to this, all data were included under autoproducers.
- The consumption of **solid biofuels** has increased in 2015, as the largest power station in the UK halfway through the year converted a further unit from coal to biomass, plus the previously converted unit had a full year of operation in 2015 rather than just the last few months of 2014.
- Prior to 2013, due to data confidentiality reasons, one or two main-activity **municipal waste** plants

had to be included within the autoproducer plant category. Since 2013, as there have been at least three main-activity companies, these plants have been reclassified from autoproducer plant to main activity electricity plant, with some CHP plants included under main electricity due to confidentiality reasons.

Consumption

- The UK administration undertook a survey of domestic wood consumption in 2015 and revised figures back to 2008. This resulted in breaks in time series for **solid biofuels** consumption in residential between 2007 and 2008.
- In the 2018 edition, following a review of the consumption of **biogases** and **municipal wastes** for 2015 and 2016 data, data that were allocated to other sectors have been reallocated to the industry sectors. This has caused a break in time series between 2014 and 2015. A review prior to 2015 is expected in the next cycle.

Electricity and heat

General notes

- For the United Kingdom, it is necessary to combine figures for main activity producers and autoproducers in order to prevent the disclosure of information relating to less than three electricity generating companies, since this information is considered confidential. For this reason, data for main activity producer CHP plants have been included with autoproducer CHP plants from 1988. Prior to 1988, electricity output from CHP plants was included with autoproducer electricity plants.
- The re-organisation and subsequent privatisation of the electricity supply industry in 1990 has resulted in some breaks in time series.

Supply

- Data for **off-grid solar PV** are currently not available in the United Kingdom but the addition of this data is expected in the future.
- Large declines in electricity generation from **coal-fired** power since 2013 are due to concrete plans to phase out coal use for electricity generation entirely by 2025. Alternative generation has been supplied by increases from other sources, including **biomass, natural gas, nuclear, solar** and **wind** generation, and increases in imports through undersea HVDC interconnectors.

- Electricity production data for **solar PV** are available from 1999.
- The launch of a feed-in-tariff scheme in April 2010 resulted in a rapid increase of capacity and corresponding electricity production growth from **solar PV** in the following years.
- In 1996, the break in electricity production from **nuclear** is due to a reclassification of plants from autoproducer to main activity producer plants.
- Data on electricity production from **wind** is available from 1989.

Transformation

- For 2018p, the decrease in electricity output from **nuclear** was due to plant outages for maintenance.
- **Electricity** used for pumped storage (mixed plants) is included under used for pumped storage (pure hydro pumping plants) for confidentiality reasons.
- In 2007, outputs of electricity from **petroleum coke** are included in **fuel oil**.
- Prior to 2003, all outputs of electricity and heat from **oil products** are reported in the other oil products category.
- **Heat** production from autoproducers is available starting in 1999.
- Inputs and output from **natural gas** for main activity producer electricity production are included in autoproducer electricity for 1990 (for reasons of confidentiality).

Consumption

- For the 2019 edition, a change in methodology was applied for **heat** consumption figures from 2015 onwards. Due to new information regarding the purchasing and reselling of heat, consumption previously included under the *Commercial and Public services* sector was reallocated to the *Residential* sector.
- Consumption in gas works includes electricity use in the transmission/distribution of public supply gas.
- Consumption in the non-metallic mineral products sector includes mining and quarrying.
- **Electricity** consumption in coal mines includes consumption in patent fuel plants.
- Data for **electricity** consumption in transport was classified by sub-sector only starting from 2004 resulting in a break in time series between 2003

and 2004. Prior to 2004, *non-specified transport* includes consumption for traction by urban rails and road vehicles, and consumption for non-traction by railways and bus stations and airports. From 2004 onwards, road vehicles consumption is included under road transport. Prior to 2004, electricity consumption in rail refers to industrial rail only. From 2004 onwards it includes both industrial and urban rail.

- Consumption in the machinery sub-sector includes that of the transport equipment industry before 1996.
- Starting in 1990, small amounts of **electricity** used in heat pumps have been included in residential.
- From 1984 onwards, the **electricity** consumption in the *non-specified industry* sector includes that of the wood and wood products sub-sector and unallocated consumption. The unallocated consumption comes from data reported as ‘Other industries’ by companies and includes Standard Industrial Classification (SIC) codes 7, 22, 31, 32, 33.19, 36, 38.3.
- **Electricity** consumption in energy non-specified sub-sector is primarily made up of ‘gas and electricity supply’ and includes Standard Industrial Classification (SIC) codes 24.46 and 35.

United States

Source

US Energy Information Administration, Washington D.C.

General notes

- Starting with 2017 data, inputs to and outputs from electricity and heat generation include Puerto Rico.
- End-use energy consumption data for the United States present a break in time series with historical data due to a change in methodology in 2014. The break in time series occurs between 2011 and 2012 for oil; and between 2001 and 2002 for electricity and natural gas. The new methodology is based on the last historical year of the most recent Annual Energy Outlook (AEO) publication. Changes occur primarily in reported end-use energy consumption in the industrial sector and its subsectors, including the non-manufacturing industries of mining, construction and agriculture. Historical revisions are pending. Due to other changes in

reporting methodologies, there are numerous breaks in time series for the US data, particularly in 1992, 1999, 2001, 2002 and 2013. Care should be taken when evaluating consumption by sector since inputs of fuel to autoproducers are included in final consumption for some years. No data are available for most energy products in the construction and mining and quarrying industries.

Coal

General notes

- Since the Energy Information Administration (EIA) and the US Department of Commerce do not collect separate data on **patent fuel** exports by country, total exports data of **patent fuel** are included in the exports of **other bituminous coal**.
- **Coal tar** as a by-product of coke ovens is not currently reported.
- In 2002, the United States reported “synfuel” production as **patent fuel** for the first time. Prior to 2002, the consumption of this fuel was reported with **other bituminous coal**. Production ceased in 2007 for economic reasons.
- **Hard coal** data prior to 1978 may include **sub-bituminous coal**.

Supply

- *Other sources* **coal** production represents coal production that does not have a Mine Health and Safety Administration (MSHA) identifier.

Oil

General notes

- In the 2018 edition, the US administration revised data back to 2011 for several products owing to the introduction of a number of methodological changes. This results in a number of breaks in the time series between 2010 and 2011, particularly in the consumption data.
- From 2011 onwards, olefins are reported under **other oil products** instead of **LPG**.
- Breaks in time series due to methodology improvements and newly available information to the US administration also appear in historical data: in 1990 for fuel oil (new methodology for marine bunkers); in 1992 for LPG/NGL (specific densities); in 1993 for oxygenates (new collection system to accommodate the revised Clean Air Act); in 1994 for motor gasoline (new model from

the US Department of Transportation); in 1999-2000 for industry consumption (new available data from the 2002 MECS survey); in 2001 for fuel oil (changes in methodology for classifying imports of unfinished oils) and in 2011 for refinery gas (new density).

Supply

- Deliveries to international marine bunkers of **gas/diesel oil** have been estimated by the IEA Secretariat for 2016 and 2017 based on information provided by the EIA.
- In the 2018 edition, the breakdown of exports by destination of low sulphur fuel oil and high sulphur fuel oil is not available. The time series was revised back to 2011.
- Completion of the Utopia pipeline from Ohio to Ontario has facilitated more **ethane** exports to Canada in 2018p.
- High statistical differences for **crude oil** represent “unaccounted for crude oil”, the difference between the supply and disposition of crude oil.
- From 2013, the US administration reports exports of **refinery feedstocks**, some of which were previously reported under **white spirit and SBP**.
- Stocks changes for **gas/diesel oil, fuel oil and petroleum coke** were estimated by the IEA Secretariat from 1996 onwards to include stock changes at utilities.

Transformation

- From 2002 onwards, the IEA Secretariat has estimated the amounts of refinery gas used for autoproducer electricity production.

Consumption

- In 2018 demand for petrochemical feedstocks derived from oil products increased following new ethylene production capacity coming online and the ramp up in polyethylene capacity. This trend is expected to continue through 2019 as further ethylene capacity comes online.
- Between 2010 and 2011, end-use energy consumption data for the United States present a break in time series due to a change in methodology. For the period 2011-2016, quantities of non-energy use of LPG in chemical and petrochemical, and of other oil products in non-specified industry have been estimated by the IEA Secretariat.

- From 2013 onwards, road use lubricants are reported under non energy consumption in transport equipment, machinery, and wood and wood products. Previously, such quantities were reported under non-specified industry.
- From 1995 onwards, **LPG** inputs to gas works are included in industry.

Natural gas

General notes

- Puerto Rico is currently not included in US data for **natural gas** with the exception of gas consumed for electricity generation. LNG imports into Puerto Rico are reported in the Other non-OECD Americas regional aggregate.

Supply

- In the 2017 edition of this publication, the *indigenous production* data for 2014 was revised by the US administration creating a break in the time series between 2013 and 2014 due to a change in the methodology. In addition, this increased the *statistical difference* that remained high in 2015 and 2016.
- The exports have been increasing since 2015, due to new liquefaction capacity (i.e. Sabine Pass) coming online at the end of that year.

Transformation

- Since 2012, data reported under *non-specified transformation* represent **natural gas** used for hydrogen manufacture. Prior to 2012, these quantities are reported under the *chemical and petrochemical* sector.
- Between 1999 and 2000, there are some breaks in time series for the transformation subsectors due to a new data reporting method.
- Between 1990 and 2002, the amounts of **gas works gas** that are blended with **natural gas** have been estimated on the basis of the output efficiency of the process.
- Since 1989, consumption by *autoproducer CHP* plants is available, while consumption by *autoproducer electricity* and *main activity producer CHP* plants is available since 1991. Prior to these years, these consumptions are included with *industry* and *commerce/public services*.

Consumption

- In the 2019 edition, revisions were made to the *industry sector* from 2015 onwards, by reallocating **natural gas** consumption to the *chemical and petrochemical* sub-sector from other industrial sub-sectors.
- Due to revisions made to the iron and steel model, there is a break in the time series between 2014 and 2015 for the consumption in *blast furnaces (energy)*.
- Until 2001, *agriculture/forestry* consumption is included under *industry*.
- From 1995 to 2001, the detailed breakdown of *industry* consumption is estimated by the Energy Information Administration using the Manufacturing Energy Consumption Survey (MECS), which is conducted quadrennially.
- Prior to 1995 a detailed breakdown of industry consumption is not available (between 1990 and 1994, chemical consumption is estimated by the American administration).
- In 1991 data on **natural gas** use in the *road* sector were collected for the first time, and are not available for previous years.
- *Non-specified energy industry own use* represents **natural gas** consumed for the production of **ethanol**.
- Consumption in fisheries is included under *industry*.

Biofuels and waste

General notes

- The EIA assumes all **industrial waste** is non-renewable.
- Due to the change in reporting methodology for **liquid biofuels**, breaks in time series occur between 2009 and 2010. This is especially noticeable in the **biodiesel** time series.

Supply

- Data for production of **industrial waste** have been decreasing since May 2014 due to reclassification, resulting in a break in series between 2013 and 2014.
- Indigenous production of **biodiesel** is estimated in 2010 based on the EIA's Monthly Energy Report.

Transformation

- The EIA collects generation and consumption data from all plants 1 MW or more in capacity.

Consumption

- Due to an improved estimation, there are some breaks in time series of the industry sector and other sectors between 2009 and 2010: for industry, **geothermal**, **biogases** and **industrial waste** (paper, pulp and printing); for other sectors, **geothermal** and **solar thermal**.

Electricity and heat

General notes

- **Geothermal** supply and inputs to transformation data are estimated by the IEA Secretariat starting in 2009 because of efficiency discrepancies.
- Between 2001 and 2002, there are breaks in time series concerning the total production of electricity and heat in the United States. Comprehensive data on electricity and heat production and consumption in main activity producer electricity, CHP and heat plants and autoproducer electricity and CHP plants are not available for all years.

Supply

- There is a break in series for **geothermal** and **solar thermal** direct use data between 2017 and 2018p as a new methodology for reporting these data was adopted with 2018p data. Historical revisions are expected in the next data cycle.
- The IEA Secretariat estimated US **solar PV** electricity generation from autoproducers starting in 1999 by multiplying the dispersed and distributed PV capacity estimated by the US administration by an average capacity factor of 12%. The capacity factor was based on a report published in 2007 by the IEA Photovoltaic Power Systems Programme, Cost and Performance Trends in Grid-Connected Photovoltaic Systems and Case Studies. The corresponding consumption of electricity has been included under *non-specified other*.
- Data for electricity absorbed by pumping and electricity production from **pumped storage** plants became available starting in 1987.
- Discrepancies occur between respective reported figures for electricity trade between the US and Mexico from 2013 onwards, and between the US and Canada from 2016 onwards. This is in part due

to a change in data source for US electricity trade figures, which creates a break in series between 2015 and 2016.

Transformation

- **Electricity** inputs to both mixed **hydro** and pure pumped storage pumping plants are reported under inputs to pure pumped storage.
- **Offshore wind** production began in 2016.
- Beginning with 2016 data, the calculation for **heat** production in CHP plants has changed, resulting in breaks in time series. The United States administration is currently unable to apply this methodology to historic years, so will only cover heat data for 2016 onwards. As a result of this methodology change, several combustible fuel power plants have their overall efficiency values increased, recording increased heat production. The previous methodology existed for the years 2006 to 2015, so further breaks exist between 2005 and 2006.
- For 2016, **electricity** and **heat** generation from some types of **coal** and some plant types were estimated by the IEA Secretariat, based on an initial submission from the US administration and subsequent reclassification of portions of this coal between coal types.
- Accurate accounting of **coke oven gas** and **refinery gas** inputs is not always possible, which can lead to efficiencies of over 100% in main activity producer CHP plants.
- *Other sources* **electricity** production represents purchased steam and waste heat from industries.
- The low efficiencies from 2011 for **other bituminous coal** autoproducer electricity plants are due to the fact that one unit; the Albany Brewery Power Plant only produces unsold heat, and is reported in the wrong category of plant.
- From 2007 to 2009, heat from **industrial waste** includes recovered heat from industrial processes. From 2010, the electricity produced from recovered heat is reported under **other sources**.
- The decline in **patent fuel** used for electricity production in 2008 and subsequent cessation in 2009 is a result of the termination of the “synthetic fuel from coal” tax credit in 2008, which had been in the order of \$20 to \$25 USD per tonne, and while intended to deal with coal liquefaction and similar technologies, it had spawned an industry of cosmetic upgrading as a tax minimisation vehicle.

- From 2004 to 2013, the EIA reported electricity and heat production from **anthracite** under **other bituminous coal**. The Secretariat estimated the split of generation output by fuel type based on the assumption that the plant efficiencies of the aggregate are equal to that of each part.
- Starting in 2002, autoproducer electricity output for **oil** includes generation from **refinery gases** with a low average calorific value. Prior to 2002, this output was not accounted for.
- Prior to 2001, some data on plants consuming **sub-bituminous coal** and **lignite** have been estimated by the Secretariat using information provided in the EIA's Annual Electricity Generator Report – Utility.
- Data for **peat** are confidential between 1994 and 1998 and from 2000 are not reported.
- Prior to 2000, autoproducers include small and independent power producers which under IEA definitions are considered as main activity producers. Production from these small and independent power producers accounts for about 25% of reported production of electricity by autoproducers in the United States. This reclassification causes breaks between 1999 and 2000.
- In the 2003 edition, the United States administration reclassified some plants to autoproducers. This reclassification causes more breaks between 1998 and 1999.
- Data for **heat** produced in main activity producer heat plants are available from 1992 to 1999, and for autoproducer CHP plants for 1989 to 1999.
- From 1999 onwards, the fuel used in **heat** production by autoproducers is included in final consumption because the US administration cannot distinguish between the heat used directly on-site and the heat sold. Therefore, this may underestimate the heat sold to third parties.
- Prior to 1999, **solar thermal** electricity production includes generation from natural gas because some natural gas units are attached to **solar thermal** plants and their production could not be separated.
- Prior to 1991 some of the fuel inputs to **electricity** and **heat** production reported for autoproducer plants are reported as final consumption in the particular economic sector in which the autoproducer is operating.
- Prior to 1989, there are no generation data available from autoproducers.
- **Sub-bituminous coal** inputs for electricity and heat production are included in **hard coal** before 1983.

Consumption

- Consumption breakdown data for **electricity** are modelled based on data obtained from the Annual Energy Outlook and conversion factors. These data are based on fiscal values rather than physical tonnage, so if commodity prices increase or decrease between AEO versions and the conversion factors are not updated, derived changes in consumption may appear that are not supported by physical changes in production, or actual changes in consumption. For example in 2016, production of steel in electric arc furnaces increased by 6%, however consumption of electricity in the *iron and steel* industry was reported as declining by 17%.
- For the 2019 edition, the breakdown of final **electricity** consumption for 2017 was based on the results of the Annual Energy Outlook (AEO) of 2018. The model used in the 2018 edition of the Outlook was updated to incorporate the results of the 2014 Manufacturing Energy Consumption Survey (MECS). The MECS values were last updated in 2010, and in the intervening period, several industries had changed significantly. For industry sub-sectors where disaggregated AEO2018 values are unavailable e.g. non-ferrous metals, textiles, and non-metallic minerals, consumption was extrapolated from the MECS 2014 values at the same rate as shipments in that industry. Breaks in time series occur across several sectors between 2016 and 2017.
- Similarly, the breakdown of final electricity consumption for 2015 was based on the results of the Annual Energy Outlook (AEO) of 2016. Breaks in time series appear in the mining and agricultural electricity consumption sectors as a result of introduction of individual industry benchmarking for 2015 results. Changes in iron and steel, and pulp and paper data from 2014 to 2015 are the result of fundamental revisions of the iron and steel and pulp and paper models between AEO2014 and AEO2016 as well as the use of individual industry benchmarking for AEO2016. These changes are a few notable examples of series changes, and any series can change between AEO releases because of data updates and methodology changes.

- Prior to 1991, total consumption of **heat** sold referred to consumption in commercial/public services.
- No data are available for **heat** sold that is consumed in the residential and agriculture/forestry sectors for any year.
- Data for direct use of **solar thermal** heat in residential are available from 1999.
- Since 1995, **heat** consumption data by sector are no longer collected, and have been estimated by the Secretariat, resulting in breaks in time series between 1994 and 1995, and 1999 and 2000.
- Data for consumption of **heat** sold in industry are available from 1991 and in energy industry own use from 1992.

NON-OECD COUNTRIES

Before 2016, the IEA Secretariat published separately “Energy balances of non-OECD countries” and “Energy balances of OECD countries”. The two were combined into “World energy balances” in 2016.

When making references to “this publication”, it includes “Energy balances for non OECD countries” produced until 2016.

In the references below, both the statistical year (2017) for which data are being published in this edition, as well as publication dates of the many documents which have been consulted during the development of this publication are mentioned. As a general rule, where specific documents or personal communications have been used, the date that is referenced is the date of publication of the document or the date of the communication, whereas, where data received through the completion of questionnaires are mentioned, the date that is referenced is the statistical year for which data are being published in this edition, namely 2017.

Data may not include all informal and/or illegal trade, production or consumption of energy products, although the IEA Secretariat makes efforts to estimate these where reliable information is available.

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- *The United Nations Energy Statistics Database*, United Nations Statistical Office, New York, various editions up to 2019.
- *World Development Indicators*, The World Bank, Washington, various editions up to 2018.

Note:

- EU4Energy is a 4-year (2016-2020) EU-funded programme working to support evidence-based energy policy and decision making in the areas of energy security, energy markets and sustainable development in 11 focus countries - Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan, Turkmenistan, Uzbekistan and Ukraine. The IEA is responsible for the programme's energy-data management and data use in policy design.
- The OLADE database was used for several Non-OECD Americas countries.
- The UN database was the only source of information for time series of the countries not listed individually and included in the regions Other Africa, Other non-OECD Americas and Other non-OECD Asia. It was also used in a number of other countries as a complementary data source.

Albania

General notes

Before 1993, large quantities of oil, widely reported to have moved through Albania into Former Yugoslavia, are not included in oil trade. Although they might have represented up to 100% of domestic consumption levels, no reliable figures for this trade are available.

Starting from 2011, motor gasoline consumption is reported in the residential sector. This consumption corresponds to motor gasoline used in electricity generators.

Sources

Sources 2011 to 2017:

- Direct communication with the National Agency of Natural Resources, Tirana.
- Joint IEA/Eurostat/UNECE annual energy questionnaires.

Sources 2005 to 2010:

- *Energy Balances 2005-2010*, Energy Department of the National Agency of Natural Resources of Albania, Tirana.
- IEA Secretariat estimates.

Sources up to 2004:

- Joint IEA/Eurostat/UNECE annual energy questionnaires 1994, 1995, 1998.
- *Energy Balances*, National Agency of Energy of Albania, 1999 to 2004.
- *The UN Energy Statistics Database*.
- Aide Memoire of World Bank Mission to Albania May/June 1991.
- IEA Secretariat estimates.

Sources for biofuels and waste:

- The UN Energy Statistics Database.
- Joint IEA/Eurostat/UNECE annual energy questionnaire on renewables.
- IEA Secretariat estimates.

Algeria

General notes

Crude oil production and export data do not include field condensate. Field condensate quantities are included with natural gas liquids.

Revisions were made to the energy balances in 2009 and 2010 which add more detail for certain products and flows. This may result in breaks in time series between 2008 and 2009.

Sources

Sources 1990 to 2017:

- Direct communication with the Ministry of Energy and Mining, Algiers.

Additional sources 2008:

- SONEGAS, Société nationale de l'électricité et du gaz, online statistics on electricity production, Algiers.

Sources up to 1989:

- *Annuaire Statistique de l'Algérie 1980-1984*, Office National des Statistiques, Algiers, 1985.
- *Bilan Energétique National*, Gouvernement Algérien, Algiers, 1984.
- *Algérie Energie, N° 6*, Ministère de l'Énergie et des Industries Chimiques et Pétrochimiques, Algiers, 1979 to 1983.

Sources for biofuels and waste:

- The UN Energy Statistics Database.
- Direct communication with the Ministry of Energy and Mining, Algiers.
- IEA Secretariat estimates.

Angola

General notes

Crude oil production and export data do not include field condensate. Field condensate quantities are included with natural gas liquids.

The natural gas export terminal, Soyo, began operations in 2013 and halted operations in 2014. Soyo terminal re-opened in 2016. Breaks in time series in natural gas export, supply, and consumption can be observed between 2013 and 2017.

In the 2019 edition, revisions to biofuels and waste data are due to revisions in population data for Angola.

Sources

Sources 2003 to 2016:

- Direct communication with the Ministério da Energia e Águas (Ministry of Energy and Water), Luanda.
- *Relatório de Gestão e Contas*, Sonangol E.P, Luanda, various editions up to 2017.
- *Balanço da Produção & Informação sobre o Sector de Petróleo e Gás & Balanço da Refinaria de Luanda*, Ministério dos petróleos, Luanda, 2013.
- *Relatório de Actividades do Sector Petrolífero*, Ministério dos petróleos, Luanda, 2007 and 2008 editions.
- *Annual Report*, Southern African Power Pool, Harare, various editions up to 2012.
- IEA Secretariat estimates.

Sources 1992 to 2002:

- Direct communication with oil industry sources.
- IEA Secretariat estimates.
- *Eskom Annual Statistical Yearbook, 1993, 1994, 1995* citing Empresa Nacional de Electricidade as a source, Johannesburg, 1994-1996.
- The UN Energy Statistics Database.

Sources up to 1991:

- *Le Pétrole et l'Industrie Pétrolière en Angola en 1985*, Ambassade de France, Poste d'Expansion Economique de Luanda, Luanda, 1985.

Sources for biofuels and waste:

- IEA Secretariat estimates based on 1991 data from African Energy Programme of the African Development Bank, *Forests and Biomass Sub-sector in Africa*, Abidjan, 1996.

Argentina

General notes

Since 2010 a different methodology was adopted by Argentina for reporting refinery flows leading to more detailed information (e.g. reprocessing of some oil products). This may result in breaks in time series between 2009 and 2010.

Sources

Sources up to 2017:

- Direct communication with the Ministry of Economy, Secretariat of Energy, Buenos Aires.
- *Balance Energético Nacional*, Ministerio de Economía, Secretaria de Energía, Buenos Aires, various editions up to 2017.
- *Informe del sector eléctrico*, Ministerio de Planificación Federal, Inversión Pública y Servicios, Secretaria de Energía, Dirección Nacional de Prospectiva, Buenos Aires, various editions up to 2018.
- *Información del mercado de hidrocarburos*, Ministerio de Planificación Federal, Inversión Pública y Servicios, Secretaria de Energía, Dirección Nacional de Prospectiva, Buenos Aires, various editions up to 2018.
- *Informe Enargas*, Enargas, Buenos Aires, various editions up to 2018.
- Camara Argentina de Biocombustibles, online Statistics, 2011
- *Informe del sector eléctrico*, Ministerio de Economía, Secretaria de Energía, Buenos Aires, 1986 to 2003.
- *Anuario de Combustibles*, Ministerio de Economía, Secretaria de Energía, Buenos Aires, 1980 to 2003.
- *Anuario Estadístico del sector energético Argentino*, Instituto Argentino de la Energía "General Mosconi", Buenos Aires, 2000.
- *Anuario Estadístico de la República Argentina*, Instituto Nacional de Estadística y Censos, Buenos Aires, September 1997.
- *Boletín Mensual de Combustibles*, Ministerio de Obras y Servicios Públicos, Secretaria de Energía, Buenos Aires, various editions.
- *Natural Gas Projection up to 2000*, Gas del Estado Argentina, Buenos Aires, 1970, 1984 to 1986.

- *Anuario Estadístico de la República Argentina 1970-1981*, Instituto Nacional de Estadística y Censos, Secretaría de Planificación, Buenos Aires, 1982.
- *Plan Energético Nacional 1986-2000*, Ministerio de Economía, Secretaría de Energía, Subsecretaría de Planificación Energética, Buenos Aires, 1985.
- *Anuario Estadístico*, Yacimientos Petrolíferos Fiscales, Buenos Aires, 1984 to 1987.
- *Memoria y Balance General*, Yacimientos Petrolíferos Fiscales, Buenos Aires, 1984 to 1986.

Armenia

General notes

Data for Armenia are available starting in 1990. Prior to that, they are included in Former Soviet Union.

Armenia is one of the 11 EU4Energy focus countries.

Since 2015, more accurate data on electricity and CHP plants became available. This might lead to breaks in time series for 2014-2015.

From 2015, survey data on the consumption of energy products in Armenia are available. Partial data were already available for 2014 for some products as Armenia ran a pilot survey. Prior to 2014, consumption data were not available and have been estimated by the IEA Secretariat based on supply. Therefore breaks in time series occur between 2013 and 2014 and 2014 and 2015. 2015 should be used as reference year.

Sources

Sources 2014-2017:

- Direct communication with National Statistical Service, Yerevan.
- Joint IEA/Eurostat/UNECE annual energy questionnaires.
- IEA Secretariat estimates.

Sources 1992 to 2013:

- Direct communication with National Statistical Service, Yerevan.
- Joint IEA/Eurostat/UNECE annual energy questionnaires on Coal, Electricity and heat, Natural gas, Oil.
- IEA Secretariat estimates.

Sources 1990 to 1991:

- IEA Secretariat estimates.

Sources for biofuels and waste:

- Joint IEA/Eurostat/UNECE annual energy questionnaires on renewables, 2014-2016.
- Prior to 2014: *Forestry Statistics*, FAO, Rome, IEA Secretariat estimates.

Azerbaijan

General notes

Data for Azerbaijan are available starting in 1990. Prior to that, they are included in Former Soviet Union.

Azerbaijan is one of the 11 EU4Energy focus countries.

Natural gas production data may differ from Azerbaijan national energy balance. Natural gas produced and used in the oil and gas extraction industry is counted by the IEA Secretariat in natural gas production.

Breaks in time series appear for inputs and outputs of electricity, CHP and heat plants in Azerbaijan between 2006 and 2007 due to an improved data collection methodology in the country from 2007 onwards.

For the purpose of calculating CO₂ emissions, an allocation between domestic and international aviation consumption of jet kerosene was estimated by the IEA Secretariat for 1990-2006 based on total aviation consumption reported by Azerbaijan and the 2007 allocation.

A break in time series may be observed between 2015 and 2016 consumption data due to a household consumption survey.

Sources

Sources 1990 to 2017:

- Direct communication with the State Committee of Statistics and the Ministry of Economics of Azerbaijan, Baku.
- Joint IEA/Eurostat/UNECE annual energy questionnaires, 1992 to 2017.

Sources for biofuels and waste:

- Joint IEA/Eurostat/UNECE annual energy questionnaires on renewables, 2000-2017.
- Before 2000: IEA Secretariat estimates.

Bahrain

General notes

Crude oil production includes half the production from the Abu Sa'fah field, which is shared with Saudi Arabia.

Consumption of natural gas for autoproducer power generation may include quantities used for non-power generation purposes.

Estimations of the use of petroleum coke in the manufacture of aluminium have been made to track this consumption from 2000 onwards. This may lead to breaks in time series between 1999 and 2000.

Historical revisions in LPG, naphtha and refinery gas data from 2011 are consistent with official report from Bahrain National Gas Company. Breaks in time series are observed in 2011 for LPG exports.

Historical revisions in Bitumen transfer data from 1988 have been made in the 2019 edition.

Sources

Sources 1992 to 2017:

- Direct communication with National Oil and Gas Authority of Bahrain, Manama.
- *Statistics 2005-2017*, National Oil and Gas Authority of Bahrain, Manama.
- *Annual Pamphlet 2013-2017*, Bahrain National Gas Company, Riffa.
- *EWA Statistics 2017*, Electricity and Water Authority- Kingdom of Bahrain, Manama.
- *Online statistics 2000-2017*, Central Informatics Organization (CIO), Manama, Kingdom of Bahrain.
- *Statistical Bulletin*, Arab Union of Producers, Transporters and Distributors of Electricity (AUPTDE), Amman, various editions up to 2017.
- JODI- Oil World database, Joint Organisations Data Initiative (JODI), accessed May 2019: <https://www.jodidata.org/oil/>.
- *Statistics 2007 and 2008*, Electricity & Water Authority, Manama.
- *Statistical Abstract, 1994, 1998, 1999, 2000, 2001, 2002 and 2003*, Council of Ministers, Control Statistics Organisation, Bahrain.
- The UN Energy Statistics Database.

- IEA Secretariat estimates.

Sources up to 1991:

- *Statistical Abstract 1990*, Council of Ministers, Central Statistics Organisation, Manama, 1991.
- *1986 Annual Report*, Bahrain Monetary Agency, Manama, 1987.
- *B.S.C. Annual Report*, Bahrain Petroleum Company, Manama, 1982-1984.
- *Foreign Trade Statistics*, Council of Ministers, Central Statistics Organisation, Manama, 1985.
- *Bahrain in Figures*, Council of Ministers, Central Statistics Organisation, Manama, 1983-1985.

Bangladesh

General notes

Data are reported on a fiscal year basis, beginning on 1 July and ending on 30 June of the subsequent year.

In 2013, time series were revised from 2008 to 2011 based on data retrieved from the Bangladesh Power Development Board. This may result in breaks in time series between 2007 and 2008 for electricity.

In 2014, time series were revised from 2004 to 2012 based on new data on petroleum products retrieved from the Bangladesh Petroleum Corporation and the Eastern Refinery Limited. This may result in breaks in time series between 2004 and 2005 for primary and secondary oil products.

Sources

Sources 2008 to 2017:

- *Annual Report*, PetroBangla - Bangladesh Oil, Gas and Mineral Corporation, Dhaka, various editions up to 2017.
- *Annual Report*, Bangladesh Power Development Board (BPDB), Dhaka, various editions from 2007 to 2017.
- *Annual Report*, Dhaka Electric Supply Company Limited (DESCO), Dhaka, various editions from 2008 to 2017.
- *Bangladesh Economic Review*, Ministry of Finance, Dhaka, various editions from 2008 to 2017.

- *Coal Recent Mine Activities*, Barapukuria Coal Mining Company Limited (BCMCL), Dhaka, 2018.
- Statement of total coal production, sale, delivery and stock position, Barapukuria Coal Mining Company Limited (BCMCL), Dhaka, 2018.
- *Production Activities*, Eastern Refinery Limited, online statistics: erl.com.bd, 2016.
- *Commercial & Operation – Petroleum products*, Bangladesh Petroleum Corporation (BPC), online statistics: www.bpc.gov.bd.
- IEA Secretariat estimates.

Sources 1996 to 2007:

- US Agency for International Development, Dhaka, 2003 to 2008.
- IEA Secretariat estimates.
- *Statistical Yearbook of Bangladesh 1996 to 1999*, Ministry of Planning, Bangladesh Bureau of Statistics, Dhaka, 1997 to 2000.

Sources 1992 to 1995:

- *Statistical Pocket Book of Bangladesh*, Ministry of Planning, Bangladesh Bureau of Statistics, Dhaka, 1986 to 1996.
- The UN Energy Statistics Database.

Sources up to 1991:

- *Bangladesh Energy Balances 1976-1981*, Government of Bangladesh, Dhaka, 1982.
- *Statistical Yearbook of Bangladesh 1991*, Government of Bangladesh, Dhaka, 1976 to 1991.
- *Monthly Statistical Bulletin of Bangladesh*, Ministry of Planning, Bangladesh Bureau of Statistics, Statistics Division, Dhaka, June 1986 and October 1989.

Sources for biofuels and waste:

- *Forestry Statistics*, FAO, Rome, 2019.
- IEA Secretariat estimates.

Belarus

General notes

Data for Belarus are available starting in 1990. Prior to that, they are included in Former Soviet Union.

Belarus is one of the 11 EU4Energy focus countries. In 2016, due to reclassification of enterprises' economic activities break in time series can be observed in autoproducers' electricity, CHP plant and non-specified industry sector.

Imports of refinery feedstocks were recorded for the first time in 2015.

In 2019 edition, coke oven coke use between 1998 and 2017 was revised as non-energy use was formerly reported in the Food, Beverage and Tobacco sector.

In 2016 edition methane produced as a by-product during the petrochemical transformation of naphtha was re-classified by Belarus for the period 1998-2011 from industrial waste to refinery gas. This may lead to breaks in time series between 1997 and 1998.

Jet kerosene was reported under "other products" until 2012. Breaks in time series appear in gas/diesel and fuel oil between 2011 and 2012 as a result of a new classification of industrial products (heating oil re-classified under high sulphur fuel oil).

Oil trade in 2010 shows a significant drop due to higher customs fee of imported quantities of crude oil from Russian Federation.

Since January 2010, Belarus became a member of a Customs Union with Russia and Kazakhstan. Breaks in trade time series and statistical differences appear from 2009 to 2011 as the Customs progressively shifted from one accounting system to another. Belarus reports all inputs and outputs to CHP and heat auto-producer plants including those corresponding to own use of heat.

Sources

Sources 1990 to 2017:

- Direct communication with the National Statistical Committee of Belarus, Minsk.
- Joint IEA/Eurostat/UNECE annual energy questionnaires.

Sources for biofuels and waste:

- Joint IEA/Eurostat/UNECE annual energy questionnaires on renewables.
- IEA Secretariat estimates.

Benin

General notes

In the 2019 edition, times series were revised from 2015 to 2017 based on new data received from the Ministry of Energy, Water, and Mines. Breaks in time series may occur between 2014 and 2015.

In the 2017 edition, times series were revised from 2011 to 2014 based on new data received from the Ministry of Energy, Water, and Mines. Breaks in time series may occur between 2010 and 2011.

Sources

Sources 1999 to 2017:

- *Système d'Information Énergétique du Bénin (SIE-Bénin)* 2018, Direction Générale de l'Énergie, Ministère de l'Énergie, de l'Eau et des Mines.
- Direct communication with the *Ministère des Mines, de l'Énergie et de l'Hydraulique*, Cotonou, up to 2019, and through the WEC-IEA Joint Energy Reporting Format for Africa, 1999 to 2002, 2004, 2006, 2007, 2011, 2012
- IEA Secretariat estimates.

Sources up to 1998:

- Direct communication with the Secretariat, Direction de l'Énergie, Cotonou, 1999, 2000.
- Direct communication with the electricity utility, Cotonou, 1998 to 1999.
- *The UN Energy Statistics Database*.
- *Rapport sur l'Etat de l'Economie Nationale*, Ministère de l'Économie, Cotonou, September 1993.
- IEA Secretariat estimates.

Sources for biofuels and waste:

- Direct communication with the Secretariat, Direction de l'Énergie, Cotonou.
- AFREC Energy questionnaire, African Energy Commission, 2009-2010, submitted by Ministère des Mines, de l'Énergie et de l'Hydraulique, Cotonou.
- IEA Secretariat estimates.

- IEA Secretariat estimates up to 1995 based on 1991 data from *Forests and Biomass Sub-sector in Africa*, African Energy Programme of the African Development Bank, Abidjan, 1996.

Bolivia

General notes

New information on NGL production and input to refineries became available in 2019 for the years 2015 to 2017. This leads to a break in time series between 2014 and 2015.

Data for international aviation bunkers are estimated by the IEA Secretariat. New information available in 2019 led to revisions of the data for 2005-2017 that lead to breaks in time series between 2004 and 2005.

In the 2018 edition, time series for solid biofuels were revised from 2000 to 2015 due to revisions in the OLADE balances. This leads to breaks in time series between 1999 and 2000.

All isolated power systems are included in main activity electricity producers because no split is available to differentiate Independent Power Producers from autoproducers.

Breaks in time series for solid biofuels occur between 2009 and 2010. This is due to differences in definitions between Bolivia and IEA.

Sources

Sources 1992 to 2017:

- *Balance Energético Nacional*, 2015-2017. Ministerio de Energías, La Paz, 2019.
- *Anuario Estadístico*, Autoridad de Fiscalización y Control Social de Electricidad, La Paz, 2017.
- *Energy-Economic Information System (SIEE)*, Latin American Energy Organization (OLADE), Quito, accessed April 2019: <http://sier.olade.org/>.
- OAG (2018), Origin-Destination of Commercial Flights (database), OAG Aviation, Luton, www.oag.com/analytics/traffic-analyser.
- *Boletín Estadístico*, Yacimientos Petrolíferos Fiscales Bolivianos, La Paz, 2008 to 2015.
- *Balance Energético Nacional 2000-2014*, Ministerio de Hidrocarburos y Energía, La Paz, 2014.

- *Anuario Estadístico*, Agencia nacional de hidrocarburos, various editions from 2013 to 2014.
- *Anuario Estadístico*, Ministerio de Hidrocarburos y Energía, La Paz, 2012.
- *Memoria Anual*, Comité Nacional de Despacho de Carga, 2011.
- *Informe Estadístico*, Yacimientos Petrolíferos Fiscales Bolivianos, La Paz, various editions from 1992 to 1998.
- *Anuario Estadístico*, Superintendencia de Electricidad, La Paz, various editions from 1996 to 2007.
- IEA Secretariat estimates.

Sources up to 1991:

- *Boletín Estadístico 1973-1985*, Banco Central de Bolivia, División de Estudios Económicos, La Paz, 1986.
- *Diez Anos de Estadística Petrolera en Bolivia 1976-1986*, Dirección de Planeamiento, División de Estadística, La Paz, 1987.
- *Empresa Nacional de Electricidad S.A. 1986 Ende Memoria*, Empresa Nacional de Electricidad, La Paz, 1987.

Sources for biofuels and waste:

- IEA Secretariat estimates based on *Energy-Economic Information System (SIEE)*, Latin American Energy Organization (OLADE), Quito, accessed April 2019: <http://sier.olade.org/>

Bosnia and Herzegovina

General notes

Data for Bosnia and Herzegovina are available starting in 1990. Prior to that, they are included in Former Yugoslavia.

In the 2019 edition, data on electricity, CHP and heat were submitted by the Agency for Statistics of Bosnia and Herzegovina.

In the 2018 edition, data on blast furnace gas and coke oven gas production became available for 2016. Also, the calorific values of coking coal and coke oven coke were revised for 2014-2016. This may result in breaks in time series on the efficiencies of blast furnaces and

coke ovens between 2013 and 2014. In 2018, BHAS received technical expertise from the IEA Secretariat and reallocated inputs of sub-bituminous coal to electricity, CHP and heat plants to lignite for the period 2014-2016. This may lead to breaks in time series between 2013 and 2014.

In 2015, BHAS conducted their first household survey on biomass consumption. Due to this newly available data breaks in time series may occur between 2013 and 2014. Also, due to the ongoing work of BHAS to further improve the biomass data quality, data for the period 2014-2016 were revised.

In 2014, BHAS conducted their first survey on oil product consumption. Breaks in time series may occur between 2012 and 2013.

Until 2012, the source for crude oil and secondary oil products data is the publication “Industrial Production Bosnia and Herzegovina 2012” and “Oil Trade Data” both produced by the Agency for Statistics of Bosnia and Herzegovina.

Energy statistics are available from the Agency for Statistics of Bosnia and Herzegovina (BHAS) from 2008 for electricity and heat and from 2009 for coal and natural gas. As a consequence, breaks in time series may occur between 2007 and 2008 for electricity and heat and 2008 and 2009 for other products.

Sources

Sources 2009 to 2017:

- Direct communication with the Agency for Statistics of Bosnia and Herzegovina, Sarajevo.
- Joint IEA/Eurostat/UNECE annual energy questionnaires.
- Energy Statistics: Oil products, Issue 1, Agency for Statistics of Bosnia and Herzegovina, Sarajevo.
- PRODCOM Survey - Industrial Production, Bosnia and Herzegovina, 2009 to 2012.
- IEA Secretariat estimates.

Sources 2006 to 2008:

- European Network of Transmission System Operators for Electricity, online statistics, 2010.
- Union for the Co-ordination of Transmission of Electricity, online statistics, 2009.
- IEA Secretariat estimates.

Sources 2000 to 2005:

- *Energy Sector Study BiH*, Third Electric Power Reconstruction Project, consortium led by Energy Institute Hrvoje Pozar, Sarajevo, 2008.
- Direct communication with the Joint Power Co-ordination Centre (JPCC).
- *Statistical Yearbook of BiH*, Federation of Bosnia and Herzegovina Federal Office of Statistics, Sarajevo, 2008.
- *Power Generation and Transmission System in Bosnia Herzegovina*, International Management Group, European Commission, Sarajevo, November 2000.
- *Energy Outlook*, Federal Ministry of Energy, Mining and Industry, Sarajevo, December 2001.
- The UN Energy Statistics Database.

Botswana**General note**

Data for Botswana are available from 1981. Prior to that, they are included in Other Africa.

Sources**Sources 1981 to 2017:**

- Direct communication with the Department of Energy, Ministry of Minerals, Energy and Water Resources, Gaborone.
- *Annual Report*, Botswana Power Corporation (BPC), Gaborone. Various editions up to 2017. Note: BPC data are published on a fiscal year basis (April to March).
- *Environment Statistics 2012*, Botswana Central Statistics Office, Gaborone.
- Indices of the physical volume of mining production 3Q 2014, Botswana Central Statistics Office, Gaborone.
- *Botswana in Figures 2011*, Botswana Central Statistics Office, Gaborone.
- *Statistical Yearbook 2010*, Botswana Central Statistics Office, Gaborone.
- *Annual Report 2009*, Department of Mines, Gaborone.
- *Energy Statistics*, Central Statistics Office, Gaborone.
- IEA Secretariat Estimates.

Brazil**General notes**

Brazil joined the IEA as an Association country in October 2017.

The split between domestic and international marine bunkers is done based on flag (nationality) of ships.

New information became available in 2015 which explains the types of product transfers within Brazilian refineries. The IEA attempted to reflect these transfers as accurately as possible.

In the IEA balance for Brazil, “Biogasoline” refers to anhydrous ethanol while “Other liquid biofuels” refers to hydrated ethanol. The national energy balance of Brazil shows bioethanol as two separate products: anhydrous ethanol (“álcool anidro”, i.e. nearly pure ethanol, containing less than 1% of water) and hydrated ethanol (“álcool hidratado”, i.e. a blend of ethanol and water, in the proportion of about 95% to 5%, generally obtained from conventional distillation). While anhydrous ethanol is blended with gasoline (the blend sold at the pump generally contains 20-25% of ethanol), hydrated ethanol is sold at separate pumps as a product by itself (álcool) to be used in flex fuel cars, i.e. vehicles that can run on any mix of gasoline and ethanol.

Although IEA’s balance is based on Brazil’s national statistics, differences with the national energy balance can be observed due to the different methodologies adopted for reporting nuclear, chemical heat, natural gas, renewables, blast furnaces and coke ovens.

Brazil produces a large share of its pig iron in blast furnaces that are fuelled and fed with charcoal. The blast furnace gases produced when charcoal is used as a reagent in the blast furnaces are renewable products and they have been reported in this publication under the product “Biogases from thermal processes”. Additionally, only the part of these gases consumed for power generation (i.e. energy purposes) has been accounted for in the transformation sector. The remaining charcoal consumed in or used to heat the blast furnaces is reported in final consumption under the iron and steel industry with no distinction between transformation and final consumption.

Prior to the year 2000 blast furnace gases data availability is limited to the input to auto producer electricity plants. Therefore, from 1971 to 1999, the

other flows (e.g. production, consumption etc.) are IEA Secretariat estimates.

The Itaipu hydroelectric plant, operating since 1984 and located on the Paraná River (which forms the border of Brazil and Paraguay) was formed as a joint venture between Eletrobrás and the Paraguayan government. Production is shared equally between Brazil and Paraguay.

Sources

Sources 1971 to 2017:

- Direct communication with the Ministério de Minas e Energia, Brasilia.
- *Solar Heat Worldwide*, AEE - Institute for Sustainable Technologies, Gleisdorf, IEA Solar Heating & Cooling Programme various editions up to 2019.

Brunei Darussalam

General notes

The 2018 and subsequent editions include official energy balance tables for 2015 and 2016 submitted by Brunei Darussalam.

In 2009, new information became available on the split in consumption of refinery gas. This may lead to breaks in time series between 2008 and 2009.

Brunei Darussalam confirmed in 2008 that the country stopped using fuel wood in 1992.

Sources

Sources 2006 to 2017:

- Direct communication with the Ministry of Energy, Manpower and Industry, Bandar Seri Begawan.
- Direct communication with the Asia Pacific Energy Research Centre, Tokyo.
- APEC annual energy questionnaires, 2009-2014, 2017.
- 2015 and 2016 Energy Balances, Ministry of Energy, Manpower and Industry, Bandar Seri Begawan.
- Direct communication with the Prime Minister's Office, Strategic Planning Division, Bandar Seri Begawan.
- IEA Secretariat estimates.

Sources 1992 to 2005:

- APEC Energy Database, Tokyo, 2005.
- Direct communication with the UN Statistics Division.
- Direct communication with the Office of the Prime Minister, Petroleum Unit.
- Direct communication with the Asia Pacific Energy Research Centre.
- Direct communication with the Ministry of Development, Electrical Services Department.
- *Brunei Statistical Yearbook, 1992 to 1994*, Ministry of Finance, Statistics Section, Bandar Seri Begawan, 1993, 1995.

Sources up to 1991:

- *Fifth National Development Plan 1986-1990*, Ministry of Finance, Economic Planning Unit, Bandar Seri Begawan, 1985.

Sources for biofuels and waste:

- The UN Energy Statistics Database.

Bulgaria

General notes

Non-specified transformation of natural gas to other hydrocarbons corresponds to hydrogen used in refineries.

Bulgaria has re-classified black liquor from industrial waste to solid biofuels and the renewable portion of tyres from industrial waste to municipal waste – renewables from 2008. Breaks in time series may occur between 2007 and 2008.

A break in the time series for natural gas stock changes may occur between 2003 and 2004 as cushion gas is excluded starting in 2004.

Sources

Sources 1990 to 2017:

- Direct communication with the National Statistical Institute, Sofia.
- Joint IEA/Eurostat/UNECE annual energy questionnaires.
- Energy Balances, National Statistical Institute, Sofia, 1995.

Sources up to 1991:

- *Energy Development of Bulgaria*, Government of Bulgaria, Sofia, 1980 and 1984.
- *Energy in Bulgaria*, Government of Bulgaria, Sofia, 1980 to 1983.
- *General Statistics in the Republic of Bulgaria 1989/1990*, Government of Bulgaria, Sofia, 1991.

Sources for biofuels and waste:

- Joint IEA/Eurostat/UNECE annual energy questionnaires on renewables.
- The UN Energy Statistics Database.

Cambodia

General notes

Data for Cambodia are available starting in 1995. Prior to that, they are included in Other Asia.

In the 2019 edition, information on the stock change for coal and some petroleum products became available. This may lead to breaks in time series between 2016 and 2017.

Information on the split of consumption for some petroleum products became available starting from 2016. This may lead in breaks in time series between 2015 and 2016.

In 2015, new information regarding the imports of petroleum products in Cambodia from 2007 onwards became available. Data for these products were revised accordingly and as a result breaks in time series may occur for different products between 2007 and 2013.

Sources**Sources 1995 to 2017:**

- Direct communication with the Energy Statistics Office of the Ministry of Mines and Energy, Phnom Penh.
- *Energy Balances 2016-2017*, Energy Statistics Office of the Ministry of Mines and Energy, Phnom Penh.
- *Cambodia National Energy Statistics 2016*, Economic Research Institute for ASEAN and East Asia.
- *Report on Power Sector of the Kingdom of Cambodia*, Electricity Authority of Cambodia, Phnom Penh, various editions up to 2017.

- *Petroleum Products Imports Data from the Customs Office*, General Department of Petroleum of Cambodia, Phnom Penh, 2014.
- APEC annual energy questionnaires, 1995-2011.
- Direct communication with the Department of Energy, Ministry of Industry, Mines and Energy, Phnom Penh through the APEC annual energy statistics questionnaire, 1995-2011.
- Direct communication with the Department of Corporate Planning and Projects, Ministry of Industry, Mines and Energy, Phnom Penh through the APEC annual energy statistics questionnaire, 1995-2011.
- Direct communication with the Electricity Authority of Cambodia, Phnom Penh through the APEC annual energy statistics questionnaire, 1995-2011.
- Direct communication with Electricité du Cambodge, Phnom Penh through the APEC annual energy statistics questionnaire, 1995-2011.
- IEA Secretariat estimates.

Cameroon

General notes

2016 and 2017 data were not available by the time this publication was prepared. Data for both years were therefore estimated by the IEA secretariat.

For the 2019 edition OAG data was used to estimate the share of domestic and international bunkering for aviation fuel between 2005 and 2017. Breaks in time series might occur between 2004 and 2005. Additionally, Solar PV electricity generation was estimated with IRENA data.

In 2015, new information regarding Cameroon became available. Data points were revised accordingly which may lead to breaks in times series between 2011 and 2012 for electricity own use and losses and between 2011 and 2011 for crude oil trade and production.

Sources**Sources 2016 to 2017:**

- Direct communication with Ministère de l'Energie et de l'Eau, Yaoundé.

- OAG (2018), Origin-Destination of Commercial Flights (database), OAG Aviation, Luton, www.oag.com/analytics/traffic-analyser.
- *Renewable energy statistics 2019*, International Renewable Energy Agency (IRENA).
- IEA Secretariat estimates.

Sources 1971 to 2015:

- Direct communication with Ministère de l'Energie et de l'Eau, Yaoundé.
- *Annuaire Statistique sur le Commerce*, CELSTAT, 2015.
- *Annual Report*, Eneo, 2014.
- *Statistiques Annuelles*, Société Nationale des Hydrocarbures (SNH), 2013, 2014, 2015, 2016.
- *Statistiques économiques*, Banque des Etats de l'Afrique Centrale (BEAC), online database, 2011.
- Direct communication with Société Nationale de Raffinage (SONARA).
- Direct communication with Société Nationale d'Electricité du Cameroun (*AES – SONEL*), Douala.
- The UN Energy Statistics Database
- IEA Secretariat estimates.

Sources for biofuels and waste:

- Direct communication with Ministère de l'Energie et de l'Eau, Yaoundé for 2006 to 2010 data and 2015 data.
- IEA Secretariat estimates based on 1991 data from *Forests and Biomass Sub-sector in Africa*, African Energy Programme of the African Development Bank, Abidjan, 1996.

People's Republic of China

General notes

The People's Republic of China (China) joined the IEA as an Association country in November 2015.

Revisions of China's 2000 - 2010 energy data

In early 2016, the National Bureau of Statistics (NBS) of the People's Republic of China (China) supplied the IEA with detailed energy balances for 2000 to 2010 and the IEA revised its data accordingly.

In September 2015, the NBS published China's energy statistics for 2013, as well as revised statistics

for the years 2011 and 2012. These have already been taken into account by the IEA in the "Special data release with revisions for the People's Republic of China" in November 2015.

All revisions show significant changes both on the supply and demand side for a number of energy products, resulting in breaks in time series between 1999 and 2000. Most importantly, the previously significant statistical difference for coal has now been allocated in industrial consumption based on findings from a national economic census.

Coal

NBS and IEA collaborate to provide additional detail on energy production, transformation and consumption of all five different types of coal (e.g. anthracite, coking coal, other bituminous, sub-bituminous and lignite). At the moment NBS only provides quantities of raw coal and washed coal (split between cleaned coal and other washed coal) in their energy balances and the IEA Secretariat has attributed these quantities to coking coal and other bituminous coal. It is expected that the continuing work to provide disaggregated data on the five different coals will result in greater detail in future editions.

In the 2018 edition, the National Bureau of Statistics (NBS) changed the definition of cleaned coal and other washed coal. Now, only the coal used for coking is called cleaned coal. This might result in breaks in time series in coking coal between 2015 and 2016. As this change of methodology resulted in uncertainty on the use of cleaned coal, the IEA Secretariat estimated the use of coking coal in transformation and final consumption sectors.

In the 2018 edition, based on new information, coal consumption in rail was revised for the whole time series to reflect the fact that coal is used for other usages than transport in the Rail sector. The IEA Secretariat has allocated part of the coal reported under rail to other non-specified sectors for the period 1990-2003. For the period 2004-2016 the IEA Secretariat allocated the total amount of coal reported under rail to other non-specified sectors.

In 2018 edition, based on new information, coal inputs to main activity heat plants and part of coal inputs to main activity electricity plants were allocated to main activity CHP plants for the period 2005-2016.

Net calorific values (NCV) for coal inputs to power generation from 2000 are estimated by applying assumptions used by China on the average thermal

efficiency of coal-fired power stations in these years. NCVs are also estimated for bituminous coal production from 2000 as well as for inputs to main activity CHP plants from 2008.

Since 2000, imports and exports of cleaned coal are no longer reported in the national energy balance of China. The IEA Secretariat has used secondary sources of information to report this coking coal trade and corresponding quantities have been removed from bituminous coal trade. Consumption of this coking coal is assumed to be in coke ovens.

The IEA data of coal stocks for the years 1985 and 1990 as well as coal production for the years 1997-1999 are estimates and do not represent official data released by the Chinese government. Those estimates were based on the assumption that coal consumption statistics are more reliable than coal production statistics and that the production-consumption relationship should maintain a balance over time. In recent years, China has reported large increases in stocks for different types of coal. These stock increases are seen as consistent with trends in economic growth and development in China; however, information is currently lacking on the scale of the infrastructure available for this magnitude of stock increases.

Data for coal trade in this publication may not match data from secondary sources of information.

Oil

Starting with 2010 data, NBS increased the level of detail of the national energy balance regarding oil products and coal gases. Breaks in time series may occur between 2009 and 2010.

In 2012, new information became available on how NBS accounts for international aviation and marine bunkers in the China's national energy balance. Previously international flights by Chinese airlines and ships had been excluded. A revised methodology was implemented that now includes fuel use for international airplanes and ships, regardless of whether they are foreign- or China-owned.

Coal to liquids output was estimated based on projected production slate of operational coal-to-liquid plants.

In recent years, China has reported large increases in stocks for crude oil and oil products. These stock increases are seen as consistent with trends in economic growth and development in China; however, information is currently lacking on the scale of the

infrastructure available for this magnitude of stock increases.

Natural gas

In the 2018 edition, based on new information, natural gas inputs to main activity heat plants and part of natural gas inputs to main activity electricity plants were allocated to main activity CHP plants for the period 2005-2016.

In the 2012 edition, information became available on natural gas consumption in public transportation in China. This consumption was added to the natural gas time series to ensure proper coverage of the transport sector.

Coal to gas output is estimated based on operational capacity of coal-to-gas plants.

Biofuels and waste

Since 2016, the IEA has been working with the Institute of Built Environment of Tsinghua University, Beijing, to improve its data on biomass consumption in the residential sector in China. Biomass figures have therefore been revised in this edition back to 1997 to reflect the results of their study and of IEA analysis. Information also became available in 2012 from NBS on the production and consumption of gangue, a mining waste product that has been classified as industrial waste in the IEA energy balances. This quantity of industrial waste is not likely to represent the only combustion of industrial waste in China; however, information is not available to provide more complete data on this activity.

Time series for liquid biofuels and biogases are based on tertiary sources of information and IEA Secretariat estimates. None of these time series are reported in the national energy balance of China.

Electricity and heat

In this edition, based on new information, heat production from main activity heat plants using coal and natural gas and part of electricity production from main activity electricity plants using coal and natural gas were attributed to main activity CHP plants for the period 2005-2015. Estimates on the electricity consumption in road transportation are included, starting with 2001 data.

Electricity production from pumped storage hydro is reported from 2010.

Time series for wind (prior to 2010), geothermal, solar photovoltaic and solar thermal generation are

based on tertiary sources of information and IEA Secretariat estimates. None of these time series are reported in the national energy balance of China.

Sources

Sources 1990 to 2017:

- *China Energy Statistical Yearbook*, National Bureau of Statistics, Beijing, various editions up to 2019.
- Direct communication with the China National Bureau of Statistics (NBS), Beijing.
- Direct communication with the China National Renewable Energy Centre (CNREC), National Energy Administration (NEA), Beijing.
- Direct communication with the Institute of Built Environment of Tsinghua University, Beijing.
- *Solar Heat Worldwide*, AEE - Institute for Sustainable Technologies, Gleisdorf, IEA Solar Heating & Cooling Programme, various editions up to 2019.
- China Electricity Council, online statistics, various editions up to 2017.
- *Trends in Photovoltaic Applications*, International Energy Agency Photovoltaic Power Systems Programme, 2013 edition.
- Zhang G., *Report on China's Energy Development 2010*, China's National Energy Administration, Beijing, editions 2009 to 2011.
- Zheng et. al, *Steady Industrialized Development of Geothermal Energy in China: Country Update Report*, Beijing, 2005-2009.
- Lund et. al, *Direct Utilization of Geothermal Energy 2010 Worldwide Review*, World Geothermal Congress, Bali, 2010.
- *The Global Biodiesel Balance for 2012 and 2013*, World Ethanol and Biofuels Report, F.O. Lichts, London, Vol. 11 No. 16, Apr. 23, 2013.
- IEA Secretariat estimates.

Sources up to 1990:

- *Electric Industry in China in 1987*, Ministry of Water Resources and Electric Power, Department of Planning, Beijing, 1988.
- *Outline of Rational Utilization and Conservation of Energy in China*, Bureau of Energy Conservation State Planning Commission, Beijing, June 1987.

- *China Coal Industry Yearbook*, Ministry of Coal Industry, People's Republic of China, Beijing, 1983, 1984, 1985 and 2000.
- *Energy in China 1989*, Ministry of Energy, People's Republic of China, Beijing, 1990.
- *China: A Statistics Survey 1975-1984*, State Statistical Bureau, Beijing, 1985.
- *China Petro-Chemical Corporation (SINOPEC) Annual Report*, SINOPEC, Beijing, 1987.
- *Almanac of China's Foreign Economic Relations and Trade*, The Editorial Board of the Almanac, Beijing, 1986.

Sources for biofuels and waste:

- IEA Secretariat estimates.

Colombia

General notes

In 2018, time series for the period 2013-2016 were revised based on new energy balances received from the Unidad de Planeación Minero Energética (UPME). Breaks in time series may occur between 2012 and 2013.

Sources

Sources 1992 to 2017:

- *Energy-Economic Information System (SIEE)*, Latin American Energy Organization (OLADE), Quito, accessed May 2019: <http://sier.olade.org/>.
- Unidad de Planeación Minero Energética (UPME) Online statistics, Ministerio de Minas y Energía, various editions up to 2017.
- Direct communication with the Ministry of Mines and Energy, Energy Information Department, Bogotá.
- *Statistics 1996-2017*, Sistema de Información Eléctrico Colombiano, Ministry of Mines and Energy, online statistics, various editions up to 2017.
- IEA Secretariat estimates.

Sources up to 1991:

- *Boletín Minero-Energético*, Ministerio de Minas y Energía, Bogotá, December 1991.
- *Estadísticas Minero-Energéticas 1940-1990*, Ministerio de Minas y Energía, Bogotá, 1990.

- *Estadísticas Básicas del Sector Carbón*, Carboacol, Oficina de Planeación, Bogotá, various editions from 1980 to 1988.
- *Colombia Estadística 1985*, DANE, Bogotá, 1970 to 1983 and 1987.
- *Empresa Colombiana de Petróleos, Informe Anual*, Empresa Colombiana de Petróleos, Bogotá, 1979, 1980, 1981 and 1985.
- *Estadísticas de la Industria Petrolera Colombiana Bogota 1979-1984*, Empresa Colombiana de Petróleos, Bogotá, 1985.
- *Informe Estadístico Sector Eléctrico Colombiano*, Government of Colombia, Bogotá, 1987 and 1988.
- *La Electrificación en Colombia 1984-1985*, Instituto Colombiano de Energía Eléctrica, Bogotá, 1986.
- *Balances Energéticos 1975-1986*, Ministerio de Minas y Energía, Bogotá, 1987.
- *Energía y Minas Para el Progreso Social 1982-1986*, Ministerio de Minas y Energía, Bogotá, 1987.

Sources for Biofuels and waste:

- Ministry of Mines and Energy, Energy Information Department, Bogotá.

Congo

General notes

For the 2019 edition new data were received from the Ministry of Energy and Hydraulics for all products in 2015, 2016 and 2017. Breaks in time series might appear between 2014 and 2015.

In 2016, time series for the period 2000-2012 were revised based on energy balances received from the Ministry of Energy. Breaks in time series may occur between 1999 and 2000.

The Imboulou Hydro Plant (120MW) began operating in May 2011.

Sources

Sources 1971 to 2017:

- Direct communication with the Ministère de l'Énergie et de l'Hydraulique, Brazzaville.
- *Rapport annuel SIE-Congo* up to 2014.
- Direct communication with the Agence de Régulation de l'Aval Pétrolier, Brazzaville.

- *Les chiffres caractéristiques de la Société Nationale d'Électricité 2005-2011*, SNE, Brazzaville.
- IEA Secretariat estimates.

Sources for biofuels and waste:

- *Rapport annuel SIE-Congo* up to 2014.
- IEA Secretariat estimates up to 1999 based on 1991 data from *Forests and Biomass Sub-sector in Africa*, African Energy Programme of the African Development Bank, Abidjan, 1996.

Costa Rica

General notes

In the 2019 edition, the IEA integrated revisions received from the country for the years 2006-2016. Most changes are for primary solid biofuels.

New information on use of coke oven coke in Costa Rica became available in 2019. Data were revised accordingly for the whole time series.

Until 2012, Costa Rican crude oil data might include NGL data.

Sources

Sources up to 2017:

- Direct communication with the Ministerio del Ambiente y Energía, San José.
- *Balance Energético Nacional*, Secretaría Planificación Subsector Energía (SEPSE), San José, various editions up to 2017
- IEA Secretariat estimates.

Côte d'Ivoire

General notes

For the 2019 edition revisions were received for 2016 data from the Direction de l'Énergie.

Sources

Sources 2013 to 2017:

- Direct communication with Direction de l'Énergie, Abidjan.

- AFREC Energy questionnaire, African Energy Commission, 2017-2019, submitted by Direction de l'Énergie, Abidjan.
- IEA Secretariat estimates.

Sources 2009 to 2012:

- Direct communication with Direction de l'Énergie, Abidjan.
- IEA Secretariat estimates.

Sources 2005 to 2008:

- WEC-IEA Joint Energy Reporting Format for Africa, questionnaire submitted by Direction de l'Énergie, Abidjan.
- Direct communication with Direction de l'Énergie, Abidjan.
- IEA Secretariat estimates.

Sources 2002 to 2004:

- Direct communication with the Ministry of Mines and Energy, Abidjan, 2005-2006, and IEA Secretariat estimates.

Sources 1992 to 2001:

- Direct communication with oil industry and the Ministry of Energy, Abidjan, July 2003.
- Direct communication with Société Ivoirienne de Raffinage, 2004.
- *La Côte d'Ivoire en chiffres*, Ministère de l'Économie et des Finances, Abidjan, 1996-97 edition.
- *L'Énergie en Afrique*, IEPE/ENDA, Paris, 1995, in turn sourced from Ministère des Mines et de l'Énergie, Abidjan.
- The UN Energy Statistics Database.

Sources up to 1991:

- *Études & Conjoncture 1982-1986*, Ministère de l'Économie et des Finances, Direction de la Planification et de la Prévision, Abidjan, 1987.

Sources for biofuels and waste:

- The Direction de l'Énergie provided data on biofuels starting in 2004 up until 2017. Some data points on input to charcoal transformation plant or consumption are estimated by the IEA secretariat to complete the time series.

- IEA Secretariat estimates up to 2003 based on 1991 data from *Forests and Biomass Sub-sector in Africa*, African Energy Programme of the African Development Bank, Abidjan, 1996.

Croatia

General notes

Data for Croatia are available starting in 1990. Prior to that, they are included in Former Yugoslavia.

Non-specified transformation of natural gas reported from 2007 refers to natural gas used by refineries for hydrogen production.

Breaks in time series may appear between 2007 and 2008 as transit data of electricity trade are not available for years prior to 2008.

Sources

Sources 1990 to 2017:

- Direct communication with the Energy Institute “Hrvoje Požar”, Zagreb.
- Direct communication with the Central Bureau of Statistics, Zagreb.
- Joint IEA/Eurostat/UNECE annual energy questionnaires.
- IEA Secretariat estimates.

Cuba

General notes

The IEA Secretariat did not obtain all official data for Cuba for 2017. As a consequence, some data points for 2017 are based on OLADE's balances or the IEA Secretariat's estimates. Official data updates for 2016 were integrated in the 2019 edition, leading to revisions of 2016 data.

In the 2018 edition, new information became available that led to revisions of the wind and solar PV data from 2000 to 2015.

Breaks in time series in the early 90s are assumed to be due to the codification into law of the embargo imposed on Cuba in 1992.

Figures for crude oil include additives added to reduce viscosity.

Sources

Sources up to 2017:

- *Energy-Economic Information System (SIEE)*, Latin American Energy Organization (OLADE), Quito, accessed April 2019: <http://sier.olade.org/>.
- *Anuario Estadístico de Cuba*, Oficina Nacional de Estadísticas, Havana, various editions from 1998 to 2018.
- *Renewable energy statistics 2019*, International Renewable Energy Agency (IRENA).
- *Estadísticas Energéticas en la Revolución*, Oficina Nacional de Estadísticas, Havana, September 2009 edition.
- *Compendio estadístico de energía de Cuba 1989*, Comité Estatal de Estadísticas, Havana, 1989.
- *Anuario Estadístico de Cuba*, Comité Estatal de Estadísticas, Havana, various editions from 1978 to 1987.
- *Anuario Estadístico de Cuba*, Oficina Nacional de Estadísticas, Havana, various editions from 1998 to 2015.
- IEA Secretariat estimates.

Curaçao

General notes

The IEA Secretariat estimated 2017 oil data for Curaçao since no official data on the operations of the Isla refinery were available by the time this publication was prepared. Refinery in- and outputs are estimated based on the IEA Secretariat expertise, while the demand side is estimated based on economic indicators of the region.

In the 2018 edition, new sources became available that led to revisions of the solar PV and wind data. This might lead to a break in time series between 2011 and 2012.

The Netherlands Antilles was dissolved on 10 October 2010, resulting in two new constituent countries, Curaçao and Sint Maarten, with the remaining islands joining the Netherlands as special municipalities. The methodology for accounting for the energy statistics of the Netherlands Antilles has been revised in order to follow the above-mentioned geographical changes. From 2012 onwards, data now account for the energy statistics of Curaçao Island only. Prior to 2012, data

remain unchanged and still cover the entire territory of the former Netherlands Antilles. This leads to breaks in time series between 2011 and 2012.

As the Isla Refinery in Curaçao did not operate to its maximum capacity in 2010, a break in time series might occur in that year for crude oil and oil products.

Sources

Sources 1997 to 2017:

- *Informe de Gestión Anual*, PDVSA - Petróleos de Venezuela, S.A., various editions up to 2016.
- *Statistics by subject*, Central Bureau of Statistics Curaçao, CBS, accessed April 2019: www.cbs.cw.
- *Renewable energy statistics 2019*, International Renewable Energy Agency (IRENA).
- *The Economy of Curaçao and Sint Maarten in Data and Charts, Yearly Overview 2007-2017*, Centrale Bank van Curaçao en Sint Maarten, Willemstad.
- *Statistical indicators 1998-2010*, Central Bank of Netherlands Antilles, Willemstad.
- Direct communication with the Isla Refinery, Emmastad, Curaçao, up to 2008.
- *Statistical Information*, Central Bureau of Statistics, Fort Amsterdam, up to 2008.
- IEA Secretariat estimates.

Cyprus

General notes

Note by Turkey:

The information in this document with reference to “Cyprus” relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognizes the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the “Cyprus issue”.

Note by all the European Union member states of the OECD and the European Union:

The Republic of Cyprus is recognized by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the government of the Republic of Cyprus.

Time series data from 2009-2010 for primary solid biofuels were revised based on newly available information. Breaks in time series may occur between 2008 and 2009 for these products.

Sources

Sources 1994 to 2017:

- Direct communication with the statistical service of Cyprus, Nicosia.
- Joint IEA/Eurostat/UNECE annual energy questionnaires.
- *Electricity Authority of Cyprus Annual Report 1996*, Electricity Authority of Cyprus, Nicosia, 1997.

Sources up to 1993:

- *Electricity Authority of Cyprus Annual Report 1988, 1992*, Electricity Authority of Cyprus, Nicosia, 1989 and 1993.
- *Industrial Statistics 1988*, Ministry of Finance, Department of Statistics, Nicosia, 1989.

Sources for biofuels and waste:

- Joint IEA/Eurostat/UNECE annual energy questionnaires on renewables.
- IEA Secretariat estimates.

Democratic People's Republic of Korea

General notes

The sources cited below provide domestic supply data for DPR Korea. All other flows are estimated by the IEA Secretariat.

2011 data for primary coals were revised based on new information in the 2014 edition. This may lead to breaks in the time series between 2010 and 2011 and differences in trends compared to previous editions for some products.

Sources

Sources 1971 to 2017:

- *North Korea Statistics*, Korean Statistical Information Service website, www.kosis.kr, Seoul.
- *World Trade Database*, prepared annually by the International Energy Agency.
- The UN Energy Statistics Database.

- IEA Secretariat estimates.

Sources for biofuels and waste:

- The UN Energy Statistics Database.
- *Forestry Statistics*, FAO, Rome, 2019.
- IEA Secretariat estimates.

Democratic Republic of the Congo

General notes

In the 2019 edition data became available for the split of consumption in industry. Breaks in time series may occur between 2016 and 2017 for electricity data.

In the 2015 edition, new information and methodologies regarding solid biofuels including charcoal became available. Breaks in time-series may occur between 2013 and 2014.

Sources

Sources up to 2017:

- AFREC Energy questionnaire, African Energy Commission, 2014 to 2017.
- IEA Secretariat estimates.

Sources up to 2013:

- Direct communication with the Ministère de l'Énergie, Kinshasa Gombe.
- Commission Nationale de l'Énergie, Ministère de l'Énergie, Kinshasa Gombe, 2005.
- WEC-IEA Joint Energy Reporting Format for Africa, 1999 to 2000.
- The UN Energy Statistics Database.
- *L'Énergie en Afrique*, IEPE/ENDA, Paris, 1995, in turn sourced from the *Annuaire Statistique Énergétique 1990*, Communauté Economique des Pays des Grands Lacs, Bujumbura, 1990.
- IEA Secretariat estimates.

Sources for biofuels and waste:

- AFREC Energy questionnaire, African Energy Commission, 2014 to 2017.
- IEA Secretariat estimates based on 1991 data from *Forests and Biomass Sub-sector in Africa*, African Energy Programme of the African Development Bank, Abidjan, 1996.

Dominican Republic

General notes

In the 2019 edition, data for the years 1998 to 2017 were revised following revision of the official data from Comisión nacional de energía (CNE). This revision leads to different figures compare to previous edition. CNE has also introduced breakdown of transport data.

In 2014 the national energy balance was adopted as the primary data source. This could lead to breaks in time series between 1997 and 1998 for some flows. In 2017 the breakdown of consumption data was integrated to IEA balance starting from year of 1998.

Sources

Sources 1971 to 2016:

- *Balance energía neta*, Comisión nacional de energía, Santo Domingo various editions up to 2017
- *Energy-Economic Information System (SIEE)*, Latin American Energy Organization (OLADE), Quito, accessed Mar 2019: <http://sier.olade.org/>.
- *Importación de petróleo y derivados*, Ministre de Industria y Comercio (MIC), Santo Domingo, various editions up to 2012.
- *Capacidad instalada y generación del SENI por año, según tecnología, 2000-2010*, Oficina Nacional de Estadística, Santo Domingo.
- IEA Secretariat estimates.

Ecuador

General notes

Crude oil production and export data do not include field condensate. Field condensate quantities are included with natural gas liquids

In the 2019 edition, data for Ecuador were revised for the years 2007 to 2016, following revision of the official data from Instituto de Investigación Geológico y Energético for national and international bunkers for oil products.

Solid biofuels data for the years 2007-2016 were revised in the 2019 edition. This leads to different figures compared to previous editions.

In the 2015 edition new information became available regarding production and consumption of refinery

fuel. This may lead to breaks in time series between 2012 and 2013 (2011 and 2012) for some oil products.

A new hydro plant opened in northern Ecuador in 2015.

Sources

Sources 1999 to 2017:

- Direct communication with the Instituto de Investigación Geológico y Energético, Quito.
- *Energy-Economic Information System (SIEE)*, Latin American Energy Organization (OLADE), Quito, accessed May 201: <http://sier.olade.org/>.
- Direct communication with the Ministerio de Recursos Naturales No Renovables, Quito, up to 2014.
- Direct communication with the Ministerio de Minas y Petróleos, Quito, up to 2011.
- Balance Energético Nacional – Resumen, Ministerio Coordinador de Sectores Estratégicos, Quito, various editions up to 2015.
- *Estadística del Sector Eléctrico Ecuatoriano*, Agencia de Regulación y Control de Electricidad Arconel, Quito.
- *Informe Estadístico, & Informe Cifras Petroleras*, Petroecuador, Empresa Estatal Petróleos del Ecuador, Quito.
- *Reporte del Sector Petrolero*, Banco Central del Ecuador, Quito.
- IEA Secretariat estimates.

Sources 1990 to 1998:

- *Energy-Economic Information System (SIEE)*, Latin American Energy Organization (OLADE), Quito: <http://sier.olade.org/>.

Sources up to 1989:

- Ministerio de Energía y Minas.
- *Cuentas Nacionales*, Banco Central del Ecuador, Quito, various editions from 1982 to 1987.
- *Memoria 1980-1984*, Banco Central del Ecuador, Quito, 1985.
- *Ecuadorian Energy Balances 1974-1986*, Instituto Nacional de Energía, Quito, 1987.
- *Información Estadística Mensual, No. 1610*, Instituto Nacional de Energía, Quito, 1988.
- *Plan Maestro de Electrificación de Ecuador*, Ministerio de Energía y Minas, Quito, 1989.

Egypt

General notes

Data are reported on a fiscal year basis. Data for 2017 correspond to 1 July 2017-30 June 2018.

Data for 2017 were not submitted by Egypt and are based on IEA secretariat estimates. When no qualitative information was available to estimate differently the IEA Secretariat estimated 2017 equal to 2016.

Stock changes may include informal trade.

The IEA Secretariat has revised marine bunkers back to 2004. Data from 2004 are now based on data received from the Egyptian Authorities.

Sources

Sources 1992 to 2017:

- Direct communication with the Central Agency for Public Mobilization and Statistics, Cairo, CAPMAS.
- Direct communication with the Organisation for Energy Planning, Cairo.
- WEC-IEA Joint Energy Reporting Format for Africa, 2000 to 2012.
- Direct submission to the IEA Secretariat from the Ministry of Petroleum, Cairo.
- JODI- Oil World database, Joint Organisations Data Initiative (JODI), accessed May 2019: <https://www.jodidata.org/oil/>.
- *Statistical Bulletin*, Arab Union of Producers, Transporters and Distributors of Electricity (AUPTDE), Amman, various editions up to 2017.
- *Natural Gas in the World*, Cedigaz, Paris, various editions up to 2018.
- *Annual Report 1995, 1997, 1998, 1999*, Ministry of Petroleum, Egyptian General Petroleum Corporation, Cairo, 1996, 1998 to 2000.
- *Annual Report of Electricity Statistics 1996/1997 to 2010/2011*, Ministry of Electricity and Energy, Egyptian Electricity Holding Company, Cairo, 1998 to 2012.
- *Arab Oil and Gas*, The Arab Petroleum Research Center, Paris, October 1997.
- *Middle East Economic Survey*, Middle East Petroleum and Economic Publications, Nicosia, February 1994, June 1996, March 1998.

- *A Survey of the Egyptian Oil Industry 1993*, Embassy of the United States of America in Cairo, Cairo, 1994.
- IEA Secretariat estimates.

Sources up to 1991:

- *Annual Report of Electricity Statistics 1990/1991*, Ministry of Electricity and Energy, Egyptian Electricity Authority, Cairo, 1992.
- *Statistical Yearbook of the Arab Republic of Egypt*, Central Agency for Public Mobilisation and Statistics, Cairo, 1977 to 1986.
- *L'Électricité, l'Énergie, et le Pétrole*, République Arabe d'Égypte, Organisme Général de l'Information, Cairo, 1990.
- *Annual Report*, The Egyptian General Petroleum Corporation, Cairo, 1985.

Sources for biofuels and waste:

- The UN Energy Statistics Database.
- IEA Secretariat estimates.

El Salvador

General notes

In the 2019 edition, data for El Salvador for the years 2014 to 2016 has been revised across all products and flows following revision of the official data from El Salvador's Consejo Nacional de Energía (CNE).

Solid biofuels data for the years 2000-2016 were revised in the 2019 edition. This leads to a break in time series between 1999 and 2000. During this revision, data from 2007 on were updated to use the data from the CNE's balance. This leads to breaks in the time series of wood and charcoal between 2006 and 2007, and between 2013 and 2014 in which years El Salvador updated their data following the results of a new survey.

The only refinery in El Salvador shut down in 2012.

Sources

Sources up to 2017:

- *Balances Energeticos*, Consejo Nacional de Energía (CNE), San Salvador, various editions from 2007 to 2017.

- *Boletín de Estadísticas*, Superintendencia General de Electricidad y Telecomunicaciones (SIGET), San Salvador, various editions from 1998 to 2017.
- *Energy-Economic Information System (SIEE)*, Latin American Energy Organization (OLADE), Quito, accessed April 2019: <http://sier.olade.org/>.
- *Centroamérica: estadísticas de hidrocarburos, 2017*. Comisión Económica para América Latina y el Caribe (CEPAL), various editions from 2009-2017.
- IEA Secretariat estimates.

Sources for biofuels and waste:

- *Balances Energeticos*, Consejo Nacional de Energia (CNE), San Salvador, various editions from 2007 to 2017.
- *Energy-Economic Information System (SIEE)*, Latin American Energy Organization (OLADE), Quito, accessed April 2019: <http://sier.olade.org/>.
- IEA Secretariat estimates.

Eritrea

General notes

The IEA Secretariat could not obtain data from 2011 to 2017 from Eritrea in time. As a consequence, data for these years have been estimated based on population growth for biomass and household consumption, and GDP growth for other products.

For the 2019 edition OAG data was used to estimate the share of domestic and international bunkering for aviation fuel between 2005 and 2017. Breaks in time series might occur between 2004 and 2005.

Data for Eritrea are available from 1992. Prior to 1992, data are included in Ethiopia.

Solid biofuels consumption data have been periodically re-estimated by Eritrea. This may result in breaks in time series for this product in 1998 and 2003.

Sources

Sources 2011 to 2017:

- IEA Secretariat estimates.
- OAG (2018), Origin-Destination of Commercial Flights (database), OAG Aviation, Luton, www.oag.com/analytics/traffic-analyser.

Sources 1992 to 2010:

- Direct Communication with the Ministry of Energy and Mines, Asmara.
- IEA Secretariat estimates.

Ethiopia

General notes

Ethiopia energy data include Eritrea from 1971 to 1991. From 1992, the two countries are reported separately.

Data are reported according to the Ethiopian financial year, which runs from 1 July to 30 June of the next year.

Electricity data were revised in the 2017 edition based on ministry reporting split between wind and geothermal production since 2011.

For the 2019 edition OAG data was used to estimate the share of domestic and international bunkering for aviation fuel between 2005 and 2017. Breaks in time series might occur between 2004 and 2005. Data for 2017 are estimated by IEA secretariat.

Solar PV data comes from IRENA estimations of the off grid generation.

The Aluto Langano pilot geothermal power plant began an expansion project in 2010. Breaks in geothermal time series can be seen in 2010 due to the plant being out of commission.

Sources

Sources 2012 to 2017:

- Direct communication with the Ministry of Water, Irrigation, and Energy, Addis Ababa.
- *Renewable energy statistics 2019*, International Renewable Energy Agency (IRENA).
- *Existing Power Plants*, Ethiopian Electric Power Corporation, online database, 2014.
- *Biomass Energy Strategy Formulation for Ethiopia*, European Union Energy initiative, in cooperation with the Ethiopian Ministry for Water and Energy, Germany, 2013
- OAG (2018), Origin-Destination of Commercial Flights (database), OAG Aviation, Luton, www.oag.com/analytics/traffic-analyser.
- IEA Secretariat estimates.

Sources 1992 to 2012:

- Direct communication with the Ministry of Mines and Energy, Addis Ababa.
- Direct communication with the Energy Development Follow-up and Expansion Department of the Ministry of Infrastructure, Addis Ababa, 2004 and 2005.
- Direct communication with the Ministry of Finance and Economic Development, Addis Ababa, 1998 to 2003.
- The UN Energy Statistics Database.
- IEA Secretariat estimates.

Sources up to 1991:

- *Ten Years of Petroleum Imports, Refinery Products, and Exports*, Ministry of Mines & Energy, Addis Ababa, 1989.
- *Energy Balance for the Year 1984*, Ministry of Mines & Energy, Addis Ababa, 1985.
- *1983 Annual Report*, National Bank of Ethiopia, Addis Ababa, 1984.
- *Quarterly Bulletin*, National Bank of Ethiopia, Addis Ababa, various editions from 1980 to 1985.

Sources for biofuels and waste:

- *Biomass Data 2007-2012*, Ministry of Water and Energy, Addis Ababa, 2012.
- IEA Secretariat estimates up to 2006 based on 1992 data from Eshetu and Bogale, *Power Restructuring in Ethiopia*, AFREPREN, Nairobi, 1996.

Gabon

General notes

For 2019 edition, 2016 and 2017 data were not available by the time this publication was prepared. Data for both years were therefore estimated by the IEA secretariat.

In the 2018 edition, revisions to natural gas production were made from 2013 to 2015. Breaks in time series can be seen from 2013 to 2014.

In the 2017 edition, revisions were made to the residential oil products consumption from the time period of 2010 to 2014 to take into account newly

available data. This may result in a break in time series between 2009 and 2010 for LPG and kerosene. Revisions were made for crude oil production for the whole time series.

Sources**Sources 1992 to 2017:**

- AFREC Energy questionnaire, African Energy Commission, 2015.
- *Rapport annuel de la SEEG*, Société d'Énergie et d'Eau du Gabon, Libreville, various editions from 2000 to 2016.
- *Natural Gas in the World*, Cedigaz, Paris, various editions up to 2018.
- OAG (2018), Origin-Destination of Commercial Flights (database), OAG Aviation, Luton, www.oag.com/analytics/traffic-analyser.
- *Tableau historique de production de 1957 à nos jours*, Total Gabon, online database, 2015.
- *Statistiques économiques*, Banque des Etats de l'Afrique Centrale (BEAC), online database, 2011.
- *Annuaire Statistique du Gabon*, Ministère de l'économie, du commerce, de l'industrie et du tourisme, Libreville, 2001 to 2007 and 2004 to 2008, 2011.
- Direct communication with Direction Générale de L'Energie, Libreville, 2003 to 2008.
- Direct communication with Société Gabonaise de Raffinage, Port Gentil, 1997, 2000 to 2006, 2008 to 2009.
- *Tableau de Bord de l'Economie, Situation 1997, Perspectives 1998-1999*, Direction Générale de l'Economie, Ministère des Finance, de l'Economie, du Budget et des participations, chargé de la privatisation, May 1998.
- *Rapport d'Activité*, Banque Gabonaise de Développement, Libreville, 1985, 1990, 1992 and 1993.
- The UN Energy Statistics Database.
- IEA Secretariat estimates.

Sources up to 1991:

- *Tableau de Bord de l'Economie, Situation 1983 Perspective 1984-85*, Ministère de l'Economie et des Finances, Direction Générale de l'Economie, Libreville, 1984.

Sources for biofuels and waste:

- IEA Secretariat estimates based on 1991 data from *Forests and Biomass Sub-sector in Africa*, African Energy Programme of the African Development Bank, Abidjan, 1996.

Georgia**General notes**

Data for Georgia are available starting in 1990. Prior to that, they are included in Former Soviet Union.

Georgia is one of the 11 EU4Energy focus countries.

Energy data for Georgia do not include Abkhazia and South Ossetia.

In 2015, a refinery started operating in Georgia.

In 2015, trade of crude oil includes a share of crude oil blended with fuel oil. This explains breaks in time series from 2014.

In 2015, trade of natural gas for the year might include re-export.

Between 2014 and 2015, a break in stock level time series appears for some oil products as the National Statistical Office (GEOSTAT) received more detailed information on stocks of oil products.

Between 2012 and 2013, breaks in time series may appear for some products, as data collection and submission to the IEA became the responsibility of the National Statistical Office (GEOSTAT), whereas it used to be done by the Energy Efficiency Centre.

Since 2011, heat production has stopped due to the shutdown of combined heat and power plants.

Sources**Sources 2015 to 2017:**

- Direct communication with GEOSTAT.
- Joint IEA/Eurostat/UNECE annual energy questionnaires.

Sources 2013 to 2014:

- Direct communication with GEOSTAT. The National Statistical Office started submitting Joint IEA/Eurostat/UNECE questionnaires in 2015 (2013 data).
- IEA Secretariat estimates.

Sources 2008 to 2012:

- Direct communication with the Energy Efficiency Centre Georgia, Tbilisi.
- IEA Secretariat estimates.

Sources 1990 to 2008:

- *Official Energy Balance of Georgia 1990-1999, 2000-2008*, Ministry of Economy and Ministry of Energy, Tbilisi.
- IEA Secretariat estimates.

Ghana**General notes**

Production from the TEN field started in 2016 and from the Sankofa Gye Nyame Field in 2017. Breaks in time series might occur between 2016 and 2017.

Ghana published new data on fuelwood. Time series from 2008 to 2016 were consequently revised in the 2019 edition. Breaks in time series might occur between 2007 and 2008.

In 2014, Ghana started to exploit gas that was previously flared.

Primary solid biomass figures for 2000-2012 were revised in the 2015 edition, as new information became available. Breaks in time series might occur between 1999 and 2000.

In 2011, Ghana began oil production from the Jubilee fields, resulting in a change in crude production and exports between 2010 and 2011.

Data were revised for electricity, oil products and biofuels until 2000 and from 2009 to 2012 based on new information received from the Energy Commission. Breaks in time series may occur for these products.

Sources**Sources up to 2017:**

- Direct communication with the Energy Commission, Accra.
- *National Energy Statistics 2008-2017*, Energy Commission, Accra, 2018.

- *National Energy Statistics 2007-2016*, Energy Commission, Accra, 2017.
- *National Energy Statistics 2000-2015*, Energy Commission, Accra, 2015.
- AFREC Energy questionnaire, African Energy Commission, 2015.
- Detailed Statistics of Petroleum Products Consumption 1999-2008, National Petroleum Authority, Accra, 2009.
- *National Energy Statistics*, Ministry of Energy and Mines, Accra, 2000.
- *Quarterly Digest of Statistics*, Government of Ghana, Statistical Services, Accra, March 1990, March 1991, March 1992, March 1995.
- *Energy Balances*, Volta River Authority, Accra, various editions from 1970 to 1985.
- IEA Secretariat estimates.

Sources for biofuels and waste:

- National Energy Statistics, Energy Commission, Accra, publications up to 2018.
- Ministry of Mines and Energy.
- The UN Energy Statistics Database.
- IEA Secretariat estimates.

Gibraltar

General notes

In the 2019 edition, 2016 and 2017 data were estimated since no new editions of the Abstract of Statistics have been published.

In the 2015 edition, the time series for residual fuel oil and gas/diesel oil consumed as international marine bunkers were revised based on newly available information.

Sources

Sources up to 2017:

- *Abstract of Statistics*, Government of Gibraltar, Gibraltar, various editions up to 2015.
- Gibraltar Port Authority, Gibraltar, 2017.
- Gibraltar Electricity Authority, Gibraltar, 2015.
- IEA Secretariat estimates.

Guatemala

General notes

In the 2019 edition, data on the production and export of liquid biofuels were added for the years 2005-2017.

New information on the domestic consumption of jet kerosene became available in the 2019 edition for the years 2010-2017. The consequent revisions may lead to break in time series between 2009 and 2010.

In the 2018 edition, data for 2010 to 2015 were revised to take into account new information from the ministry of energy and mines. Breaks in time series may occur during this period for electricity production as well as for the oil products and biofuels balances.

Orimulsion was imported between 2004 and 2006 for electricity generation and is reported under Other Hydrocarbons.

The Texaco refinery in Escuintla ceased operations in 2002.

Sources

Sources up to 2017:

- Direct communication with the Dirección Nacional de Energía, Ministerio de Energía y Minas, Guatemala City.
- *Energy-Economic Information System (SIEE)*, Latin American Energy Organization (OLADE), Quito, accessed March 2019: <http://sier.olade.org/>.
- *Informe Balance Energético, 2010, 2011, 2012, 2013, 2014, 2015, 2016 and 2017* Ministry of Energy and Mines, Guatemala City.
- *Estadísticas Energéticas – Subsector Eléctrico*, 2010 to 2017 editions, Ministry of Energy and Mines, Guatemala City.
- Production, consumption, exports and imports of oil products, Ministry of Energy and Mines, Guatemala City, 2017.
- World Ethanol and Biofuels Report, F.O. Lichts, London, accessed April 2019.
- OAG (2018), Origin-Destination of Commercial Flights (database), OAG Aviation, Luton, www.oag.com/analytics/traffic-analyser.
- IEA Secretariat estimates.

Haiti

General notes

Solar PV generation has been estimated by the IEA Secretariat using OLADE estimations of the capacity.

In the 2014 edition, data for solid biofuels and waste products were revised from 2004 to 2012 based on revisions made by OLADE. Breaks in time series may occur during this period for some products.

Sources

Sources 2009 to 2017:

- *Energy-Economic Information System (SIEE)*, Latin American Energy Organization (OLADE), Quito, accessed March 2019: <http://sier.olade.org/>.
- Direct communication with Bureau des Mines et de l'Énergie, Port-au-Prince.
- *Tableau de suivi du secteur électricité*, Ministère de l'Économie et des Finances de la République d'Haïti.
- IEA Secretariat estimates.

Sources 2008:

- Direct communication with Ministère des Travaux Publics, Transports et Communications, Haiti.
- IEA Secretariat estimates.

Sources 2005 to 2007:

- *Energy-Economic Information System (SIEE)*, Latin American Energy Organization (OLADE), Quito: <http://sier.olade.org/>.

Sources up to 2004:

- Direct communication with Bureau des Mines et de l'Énergie, Port-au-Prince.

Honduras

General notes

Final official data of Honduras were not available at the time of publication, so 2017 data are estimated.

In the 2019 edition, the IEA secretariat came across new information on the shares of international and domestic aviation in Honduras. The revisions made to integrate this information lead to breaks in time series between 2014 and 2015.

OLADE revised data for the period 2009 – 2014. Where taken into account, they might create breaks in time series.

Sources

Sources 2007 to 2017:

- *Energy-Economic Information System (SIEE)*, Latin American Energy Organization (OLADE), Quito, accessed April 2019: <http://sier.olade.org/>.
- *Anuario Estadístico*, Empresa Nacional de Energía Eléctrica (ENEE), Tegucigalpa, several editions up to 2017.
- OAG (2018), Origin-Destination of Commercial Flights (database), OAG Aviation, Luton, www.oag.com/analytics/traffic-analyser.
- *Centroamérica: Estadísticas de Hidrocarburos*, Comisión Económica para América y el Caribe (CEPAL), United Nations, Mexico, several editions up to 2013.
- *Centroamérica: Estadísticas de Producción del Subsector Eléctrico*, Comisión Económica para América y el Caribe (CEPAL), United Nations, Mexico, several editions up to 2013.
- IEA Secretariat estimates.

Sources up to 2006:

- Direct communication with Empresa Nacional de Energía Eléctrica, Comayagüela.
- Direct Communication with the Secretariat de Recursos Naturales y del Ambiente, Tegucigalpa.
- *Energy-Economic Information System (SIEE)*, Latin American Energy Organization (OLADE), Quito: <http://sier.olade.org/>.

Hong Kong, China

General notes

In the 2018 edition, data for electricity losses and own use breakdown became available for the period 2013-2017. For the period 1971-2012, electricity losses include electricity own use.

In the 2016 edition, trade data for various other petroleum products were revised based on newly available information. Breaks in time series may occur between 2000 and 2001.

Imports of non-specified oil products used for non-energy purposes are estimated by the IEA Secretariat based on fixed shares of the total imports reported.

Sources

Sources up to 2017:

- *Hong Kong Energy Statistics - Annual Report*, Census and Statistics Department, Hong Kong Special Administrative Region, various editions up to 2017.
- *Hong Kong Merchandise Trade Statistics – Domestic Exports and Re-exports/ Imports*, Census and Statistics Department, Hong Kong Special Administrative Region, various editions up to December 2017.
- Direct communication with The Hongkong Electric Company, Ltd, Hong Kong.
- *China Light & Power - Annual Report*, China Light & Power Group, Hong Kong, several editions up to 2018.
- *China Light & Power – Facility Performance Statistics*, China Light & Power Group, Hong Kong, several editions up to 2018.
- *Hong Kong Monthly Digest of Statistics*, Census and Statistics Department, Hong Kong, various editions to 1994.
- *Towngas - Annual Report*, The Hong Kong and China Gas Company Ltd., Hong Kong, several editions up to 2013.

Sources for biofuels and waste:

- *Hong Kong Energy End-use Data*, EMSD, The Electrical & Mechanical Services Department, Government of Hong Kong, several editions up to 2017.
- The UN Energy Statistics Database.
- *Hong Kong Energy Statistics - Annual Report 2003*.
- IEA Secretariat estimates.

India

General notes

India joined the IEA as an Association country in March 2017.

Data are reported by India on a fiscal year basis. Data for 2017 correspond to 1 April 2017 – 31 March 2018.

Coal

In 2015, significant revisions of the net calorific values of the different types of coal were made for the whole time series, based on official data as well as IEA and other expert estimates. As a result, there have been significant changes for the coal data when presented in energy units, as well as in the calculated efficiency of coal fired power generation. Data on the production and consumption of secondary coal products may have also been revised as a result.

The net calorific values of coking coal, sub-bituminous coal and other bituminous coal, were revised again in 2018 to take into account more detailed information on imports and IEA Secretariat experts estimates.

From 2008, due to a notable discrepancy between official coal imports from India and coal exports to India as reported by trade partners, imports of coking coal and non-coking coal are estimated by the IEA Secretariat, based on trade partners' data. The breakdown of non-coking coal imports between bituminous coal and sub-bituminous coal is estimated from 2008. This could lead to breaks in time series between 2007 and 2008.

Coking coal figures for India do not align with IEA definitions as they include production of non-metallurgical coking coal reported by India.

Due to data limitations, IEA Secretariat estimates are used for some products and flows, including supply and demand of coke oven gas and blast furnace gas. Coke oven coke production is estimated from 2006 based on growth of blast furnace iron production, as official production data do not include production from small private producers.

Oil

In the 2018 edition, petroleum coke consumption by the non-metallic mineral industries was revised based on information on cement production estimated by the IEA Secretariat based on United States Geological Survey Mineral Industry Report on India. This may lead to breaks in time series as well as differences with previous editions.

Information on stock changes of crude oil and oil products, available from the JODI database from April 2011, was added to the 2014 edition. Breaks in time series may appear in stock changes between 2010 and 2011. Based on data available by the Ministry of Petroleum and Gas, refinery intake is split between crude oil and refinery feedstocks from 1999. The refinery feedstocks reported by the IEA

Secretariat correspond to the quantities officially reported as “other inputs” to Reliance Refineries. They do not include additives and refinery feedstocks to other Indian refineries. These missing inputs could reach up to 2.5 million tonnes.

Data for diesel consumption from 2008 are partially based on an official survey on the end use of diesel retail sales. The IEA Secretariat classifies the diesel used in mobile phone towers and non-industry power generators as input to autoproducer electricity generation. A corresponding electricity output is estimated.

No NGL production is officially reported by India. The NGL production estimated by the IEA Secretariat corresponds to the production of oil products from gas separation plants, known in India as “fractionators”. In the IEA methodology, the output of oil products from gas separation plants comes from an input of NGL and the separation process is shown in the transfer row. Prior to 2005-06, the split of fractionator output between petroleum products is estimated by the IEA Secretariat.

No breakdown of refinery fuel by products is currently officially available. Refinery gas production is estimated based on expected refinery output for the years where using official data would lead to refinery gains. Due to notable breaks in official data for fuel oil, consumption of fuel oil in international marine bunkers is estimated between 1990 and 2002 based on industry sources and from 2003 onwards based on Ministry of Shipping cargo data; final consumption of fuel oil is estimated from 2004 based on 2003 data and official trends from Ministry of Petroleum and Natural Gas.

Natural gas

Natural gas imports for India from 2008 are based on Indian Customs data, in order to include all LNG importers.

No data are officially available on the sectoral consumption of re-gasified LNG and city gas. The breakdown is estimated by the IEA Secretariat.

Biofuels and waste

Due to data limitations, use of biogas produced in family biogas plants for cooking is currently not estimated by the IEA Secretariat. Data for liquid biofuels production are based on USDA estimates for the calendar year.

Bagasse input to power generation and co-generation is reported altogether as input to autoproducer

electricity plants. Up to 2015 data, in only includes bagasse used to produce power as a surplus sold to the grid. From 2016 onwards, capacity data reported by MNRE include non surplus capacity; the input of bagasse estimated by the IEA Secretariat therefore includes not only what generates electricity sold to the grid but the total input of bagasse. Breaks in time series occur between 2015 and 2016.

In the 2018 edition, data on the 2001-2016 residential consumption of wood, charcoal and other vegetal matters and residues were revised using data from the World Health Organisation on reliance on biomass for cooking. Breaks in time series may appear between 2000 and 2001.

In 2015, estimates of the production and consumption of charcoal have been added for the whole time series, as well as the respective inputs of fuelwood to charcoal production plants.

Electricity and heat

Data for total electricity generation include estimates for electricity generation from diesel by non-industrial autoproducers as well as off-grid electricity generation from renewable energy. In 2017, data on the electricity consumption by industrial sub-sector have been added. 2016 and 2017 data are estimated by the IEA Secretariat.

Only information on total on-grid generation from renewables is officially available. The breakdown between sources was estimated by the IEA Secretariat from 2007 using official data on capacities from MNRE. Total off-grid generation and split by sources are estimated based on capacities from 2007 onward.

Solar power generation data reported by CEA include both solar PV generation and CSP generation. It is currently reported in the Solar PV commodity balance. The IEA Secretariat Solar thermal data only include what derives from heat systems.

Output of biomass power generation and bagasse co-generation is reported altogether as output of autoproducer electricity plants. Up to 2015 data, in only includes the surplus power generation sold to the grid. From 2016 onwards, capacity data reported by MNRE include non surplus capacity; the input output of electricity estimated by the IEA Secretariat therefore corresponds to the total output of electricity. Breaks in time series occur between 2015 and 2016.

According to newly available information, estimates of solar thermal output up to 2012 may include systems

that were out of operation. For this reason, a break in time series might occur between 2012 and 2013.

Sources

Sources 1992 to 2017:

- Direct communication with the Central Statistical Office, Ministry of Statistics and Programme Implementation, Government of India, New Delhi.
- *Energy Statistics*, Central Statistical Office, Ministry of Statistics and Programme Implementation, New Delhi, various editions up to 2019 (2017-2018 data).
- *Monthly Abstract of Statistics*, Ministry of Planning, Central Statistics Organisation, Department of Statistics, New Delhi, various editions from 1984 to 2000.

Coal

- Direct communication with the Coal Controller's Organization, Ministry of Coal, Government of India, Kolkata.
- *Coal Directory of India*, Coal Controller's Organization, Ministry of Coal, Kolkata, various editions up to 2018 (2016-2017 data).
- *Provisional Coal Statistics*, Coal Controller's Organization, Ministry of Coal, Kolkata, various editions up to 2019 (2017-2018 data).
- *Annual Review of Coal Statistics*, Coal Controller's Organization, Ministry of Coal, Kolkata, various editions from 1993-1994 to 1998-1999.

Oil and natural gas

- Direct communication with the Economic Division and Petroleum Planning and Analysis Cell, Ministry of Petroleum and Natural Gas, Government of India, New Delhi.
- *Indian Petroleum and Natural Gas Statistics*, Ministry of Petroleum and Natural Gas, New Delhi, various editions from 2000-01 to 2017-18.
- *Petroleum and Natural Gas data*, website of Petroleum Planning and Analysis Cell, Ministry of Petroleum and Natural Gas, New Delhi, http://ppac.org.in/content/3_1_Petroleum.aspx, last accessed on February 26, 2019.
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Biofuels and waste

- Direct communication with the Ministry of New and Renewable Energy, Government of India, New Delhi.
- *Annual Report*, Ministry of New and Renewable Energy, Government of India, New Delhi, various editions from 2008-2009 to 2017-2018.
- *Physical Targets and Achievements During the 11th Plan*, Ministry of New and Renewable Energy, Open Government Data Platform India, data.gov.in, accessed 8.4.2014
- *Renewable Energy in India: Progress, Vision and Strategy*, Ministry of New and Renewable Energy, 2010.

- *Annual Report 1994-1996, 1998-1999*, Ministry of Energy, Department of Non-Conventional Energy, New Delhi, 1996 and 1999.
- *India – Biofuels Annual*, Global Agriculture Information Network (GAIN) Report, USDA Foreign Agriculture Service, New Delhi, several editions from 2014 to 2018.
- *Energy Data Directory, Yearbook "TEDDY"*, and *Annual Report*, The Energy and Resources Institute "TERI", New Delhi, 1994-2000, 2014-15.
- *India's Energy Sector, July 1995*, Center for Monitoring Indian Economy PVT Ltd., Bombay, 1995.
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Sources up to 1991:

- *Indian Oil Corporation Limited 1987-88 Annual Report*, Indian Oil Corporation Limited, New Delhi, 1989-1992.
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Indonesia

General notes

Indonesia joined the IEA as an Association country in November 2015.

For 2012-2017 coal exports data from BPS are used. This results in breaks in time series for 2011-2012.

Non-specified industry consumption is re-estimated by the IEA Secretariat.

The production and allocation of coal among the various coal types and products between 2000 and 2017 are estimated by the IEA Secretariat due to data collection limitations.

In 2015, data reported for coal consumption in pulp and paper industry might also include coal consumed in the textile and fertilizers sectors. This may create breaks in time series.

Electricity consumption for the agricultural sector is estimated by the IEA Secretariat for 2000-2017. This may lead to breaks in time series between 1999 and 2000.

The IEA Secretariat estimates coking coal production for the period 2014-2017. Breaks in time series may appear between 2013 and 2014.

New information on the use of municipal waste and solid biofuels for power generation became available to the Ministry of Energy and Mineral Resources this year. This leads to a break in time series between 2016 and 2017.

In the 2019 edition, the IEA Secretariat came across new information regarding the use of coal in Indonesia's industry sector. First estimates of this use may lead to breaks in time series between 2015 and 2016, as well as between 2016 and 2017.

Sources

Sources 2008 to 2017:

- Direct communication with the Data Centre and Information Technology (PUSDATIN), Ministry of Energy and Mineral Resources, Jakarta.
- *Handbook of Energy & Economic Statistics of Indonesia*, PUSDATIN, Ministry of Energy and Mineral Resources (ESDM), Jakarta, various editions up to 2018.
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- *Statistik Perminyakan Indonesia 1995 to 1999*, Indonesia Oil and Gas Statistics, Directorate General of Oil and Gas, Jakarta, 2001.
- *Neraca energy 2000*, Energy Balance of Indonesia 2000, Asean Center for Energy.
- *Mining and Energy Yearbook*, 1998, Ministry of Mines and Energy, Jakarta, 1998.
- APEC annual energy statistics questionnaires.
- Direct communication with Directorate General of Coal and Mineral Resources, Directorate General Oil and Gas, and Directorate General of Electricity and Energy Utilisation of the Ministry of Energy and Mineral Resources.
- Direct communication with the Indonesian Institute for Energy Economics, 2004 and 2005.
- Direct communication with the ASEAN Centre for Energy, 2005.

Sources up to 1991:

- *Indonesian Financial Statistics*, Bank of Indonesia, Jakarta, 1982.
- *Indikator Ekonomi 1980-1985*, Biro Pusat Statistik, Jakarta, 1986.
- *Statistical Yearbook of Indonesia*, Biro Pusat Statistik, Jakarta, 1978 to 1984 and 1992.
- *Statistik Pertambangan Umum*, 1973-1985, Biro Pusat Statistik, Jakarta, 1986.
- *Energy Planning for Development in Indonesia*, Directorate General for Power, Ministry of Mines and Energy, Jakarta, 1981.
- *Commercial Information*, Electric Power Corporation, Perusahaan Umum Listrik Negara, Jakarta, 1984, 1985.

Sources for Biofuels and waste:

- *GAIN Report - Indonesia biofuels Annual*, United States Department of Agriculture, various editions up to 2018.
- The UN Energy Statistics Database
- IEA Secretariat estimates.
- Direct communication with Indonesian Biofuel Producer Association (APROBI), Jakarta.

Islamic Republic of Iran

General notes

Data are reported according to the Iranian calendar year. Data for 2017 correspond to 20 March 2017 – 19 March 2018, which is Iranian year 1396.

Primary oil products (Crude oil, NGL and Condensates) data are estimated based on data from OPEC, JODI.

Crude oil production and export data do not include field condensate. Field condensate quantities are included with natural gas liquids.

Statistical differences in the Islamic Republic of Iran statistics and balances can include stock change for some coal and oil products.

More detailed information for the consumption of coke oven coke became available for 2009-2012. Breaks in time series may occur between 2008 and 2009.

Sources**Sources 1999 to 2017:**

- Direct communication with the Ministry of Energy, Teheran.
- *Energy Balance of Iran, Department of Energy*, Teheran, various editions up to the Iranian year 1393, Teheran.
- *Statistical Report on 49 Years of Activities of Iran Electric Power Industry (1967-2015)*, Tavanir Holding Company, Tehran, 2016.
- *Iran Electric Power Industry 2017-2018*, Tavanir Holding Company, Tehran, 2018.
- JODI- Oil World database, Joint Organisations Data Initiative (JODI), accessed May 2019: <https://www.jodidata.org/oil/>
- *Annual Statistical Bulletin*, Organization of Petroleum Exporting Countries (OPEC), Vienna, various editions up to 2018.

- *Natural Gas in the World*, Cedigaz, Paris, various editions up to 2018.
- *World Development Indicators*, The World Bank, Washington, various editions up to 2018.
- IEA Secretariat estimates.

Sources 1992 to 1998:

- Direct communication with the Ministry of Energy, Office of Deputy Minister for Energy, Teheran, 1998.
- Direct communication with the Ministry of Petroleum, Teheran, 1999.
- *Electric Power in Iran*, Ministry of Energy, Power Planning Bureau, Statistics Section, Teheran, 1992.

Sources up to 1991:

- *Electric Power in Iran*, Ministry of Energy, Power Planning Bureau, Statistics Section, Teheran, 1967 to 1977, 1988, 1990, 1991.
- Direct communication with the Ministry of Energy, Office of Deputy Minister for Energy, Teheran, 1971 to 1991.

Sources for biofuels and waste:

- The UN Energy Statistics Database.
- *Forestry Statistics*, FAO, Rome, 2000.
- IEA Secretariat estimates.
- Direct communication with the Ministry of Energy, Teheran.

Iraq

General notes

In the 2016 edition, data for electricity generation became available for 2010-2013. Breaks in time series may occur between 2009 and 2010.

Destruction of Iraq's largest refinery occurred in 2015, resulting in large decreases in oil products output in 2015.

Crude oil production and export data do not include field condensate. Field condensate quantities are included in natural gas liquids.

Crude oil export data include back-blending of fuel oil.

Sources

Sources 1998 to 2017:

- *Annual Statistical Bulletin*, Organization of Petroleum Exporting Countries (OPEC), Vienna, various editions up to 2018.
- *Annual Statistical Report*, Organization of Arab Petroleum Exporting Countries (OAPEC), Kuwait, various editions up to 2018.
- JODI- Oil World database, Joint Organisations Data Initiative (JODI), accessed May 2019: <https://www.jodidata.org/oil/>.
- *Statistical Bulletin*, Arab Union of Producers, Transporters and Distributors of Electricity (AUPTDE), Amman, various editions up to 2017.
- *Natural Gas in the World*, Cedigaz, Paris, various editions up to 2018.
- Direct communication with the Ministry of Electricity, Baghdad.
- *Reconciliation Report*, Extractive Industries Transparency Initiative (EITI) for Iraq, various editions up to 2015.
- Direct communication with the Ministry of Oil, Baghdad.
- Direct communication with the Ministry of Planning and Development Cooperation and with the Central Organization for Statistics and Information Technology, Baghdad.
- *Online Statistics*, Iraq Ministry of Oil, Baghdad.
- *Oil Production, Export, and Consumption Report*, Ministry of Natural Resources Kurdistan Regional Government, various editions up to 2015.
- *Iraq Weekly Status Report*, US Department of State, 2003 to 2004.
- IEA Secretariat estimates.

Sources up to 1997:

- The UN Energy Statistics Database.
- IEA Secretariat estimates.

Jamaica

General notes

In the 2019 edition, the IEA incorporated revisions of 2016 data from the Ministry of Science, Technology, Energy and Mining of Jamaica. Major impact is the

addition of natural gas to the energy mix of the country that has retrofitted its power plants and started to import Liquefied Natural Gas.

Revision of the electricity balance for the years 2011-2017 was implemented by the IEA in the 2019 edition to take into account more official data; it can lead to breaks in time series in the electricity consumption data between 2010 and 2011, as well as 2013 and 2014.

In the 2018 edition, information became available on charcoal and wood production. This may lead to breaks in time series between 1989 and 1990 data as well as differences with previous editions.

In the 2016 edition information became available on industrial consumption of oil products and electricity. This may lead to breaks in time series between 2007 and 2008 data as well as differences with previous editions.

Jamaica changed their reporting methodology for final energy consumption starting with 2014 data. This leads to breaks in time series between 2013 and 2014.

Electricity consumption of the residential sector might include small commercial customers.

Sources

Sources 2007 to 2017:

- *National energy balance & various statistics*, Ministry of Science, Technology, Energy and Mining of Jamaica, Kingston, 2011-2017.
- *Annual report*, Jamaica Public Service Company, Kingston, 2012-2017.
- *Energy-Economic Information System (SIEE)*, Latin American Energy Organization (OLADE), Quito, accessed April 2019: <http://sier.olade.org/>.
- *Petroleum Industry Consumption Statistics Jamaica 2003-2008*, Petroleum Corporation of Jamaica, Kingston.
- *Import Statistics 2006-2007*, Petrojam limited, Kingston.
- Direct communication with the Office of Utilities Regulation, Kingston, 2008.
- IEA Secretariat estimates.

Sources 1991 to 2006:

- *Energy-Economic Information System (SIEE)*, Latin American Energy Organization (OLADE), Quito, <http://sier.olade.org/>.
- IEA Secretariat estimates.

Sources up to 1990:

- *National Energy Outlook 1985-1989*, Petroleum Corporation of Jamaica, Economics and Planning Division, Kingston, 1985.
- *Energy and Economic Review*, Petroleum Corporation of Jamaica, Energy Economics Department, Kingston, September 1986, December 1986 and March 1987.
- *Production Statistics 1988*, Planning Institute of Jamaica, Kingston, 1989.
- *Statistical Digest*, Research and Development Division, Bank of Jamaica, Kingston, 1984, 1985, 1986, 1989, 1990.

Jordan

General notes

In 2018 edition, new information from Jordan became available on solid biofuels. Breaks in time series between 2015 and 2016 may occur for solid biofuels.

In 2018 edition, revisions in commercial and public services electricity consumption lead to break in time series between 1992 and 1993.

Due to an attack on a major natural gas pipeline between Egypt and Jordan during the 2011 revolution in Egypt, Jordan relied much more on fuel oil and diesel for power generation between 2011 and 2014.

Jordan started importing coal products in 2012.

Sources**Sources 2005 to 2017:**

- Direct communication with the Ministry of Energy and Mineral Resources, Amman.
- *Annual Report*, National Electric Power Company, Amman, various editions up to 2017.
- IEA Secretariat estimates.

Sources 1992 to 2004:

- Direct communication with the National Electric Power Company, Amman.
- *Annual Report*, National Electric Power Company, Amman, 1996, 1997, 1999 to 2004.

- *Annual Report 1992, 1993*, Jordan Electricity Authority, Amman, 1993, 1994.
- *Energy and Electricity in Jordan 1992, 1993, 1994, 1995*, Jordan Electricity Authority, Amman, 1993 to 1996.
- *Statistical Yearbook, 1994*, Department of Statistics, Amman, 1995.
- *44th Annual Report* for the year ending 31 December 1999, Jordan Petroleum Refinery Company, Amman, 2000.
- IEA Secretariat estimates.

Sources up to 1991:

- *Monthly Statistical Bulletin*, Central Bank of Jordan, Department of Research Studies, Amman, various issues.
- *Statistical Yearbook*, Department of Statistics, Amman, 1985, 1986 and 1988.
- *1986 Annual Report*, Ministry of Energy and Mineral Resources, Amman, 1987.
- *1989 Annual Report*, Ministry of Energy and Mineral Resources, Amman, 1990.

Sources for biofuels and waste:

- Official Energy balance sent by the Ministry of Energy and Mineral Resources,
- *Forestry Statistics*, FAO, Rome, 2000.
- IEA Secretariat estimates.

Kazakhstan

General notes

Data for Kazakhstan are available starting in 1990. Prior to that, they are included in Former Soviet Union.

Kazakhstan is one of the 11 EU4Energy focus countries.

In 2016, the Committee on Statistics of Kazakhstan introduced changes in the forms used to collect energy data to align more closely with the International Recommendations for Energy Statistics. In order to reduce burden on enterprises, questions on supply were removed and supply data are now taken from administrative sources. As a consequence, breaks in the time series appear for many product and flows, both for supply and demand between 2014 and 2015 data.

From 2012 onwards, as a result of important work carried out jointly by the Committee on Statistics and the Ministry of National Economy of the Republic of Kazakhstan, the IEA Secretariat was able to switch to the Joint IEA/Eurostat/UNECE questionnaires as a primary source for Kazakhstan's data. Breaks in time series appear between 2011 and 2012 as a result of this change.

Some data for fuel inputs to CHP plants are estimated by IEA secretariat.

Kazakhstan's coal data are normally not disaggregated by coal type. The disaggregation presented in the IEA energy balances is achieved by considering the typical end uses for different types of coals. This may lead to large statistical differences for some types of coal.

Other bituminous and coking coal production data includes not marketable production.

In 2010, Kazakhstan became a member of a Customs Union with Russia and Belarus. Breaks in trade time series appear from 2009 to 2012 as the Customs shifted from one accounting system to another.

Natural gas production excludes re-injection but, due to data limitations, may include gas vented or flared. As a consequence, the data for natural gas use in oil and gas extraction may also include these amounts.

In order to be consistent with the Customs Union agreements between Russia and Kazakhstan, natural gas production and exports data include raw gas production from the Karachaganak field (not marketable gas as per IEA definition).

Natural gas trade data have been revised by Kazakhstan leading to large statistical differences for 2012 and 2013.

Revisions in aviation gasoline cause breaks in time series between 2014 and 2015.

Sources

Sources 2012 to 2017:

- Direct communication with the Committee on Statistics of the Ministry of National Economy (formerly: Agency on Statistics) of the Republic of Kazakhstan, Astana.
- Joint IEA/Eurostat/UNECE annual energy questionnaires.
- IEA Secretariat estimates.

Sources 1993 to 2011:

- Direct communication with the Agency on Statistics of the Republic of Kazakhstan, Astana.
- *Fuel and Energy Balance of Kazakhstan Republic*, Agency on Statistics of the Republic of Kazakhstan, Astana, various editions up to 2010.
- Joint IEA/Eurostat/UNECE annual energy questionnaires, 1993, 1995, 1997 to 2009.
- *Statistical Yearbook "Kazakhstan in 2009"*, Agency on Statistics of the Republic of Kazakhstan, Astana, 2010.
- IEA Secretariat estimates.

Sources 1990 to 1992:

- IEA Secretariat estimates.

Sources for biofuels and waste:

- Joint IEA/Eurostat/UNECE annual energy questionnaire on renewables (2012-2016).
- Before 2012: *Fuel and Energy Balance of Kazakhstan Republic*, Agency on Statistics of the Republic of Kazakhstan, Astana, various editions up to 2010; *Forestry Statistics*, FAO, Rome, 2000; IEA Secretariat estimates.

Kenya

General notes

Electricity data are reported on a fiscal year basis, beginning on 1 July and ending on 30 June of the subsequent year. For instance, 2017 data refers to the fiscal year starting on 1st of July 2017 and ending on 30th of June 2018.

Refinery data have been estimated by the IEA Secretariat since 2014 as official data are no longer available.

In 2014, the Olkaria geothermal plant came online, significantly increasing the country's geothermal electricity production capacity. Breaks in time series can be observed between 2013-2014 in electricity output from geothermal energy.

Stock changes for lubricants may include informal trade.

Solar PV data comes from IRENA estimations of the off grid generation.

Sources

Sources 2005 to 2017:

- *Economic Survey*, Central Bureau of Statistics, Nairobi, various editions up to 2018.
- *Annual Report and Financial Statements*, Kenya Power, various editions up to 2018.
- *Renewable energy statistics 2019*, International Renewable Energy Agency (IRENA).
- Direct communication with AFREPREN and Petroleum Institute of East Africa, Nairobi, up to 2008.
- *Kenya, Facts and figures*, 2006 Edition, Central Bureau of Statistics, Nairobi.
- *Annual Report and Accounts*, 2006/07 to 2013/14 the Kenya Power & Lighting Company Limited, Nairobi.
- IEA Secretariat estimates.

Sources 1992 to 2004:

- Direct communication with the Ministry of Energy, Nairobi.
- *Economic Survey, 1995 to 2004*, Central Bureau of Statistics, Nairobi.
- *Annual Report and Accounts*, 2001/02, 2002/03, 2003/2004, 2004, 2005, the Kenya Power & Lighting Company Limited, Nairobi.
- The UN Energy Statistics Database.

Sources up to 1991:

- *Economic Survey*, Government of Kenya, Nairobi, 1989.
- *Economic Survey 1991*, Ministry of Planning and National Development, Central Bureau of Statistics, Nairobi, 1992.
- *Kenya Statistical Digest*, Ministry of Planning and National Development, Central Bureau of Statistics, Nairobi, 1988.

Sources for biofuels and waste:

- Data for 2000 are based on research carried out by the Ministry of Energy on consumption of solid biofuels. The results of this research were published as part of a National Energy Policy initiative.
- The IEA Secretariat is estimating the time series based on the 2000 figures from this study for fuel wood and other vegetal matters and residues. Charcoal data are derived from the wood input to charcoal production with assumed efficiency of

33% while bagasse production and input to power plants is back-estimated from data on Mumias cogeneration.

Kosovo

General notes

Data for Kosovo are available starting in 2000. Prior to that, they are included in Serbia.

2011 is the first year when electricity transit trade data are available. As a result, a break in time series occurs between 2010 and 2011.

In 2011, a desulphurization unit operated in Kosovo for a few months only. As a result, breaks in time series occur between 2010-2011 and 2011-2012.

A break in time series between 2015 and 2016 may be observed in biofuels and waste due to a survey conducted on household consumption.

Sources

Sources 2011 to 2017:

- Direct communication with the Kosovo Agency of Statistics, Pristina, Kosovo.
- Direct communication with the Ministry of Energy and Mining, Pristina, Kosovo.
- Joint IEA/Eurostat/UNECE annual energy questionnaires.

Sources 2003 to 2010:

- Kosovo National Energy Balances, Ministry of Energy and Mining Department of Strategy, Standards and Statistics from 2003 to 2010.
- IEA Secretariat estimates.

Sources 2000 to 2002:

- IEA Secretariat estimates.

Kuwait

General notes

Crude oil production and export data do not include field condensate. Field condensate quantities are included with natural gas liquids.

Data for crude oil production include 50 per cent of the output of the Neutral Zone shared with Saudi Arabia.

Information for the use of ethane in the petrochemical sector is available from 2008 onward. This may lead to breaks in time series for ethane and naphtha production and consumption between 2007 and 2008.

Electricity outputs from crude oil are not separated from other oil products electricity output.

New data became available for oil products consumption. Revisions in oil products may be seen between 2012 and 2015.

Sources

Sources 1992 to 2017:

- *Annual Statistical Abstract*, Central Statistical Bureau, State of Kuwait various editions up to 2016.
- *Statistical Bulletin*, Arab Union of Producers, Transporters and Distributors of Electricity (AUPTDE), Amman, 2011 to 2018.
- *Electrical Energy Statistical Year Book*, Ministry of Electricity and Water, various editions up to 2017 edition 2018.
- *Annual Report*, Kuwait National Petroleum Company, 2015-2017
- *Natural Gas in the World*, Cedigaz, Paris, various editions up to 2018.
- *Annual Electrical Statistics*, Ministry of Electricity and Water, Safat, various editions up to 2009.
- *Annual Statistical Bulletin*, Organization of Petroleum Exporting Countries (OPEC), Vienna, various editions up to 2018.
- *Annual Statistical Report*, Organization of Arab Petroleum Exporting Countries (OAPEC), Kuwait, various editions up to 2017.
- Direct communication with the Ministry of Planning and the Ministry of Electricity & Water, Kuwait City.
- *Monthly Digest of Statistics*, Ministry of Planning, Central Statistical Office, Kuwait, 1999.
- *A Survey of the Kuwait Oil Industry*, Embassy of the United States of America in Kuwait City, Kuwait, 1993.
- *Twelfth Annual Report 1991-1992*, Kuwait Petroleum Corporation, Kuwait, 1993.
- JODI- Oil World database, Joint Organisations Data Initiative (JODI), accessed May 2019: <https://www.jodidata.org/oil/>
- The UN Energy Statistics Database.
- IEA Secretariat estimates.

Sources up to 1991:

- *Quarterly Statistical Bulletin*, Central Bank of Kuwait, Kuwait, various editions from 1986 and 1987.
- *The Kuwaiti Economy*, Central Bank of Kuwait, Kuwait, various editions from 1980 to 1985.
- *Annual Statistical Abstract*, Ministry of Planning, Central Statistical Office, Kuwait, 1986 and 1989.
- *Monthly Digest of Statistics*, Ministry of Planning, Central Statistical Office, Kuwait, various editions from 1986 to 1990.
- *Economic and Financial Bulletin Monthly*, Central Bank of Kuwait, Kuwait, various editions from 1983 to 1986.
- *Kuwait in Figures*, National Bank of Kuwait, Kuwait, 1986, 1987.

Sources for Biofuels and waste:

- *Forestry Statistics*, FAO, Rome, 2001.
- IEA Secretariat estimates.

Kyrgyzstan

General notes

Data for Kyrgyzstan are available starting in 1990. Prior to that, they are included in Former Soviet Union.

Kyrgyzstan is one of the 11 EU4Energy focus countries.

From the year 2013, the main data sources for Kyrgyzstan are the set of annual IEA/Eurostat/UNECE joint questionnaires sent by the National Statistical Committee of Kyrgyzstan.

The following data are not available and estimated by the IEA Secretariat: biofuels and waste, and output of electricity and heat by product.

For the year 2015, new information became available on the consumption of motor gasoline and gas/diesel by product. All motor gasoline use was allocated by the IEA to road transport. Gas/diesel consumption reported in other sectors than road might include road transport.

In the 2014 edition, time series data for electricity, oil products, and coal products for 2005 to 2011 were revised based on newly available information. This may lead to breaks in the time series for some products.

Sources

Sources 2013 to 2017:

- Direct communication with the National Statistical Committee of Kyrgyzstan, Bishkek.
- Joint IEA/Eurostat/UNECE annual energy questionnaires.
- *Fuel & Energy Balances*, National Statistical Committee of Kyrgyzstan, Bishkek.
- *CIS and East European Energy Databook*, Eastern Bloc Research Ltd, Tolsta Chaolais, 2013 to 2014.
- IEA Secretariat estimates.

Sources 2007 to 2012:

- Direct communication with the National Statistical Committee of Kyrgyzstan, Bishkek.
- Direct communication with the Interstate Statistical Committee of the Commonwealth of Independent States, Moscow.
- *Fuel & Energy Balances*, National Statistical Committee of Kyrgyzstan, Bishkek.
- Joint IEA/Eurostat/UNECE annual energy questionnaires for 2012.
- *CIS and East European Energy Databook*, Eastern Bloc Research Ltd, Tolsta Chaolais, 2008 to 2012.
- *Natural Gas Vehicles Statistics*, International Association for Natural Gas Vehicles, online database: www.iangv.org.
- The UN Energy Statistics Database.
- IEA Secretariat estimates.

Sources 1993 to 2006:

- *CIS and East European Energy Databook*, Eastern Bloc Research Ltd, Tolsta Chaolais, various editions up to 2007.
- Joint IEA/Eurostat/UNECE annual energy questionnaires, 1993 to 2006.
- Asian Development Bank.
- IEA Secretariat estimates.

Sources 1990 to 1992:

- IEA Secretariat estimates.

Sources for biofuels and waste:

- Joint IEA/Eurostat/UNECE annual energy questionnaires on renewables (2013-2016).

- Before 2013: The UN Energy Statistics Database; IEA Secretariat estimates.

Lebanon

General notes

For 2015, 2016 and 2017, no official data were available for Lebanon. Data for those years are primarily based on secondary sources and IEA Secretariat estimates.

A significant share of electricity generated in Lebanon is produced using private generators. The corresponding electricity outputs and inputs were estimated by the IEA Secretariat based on ALMEE-figures (Association Libanaise pour la Maîtrise de l'Énergie et l'Environnement) until 2014 and expert analysis for 2015 to 2017.

Customs data for trade of oil products may be misleading due to the existence of informal trade with neighbouring countries.

Sources

Sources up to 2017:

- *Les bilans énergétiques au Liban*, Association Libanaise pour la Maîtrise de l'Énergie et de l'Environnement, Beirut, 2007 to 2015.
- *L'Énergie au Liban*, Association Libanaise pour la Maîtrise de l'Énergie et de l'Environnement, Beirut, 1994 to 2006.
- *L'Énergie au Liban, le Défi*, Association Libanaise pour la Maîtrise de l'Énergie, Beirut, December 1996.
- *Solar Heat Worldwide*, AEE - Institute for Sustainable Technologies, Gleisdorf, IEA Solar Heating & Cooling Programme various editions up to 2019.
- *Renewable Energy in Lebanon in 2015*, Association Libanaise pour la Maîtrise de l'Énergie et de l'Environnement, Beirut.
- IEA Secretariat estimates.

Sources for biofuels and waste:

- *Le marché du solaire thermique au Liban*, Association Libanaise pour la Maîtrise de l'Énergie et de l'Environnement, Beirut, 2010.
- *Forestry Statistics*, FAO, Rome, accessed in May 2019.
- IEA Secretariat estimates.

Libya

General notes

Crude oil production and export data do not include field condensate. Field condensate quantities are included with natural gas liquids.

In the 2019 edition, the IEA secretariat started to estimate domestic aviation. The revisions made to integrate this information lead to breaks in time series between 2004 and 2005.

Due to information on oil and electricity becoming available from 2006, breaks in time series may occur between 2005 and 2006.

Non-technical losses and data uncertainty result in break in time series for electricity losses and statistical differences between 2011 and 2012.

Due to lack of official country data, oil products trade and solid biofuels data have been estimated by the IEA secretariat. Data for natural gas inputs to electricity are unavailable in 2015, 2016 and 2017.

Sources

Sources 1971 to 2017:

- *Statistical Bulletin*, Central Bank of Libya, Tripoli, various editions up to 2018.
- *Annual Statistical Report*, Organization of Arab Petroleum Exporting Countries (OAPEC), Kuwait, various editions up to 2018.
- *Annual Statistical Bulletin*, Organization of Petroleum Exporting Countries (OPEC), Vienna, various editions up to 2018.
- *Statistical Bulletin*, Arab Union of Producers, Transporters and Distributors of Electricity (AUPTDE), Amman, various editions up to 2017.
- *Natural Gas in the World*, Cedigaz, Paris, various editions up to 2018.
- OAG (2018), Origin-Destination of Commercial Flights (database), OAG Aviation, Luton, www.oag.com/analytics/traffic-analyser.
- *Renewable energy statistics 2019*, International Renewable Energy Agency (IRENA).
- *Bulletin Statistique Annuel*, Comité Maghrébin d'électricité (COMELEC), various editions up to 2015.

- Direct communication with the Ministry of Electricity and Renewable Energy, Tripoli until 2015.
- *Annual Report*, 2008, General Electricity Company (GECOL), Tripoli.
- *Statistical Abstract of Libya*, 19th vol., Government of Libya, Tripoli, 1983.
- IEA Secretariat estimates.

Sources for biofuels and waste:

- The UN Energy Statistics Database.
- IEA Secretariat estimates.

Malaysia

General notes

For natural gas production from the Joint-Development Areas (JDA) with Thailand and with Indonesia, Malaysia reports only the production that corresponds to Malaysia. The rest is reported as imports. For the JDA with Viet Nam, the production reported includes all the gas produced.

In the 2019 edition, revisions of solid biofuels data were made for the whole time series in response to the query raised by Energy Commission of Malaysia.

In 2012, new information on the solid biofuels data became available. This may lead to breaks in time series between 2008 and 2009.

Detailed information on the non-energy use by oil products is only available from 2007 to 2009. From 2010, these quantities are presented in aggregate form under the category other non-specified oil products.

From 2009, electricity generation from co-generators, small renewable power producers and self-generators is available. As a consequence, breaks in time series may appear for electricity between 2008 and 2009.

LPG data may include ethane.

Sources

Sources 2000 to 2017:

- Direct communication with the Energy Commission, Putrajaya.
- *National Energy Balance*, Malaysia, Energy Commission, Putrajaya, 2009 to 2017.
- *Electricity Supply Industry in Malaysia*, Performance and Statistical Information, Malaysia Energy Commission, Putrajaya, 2009 to 2016.

- *Electricity Supply Statistics, Malaysia Energy Information Hub*, website: meih.st.gov.my, 2016.
- *Monthly exports of oil palm products*, Malaysia Palm Oil Board, Kuala Lumpur.
- APEC annual energy questionnaires, 2009, 2011.
- *National Energy Balance Malaysia*, Ministry of Energy, Water and Communication, Kuala Lumpur, 2002 to 2008.

Sources up to 2000:

- Direct communication with Petroliam Nasional Berhad, Kuala Lumpur, April 2001.

Sources for biofuels and waste:

- *Monthly exports of oil palm products*, Malaysia Palm Oil Board, Kuala Lumpur.
- The UN Energy Statistics Database.
- *Forestry Statistics*, FAO, Rome, 2017.
- IEA Secretariat estimates.

Malta

General notes

In 2017, Malta imported LNG for the first time. It is used in power generation engines that have been upgraded to operate on natural gas, from heavy fuel oil previously. 2015 and 2016 data reflects this transition with high imports of electricity via the interconnector with Italy.

In the 2019 edition, oil products consumption data have been revised following the results of a fuel survey conducted by the country in 2018.

In 2017, Malta carried out a household energy survey which led to revisions of the solar thermal data series for 2010-2016. This may lead to breaks in time series between 2009 and 2010.

In 2011, a new power generation station fuelled by biogas became operational in Malta. This may lead to breaks in time series for some products and flows.

Sources

Sources up to 2017:

- Direct communication with the Central Office of Statistics, Valletta.

- Joint IEA/Eurostat/UNECE annual energy questionnaire on oil, 1995 to 1998, 2000, 2001, 2005 to 2017.
- Joint IEA/Eurostat/UNECE annual energy questionnaire on electricity and heat, 1994 to 1998, 2000, 2001, 2003, and 2005 to 2017.
- Joint IEA/Eurostat/UNECE annual energy questionnaire on renewables, 2011 to 2017.
- Joint IEA/Eurostat/UNECE annual energy questionnaire on gas, 2017.
- Joint IEA/Eurostat/UNECE annual questionnaire on coal, 1994, 1995.
- *Solar Heat Worldwide*, AEE - Institute for Sustainable Technologies, Gleisdorf, IEA Solar Heating & Cooling Programme, various editions up to 2010.
- IEA Secretariat estimates.

Mauritius

Sources

Sources 1971 to 2017:

- Direct communication with the Ministry of Public Utilities, Statistics Unit, Port Louis.
- Website of the Statistics Mauritius under the Ministry of Public Utilities accessed in January 2019: statsmauritius.gov.mu.
- *Energy and Water Statistics, various editions up to 2017*, Statistics Mauritius, Port Louis.

Moldova

General notes

Data for Moldova are available starting in 1990. Prior to that, they are included in Former Soviet Union.

Moldova is one of the 11 EU4Energy focus countries.

Official figures on natural gas imports, natural gas inputs to power plants, electricity production and consumption are modified by the IEA Secretariat to include estimates for supply and demand for the districts from the left side of the river Nistru and municipality Bender. Other energy production or consumption from these districts is not included in the Moldovan data. This may lead to breaks in the time series for some products.

Due to the inclusion of estimated data in the Moldova energy balance, indicators for per capita energy consumption or energy intensity may appear inconsistent with expected trends.

The National Bureau of Statistics has put a great effort to follow the International Recommendations for Energy Statistics and revise time series when possible. As a consequence, breaks in time series may occur in 1993 for heat, in 2012 for aviation bunkers and in 2005 for other products. More survey data on solid biomass, including wood, animal waste and other plant residues are available since 2010.

Sources

Sources 2008 to 2017:

For Moldova, excluding the districts from the left side of the river Nistru and municipality Bender:

- Direct communication with the National Bureau of Statistics of the Republic of Moldova, Chisinau.
- Joint IEA/Eurostat/UNECE annual energy questionnaires.
- Direct communication with State Statistics Service of Ukraine for natural gas imports.
- Website of Ministry of Economic Development of Transnistrian Moldovian Republic, accessed September 2018 mer.gospmr.org.
- IEA Secretariat estimates for the districts from the left side of the river Nistru and municipality Bender.

Sources 1992 to 2008:

- Joint IEA/Eurostat/UNECE annual energy questionnaire on electricity and heat, 1991 to 2008.
- Joint IEA/Eurostat/UNECE annual energy questionnaire on natural gas, 1991 to 2008.
- Joint IEA/Eurostat/UNECE annual energy questionnaire on coal, 1992 to 2008.
- Joint IEA/Eurostat/UNECE annual energy questionnaire on oil, 1993 to 1998, 2001 to 2008.
- Direct communication with the Ministry of Industry and Energy.
- *CIS and East European Energy Databook*, Eastern Bloc Research Ltd, Tolsta Chaolais, various editions up to 2011.
- IEA Secretariat estimates.

Sources 1990 to 1991:

- IEA Secretariat estimates.

Sources for biofuels and waste:

- Joint IEA/Eurostat/UNECE questionnaire on renewables.
- The UN Energy Statistics Database.
- IEA Secretariat estimates.

Mongolia

General notes

Data for Mongolia are available starting in 1985. Prior to that, they are included in Other Asia.

Data allowing a disaggregation of coal by type became available in 2015. In addition time series were revised from 2005 forward. Breaks in time series between 2004 and 2005 may result as well as differences in trends from previous editions.

In the 2018 edition, new data for renewable electricity production became available. This might create breaks in time series between 2002 and 2003.

Sources

Sources 1985 to 2017:

- Direct communication with the National Statistics Office of Mongolia, Ulaanbaatar.
- *Mongolian Statistical Yearbook*, National Statistical Office, Ulaanbaatar, various editions up to 2018.
- *Renewable energy statistics 2019*, International Renewable Energy Agency (IRENA).
- *Balance of Coal & Coal Exports*, Mongolian Statistical Information Service, National Statistical Office, Ulaanbaatar, online statistical service, accessed May 2018: www.1212.mn.
- *Mongolian Statistical Bulletin, December 2009*, National Statistical Office, Ulaanbaatar, 2009.
- Asian Development Bank online database.
- IEA Secretariat estimates.

Sources for biofuels and waste:

- *FAO, Forestry Statistics*, online database.
- IEA Secretariat estimates.

Montenegro

General notes

Data for Montenegro are available starting in 2005. Between 1990 and 2004, they are included in Serbia. Prior to 1990, they are included in Former Yugoslavia.

Breaks in time series appearing in solid biofuels between 2010 and 2011 can be explained by a new survey carried out by Montenegro in 2013.

A survey on energy consumption in industry was conducted by Montenegro in 2014. Breaks in time series may therefore occur between 2004 and 2005.

Sources

Sources 2005 to 2017:

- Direct communication with the Statistical Office of Montenegro (MONSTAT), Podgorica.
- Joint IEA/Eurostat/UNECE annual energy questionnaires.

Morocco

General notes

Morocco joined the IEA as an Association country in November 2016.

Morocco started filling the five Joint IEA/Eurostat/UNECE questionnaires for the year 2015. This may lead to breaks in time series between 2014 and 2015.

In the 2019 edition, revisions in solar thermal electricity production were made for 2015 and 2016. This may lead to breaks in time series.

In the 2018 edition, revisions in biofuels were made for the period 2004-2014. This may lead to breaks in time series between 2003 and 2004.

In the 2018 edition, revisions in auto producer electricity from combustible fuels and electricity production from heat from chemical sources were made and a break in time series may be observed between 2012 and 2013.

The Samir-Mohammedia refinery expansion was completed in 2009, accommodating new feedstocks and additives. This may lead to breaks in time series between 2009 and 2010.

In August 2015, refinery activity stopped, causing significant decreases in refined oil products

production and breaks in time series between 2014, 2015, and 2016.

Sources

Sources 2015 to 2017 :

- Joint IEA/Eurostat/UNECE annual energy questionnaires.

Sources 1992 to 2014:

- Direct communication with Ministère de l'Energie et des Mines, Direction des Mines, Rabat.
- *Annuaire Statistique du Maroc*, Haut-Commissariat au Plan, Direction de la Statistique, Rabat, 1980, 1984, 1986 to 2011.
- Electricity consumption by economic sector from direct communication with Office National de l'Electricité, Casablanca.

Sources up to 1991:

- *Rapport d'Activité 1992*, Office National de l'Electricité, Casablanca, 1993.
- *Le Maroc en Chiffres 1986*, Ministère du Plan, Direction de la Statistique, Rabat, 1987.
- *Rapport Annuel*, Office National de Recherches et d'Exploitations Pétrolières, Maroc, 1984.
- *Rapport d'Activité du Secteur Pétrolier 1983*, Ministère de l'Energie et des Mines, Direction de l'Energie, Rabat, 1984.
- *Rapport sur les Données Energétiques Nationales 1979-1981*, Ministère de l'Energie et des Mines, Rabat, 1982.

Sources for biofuels and waste:

- Joint IEA/Eurostat/UNECE annual energy questionnaire on renewables (2015-2017).
- Before 2015 : Direct communication with Ministère de l'Energie et des Mines, Direction des Mines, Rabat ; The UN Energy Statistics Database; IEA Secretariat estimates.

Mozambique

General notes

In the 2019 edition, the data sent by the Ministry of Energy could not be used as it was received after the IEA Secretariat finalised the publication. The IEA

Secretariat therefore used data submitted by the Ministry to the African Energy Commission. This might create breaks in time series between 2016 and 2017 for primary and secondary solid biofuels.

Due to the opening of a new pit in Moatize mine, breaks in time series may happen for coal between 2016 and 2017.

Sources 1992 to 2017:

- Direct communication with Ministério da Energia, Maputo and the National Petroleum Institute.
- Direct communication with the African Energy Commission, Algiers, Algeria.
- *Annual Statistical Yearbook 1993, 1994, 1995*, Eskom, Johannesburg, 1994, 1995, 1996, citing Electricidade de Mozambique, Maputo, as source.
- The UN Energy Statistics Database.
- IEA Secretariat estimates.

Sources up to 1991:

- IEA Secretariat estimates.

Sources for biofuels and waste:

- Direct communication with Ministério da Energia, Maputo.
- IEA Secretariat estimates.

Myanmar

General notes

Data from the Myanmar Central Statistical Organisation are reported on a fiscal year basis, beginning on 1 April and ending on 31 March of the subsequent year.

In the 2019 edition, a detailed breakdown by coal type data, renewable data and some oil products data became available starting from 2016. This might result in breaks in time series between 2015 and 2016.

In the 2018 edition, demand data for all energy products became available for 2016. This might result in breaks in time series between 2015 and 2016. Trade data for coal became available in 2016. This might result in breaks in time series between 2015 and 2016.

Sources

Sources 1992 to 2017:

- Direct communication with the Ministry of electricity and Energy, Oil and Gas Planning Department.
- APEC annual energy questionnaires 2016-2017.
- Direct communication with the Institute of Energy Economics, Japan (IEEJ), Tokyo, 2010-2014.
- *Selected Indicators*, Myanmar Central Statistical Organisation website: www.csostat.gov.mm.
- JODI- Oil World database, Joint Organisations Data Initiative (JODI), accessed April 2019: <https://www.jodidata.org/oil/>.
- *Oil and Thailand*, Ministry of Energy, Department of Alternative Energy Development and Efficiency, Bangkok, 2007 to 2013.
- Direct communication with the Ministry of Energy, Planning Department, Rangoon, 2006-2007.
- *Review of the Financial Economic and Social Conditions*, Ministry of National Planning and Economic Development, Central Statistical Organization, Rangoon, 1995, 1996.
- *Statistical Yearbook*, Ministry of National Planning and Economic Development, Central Statistical Organization, Rangoon, 1995, 1996.
- The UN Energy Statistics Database.
- *The ASEAN Energy Statistics Database*.
- Asian Development Bank online database.
- *Natural Gas in the World*, Cedigaz, Paris, various editions up to 2017.
- IEA Secretariat estimates.

Sources up to 1991:

- *Sectoral Energy Demand in Myanmar*, UNDP Economic and Social Commission for Asia and the Pacific, Bangkok, 1992.
- *Selected Monthly Economic Indicators, paper no. 3*, Ministry of Planning and Finance, Central Statistical Organization, Rangoon, 1989.

Sources for biofuels and waste:

- Wood data have been submitted by the Ministry of Energy, from 1985 to 2003.
- IEA Secretariat estimates based on 1990 data from *UNDP Sixth Country Programme Union of Myanmar*, World Bank, Programme Sectoral Review of Energy, by Sousing et. al., Washington, D.C., 1991.

Namibia

General notes

Data for Namibia are available starting in 1991. Prior to that, data are included in Other Africa.

Charcoal exports data are revised back to 2000 based on FAO data. This may create break in time series between 1999 and 2000.

Sources

Sources 1991 to 2017:

- Direct communication with the Ministry of Mines and Energy, Windhoek.
- *NamPower Annual Report*, Namibia Power Corporation, Windhoek, various editions up to 2018. Note: NamPower data are published on a fiscal year basis (July to June).
- *Namibia Energy Balance 2000-2014*. Electricity Control Board, Windhoek.
- *Solar Heat Worldwide*, AEE - Institute for Sustainable Technologies, Gleisdorf, IEA Solar Heating & Cooling Programme, various editions up to 2018.
- IEA Secretariat estimates.

Sources for biofuels and waste:

- The UN Energy Statistics Database and *Forestry Statistics*, FAO, Rome, various editions up to 2017.
- IEA Secretariat estimates.

Nepal

General notes

Data are reported on a fiscal year basis, beginning on 1 July and ending on 30 June of the subsequent year. 2017/18 is treated as 2017.

Sources

Sources up to 2017:

- Direct communication with the Water and Energy Commission Secretariat (WECS), Ministry of Water Resources, Kathmandu.

- *A Year in Review*, Nepal Electricity Authority, Durbar Marg, Kathmandu, various editions up to fiscal year 2017/18.
- *Imports and Sales of Petroleum Products*, Nepal Oil Corporation Limited, Kathmandu, various editions up to 2019.
- *Energy Sector Synopsis Report*, Water and Energy Commission Secretariat (WECS), Kathmandu, July 2010.
- IEA Secretariat estimates.

Sources up to 1996:

- The UN Energy Statistics Database.
- IEA Secretariat estimates.

Sources for biofuels and waste:

- Water and Energy Commission Secretariat (WECS), Ministry of Water Resources, Kathmandu.
- IEA Secretariat estimates.

Nicaragua

General notes

Nicaragua changed their methodology for the reporting of solid biofuels following a survey held in 2006-2007. Revisions and additional estimations necessary to take resulting new data into account might result in breaks in some flow's time series between 2005 and 2006.

Sources

Sources up to 2017:

- *Energy-Economic Information System (SIEE)*, Latin American Energy Organization (OLADE), Quito, accessed April 2019: <http://sier.olade.org/>.
- *Generación Bruta por Tipo de Planta*, Instituto Nicaragüense de Energía, Managua, 2018.
- *Consumo de Combustible por Tipo de Planta*, Instituto Nicaragüense de Energía, Managua, 2018.
- *Consumo nacional de hidrocarburos*, Instituto Nicaragüense de Energía, Managua, 2018.
- *Importaciones de hidrocarburos*, Instituto Nicaragüense de Energía, Managua, 2018.
- *Centroamérica: Estadísticas de Hidrocarburos*, Comisión Económica para América y el Caribe (CEPAL), United Nations, Mexico, various editions up to 2018.

- *Traffic Data*, Empresa Administradora de Aeropuertos Internacionales, Nicaragua, accessed April 2019: <https://www.eaai.com.ni/>.
- *Estadísticas de los Hidrocarburos*, Ministerio de Energía y Minas, Managua, 2008 to 2016.
- *Balance Energético Nacional*, Ministerio de Energía y Minas, Managua, 1999 to 2007.
- *Balance Energético Nacional*, Comisión Nacional de Energía (CNE), Dirección de Políticas Energéticas, Managua, 2000 to 2005.
- *Estadísticas de Suministro de los Hidrocarburos*, Instituto Nicaragüense de Energía, Managua, 1999 to 2004.
- *Informe Anual 1996: Datos Estadísticos del Sector Eléctrico*, INE, Managua, 1999.
- *Balance Energético Nacional*, Comisión Nacional de Energía (CNE), Managua, 1999 to 2007.

Niger

General notes

Data for Niger are available starting in 2000. Prior to 2000, data for Niger are presented in Other Africa.

In the 2019 edition, the IEA secretariat started to estimate domestic aviation. The revisions made to integrate this information lead to breaks in time series between 2000 and 2001. For this edition the IEA Secretariat could not obtain data for 2017 for Niger in time. As a consequence, data have been estimated based on population growth for biomass and household consumption, and GDP growth for other products

Sources

Sources up to 2017:

- Direct communication with the Ministry of Energy and Oil.
- The UN Energy Statistics Database, various edition up to 2019.
- OAG (2018), Origin-Destination of Commercial Flights (database), OAG Aviation, Luton, www.oag.com/analytics/traffic-analyser,
- IEA Secretariat estimates.

Sources for biofuels and waste:

- Ministry of Energy and Oil.
- IEA Secretariat estimates.

Nigeria

General notes

Crude oil production and export data may include field condensate.

Statistical differences may include stocks and un-official trade flows.

Inputs of motor gasoline and gas/diesel to back-up electricity generation, as well as the associated electricity outputs, which may be substantial in Nigeria, may not be captured.

In the 2019 edition, the IEA secretariat started to estimate domestic aviation. The revisions made to integrate this information lead to breaks in time series between 2009 and 2010.

In the 2018 edition, new information became available through the department of Petroleum Resources. Breaks in time series can be observed between 2009 and 2010 for motor gasoline, jet kerosene, diesel, and fuel oil; and between 2013 and 2014 for lubricants. Electricity losses have been fixed at 15% starting from 2007.

In the 2017 edition, new information became available through the Nigerian National Petroleum Corporation for Natural Gas Liquids. Break in time series can be observed between 2012 and 2013.

In the 2017 edition, naphtha data are added. Breaks in time series can be observed in Other Oil Products and Naphtha in 2003 and 2015.

In the 2015 edition, new information became available indicating that on-grid power generation has been fuelled by natural gas for many years. This may lead to breaks in time series between 1996 and 1997 as well as differences in trends compared to previous editions for some oil products.

Sources

Sources 1992 to 2017:

- Direct communication with the Energy Commission of Nigeria, Abuja.
- Direct communication with the African Energy Commission, Algiers, Algeria.
- *Natural Gas in the World*, Cedigaz, Paris, various editions up to 2018.

- *Annual Petroleum Bulletin*, Nigerian National Petroleum Corporation (NNPC), Abuja, various editions from 1998 to 2017.
- *2017 Oil and Gas Annual Report*, Department of Petroleum Resources, Lagos.
- *Annual Statistical Bulletin*, Organization of Petroleum Exporting Countries (OPEC), Vienna, various editions up to 2018.
- *Statistical Bulletin*, Central Bank of Nigeria, Abuja, various editions from 2003 to 2015.
- *Monthly Petroleum Bulletin for 2017*, Nigerian National Petroleum Corporation (NNPC), Abuja.
- *Annual Report and Statement of Accounts 1995*, Central Bank of Nigeria, Lagos, 1996.
- *Nigerian Petroleum News*, Energy Publications, monthly reports, various issues up to May 1998.
- International Civil Aviation Organization (ICAO) 2018 Annual Report, United Nations,
- OAG (2018), Origin-Destination of Commercial Flights (database), OAG Aviation, Luton, www.oag.com/analytics/traffic-analyser,
- IEA Secretariat estimates.

Sources up to 1991:

- *Annual Report and Statement of Accounts*, Central Bank of Nigeria, Lagos, various editions from 1981 to 1987.
- *Basic Energy Statistics for Nigeria*, Nigerian National Petroleum Corporation, Lagos, 1984.
- *NNPC Annual Statistical Bulletin*, Nigerian National Petroleum Corporation, Lagos, 1983 to 1987.
- *The Economic and Financial Review*, Central Bank of Nigeria, Lagos, various editions.

Sources for biofuels and waste:

- IEA Secretariat estimates based on 1991 data from *Forests and Biomass Sub-sector in Africa*, African Energy Programme of the African Development Bank, Abidjan, 1996.

Republic of North Macedonia

General notes

Data for North Macedonia are available starting in 1990. Prior to that, they are included in Former Yugoslavia.

North Macedonia changed the methodology for reporting autoproducer heat consumption for own use in 2010, which can lead to breaks in time series between 2009 and 2010.

The refinery OKTA in North Macedonia was shut down in 2014. This may lead to breaks in time series between 2013 and 2014.

The State Statistical Office revised the energy balances from 2005 to 2014 in accordance with the survey conducted in 2014 on household energy consumption.

Sources

Sources 1990 to 2017:

- Direct communication with the State Statistical Office of North Macedonia, Department for Environment, Energy and Transport, Skopje.
- Joint IEA/Eurostat/UNECE annual energy questionnaires.
- IEA Secretariat estimates.

Oman

General notes

The interconnected nature of the Mina-Al-Fahal and Suhar oil refineries is reflected in the fuel oil data leading to breaks in time series for some products between 2007 and 2008.

Natural gas shows a break in time series for some flows between 2006 and 2007 due to a new methodology applied in both supply and demand.

Electricity output shows a break in time series between 2004 and 2005 as a national data source became available.

In 2006, the Suhar Refinery came online with 166 kbd capacity. Breaks in time series can be observed in oil products between 2005 and 2006.

Sources

Sources 2005 to 2017:

- *Statistical Yearbook*, National Centre for Statistics and Information (NSCI), various editions from 1999 to 2018 (Formerly Ministry of National Economy).
- *Annual report*, Authority for Electricity Regulation, Oman, various editions from 2005 to 2018.

- *Annual report*, Oman LNG Company, various editions from 2009 to 2018.
- *Annual Report*, Central Bank of Oman, Muscat, various editions up to 2018.
- *Natural Gas in the World*, Cedigaz, Paris, various editions up to 2018.
- *Online statistics*, Sultanate of Oman, Ministry of Oil and Gas.
- *Annual Statistical Report*, Organization of Arab Petroleum Exporting Countries (OAPEC), Kuwait, various editions up to 2017.
- The LNG Industry, International Group of Liquefied Natural Gas Importers (GIIGNL), Levallois, 2005-2017.
- IEA Secretariat estimates.

Sources 1992 to 2004:

- Direct communication with the Ministry of National Economy, Muscat.
- Direct communication with the Ministry of Oil and Gas, Muscat.
- Direct communication with the Ministry of Petroleum and Minerals, Muscat, 1997, 1998, and 1999.
- Direct communication with the Ministry of Electricity & Water, Office of the Under Secretary, Ruwi, 1998 to 2001.
- *Quarterly Bulletin December 1994*, Central Bank of Oman, Muscat, 1995.
- *Annual Report*, Central Bank of Oman, Muscat, 1993.
- *Statistical Yearbook*, 1994, 1995, 1996, 1997, Ministry of Development, Muscat, 1995 to 1998.
- IEA Secretariat estimates.

Sources up to 1991:

- *Quarterly Bulletin*, Central Bank of Oman, Muscat, 1986, 1987, 1989 and 1995.
- *Annual Report to His Majesty the Sultan of Oman*, Department of Information and Public Affairs, Petroleum Development, Muscat, 1981, 1982, and 1984.
- *Oman Facts and Figures 1986*, Directorate General of National Statistics, Development Council, Technical Secretariat, Muscat, 1987.
- *Quarterly Bulletin on Main Economic Indicators*, Directorate General of National Statistics, Muscat, 1989.

- *Statistical Yearbook*, Directorate General of National Statistics, Development Council, Muscat, 1985, 1986, 1988 and 1992.

Pakistan

General notes

Data are reported on a fiscal year basis. 2017/18 is treated as 2017.

As Pakistan publishes oil products stock changes at an aggregated level, the IEA Secretariat estimates detailed stock changes by product.

In the 2019 edition, various improvements are made in the following areas: oil refineries own use of all products has been split more accurately between fuel oil, LPG and refinery gas taking into account official data (2010-2016); official information on LPG stock changes has been introduced (2010-2016); LPG consumption in Non-specified (Other) has been revised taking into account official data (2001-2016); motor gasoline data has been revised to include production and imports of HOBC (High Octane Blending Component) taking into account official information (1996-2016); and Imports of LNG have been taken into account based on official information (2014-2016).

Time series data for natural gas for the years 2004-2007 were revised in 2009 due to the inclusion of the North-West Frontier Province data (now called KPK) and Pakistan Steel Mills. Breaks in time series may occur between 2003 and 2004.

Own use of electricity by industries with autoproducer electricity plants may not be captured.

For bitumen and lubricants, data for stock variations may include unreported trade or consumption.

Sources

Sources 1992 to 2017:

- *Energy Yearbook*, Hydrocarbon Development Institute of Pakistan, Ministry of Petroleum and Natural Resources, Islamabad, various editions from 1979 to 2018.
- *Pakistan Economic Survey 1994-1995, 1996, 1997*, Government of Pakistan, Finance Division, Islamabad, 1995, 1997, 1998.

- *Statistical Supplement 1993/1994*, Finance Division, Economic Adviser's Wing, Government of Pakistan, Islamabad, 1995.
- *Natural Gas in the World*, Cedigaz, Paris, various editions up to 2017.
- IEA Secretariat estimates.

Sources up to 1991:

- *Monthly Statistical Bulletin, no. 12*, Federal Bureau of Statistics, Islamabad, December 1989.
- *1986 Bulletin*, State Bank of Pakistan, Islamabad, 1987.

Sources for biofuels and waste:

- IEA Secretariat estimates based on 1991 data from *Household Energy Strategy Study (HESS)* of 1991.

Panama

General notes

In the 2019 edition, time series for fuelwood data were revised according to data from OLADE. Break in time series can be observed between 1999 and 2000.

International aviation bunkers figures for jet kerosene may include exports.

Import figures for diesel and residual fuel oil are calculated by excluding bunker use.

From 2003 onwards there has been no output of oil products due to refinery closure.

Sources

Sources up to 2017:

- *Energy-Economic Information System (SIEE)*, Latin American Energy Organization (OLADE), Quito, accessed May 2019: <http://sier.olade.org/>.
- *Compendio Estadístico Energético 1970-2017*, Ministerio de Economía y Finanzas, Comisión de Política Energética, Panama.
- *Boletín Estadístico Marítimo Portuario*, Autoridad Marítima de Panama (AMP), Panama, 2007 to 2017, www.amp.gob.pa.
- OAG (2018), Origin-Destination of Commercial Flights (database), OAG Aviation, Luton, www.oag.com/analytics/traffic-analyser.

- *Annual Report*, Canal de Panamá, Panama, 2012.
- US Energy Information Administration (EIA), website, marine bunkers data from 2001 to 2006.

Paraguay

General notes

The Itaipu hydroelectric plant, operating since 1984 and located on the Paraná River (which forms the border of Brazil and Paraguay) was formed as a joint venture between Eletrobrás and the Paraguayan government.

In the 2019 edition, wood data has been revised for 2016 due to a revision of the wood density used by the source. This leads to a break in time series between 2015 and 2016.

Paraguay's cement industry underwent a fuel switch from fuel oil to petroleum coke. The consequent increase in petroleum coke imports and use is reflected in the data from 2016 on.

In the 2019 edition, new information became available on the split between international and domestic use of jet kerosene from 2005 on. The consequent data revision may lead in break in time series between 2004 and 2005.

In 2015, Paraguay surveyed the charcoal production plants. The results allowed them to correct the efficiency of the process down to 49%. This change is implemented in the data from 2016 onwards and leads to a break in the time series of wood input to charcoal production plants.

From 2006 onwards, there has been no output of oil products, due to refinery closure.

Sources

Sources up to 2017:

- *Balance Energético Nacional, 1971-2017*, Vice-ministerio de Energía y Minas, Ministerio de Obras Públicas y Comunicaciones, San Lorenzo.
- Direct communication with Ministerio de Obras Públicas y Comunicaciones, San Lorenzo.
- OAG (2018), Origin-Destination of Commercial Flights (database), OAG Aviation, Luton, www.oag.com/analytics/traffic-analyser.

Peru

General notes

Liquid biofuels are included in the energy balances from 2010 onwards.

Between 2015 and 2016, there is a break in time series due to a restructuring of energy balance for demand side of energy products.

In 2019 edition an allocation between domestic and international aviation consumption of jet kerosene was estimated by the IEA Secretariat since 2010. This may lead break in time series.

In the 2018 edition, crude oil and NGL figures were revised for the years 2004-2015 due to change of the of methodology. This may lead to different trends compared to previous editions of this publication.

Sources

Sources up to 2017:

- Direct communication with Ministerio de Energía y Minas, Oficina Técnica de Energía, Lima.
- *Energy-Economic Information System (SIEE)*, Latin American Energy Organization (OLADE), Quito, accessed May 2019: <http://sier.olade.org/>.
- *Balance Nacional de Energía*, Ministerio de Energía y Minas, Lima, various editions up to 2018.
- International Civil Aviation Organization (ICAO) 2018 Annual Report, United Nations.
- *Hidrocarburos Estadísticas*, Organismo Supervisor de la Inversión en Energía y Minería, 2012.
- IEA Secretariat estimates.

Philippines

General notes

In the 2018 edition, data for 2012-2016 for bagasse has been revised. This may lead to breaks in time series between 2011 and 2012.

Sources

Sources 1990 to 2017:

- Direct communication with the Department of Energy, Manila.

- *Energy Commodity Account (ECA)* and *Overall Energy Balance (OEB)*, 1990-2008, 2010-2017 submitted by the Department of Energy, Manila.
- APEC annual energy statistics questionnaires.
- *Annual Report*, Semirara Mining Corporation, 2006-2018.
- IHS McCloskey, 2011-2017.
- *Annual steel production 1980-2018*, World Steel Association, www.worldsteel.org/statistics/.
- *Philippines Energy Bulletin 1996, 1997, 1998, 1999*.
- IEA Secretariat estimates.

Sources up to 1989:

- Direct communication with the Office of Energy Affairs, Manila.
- *APEC Energy Statistics 1994*, Tokyo, October 1996.
- *1990 Power Development Program (1990-2005)*, National Power Corporation, Manila, 1990.
- *Philippine Medium-term Energy Plan 1988-1992*, Office of Energy Affairs, Manila, 1989.
- *Philippine Statistical Yearbook 1977-1983*, National Economic and Development Authority, Manila.
- *1985 and 1989 Annual Report*, National Power Corporation, Manila, 1986, 1990.
- *Philippine Economic Indicators*, National Economic and Development Authority, Manila, various editions of 1985.
- *Accomplishment Report: Energy Self-Reliance 1973-1983*, Ministry of Energy, Manila, 1984.
- *Industrial Energy Profiles 1972-1979*, vol. 1-4, Ministry of Energy, Manila, 1980.
- *National Energy Program*, Ministry of Energy, Manila, 1982-1987 and 1986-1990.
- *Philippine Statistics 1974-1981*, Ministry of Energy, Manila, 1982.
- *Energy Statistics*, National Economic and Development Authority, Manila, 1983.
- *Quarterly Review*, Office of Energy Affairs, Manila, various editions.
- The UN Energy Statistics Database.
- IEA Secretariat estimates.

Qatar

General notes

Crude oil production and export data do not include field condensate.

Natural gas liquids (NGL) include field condensates, propane, butane and ethane production from natural gas processing plants. NGL produced from liquefied natural gas production plants and gas-to-liquids plants may be excluded.

Propane and butane from natural gas processing plants are transferred to LPG. Ethane from natural gas processing plants is transferred to ethane.

Information on the use of LPG and ethane in the petrochemical sector is from 2005 onward. This may lead to breaks in time series for these products between 2004 and 2005.

In 2010, a new ethane cracker began operations in Ras Laffan, Qatar, with production capacity of 1.3 million tonnes per year. Breaks in time series in LPG and ethane production can be seen between 2009 and 2010.

Electricity production from autoproducers includes generation by desalination plants since 1988. Own use of electricity includes use by desalination plants since a breakdown is not available. Electricity consumption in industry includes electricity consumption by the energy sector.

Three satellite power stations located outside of Doha are included as main electricity producers up to 2014. In 2015, these power stations are not reported and are likely included as part of RAF-A station as auto production.

Revisions were made in 2014 for refinery intake of crude oil production based on Qatar Petroleum reports.

Sources

Sources 1992 to 2017:

- Direct communication with Qatar Statistical Authority, Doha.
- Direct communication with Qatar Petroleum, Doha.
- Direct communication with Kahramaa, Qatar General Electricity and Water Cooperation, Doha.

- Direct communication with National Minerals Information Center, U.S Geological Survey.
- *Statistics Report*, Kahramaa, Qatar General Electricity and Water Corporation, Doha, editions 2005 to 2008, 2010 to 2017.
- *Qatar in Figures*, Qatar Statistics Authority. Doha, 2011-2016 editions.
- *2017 Integrated Report*, Qatar Petrochemical Company, Doha.
- *Annual Report 2017*, Qatar Fertilizer Company, Doha.
- JODI- Oil World database, Joint Organisations Data Initiative (JODI), accessed May 2019: <https://www.jodidata.org/oil/>.
- *Statistical Bulletin*, Arab Union of Electricity, 2011-2017.
- *Annual Report 2004-2016*, Qatar Petroleum, Doha.
- *Natural Gas in the World*, Cedigaz, Paris, various editions up to 2018.
- *The LNG Industry*, International Group of Liquefied Natural Gas Importers (GIIGNL), various editions up to 2018.
- *Statistics Archives*, World Steel Association, www.worldsteel.org.
- *Annual Statistical Abstract, Qatar Statistics Authority, 1994 to 2012*.
- The UN Energy Statistics Database.
- IEA Secretariat estimates.

Sources up to 1991:

- *Qatar General Petroleum Corporation 1981-1985*, General Petroleum Corporation, Doha, 1986.
- *Economic Survey of Qatar 1990*, Ministry of Economy and Commerce, Department of Economic Affairs, Doha, 1991.
- *Statistical Report 1987 Electricity & Water*, Ministry of Electricity, Doha, 1988.
- *State of Qatar Seventh Annual Report 1983*, Qatar Monetary Agency, Department of Research and Statistics, Doha, 1984.

Romania

General notes

Romania's methodology for estimating indigenous production of geothermal energy differs from the one that IEA has adopted. Therefore, data comparisons

between Romania and other countries might be misleading.

Data on quantities of coke oven coke used in blast furnaces do not correspond to the official submission of the national administration, as they have been estimated by the IEA Secretariat to ensure a carbon balance in the blast furnace transformation.

Sources

Sources 1992 to 2017:

- Direct communication with the National Institute of Statistics, Bucharest.
- Joint IEA/Eurostat/UNECE annual energy questionnaires.
- *Buletin Statistic de Informare Publica*, Comisia Nationala Pentru Statistica, Bucharest, various editions up to June 1995.
- *Renel Information Bulletin*, Romanian Electricity Authority, Bucharest, 1990, 1991, 1992, 1993, 1994. *Anuarul Statistic al Republicii Socialiste Romania*, Comisia Nationala Pentru Statistica, Bucharest, 1984, 1985, 1986, 1990, 1991.
- IEA Secretariat estimates.

Russian Federation

General notes

Data for the Russian Federation are available starting in 1990. Prior to that, they are included in Former Soviet Union.

Annual statistics are based on annual joint IEA/Eurostat/UNECE questionnaires submissions received from Rosstat, the official data provider to the IEA. Data may differ from secondary sources, and discrepancies are being investigated.

In 2007, the Federal State Statistics Service introduced a new classification, the Russian Classification of Economic Activities (OKVED), oriented towards harmonization with the Statistical Classification of Economic Activities in the European Community (NACE Rev.1). Data for the years prior to 2005 were submitted to the IEA Secretariat according to the Russian Classification of the Industries of the Economy (OKONKH). Therefore, breaks in time series for final consumption sectors may occur between 2004 and 2005.

Coal

Coal statistics provided by Rosstat may differ from those collected by Rosinformugol. Blast furnace gas values since 2012 utilise a different methodology to that of prior years (where heat from other sources than blast furnace gas had been attributed to blast furnace gas). Some coal trade from partners of the Customs Union has been estimated by the IEA Secretariat and additionally removed from indigenous production where it may be reported in data of other organisations.

Oil

In the 2019 edition naphtha exports and non-energy consumption in the chemical and petrochemical sector from 2011 to 2016 have been revised by the IEA Secretariat based on information provided by Rosstat. Prior to 2011 domestic consumption of naphtha was calculated as residual in the Russian balance and is likely to be overestimated.

Recent refinery upgrade projects have resulted in an increase in the production of gasoline and diesel affecting the refinery yield spread in 2017 and onwards.

Condensate quantities reported by Rosstat are included under NGL rather than crude oil.

Jet kerosene output is confidential and estimated based on historical refinery throughput growth rate. No information on Vacuum Gas Oil is available.

Jet kerosene consumption split between international and domestic aviation is unknown so consumption is equally split between the two flows.

LPG refinery output may include output from gas separation plants.

Information on international marine bunker consumption is submitted from 2010 with high fluctuation in time series.

2017 data for gas diesel oil deliveries to international marine bunkers was estimated by the IEA Secretariat.

Restrictions on refuelling of international vessels in Russian ports were lifted in December 2016 as a result consumption of oil products in navigation increased in 2017.

Interproduct transfers of jet kerosene to gas diesel oil represent quantities blended with marine diesel to improve the cold flow properties of arctic marine diesel.

Natural gas

In the 2017 edition, the Russian Federation revised natural gas data back to 2013.

From 2009, all data concerning LNG trade and LNG production have been estimated by the Secretariat.

Oil and gas extraction includes natural gas consumed by oil refineries.

Biofuels and waste

Charcoal data are reported with solid biofuels since 2010. The time series of charcoal is expected to be reported in the 2018 edition.

The geothermal input to main activity electricity plant was estimated by IEA Secretariat for 2013 and 2014.

Electricity and heat

In 2017, the Russian administration transitioned to a new classification system (the new Russian National Classifier of Types of Economic Activity). As a result, some breaks in-series may occur between 2016 and 2017.

The decrease in heat output from gas/diesel oil in Autoproducer CHP plants from 2016 onwards is due to fuel switching to natural gas.

The 2015 data for electricity and Heat show a substantial drop in heat production on autoproducer plants fuelled by natural gas. These figures have been confirmed by the Russian authorities.

The 2013 data for electricity and heat show a substantial drop in the efficiency of autoproducer heat plants fuelled by natural gas as well as a decrease in production and consumption of heat. These figures have been confirmed by the Russian authorities.

Heat from other sources is produced from recovered waste heat.

Sources

Sources 1990 to 2017:

- Direct communication with the Department of Foreign Statistics and International Cooperation from the Federal State Statistics Service (Rosstat), Moscow, Russian Federation.
- Joint IEA/Eurostat/UNECE annual energy questionnaires.
- Energy trade: direct communication with the Federal State Statistics Service, July 1994.
- *Statistical Yearbook of Russia 1994*. The State Committee of Statistics, Moscow, 1994.

- The Russian Federation in 1992, Statistical Yearbook, The Federal State Statistics Service, Moscow, 1993.
- *Russian Federation External Trade*, annual and quarterly various editions, the Federal State Statistics Service, Moscow.
- *Statistical Bulletin*, various editions, The State Committee of Statistics of the CIS, Moscow, 1993, 1994.
- *Statistical Bulletin N° 3*, The Federal State Statistics Service, Moscow, 1992.
- *Fuel and Energy Balance of Russia 1990*, The Federal State Statistics Service, Moscow, 1991.
- *Energetika*, Energo-Atomisdat, Moscow, 1981 to 1987.
- IEA Secretariat estimates.

Sources for biofuels and waste:

- The Federal State Statistics Service.
- IEA Secretariat estimates.

Saudi Arabia

General notes

Crude oil production and export data do not include field condensate. Field condensate quantities are included with natural gas liquids.

Data for crude oil production include 50 per cent of the output of the Neutral Zone, shared with Kuwait. Similarly, crude oil production includes 50% of the output of the Abu Safa field shared with Bahrain.

Natural gas consumption for oil and gas extraction may include quantities used in oil refineries.

New data became available in 2015 allowing the estimation of natural gas consumption as a feedstock in ammonia and methanol manufacture from 1990 to 2013. The remaining natural gas consumption has been allocated to the non-specified Industry sector. Breaks in time series may occur between 1989 and 1990 for this reason.

Electricity production from auto producers includes generation by desalination plants since 1979.

Electricity end use specific to Agriculture/forestry has not been reported since 2015..

New Yasref refinery in Yanbu came online in 2015 with 400 kbd refining capacity. Breaks in time series

for oil industry consumption of oil products and diesel output from refineries may be observed between 2014-2015.

Sources

Sources 1992 to 2017:

- *Annual Reports*, Saudi ARAMCO, Dhahran, various editions up to 2017.
- *Annual Report*, Saudi Arabian Monetary Agency, Research and Statistics Department, Riyadh, various editions up to 2018.
- JODI- Oil World database, Joint Organisations Data Initiative (JODI), accessed April 2019: <https://www.jodidata.org/oil/>.
- *Statistical Yearbook of 2018*, General Authority for Statistics- Kingdom of Saudi Arabia, Issue Number: 54.
- *Annual Statistical Booklet*, Electricity and Co-generation Regulatory Authority, various editions up to 2017.
- *Statistical Bulletin*, Arab Union of Producers, Transporters and Distributors of Electricity (AUPTDE), Amman, various editions up to 2017.
- *Annual Statistical Bulletin*, Organization of Petroleum Exporting Countries (OPEC), Vienna, various editions up to 2017.
- *Nitrogen statistics and information*, US Geological Survey, www.usgs.gov.
- Ministry of Petroleum and Mineral Resources, 2009.
- *Middle East Petroleum Databook*, FACTS Global Energy Group, Singapore, 2009 and 2010.
- *Electricity Growth and Development in the Kingdom of Saudi Arabia up to the year from 1416H. (1996G.), 1420 H (1999/2000G) and 1423/1424 H (2003G)*, Ministry of Industry and Electricity, Riyadh, 1997, 1998, 1999, 2004.
- *Annual Statistical Report*, Organization of Arab Petroleum Exporting Countries (OAPEC), Kuwait, various editions up to 2017.
- Direct communication from the Central Department of Statistics of the Ministry of Planning and oil industry sources.
- *A Survey of the Saudi Arabian Oil Industry 1993*, Embassy of the United States of America in Riyadh, Riyadh, January 1994.
- *Renewable energy statistics 2019*, International Renewable Energy Agency (IRENA).
- IEA Secretariat estimates.

Sources up to 1991:

- *Annual Reports*, Saudi ARAMCO, various editions.
- *Petroleum Statistical Bulletin 1983*, Ministry of Petroleum and Mineral Resources, Riyadh, 1984.
- *Achievement of the Development Plans 1970-1984*, Ministry of Planning, Riyadh, 1985.
- *The 1st, 2nd, 3rd and 4th Development Plans*, Ministry of Planning, Riyadh, 1970, 1975, 1980 and 1985.
- *Annual Report*, Saudi Arabian Monetary Agency, Research and Statistics Department, Riyadh, 1984, 1985, 1986, 1988, 1989.
- *Statistical Summary*, Saudi Arabian Monetary Agency, Research and Statistics Department, Riyadh, 1986.

Sources for biofuels and waste:

- *Forestry Statistics*, FAO, Rome, 2000.
- IEA Secretariat estimates.

Senegal

General notes

For the 2019 edition the IEA Secretariat could not obtain data for 2017 for Senegal in time. As a consequence, data have been estimated based on population growth for biomass and household consumption, and GDP growth for other products than hydro. Solar PV electricity generation was revised with IRENA data.

In the 2018 edition, data for 2014 and 2015 are revised based on information sent from Senegal Ministère de l'Énergie et des Mines.

In the 2014 edition, the time series for solid biofuels were revised from 2009 based on newly available information. Breaks in time series may occur between 2008 and 2009.

Sources

Sources 2017:

- *Renewable energy statistics 2019*, International Renewable Energy Agency (IRENA).
- *World Trade Database*, prepared annually by the International Energy Agency.
- IEA Secretariat estimates.

Sources 2009 to 2016:

- Direct communication with Ministère de l'Énergie et des Mines, Dakar.
- *Bilans énergétiques du Sénégal* 2009 to 2016, Direction de l'Énergie, Dakar.
- IEA Secretariat estimates.

Sources 2008:

- *Bulletin mensuel des statistiques économiques*, Agence national de la Statistique et de la Démographie (ANSD), Dakar, March 2009.
- Direct communication with Ministère de l'Énergie, Dakar.

Sources 2000 to 2007:

- *Bilans énergétiques du Sénégal* 2003, 2004, 2005, 2006, Direction de l'Énergie, Dakar.
- IEA Secretariat estimates.

Sources 1992 to 1999:

- Direct communication with Ministère de l'Énergie, des Mines et de l'Industrie, Direction de l'Énergie, Dakar, 1997 to 2002.
- Direct communication with Ministère de l'Énergie, des Mines et de l'Hydraulique, Comité National des Hydrocarbures, Dakar, 2002.
- Direct communication from oil industry sources, Société Africaine de raffinage.
- Direct communication from electricity industry sources, SENELEC.
- *Report of Senegal on the Inventory of Greenhouse Gases Sources*, Ministère de l'Environnement et de la Protection de la Nature, Dakar, 1994.
- Direct communication to the IEA Secretariat from ENDA - Energy Program, Dakar, 1997.
- The UN Energy Statistics Database.

Sources up to 1991:

- *Situation Economique 1985*, Ministère de l'Économie et des Finances, Direction de la Statistique, Senegal, 1986.

Serbia

General notes

Data for Serbia are available starting in 1990. Prior to that, they are included in Former Yugoslavia.

Serbia energy data include Montenegro until 2004 and The United Nations Interim Administration Mission in Kosovo until 1999. Breaks in time series for oil products and natural gas may appear between 2006 and 2007 due to newly available data for 2007. In the last submission from the Statistical Office of the Republic of Serbia, historical data were revised for hydroelectricity production between 1990 and 2007.

Sources**Sources 1990 to 2017:**

- Direct communication with the Ministry of Mining and Energy, Belgrade.
- Direct communication with the Statistical Office of the Republic of Serbia, Belgrade.
- Joint IEA/Eurostat/UNECE annual energy questionnaires.
- *Pilot study: Energy Balances (2007 and 2008) - Oil and Derivates of Oil, Natural Gas, Geothermal Energy and Energy Balance of the Republic of Serbia*, Statistical Office of the Republic of Serbia, Belgrade, 2009.
- Direct communication with the Federal Ministry of Economy, Belgrade.
- IEA Secretariat estimates.

Sources for biofuels and waste:

- Joint IEA/Eurostat/UNECE annual energy questionnaire on renewables (1990-2017).
- Direct communication with the Ministry of Mining and Energy, Belgrade.
- IEA Secretariat estimates.

Singapore

General notes

Singapore joined the IEA as an Association country in October 2016.

Some key oil products and flows are aggregated by Singapore, to avoid breach of confidentiality. Detailed breakdown is then estimated by the IEA Secretariat.

At the time of publication, refinery input and output figures for 2017 were not available and they have been therefore estimated by IEA Secretariat. These values may differ significantly from actual figures published later in Singapore's official sources.

The IEA Secretariat, the Energy Market Authority and the National Climate Change Secretariat (NCCS) have worked closely together on improving data quality for Singapore. Therefore, breaks in time series between 2008 and 2009 and differences in trends when compared to previous publications may occur for some products.

From 2009, Singapore publishes splits of refinery output between light, middle and heavy distillates and residuum only. Further breakdown between products is estimated by the IEA Secretariat. Singapore aggregates petrochemical and refinery consumption. The split between refining and petrochemical consumption is estimated by the IEA Secretariat.

Refinery input is broken down between crude oil and feedstocks. Splits of feedstock by product are not provided by Singapore. By default, IEA estimates that feedstocks come from naphtha as a result of residual calculation plus gas/diesel and fuel oil in equal proportions.

Other data remain aggregated due to lack of data availability. Electricity consumption in the industry sector from 2005 includes electricity consumption by refineries. Electricity consumption in transport includes all electricity consumption at airport terminals. Municipal waste production and consumption may include biogas.

Refinery gas production and consumption may include syngas produced by the petrochemical sector.

Due to Singapore's large trade volume in comparison to its final consumption, slight misalignment of trade figures can have a significant impact on the energy balance of Singapore. The IEA Secretariat has adjusted total imports of gas/diesel from 2009 to match demand.

A coal-fired power plant started operations in 2013. This might lead to breaks in time series between 2012 and 2013.

Sources

Sources 1992 to 2017:

- Direct communication with the Energy Market Authority, Singapore.
- Direct communication with the National Climate Change Secretariat (NCCS), Singapore, from 2013.
- Direct communication with the Solar Energy Research Institute of Singapore, 2011.
- *Singapore Energy Statistics*, Energy Market Authority, Singapore, various editions up to 2018.

- *Monthly oil statistics*, Enterprise Singapore, 2011-2017.
- *Yearbook of Statistics Singapore*, Department of Statistics, Singapore, various editions up to 2018.
- *Bunker sales*, website of The Maritime and Port Authority of Singapore, accessed February 2019: www.mpa.gov.sg.
- *Motor Vehicle Population by Type of Fuel Used*, website of the Land Transport Authority, accessed February 2019: www.lta.gov.sg.
- *Solid Waste Management Statistics*, website of The Ministry of the Environment and Water Resources, accessed February 2019: <http://app.mewr.gov.sg/>.
- *Singapore Trade Statistics*, International Enterprise Singapore, Singapore, various CD-ROM editions up to 2011.
- *Argus Fundamentals*, Argus Media, various editions up to 2012.
- *Asia Pacific Databook*, FACTS Global Energy, Singapore, various editions up to 2013.
- *The Strategist Oil Report*, Singapore, various issues up to March 1999.
- *Petroleum in Singapore 1993/1994*, Petroleum Intelligence Weekly, Singapore, 1994.
- ASEAN-EC Energy Management and Research Training Centre (AEEMTRC), 1996.
- Direct submissions from oil industry sources up to 1996.
- The UN Energy Statistics Database.
- IEA Secretariat estimates.

Sources up to 1991:

- *Monthly Digest of Statistics*, Department of Statistics, Singapore, various editions from 1987 to 1989.
- *Yearbook of Statistics Singapore 1975/1985*, Department of Statistics, Singapore, 1986.
- *ASEAN Oil Movements and Factors Affecting Intra-ASEAN Oil Trade*, Institute of Southeast Asian Studies, Singapore, 1988.
- *The Changing Structure of the Oil Market and Its Implications for Singapore's Oil Industry*, Institute of Southeast Asian Studies, Singapore, 1988.
- *Public Utilities Board Annual Report (1986 and 1989)*, Public Utilities Board, Singapore, 1987 and 1990.

Sources for biofuels and waste:

- *Singapore Energy Statistics*, Energy Market Authority, Singapore, various editions up to 2018.
- The UN Energy Statistics Database.
- IEA Secretariat estimates.

South Africa

General notes**Coal**

Outputs from gas-to-liquids and coal-to-liquids plants are presented in the “Transfers” flow.

New information became available for the 2017 edition which allowed the separation of non-energy use of coal in Coal to Liquids (CTL) plants from the coal used for energy purposes in these same plants. Non-energy conversion efficiencies for CTL plants in South Africa are assumed to be 60% in physical units. Due to specific calorific values used for this specific process, the efficiency are 73% in our energy balance format. This methodology may lead to breaks in time series between 2010 and 2011 for these products and flows.

Breaks in time series may occur for anthracite and coking coal between 2009 and 2010 as new information became available. Prior to 2010, coking coal data may include anthracite.

Coking coal, coke oven coke, coke oven gas and blast furnace gas production and consumption have been estimated using reported crude steel production figures.

For the 2019 edition, the estimation methodology was changed for gas work gas, which may lead to break in time series between 2009 and 2010. We now use the industrial activity data reported by the World steel association to estimate the consumption of the industry sector.

Oil

New information became available in 2015 on refinery output of lubricants. Data have been revised from 1998. This may lead to breaks in time series between 1997 and 1998. Reported quantities of synthetic fuels output may not include quantities from PetroSA.

New data availability led to changes in the split of Kerosene type jet fuel consumption in domestic

aviation and international bunker in the 2019 edition. Breaks in time series may occur between 2008 and 2009.

Natural gas

Breaks in time series may occur for consumption of natural gas in industrial sectors between 2009 and 2010 as new information became available for the 2014 edition.

Biofuels and waste:

Breaks in time series may between 1999 and 2000 occur for wood fuel and charcoal as new information on number of people without access to electricity became available for the 2019 edition.

Bagasse consumption in CHP plant was reported for the first time by the Department of Energy for the 2019 edition. Data may include coal co-burnt with bagasse.

Sources**Sources 2010 to 2017:**

- Direct communication with the Department of Energy, Pretoria, South Africa.
- *Energy statistics: Supply and demand of petroleum products*, Department of Energy, Pretoria, South Africa, up to 2018 edition.
- *Statistical release on electricity generated and available for distribution*, Statistics South Africa, Pretoria, up to 2018 edition.
- *South African Statistics*, Statistics South Africa, Pretoria, various editions up to 2018.
- JODI- Oil World database, Joint Organisations Data Initiative (JODI), accessed April 2019: <https://www.jodidata.org/oil/>.
- *Annual Reports*, South Africa Petroleum Industry Association (SAPIA), Sandton, up to 2018 edition.
- *Integrated Annual Reports*, Electricity Supply Commission (ESKOM), South Africa, up to 2018 edition.
- *Analyst Book*, SASOL Limited Group, Johannesburg, various editions up to 2017.
- *Integrated Annual Reports*, PetroSA, Parow, various editions up to 2017.
- *Steel statistical Yearbook*, World Steel Association, Brussel, accessed March 2019, <http://www.worldsteel.org/statistics/>

- *Natural Gas in the World*, Cedigaz, Paris, various editions up to 2018.
- *Solar Heat Worldwide*, AEE - Institute for Sustainable Technologies, Gleisdorf, IEA Solar Heating & Cooling Programme, various editions up to 2018.
- IEA Secretariat estimates.

Sources 1992 to 2009:

- Energy balances submitted to the IEA Secretariat from the Department of Minerals and Energy, 2003 to 2009.
- *Electricity generated and available for distribution*, Statistics South Africa, Pretoria, various editions up to 2009.
- Direct submission from the Institute for Energy Studies, Rand Afrikaans University, Pretoria, 1998 to 2001.
- *Digest of South African Energy Statistics 1998*.
- Direct submissions from the Energy Research Institute, University of Cape Town.
- *ESKOM Annual Report*, Electricity Supply Commission (ESKOM), South Africa, 1992 to 1994.
- *Statistical Yearbook*, Electricity Supply Commission (ESKOM), South Africa, 1992 to 1994.
- *South Africa's Mineral Industry*, Department of Mineral and Energy Affairs, Braamfontein, 1995.
- *South African Energy Statistics, 1950-1993*, Department of Mineral and Energy Affairs, Pretoria, 1995.
- *Wholesale Trade Sales of Petroleum Products*, Central Statistical Service, Pretoria, 1995.
- *South African Coal Statistics 1994*, South African Coal Report, Randburg, 1995.
- *Energy Balances in South Africa 1970-1993*, Energy Research Institute, Plumstead, 1995.

Sources up to 1991:

- *ESKOM Annual Report*, Electricity Supply Commission (ESKOM), South Africa, 1989 to 1991.
- *Statistical Yearbook*, Electricity Supply Commission (ESKOM), South Africa, 1983 to 1991.
- *Statistical News Release 1981-1985*, Central Statistical Service, South Africa, various editions from 1986 to 1989.

- *Annual Report Energy Affairs 1985*, Department of Mineral and Energy Affairs, Pretoria, 1986.
- *Energy Projections for South Africa (1985 Balance)*, Institute for Energy Studies, Rand Afrikaans University, South Africa, 1986.

Sources for biofuels and waste:

- *South African Energy Statistics 1950-1989, No. 1*, National Energy Council, Pretoria, 1989.
- IEA Secretariat estimates.

South Sudan

General notes

In the 2018 edition, revisions in 2015 data are due to new information available through AFREC questionnaires.

Data for South Sudan are available from 2012. Prior to 2012, they are included in Sudan.

Crude oil production and exports were halted for most of 2012, and only continued in April 2013. Both production and exports have been estimated by the IEA Secretariat for 2014.

Sources

Sources 2012 to 2017:

- AFREC Energy questionnaire, African Energy Commission, 2015, 2017.
- Direct communication with the Ministry of Electricity, Dams, Irrigation and Water Resources, Djouba, South Sudan.
- IEA Secretariat estimates.

Former Soviet Union

General notes

Data for individual countries of the Former Soviet Union are available starting in 1990, and most of the information on 1990 and 1991 was estimated by the IEA Secretariat. Because of large breaks in reporting occurring in the early 1990's, breaks in time series may occur in 1990 for all regional totals.

Coal production statistics refer to unwashed and unscreened coal up to 1990. IEA coal statistics

normally refer to coal after washing and screening for the removal of inorganic matter. Also, see notes under “Classification of Fuel Uses” and “Heat”, in section on Notes on data quality.

The commodity balances presented for the Former Soviet Union include IEA Secretariat estimates of fuel consumption in the main categories of transformation. These estimates are based on secondary sources and on isolated references in FSU literature.

In older editions of this publication, intra-FSU trade was excluded.

Sources

Sources up to 1989:

- *Statistical Yearbook*, The State Committee for Statistics of the USSR, Moscow, various editions from 1980 to 1989.
- *External Trade of the Independent Republics and the Baltic States*, 1990 and 1991, the State Committee of Statistics of the CIS, Moscow, 1992.
- *External Trade of the USSR*, annual and quarterly, various editions, The State Committee of Statistics of the USSR, Moscow, 1986 to 1990.
- *CIR Staff Paper no. 14, 28, 29, 30, 32 and 36*, Center for International Research, US Bureau of the Census, Washington, 1986, 1987 and 1988.
- *Yearbook on Foreign Trade*, Ministry of Foreign Trade, Moscow, 1986.

Sri Lanka

General notes

Breaks in time series may occur between 1999 and 2000 due to newly available energy balances provided by the Sri Lanka Sustainable Energy Authority in 2009.

Stock change may include statistical difference for certain secondary oil products.

Refinery losses may include own use of refinery fuel.

Sources

Sources 1992 to 2017:

- Direct communication with the Sri Lanka Sustainable Energy Authority, Colombo.
- *Sri Lanka Energy Balances 2000-2017*, Sri Lanka Sustainable Energy Authority, Colombo.

- *Economic and Social Statistics of Sri Lanka 2011-2017*, Central Bank of Sri Lanka, Colombo.
- *Statistical Digest 2000-2017*, Ceylon Electricity Board, Colombo.
- Direct communication with the Department of Census and Statistics, 2003 to 2006.
- *Annual Report 1993*, Central Bank of Sri Lanka, Colombo, July 1994.
- Direct communication with the Ceylon Electricity Board.
- The UN Energy Statistics Database.
- IEA Secretariat estimates.

Sources up to 1991:

- *Energy Balance Sheet 1991, 1992*, Energy Unit, Ceylon Electricity Board, Colombo, 1992, 1993.
- *Bulletin 1989*, Central Bank of Sri Lanka, Colombo, July 1989.
- *Bulletin (monthly)*, Central Bank of Sri Lanka, Colombo, May 1992.
- *Sectoral Energy Demand in Sri Lanka*, UNDP Economic and Social Commission for Asia and the Pacific, Bangkok, 1992.
- *External Trade Statistics 1992*, Government of Sri Lanka, Colombo, 1993.

Sources for biofuels and waste:

- *Sri Lanka Energy Balances 1997-2017*, Sri Lanka Sustainable Energy Authority, Colombo.
- Energy Conservation Fund and Ceylon Electricity Board.
- IEA Secretariat estimates.

Sudan

General notes

South Sudan became an independent country on 9 July 2011. From 2012 data for South Sudan are reported separately and therefore, breaks in the time series may occur between 2011 and 2012 for Sudan data.

The IEA Secretariat could not obtain official balances since 2014 from Sudan. As a consequence, some flows have been estimated based on macroeconomic indicators, such as LPG exportation, kerosene trade and consumption, Gasoline, Diesel and Fuel oil trade. The rest of the oil products data is mostly based on OAPEC data.

In 2015, the Kosti power plant began operation in Sudan, with 500 MW capacity. The plant uses crude oil for fuel, and break in time series can be seen for crude oil imports and input into main activity power plants in 2015.

In 2016, new information on refinery activity became available. Breaks in time series for oil products can be seen between 2015 and 2016.

In the 2019 edition, due to revisions in the Organization of Arab Petroleum Exporting Countries data for oil products, breaks in time series might occur from 2014 onward.

Sources

Sources 1992 to 2017:

- Direct communication with the Ministry of Petroleum and the Ministry of water resources, Irrigation & Electricity, Khartoum.
- OAG (2018), Origin-Destination of Commercial Flights (database), OAG Aviation, Luton, www.oag.com/analytics/traffic-analyser.
- *Annual Statistical Report*, Organization of Arab Petroleum Exporting Countries (OAPEC), Kuwait, various editions up to 2018.
- *Statistical Bulletin*, Arab Union of Producers, Transporters and Distributors of Electricity (AUPTDE), Amman, various editions up to 2018.
- *Sudanese Petroleum Corporation Statistics*, Ministry of Petroleum, Khartoum, May 2012.
- AFREC energy questionnaire, African Energy Commission, 2013.
- *Sudan Energy Handbook 2006*, Ministry of Energy and Mines, Khartoum.
- IEA Secretariat estimates.

Sources up to 1991:

- *Foreign Trade Statistical Digest 1990*, Government of Sudan, Khartoum, 1991.

Sources for biofuels and waste:

- Direct communication with the Ministry of water resources, Irrigation & Electricity, Khartoum.
- IEA Secretariat estimates based on 1990 data from Bhagavan (ed.) *Energy Utilities and Institutions in Africa*, AFREPREN, Nairobi, 1996.

Suriname

General notes

The data are available from 2000 to 2017. Prior to 2000, data for Suriname are included in Other Non-OECD Americas.

In the 2019 edition, new information became available on the expansion of the refinery at Tout Lui Faut and the consequent increase in diesel and gasoline production. The IEA Secretariat consequently started to revise 2015 and 2016 data. The change of data sources and uncertainty during transition may cause break in time series and increased statistical difference.

Sources

Sources up to 2017:

- 8th *Environmental Statistics Publication*, General Bureau of Statistics Suriname, December 2018.
- *Energy-Economic Information System (SIEE)*, Latin American Energy Organization (OLADE), Quito, accessed April 2019, <http://sier.olade.org/>.
- IEA Secretariat estimates

Syrian Arab Republic

General notes

Due to the on-going conflict in Syria, no official government data sources were available for 2012 to 2017. Data in this year's edition are primarily based on secondary sources, media reports and IEA Secretariat estimates.

Imports of crude oil and secondary oil products may include informal imports.

In this edition, refinery flows are revised from 2013 based on information from OPEC.

Sources

Sources 1992 to 2017:

- *Natural Gas in the World*, Cedigaz, Paris, various editions up to 2018.
- *Annual Statistical Report*, Organization of Arab Petroleum Exporting Countries (OAPEC), Kuwait, various editions up to 2018.

- Direct Communication with the Ministry of Petroleum and Mineral Resources, 2012.
- The UN Energy Statistics Database (until 2007).
- *Quarterly Bulletin*, Central Bank of Syria, Research Department, Damascus, 2001.
- IEA Secretariat estimates.

Sources up to 1991:

- *Quarterly Bulletin*, Central Bank of Syria, Research Department, Damascus, 1984.

Sources for biofuels and waste:

- IEA Secretariat estimates.

Chinese Taipei

General notes

Data for the period 1982-2009 were revised in 2012 based on new balances submitted by the Bureau of Energy. Breaks in time series may occur between 1981 and 1982.

Breaks in time series may also occur between 2010 and 2011 as more detailed information became available for refinery feedstocks and oil products.

In 2018 data were revised for the period 2002-2015 based on new balances submitted by the Bureau of Energy and changes in methodology, breaks in time series might occur.

Sources

Sources 1982 to 2017:

- *Energy Balances in Taiwan*, Bureau of Energy, Ministry of Economic Affairs, Taipei, various editions up to 2017.
- Direct communication with the electricity utilities.
- *Yearbook of Energy Statistics*, Ministry of Trade, Industry and Energy, Taipei, 1996.
- *The Energy Situation in Taiwan*, Ministry of Economic Affairs, Energy Committee, Taipei, 1986, 1987, 1988 and 1992.
- *Industry of Free China 1975-1985*, Council for Economic Planning and Development, Taipei, 1986.
- *Taiwan Statistical Data Book 1954-1985*, Council for Economic Planning and Development, Taipei, 1986.

- *Energy Policy for the Taiwan Area*, Ministry of Economic Affairs, Energy Committee, Taipei, 1984.
- IEA Secretariat estimates.

Sources up to 1981:

- *The Energy Situation in Taiwan*, Ministry of Economic Affairs, Energy Committee, Taipei, 1986, 1987, 1988 and 1992.
- *Industry of Free China 1975-1985*, Council for Economic Planning and Development, Taipei, 1986.
- *Taiwan Statistical Data Book 1954-1985*, Council for Economic Planning and Development, Taipei, 1986.
- *Energy Policy for the Taiwan Area*, Ministry of Economic Affairs, Energy Committee, Taipei, 1984.
- *Energy Balances in Taiwan*, Ministry of Economic Affairs, Taipei, 1980 to 1981.

Sources for biofuels and waste:

- Energy Balances in Taiwan, Bureau of Energy, Ministry of Economic Affairs, Taipei.
- The UN Energy Statistics Database.
- IEA Secretariat estimates.

Tajikistan

General notes

Data for Tajikistan are available starting in 1990. Prior to that, they are included in Former Soviet Union.

Tajikistan is one of the 11 EU4Energy focus countries.

Breaks in time series occur between 2011 and 2012 and between 2013 and 2014, as new information became available in 2016 to the statistics office.

Data for 2015 has been revised this year to accommodate new information received from the statistics office.

In 2019 edition, new information on coal products became available to the statistics office for 2016. This may lead to breaks in time series between 2015 and 2016.

Sources

Sources 2015 and 2017:

- Direct communication with the Statistical Agency under President of the Republic of Tajikistan, Dushanbe.

- Joint IEA/Eurostat/UNECE annual energy questionnaires.
- IEA Secretariat estimates

Sources 1990 to 2014:

- Direct communication with the Statistical Agency under President of the Republic of Tajikistan, Dushanbe.
- Joint IEA/Eurostat/UNECE annual energy questionnaires, 1991 to 2007 and 2014.
- *Online statistics*, Statistical Agency under the President of the Republic of Tajikistan.
- *Tajikistan in Figures*, Statistical Agency under the President of Tajikistan, various editions up to 2014.
- *Energy and Communal Services in Kyrgyzstan and Tajikistan: A Poverty and Social Impact Assessment*, UNDP Bratislava Regional Centre 2011.
- *CIS and East European Energy Databook*, Eastern Bloc Research Ltd, Tolsta Chaolais, various editions up to 2013.
- Asian Development Bank Statistics, various editions up to 2014.
- *Natural Gas Vehicles Statistics*, International Association for Natural Gas Vehicles, online database: www.iangv.org.
- *Industry of Tajikistan, Statistics*, the State Committee on Statistics of the Republic of Tajikistan, 2004.
- IEA Secretariat estimates.

Tanzania

General notes

Some of oil data (EWURA) are reported on a fiscal year basis. Data for 2017 correspond to 1 July 2017 – 30 June 2018.

In the 2019 edition, the IEA secretariat came across new information on the shares of international and domestic aviation in Tanzania. The revisions made to integrate this information lead to breaks in time series between 2009 and 2010.

Sources

Sources up to 2017:

- *Annual Report*, Bank of Tanzania, Dar es Salaam, various editions up to 2018.

- *EWURA Annual Report*, Energy and Water Utilities Regulatory Authority of the United Republic of Tanzania, Dar es Salaam, various editions up to 2018.
- *Annual Report*, Orca Exploration Group Inc., various editions up to 2018.
- *Tanzania in figures 2017*, Tanzania National Bureau of Statistics, 2017 edition.
- OAG, Origin-Destination of Commercial Flights (database), OAG Aviation, Luton, www.oag.com/analytics/traffic-analyser, 2018 edition.
- *The Economic Survey*, Tanzania National Bureau of Statistics, 2017 edition.
- *Statistical abstract*, Tanzania National Bureau of Statistics, various editions up to 2017.
- *The Economic Survey*, the Ministry of Finance, Dar Es Salaam, various editions up to 2017.
- *SAPP Annual Report 2008*, Southern African Power Pool, online statistics, 2010-2011.
- *The Economic Survey*, The President's Office – Planning and Privatization, Dar es Salaam, 2003-2007. *Tanzanian Economic Trends*, Economic Research Bureau, University of Dar es Salaam, 1991.
- IEA Secretariat estimates.

Sources for biofuels and waste:

- IEA Secretariat estimated biofuels and waste based on Ministry of Energy and Minerals communicated for 2000, and grew using macro-economic indicators since then.
- Bagasse data are based on Energy and Water Utilities Regulatory Authority of the United Republic of Tanzania reports from 2010 to 2012, and estimated by the IEA Secretariat since then.

Thailand

General notes

Thailand joined the IEA as an Association country in November 2015.

Data for lubricants, refinery gas and non-specified oil products are not published by the Ministry of Energy and are estimated by the IEA Secretariat. Up to 2014, IEA Secretariat also estimated naphtha.

Data for production, own use and non-energy use of natural gas may include propane, butane and ethane produced in gas separation plants.

Stock changes may include statistical difference for certain products.

In 2014, information became available for the consumption of anthracite and lignite coal in industry. Breaks in time series may occur between 2011 and 2012.

Sources

Sources 2012 to 2017:

- Direct communication with the Ministry of Energy, Thailand, Bangkok.
- Direct communication with the Petroleum Institute of Thailand, Bangkok.
- *Thailand Energy Statistics*, Ministry of Energy, Department of Alternative Energy Development and Efficiency, Bangkok, various editions up to 2017.
- *Thailand Energy Balance Table*, Ministry of Energy, Department of Alternative Energy Development and Efficiency, Bangkok, various editions up to 2017.
- *Thailand Alternative Energy Situation*, Ministry of Energy, Department of Alternative Energy Development and Efficiency, Bangkok, various editions up to 2016.
- *Thailand Energy Efficiency Situation*, Ministry of Energy, Department of Alternative Energy Development and Efficiency, Bangkok, various editions up to 2017.
- *Energy Statistics of Thailand*, Ministry of Energy, Energy Policy & Planning Office, Bangkok, various editions up to 2017.
- *Key Statistical Data*, Electricity Generation Authority of Thailand, online database: www.egat.co.th accessed March 2019.
- *Thailand's Petroleum & Petrochemical Statistics*, Petroleum Institute of Thailand, Bangkok, various editions up to 2017.
- IEA Secretariat estimates.

Sources 2002 to 2012:

- Direct communication with the Petroleum Institute of Thailand, Bangkok, 2008 to 2012.
- *Thailand Energy Situation*, Ministry of Energy, Department of Alternative Energy Development and Efficiency, various editions up to 2012.
- *Key Statistical Data*, Electricity Generation Authority of Thailand, online database: www.egat.co.th.
- *Thailand Alternative Energy Situation*, Ministry of Energy, Department of Alternative Energy Development and Efficiency, various editions up to 2012.

- *Electric Power in Thailand*, Ministry of Energy, Department of Alternative Energy Development and Efficiency, various editions up to 2012.
- *Oil in Thailand*, Ministry of Energy, Department of Alternative Energy Development and Efficiency, various editions up to 2012.
- IEA Secretariat estimates.

Sources up to 2001:

- *Electric Power in Thailand*, Ministry of Science, Technology and Energy, National Energy Administration, Bangkok, 1985, 1986, 1988 to 2001.
- *Oil in Thailand*, Ministry of Science, Technology and Energy, National Energy Administration, Bangkok, 1979 to 2001.
- *Thailand Energy Situation*, Ministry of Science, Technology and Energy, National Energy Administration, Bangkok, 1978 to 2001.

Sources for biofuels and waste:

- *Thailand Energy Situation*, Ministry of Energy, Department of Alternative Energy Development and Efficiency, 2002 to 2010.
- *Thailand Alternative Energy Situation*, Ministry of Energy, Department of Alternative Energy Development and Efficiency, 2009-2010.
- IEA Secretariat estimates.

Togo

General notes

No official government data sources were available from 2013 to 2017 from Togo. As a consequence, data for this year's edition have been estimated based on population growth for biomass and household consumption, and GDP growth for other products than hydro.

Official data were submitted by Togo in 2014 for the years 2009-2012. Breaks in time series between 2008 and 2009 or differences in trends compared to previous publications may occur for this reason.

Sources

Sources 1999 to 2017:

- Direct communication with Ministère de l'Équipement, des Mines, de l'Énergie et des Postes et Télécommunications, Lomé.

- *Bilans Energétiques du Togo*, 1999 to 2012.
- Autorité de Réglementation du Secteur de l'Électricité (ARSE), 2015 to 2017.
- IEA Secretariat estimates.

Sources up to 1998:

- IEA Secretariat estimates.

Trinidad and Tobago

General notes

Data for refinery gas production include losses inside the refinery up until the year 1999. In the 2019 edition, new information became available from the Ministry of Energy and Energy Affairs in order to disaggregate the losses from the refinery gas production for 2000-2017.

In the 2014 edition, natural gas time series from 2000 were revised based on newly available information on the definition of production of natural gas used by Trinidad and Tobago (gross versus marketed production).

Sources

Sources 1992 to 2017:

- Direct communication with the Ministry of Energy and Energy Affairs, Port of Spain.
- *Energy-Economic Information System (SIEE)*, Latin American Energy Organization (OLADE), Quito, accessed April 2019: <http://sier.olade.org/>.
- *Energy Industry Consolidated Monthly Bulletins*, Ministry of Energy and Energy Affairs, Government of the Republic of Trinidad and Tobago, Port of Spain, various editions up to 2017.
- *Annual Economic Survey*, Central Bank of Trinidad and Tobago, Port of Spain, 1995 to 2017.
- *Natural Gas in the World*, Cedigaz, Paris, various editions up to 2017.
- *The LNG Industry*, GIIGNL – International Group of Liquefied Natural Gas Importers, Paris, various editions up to 2014.
- *Downstream Gas Industry Annual Report*, Ministry of Energy and Energy Affairs, Government of the Republic of Trinidad and Tobago, Port of Spain, various editions up to 2012.
- *Petroleum Industry Monthly Bulletin*, Ministry of Energy and Natural Resources, Port of Spain, various issues up to 1999.

Sources up to 1991:

- *Annual Statistical Digest*, Central Statistical Office, Port of Spain, 1983, 1984.
- *History and Forecast*, Electricity Commission, Port of Spain, 1987.
- *Annual Report*, Ministry of Energy and Natural Resources, Port of Spain, 1985, 1986.
- *The National Energy Balances 1979-1983*, Ministry of Energy and Natural Resources, Port of Spain, 1984.
- *Trinidad and Tobago Electricity Commission Annual Report*, Trinidad and Tobago Electricity Commission, Port of Spain, 1984, 1985.

Sources for biofuels and waste:

- *Forestry Statistics*, FAO, Rome.
- *Energy-Economic Information System (SIEE)*, Latin American Energy Organization (OLADE), Quito, accessed April 2019: <http://sier.olade.org/>.

Tunisia

General notes

New information for lubricants and bitumen became available in 2015. Breaks in the time series may occur between 2009 and 2010 because of this.

A significant increase in crude oil production was reported for 2007 due to the start-up of several new development wells and the beginning of production of the Oudna field.

A shutdown of the Bizerte refinery occurred between March 2010 and June 2011, resulting in breaks in time series for crude oil and oil products for the years 2009 to 2011.

In 2009, new data on charcoal production became available. A break in time series for wood inputs and charcoal outputs can be observed between 2008 and 2009.

Revisions in heat data between 2013 and 2014 from the 2017 edition are based on a survey of autoproducers.

Sources

Sources 1992 to 2017:

- Direct communication with the Observatoire National de l'Énergie et des Mines, Ministère de l'Énergie, des Mines et des Énergies Renouvelables, Tunis.

- Joint IEA/Eurostat/UNECE annual energy questionnaires.
- *Rapport Annuel 2011*, Société Tunisienne de l'Electricité et du Gaz, Tunis.
- Société Tunisienne des Industries de Raffinage, 2009 online statistics, 2008 to 2009.
- Statistiques d'Electricité du COMELEC, 2006, 2007, Comité Maghrébin de l'Electricité.

Sources up to 1991:

- *Bilan Energétique de l'Année 1991*, Banque Centrale de Tunisie, Tunis, 1992.
- *Rapport d'Activité 1990*, Observatoire National de l'Energie, Agence pour la Maîtrise de l'Energie, Tunis, 1991.
- *Rapport Annuel 1990*, Banque Centrale de Tunisie, Tunis, 1991.
- *Activités du Secteur Pétrolier en Tunisie*, Banque Centrale de Tunisie, Tunis, 1987.
- *Statistiques Financières*, Banque Centrale de Tunisie, Tunis, 1986.
- *Entreprise Tunisienne d'Activités Pétrolières (ETAP)*, Tunis, 1987.
- *Annuaire Statistique de la Tunisie*, Institut National de la Statistique, Ministère du Plan, Tunis, 1985, 1986.
- *L'Economie de la Tunisie en Chiffres*, Institut National de la Statistique, Tunis, 1984, 1985.
- *Activités et Comptes de Gestion*, Société Tunisienne de l'Electricité et du Gaz, Tunis, 1987.

Sources for biofuels and waste:

- Joint IEA/Eurostat/UNECE annual energy questionnaire on renewables (2013-2016).
- Before 2013 : IEA Secretariat estimates based on 1991 data from *Analyse du Bilan de Bois d'Energie et Identification d'un Plan d'Action*, Ministry of Agriculture, Tunis, 1998.

Turkmenistan

General notes

Data for Turkmenistan are available starting in 1990. Prior to that, they are included in Former Soviet Union.

Turkmenistan is one of the 11 EU4Energy focus countries.

Very little data for Turkmenistan are currently available. Supply data are available from secondary sources and consumption is estimated. To indicate the lack of data, certain figures for 2015-2017 have deliberately been kept equal to the previous year's figures.

Sources

Sources 2016-2017:

- *Natural Gas in the World*, Cedigaz, Paris, various editions up to 2018.
- *Forestry Statistics*, FAO, Rome, 2018.
- IEA Secretariat estimates.

Sources up to 2015:

- Turkmenistan Country Report, Turkmenenergo, 2016.
- *Natural Gas in the World*, Cedigaz, Paris, various editions up to 2016.
- Forestry Statistics, FAO, Rome, 2016.
- The UN Energy Statistics Database, 2015.
- IEA Secretariat estimates.
- Sources up to 2014: *CIS and East European Energy Databook*, Eastern Bloc Research Ltd, Tolsta Chaolais, various editions up to 2015.
- Asian Development Bank online database.
- *Natural Gas in the World*, Cedigaz, Paris, various editions up to 2015.
- *Forestry Statistics*, FAO, Rome, various editions up to 2015.
- The UN Energy Statistics Database.
- Direct communication with the National Institute on Statistics and Forecasting of Turkmenistan, November 1999 and January 2001.
- IEA Secretariat estimates.

Ukraine

General notes

Data for Ukraine are available starting in 1990. Prior to that, they are included in Former Soviet Union.

Ukraine is one of the 11 EU4Energy focus countries.

Due to limited information being available to the State Statistics Service of Ukraine from part of the Donetsk and Luhansk regions of Ukraine and from the

Autonomous Republic of Crimea, breaks in the time series occur after 2013. New breaks appear in 2016, for example with diesel energy industry own use.

In 2016, power plants have been reclassified due to the implementation of more detailed survey forms.

The IEA Secretariat and State Statistics Service of Ukraine are working closely on the improvement of data quality, and in particular revision of historical data. Therefore, breaks in time series may occur between 2006 and 2007.

For the period 2007 to 2017 the transparency of data may be reduced because of confidentiality issues. For instance: peat includes lignite and patent fuel; other kerosene includes aviation fuels (aviation gasoline, gasoline-type jet fuel and kerosene-type jet fuel); other products include petroleum coke; in 2016 and 2017 aviation fuels and kerosene are included in other products and in 2017 bituminous coal includes anthracite.

Coal

IEA statistics refer to coal after washing and screening for the removal of inorganic matter. Official Ukrainian coal statistics refer to unwashed and un-screened coal prior to 1995.

Anthracite supply and demand data for 2017 are included in Other bituminous coal due to confidentiality issues.

Bituminous coal “From other sources” refers to coal mined in informal sector.

Due to a plant closure in 2008, a stock of lignite/peat became available, without details about its consumption. This may lead to breaks in time series and high statistical difference for 2008.

Quantities of other sub-bituminous coal reported under patent fuel transformation are used to make briquettes from dust and due to confidentiality and calorific value of this output, it is reported in peat products and not in patent fuel production. No information was available for 2017.

Oil

Large statistical differences exist for some oil products such as transport fuels and LPG. These are due to identified reporting issues in Ukraine. The State Statistics Service of Ukraine continues to work with data providers to resolve these issues.

Due to limited refinery information being available from 2015 onwards, refinery inputs have been estimated for 2015 by the IEA Secretariat based on supply; discrepancies may appear in the 2015 refinery balance.

In 2016, refinery gas is reported in the transformation sector. A break in time series and statistical difference appears as more information on the supply side remains unavailable.

Quantities of other hydrocarbons reported until 2015 correspond to petroleum coke produced from coal tar. From 2016, this information is no longer available.

Natural gas

The data for the stock draw and statistical difference of natural gas in 2010 are a consequence of the accounting method chosen by the Ukrainian administration to reflect the ruling of the Stockholm Arbitration Tribunal of March 30, 2010.

Gas stocks include stocks supplied to the Autonomous republic of Crimea.

Due to the new annual survey form, there was reclassification between main activity producers and autoproducers in 2016.

Biofuels and waste

Charcoal production has included pyrolysis and calculated amounts of traditional production since 2008.

Electricity and heat

Statistical difference for electricity includes electricity supplied to the Autonomous Republic of Crimea and the Donetsk and Luhansk regions of Ukraine.

Information on electricity used for pumped hydro has been available since 2012.

Sources

Sources 2007 to 2017:

- Direct communication with the State Statistics Service of Ukraine, Kiev.
- Joint IEA/Eurostat/UNECE annual energy questionnaires.

Sources 1992 to 2006:

- Joint IEA/Eurostat/UNECE annual energy questionnaires.

- Direct communication with the Ministry of Statistics, the Coal Ministry, the National Dispatching Company, 1995.
- Coal: Direct communication with the State Mining University of Ukraine, 1995, 1996.
- Natural gas: direct communication with Ukgazprom, February 1995.
- Direct communication with the Ministry of Statistics of the Ukraine, July 1994.
- *Ukraine in 1992, Statistical Handbook*, Ministry of Statistics of the Ukraine, Kiev, 1993.
- *Ukraine Power Demand and Supply Options*, The World Bank, Washington, 1993.
- *Power Industry in Ukraine*, Ministry of Power and Electrification, Kiev, 1994.
- *Energy Issues Paper*, Ministry of Economy, March 1995.
- *Ukraine Energy Sector Statistical Review 1993, 1994, 1995, 1996, 1997*, The World Bank Regional Office, Kiev, 1994, 1995, 1996, 1997, 1998.
- *Global Energy Saving Strategy for Ukraine*, Commission of the European Communities, TACIS, Madrid, July 1995.
- IEA Secretariat estimates.

Sources 1990 to 1991:

- IEA Secretariat estimates.

Sources for biofuels and waste:

- Joint IEA/Eurostat/UNECE annual energy questionnaire on renewables (2007-2016).
- Before 2007: State Statistics Service of Ukraine, Kiev, The World Bank and IEA Secretariat estimates.

United Arab Emirates

General notes

In the 2018 edition, information on asphalt, lubricants, and other oil products were made available. Breaks in time series for these products can be seen between 2015 and 2016.

Sources for electricity data in 2016 show reclassification from other non-specified consumption to commercial and public services. A break in time series can be observed between 2015 and 2016.

In the 2018 edition, revisions in oil products supply and stocks can be observed since 2009 due to newly available data.

In 2015, time series for oil, gas, and coal data were revised according to data from Federal Competitiveness and Statistical Authority. Time series breaks can be observed in 2009 for coal, crude oil production and trade.

In 2015, Ruwais refining complex expansion was completed, significantly increasing refined oil product production and oil industry own use for refinery inputs.

Crude oil production and export data do not include field condensate. Field condensate quantities are included with natural gas liquids.

In 2013, time series on electricity imports and exports were revised due to new information available on international trade at the interconnectors for the United Arab Emirates. This may lead to revisions to these time series from 2007.

Time series revisions in NGL production were advised by the Federal Competitiveness and Statistical Authority. Breaks in time series can be observed in 2011 for NGLs.

Sources

Sources 1993 to 2017:

- Direct communication with Federal Competitiveness and Statistics Authority, Dubai.
- *Electricity Statistics*, Federal Competitiveness and Statistics Authority, Dubai, various editions, data up to 2017.
- *Oil and Gas Statistics*, Federal Competitiveness and Statistics Authority, Dubai, various editions, data up to 2017.
- Direct communication with United Arab Emirates Ministry of Energy, Dubai.
- *Annual Statistical Report*, Organization of Arab Petroleum Exporting Countries (OAPEC), Kuwait, various editions up to 2018.
- *Natural Gas in the World*, Cedigaz, Paris, various editions up to 2018.
- *Statistical Bulletin*, Arab Union of Producers, Transporters and Distributors of Electricity (AUPTDE), Amman, various editions up to 2018.

- *Annual Statistical Bulletin*, Organization of Petroleum Exporting Countries (OPEC), Vienna, various editions up to 2018.
- JODI- Oil World database, Joint Organisations Data Initiative (JODI), accessed May 2019: <https://www.jodidata.org/oil/>.
- *World Trade Database*, prepared annually by the International Energy Agency.
- *Renewable energy statistics 2019*, International Renewable Energy Agency (IRENA).
- *Statistical Data for Electricity and Water 2015-2014*, United Arab Emirates Ministry of Energy, Dubai.
- *Statistical Report 1999-2016*, Abu Dhabi Water & Electric Company (ADWEC), Abu Dhabi, 2015.
- *Annual Report, Regulation & Supervision Bureau of Abu Dhabi*, Abu Dhabi, various editions up to 2012.
- *Statistical Yearbook 1995, 1996, 1998*, Department of Planning, Abu Dhabi, 1998, 2001.
- Direct communication with the National Bureau of Statistics of the United Arab Emirates, Abu Dhabi.
- Direct communication with the Ministry of Electricity and Water, Abu Dhabi, March 2001.
- The UN Energy Statistics Database.
- IEA Secretariat estimates.

Sources up to 1992:

- Annual Report 1998, Ministry of Electricity & Water, Dubai.
- *Abu Dhabi National Oil Company, 1985 Annual Report*, Abu Dhabi National Oil Company, Abu Dhabi, 1986.
- *United Arab Emirates Statistical Review 1981*, Ministry of Petroleum and Mineral Resources, Abu Dhabi, 1982.
- *Annual Statistical Abstract*, Ministry of Planning, Central Statistical Department, Abu Dhabi, various editions from 1980 to 1993.

Sources for biofuels and waste:

- *Forestry Statistics*, FAO, Rome, 2001.
- IEA Secretariat estimates.
- *Initial National Communication to the United Nations Framework Convention on Climate Change*, Ministry of Energy, United Arab Emirates, 2006.

Uruguay

General notes

In 2017, La Teja refinery was mostly inactive which leads to sharp decrease in refinery outputs.

The pronounced growth in production of biofuels and waste from 2007 to 2010 results from the development of the pulp and paper industry.

The power produced from the Salto Grande hydroelectric plant, located on the Uruguay River between Concordia in Argentina and Salto in Uruguay is equally shared between the two countries. Exports include power produced in Salto Grande and exported to Argentina.

The refinery was shut down for maintenance in 1993-1994. This explains the low refinery output observed in 1993 and the absence of output in 1994.

Sources

Sources 1990 to 2017:

- Direct communication with Dirección Nacional de Energía, Ministerio de Industria, Energía y Minería, Montevideo.
- *Balance Energético Nacional*, Ministerio de Industria, Energía y Minería, Dirección Nacional de Energía, Montevideo, 1971 to 2017.
- *Energy-Economic Information System (SIEE)*, Latin American Energy Organization (OLADE), Quito, accessed April 2019: <http://sier.olade.org/>.
- IEA Secretariat estimates.

Uzbekistan

General notes

Data for Uzbekistan are available starting in 1990. Prior to that, they are included in Former Soviet Union.

Uzbekistan is one of the 11 EU4Energy focus countries.

In 2019 the State Committee of the Republic of Uzbekistan on Statistics submitted data on Electricity and Coal through the joint IEA/Eurostat/UNECE annual energy questionnaires. Historical time series were therefore revised by the IEA Secretariat from 1998 to 2017.

For the other fuels (Oil, Natural gas, Biofuels and waste) few data are available. Supply data are

available from secondary sources and consumption is estimated.

Fuel input to electricity and heat plant and outputs are still estimated by the IEA Secretariat.

Due to new data from the State Committee of the Republic of Uzbekistan on heat, breaks in time series may occur in 2008.

Sources

Electricity and Coal

Sources 1998-2017:

- Joint IEA/Eurostat/UNECE annual energy questionnaires for Electricity and Coal.
- IEA Secretariat estimates.

Sources 1990 to 1998:

- Direct communication with the Interstate Statistical Committee of the Commonwealth of Independent States.
- Direct communications to the IEA Secretariat from the Institute of Power Engineering and Automation, Academy of Sciences of Uzbekistan 1994, 1996, 1998 to 2003.
- Joint IEA/Eurostat/UNECE annual energy questionnaires, 1995 to 1997.
- IEA Secretariat estimates.

Oil, Natural gas, Biofuels and Waste:

Sources 2016-2017:

- Publications of State Committee of the Republic of Uzbekistan on Statistics.
- Asian Development Bank online database, last accessed in April 2019.
- Cedigaz online database.
- OMR estimation of oil production for 2016 and 2017.
- FAO online database, last accessed in April 2019.
- IEA Secretariat estimates.

Sources 2015:

- Asian Development Bank online database.
- Cedigaz online database.
- FAO online database, last accessed in April 2019.
- IEA Secretariat estimates.

Sources 1990 to 2014:

- Asian Development Bank online database.
- *CIS and East European Energy Databook*, Eastern Bloc Research Ltd, Tolsta Chaolais, various editions up to 2014.
- Direct communication with the Interstate Statistical Committee of the Commonwealth of Independent States.
- Direct communications to the IEA Secretariat from the Institute of Power Engineering and Automation, Academy of Sciences of Uzbekistan 1994, 1996, 1998 to 2003.
- Joint IEA/Eurostat/UNECE annual energy questionnaires, 1995 to 1997.
- FAO online database, last accessed in April 2019.
- IEA Secretariat estimates.

Venezuela

General notes

In the 2019 edition, no data was available from PDVSA for 2017, so that all crude oil and oil products data are estimated based on data from OPEC and data from the IEA Secretariat oil experts.

For data up to 2016, crude oil production data are obtained from Petróleos de Venezuela S.A. (PDVSA) with an estimate of lease condensate removed. Crude oil production data are comparable to data reported by the Organization of the Petroleum Exporting Countries (OPEC) and the Organización Latino Americana de Energia (OLADE); however, some other sources of information report lower crude oil production, noting other components may be included in the crude oil production data reported in the above sources.

In 2015, new information on the production and consumption of refinery gas since 2007 became available. For this reason, breaks in time series may occur between 2006 and 2007.

Revised data for the years 2005-2011 were provided by OLADE for Venezuela. These revisions may lead to breaks in time series between 2004 and 2005 and differences in trends in comparison to previous editions.

Lease condensate quantities are included in NGL from 2000. This may lead to breaks in time series between 1999 and 2000.

Sources

Sources up to 2017:

- Energy-Economic Information System (SIEE), Latin American Energy Organization (OLADE), Quito, accessed April 2019: <http://sier.olade.org/>.
- *Natural Gas in the World*, Cedigaz, Paris, various editions up to 2018.
- *Petróleos de Venezuela S.A. (PDVSA)* various editions up to 2016 Annual Report, Petróleos de Venezuela, Caracas.
- International Civil Aviation Organization (ICAO) 2018 Annual Report, United Nations,
- *Renewable energy statistics 2019*, International Renewable Energy Agency (IRENA).
- *Estadísticas consolidadas*, Cámara Venezolana de la Industria Eléctrica, 1996 to 2007.
- *Oficina de operación de sistemas interconectados Venezuela*, 2008.
- *Petróleo y Otros Datos Estadísticos*, Dirección General Sectorial de Hidrocarburos, Caracas, 1983 to 1991, 1993 to 2004, 2007 to 2008.
- *Balance Energético de Venezuela*, Dirección de Planificación Energética, Ministerio de Energía y Minas, Caracas, 1971 to 2005.
- *Transformando la energía en desarrollo social*, CVG EDELCA Informe Anual 2006.
- *Compendio Estadístico del Sector Eléctrico*, Ministerio de Energía y Minas, Dirección de Electricidad, Carbón y Otras Energías, Caracas, 1984, 1989, 1990, 1991.
- *Memoria y Cuenta*, Ministerio de Energía y Minas, Caracas, 1991.
- IEA Secretariat estimates.

Sources for biofuels and waste:

- Energy-Economic Information System (SIEE), Latin American Energy Organization (OLADE), Quito, accessed April 2019: <http://sier.olade.org/>.
- IEA Secretariat estimates.

Viet Nam

General notes

Data for stock changes may contain statistical differences for some energy products.

The breakdown of natural gas input to main activity producer and autoproducer electricity plants, and also corresponding electricity output have been estimated by IEA Secretariat since 2011.

In the absence of detailed information, coal type data are broken down by IEA Secretariat.

In the 2019 edition, some revisions to 2015 and 2016 data are due to the revised Vietnam Energy Balance Tables with its updated format. This may induce time series break for some flows between 2014 and 2015 data.

Sources

Sources 2010 to 2017:

- Direct communication with the Asia Pacific Energy Research Centre.
- *Vietnam Energy Balance Tables*, General Directorate of Energy, Ministry of Industry and Trade, Hanoi, various editions up to 2017.
- *Statistical Yearbook of Vietnam & Statistical Handbook*, General Statistics Office of Vietnam (GSO), Hanoi, various editions up to 2014.
- *Yearbook*, Vietnam Energy (Năng Lượng Việt Nam), Hanoi, 2012.

Sources 1992 to 2010:

- Direct communication with the Institute of Energy and the Ministry of Industry and Trade, Hanoi.
- Direct communication with the Asia Pacific Energy Research Centre.
- *Vietnam Energy Balance Tables*, General Directorate of Energy, Ministry of Industry and Trade, Hanoi, various editions up to 2010.
- *Annual Report 2006*, Petrovietnam, Vietnam National Oil and Gas Group.
- Direct communication with the Center for Energy-Environment Research and Development, Pathumthani, 1997 to 1999.
- *Sectoral Energy Demand in Vietnam*, UNDP Economic and Social Commission for Asia and the Pacific, Bangkok, 1992.
- *Energy Commodity Account of Vietnam 1992*, Asian Development Bank, Manila, 1994.
- *World Economic Problems (20)*, National Centre for Social Sciences of the S.R. Vietnam, Institute of World Economy, Hanoi, 1993.
- *Vietnam Energy Review*, Institute of Energy, Hanoi, 1995, 1997, 1998.

- IEA Secretariat estimates.

Sources for biofuels and waste:

- IEA Secretariat estimates based on 1992 data from *Vietnam Rural and Household Energy Issues and Options: Report No. 161/94*, The World Bank, ESMAP, Washington, D.C., 1994.

Yemen

General notes

Due to the on-going conflict in Yemen, no official government data sources were available since 2017. Data in the 2019 edition are primarily based on secondary sources, media reports and IEA Secretariat estimates.

In the 2018 edition, revisions to electricity inputs and consumption from 2014-2015 are based on IEA Secretariat estimates.

Oil and gas activity was halted in 2015 due to military conflict, affecting oil and oil products data from 2015-2016. In 2016, no exports occurred.

Some revisions to 2014 oil data are due to receipt of Ministry of Planning reports.

Oil and gas pipeline sabotage was reported in 2012 due to unrest in Yemen. Breaks in time series between 2011 and 2012 as well as between 2012 and 2013 may be observed because of this.

Sources

Sources 2011 to 2017:

- Direct communication with the Ministry of Planning and International Cooperation, Sana'a until 2017.
- Direct communication with Aden Refinery, Aden until 2017.
- *Statistical Bulletin*, Arab Union of Producers, Transporters and Distributors of Electricity (AUPTDE), Amman, various editions up to 2017.
- *Natural Gas in the World*, Cedigaz, Paris, various editions up to 2018.
- *Renewable energy statistics 2019*, International Renewable Energy Agency (IRENA).
- *Statistical Yearbook*, Central Statistical Organization, Sana'a, various editions up to 2013.

- *Petroleum Subsidies in Yemen*, IFPRI, 2011.
- IEA Secretariat estimates.

Sources 1991 to 2010:

- Yemen Petroleum Company, online statistics, 2010.
- *Oil & Gas in Figures 2001 – 2007*, Ministry of Oil & Minerals, Statistics Technical Committee, Yemen, 2008.
- *Oil, Gas and Minerals Statistics*, Annual Bulletin 2001, 2002, 2003, 2004, 2005 and 2006, Ministry of Oil & Minerals, Statistics Technical Committee, Yemen, 2001 to 2007.
- Household Budget Survey 2005/2006, Central Statistical Organization, Sana'a.
- Direct communications with the Yemen General Oil and Gas Corporation, the Public Electricity Corporation, and the National Information Center, Sana'a, 2001.
- *Statistical Indicators in the Electricity Sector*, Ministry of Planning and Development, Central Statistical Organization, Yemen, 1993.
- IEA Secretariat estimates.

Sources up to 1991:

- *Statistical Yearbook*, Government of Yemen Arab Republic, Yemen, 1988.

Sources for biofuels and waste:

- The UN Energy Statistics Database.
- Forestry Statistics, FAO, Rome, 2000.
- IEA Secretariat estimates.

Former Yugoslavia

General notes

Data for individual countries of the Former Yugoslavia are available starting in 1990, and most of the information on 1990 and 1991 was estimated by the IEA Secretariat. Because of large breaks in reporting which occurred in the early 1990's, breaks in time series may occur in 1990 for all regional totals.

Sources

Sources up to 1989:

- *Statisticki Godisnjak Jugoslavije*, Socijalisticka Federativna Reublika Jugoslavija, Savezni Zavod Za Statistiku, Beograd, 1985 to 1991.

- Indeks, Socijalisticka Federativna Reublika Jugoslavija, Beograd, 1990, 1991, 1992.

Zambia

General notes

In August 2016, a coal thermal power plant with an installed capacity of 300 MW was commissioned in Maamba, Sinazongwe District.

Crude oil imports reported by Zambia's Energy Regulation Board include petroleum feedstocks comprised of crude oil, naphtha, condensate, and gasoil.

A fire damaged the sole oil refinery (Indeni) in Zambia in 2000. Therefore, breaks in time series may occur between 1999 and 2000, as well as between 2000 and 2001.

In 2015, information on refinery yields was obtained and applied to the refinery production from 2001. Therefore, breaks in time series may occur between 2000 and 2001.

Sources

Sources 1971 to 2017:

- *Statistical Bulletin*. Energy Regulation Board, Lusaka, 2017.
- *Energy Sector Report*. Energy Regulation Board, Lusaka, various editions up to 2017.
- *Petroleum Industry Statistics*, Energy Regulation Board, Lusaka. Various editions up to 2017.
- *Institutional Framework and Storage and Transportation Infrastructure of the Zambian Petroleum Supply Chain (DRAFT)*, Government of the Republic of Zambia, 2007.
- *Economic Report 2003*, Ministry of Finance, Lusaka.
- *Energy Statistics Bulletin 1980-1999*, Department of Energy, Lusaka, 2000.
- AFREPREN, 2002.
- *Annual Statistical Yearbook 1993, 1994, 1995 (Consumption in Zambia 1978-1983)*, Eskom, Lusaka, 1984.
- IEA Secretariat estimates.

Sources for biofuels and waste:

- IEA Secretariat estimates based on 1991 data from *Forests and Biomass Sub-sector in Africa*, African

Energy Programme of the African Development Bank, Abidjan, 1996.

Zimbabwe

General notes

A mining company was commissioned in 2011, leading to a rapid increase in coal production. Due to limited availability of coal consumption data, the IEA Secretariat has estimated coal stocks for Zimbabwe. Breaks in time series may occur between 2013 and 2014 because of this.

More detailed data on energy consumption is available from the Census of Industrial Production (ZimStat) since 2009. Breaks in time series may occur between 2008 and 2009 because of this.

More detailed data on road fuel imports is available since 2011. Breaks in time series may occur between 2010 and 2011 because of this.

Sources

Sources 2006 to 2017:

- Direct communication with the Ministry of Energy and Power Development, Harare.
- *Census of Industrial Production (CIP)*, Zimbabwe National Statistics Agency (ZimStat), Harare, Various editions up to 2017.
- Direct communication with the Zimbabwe National Statistical Agency (ZimStat), Harare.
- *Annual Report*, Zimbabwe Power Company (ZPC), Harare, various editions from 2010 up to 2012.
- *Zimbabwe Energy Regulatory Authority (ZERA) annual report*, various editions up to 2018.
- IEA Secretariat estimates.

Sources 1996 to 2005:

- Direct communication with the Ministry of Energy and Power Development, Harare.
- Direct communication with the Zimbabwe Electricity Supply Authority (ZESA), 2003, 2005, 2006.
- *African Economic Outlook 2004*, OECD, Paris, 2004.

- Direct communication with the Department of Energy Resources and Development, February 2002, AFREPREN, 2002.
- Direct communication with the Ministry of Environment and Tourism, Harare, 1999, 2000.
- Direct communication with the electricity utility.
- *Electricity Statistics Information*, Central Statistical Office, Causeway, February 1998.
- IEA Secretariat estimates.

Sources 1992 to 1995:

- *Eskom Annual Statistical Yearbook 1993, 1994, 1995*, Johannesburg, 1994, 1995, 1996, citing Zimbabwe Electricity Supply Authority, Harare as source.
- The UN Energy Statistics Database.

Sources up to 1991:

- *Zimbabwe Statistical Yearbook 1986*, Central Statistical Office, Harare, 1990.
- *Quarterly Digest of Statistics*, Central Statistical Office, Harare, 1990.
- *Zimbabwe Electricity Supply Authority Annual Report*, Zimbabwe Electricity Supply Authority, Harare, 1986 to 1991.

Sources for biofuels and waste:

- *Zimbabwe Energy Regulatory Authority (ZERA) annual report*, various editions up to 2018.
- IEA Secretariat estimates based on 1991 data from *Forests and Biomass* Sub-sector in Africa, African Energy Programme of the African Development Bank, Abidjan, 1996.

Other Africa

General notes

Time series for this region are obtained by summing data corresponding to individual countries (see lists in section I.5, Geographical coverage). As a consequence, intra-regional trade is included as part of total trade. Therefore, trade is likely to be overstated.

The UN Statistics Division database is the main data source for the countries not listed individually and included in the region. At the time when this edition was prepared only 2016 data were available. As a consequence, all data points for 2017 have been

estimated based on developments in population and GDP in the region.

In 2015 data for bagasse use in the transformation sector in autoproducer electricity plants, main activity producer CHP plants and autoproducer CHP plants became available for the years 2011-2013. This may lead to breaks in time series between 2010 and 2011.

In 2019 edition data from La Réunion were removed from this aggregate from 2011 onward. Breaks in time series might occur for biogas between 2010 and 2011. For the same edition new data became available for the NGL production in Equatorial Guinea; breaks in time series might appear between 2004 and 2005.

Since 2015 edition, data for Niger are no longer included in Other Africa for the period 2000-2015. This may lead to breaks in time series between 1999 and 2000.

Sources

Sources up to 2017:

- The UN Energy Statistics Database.
- *Natural Gas in the World*, Cedigaz, Paris, various editions up to 2018.
- *The LNG Industry*, International Group of Liquefied Natural Gas Importers (GIIGNL), Levallois, various editions up to 2017.
- *International Monetary Fund Country Reports on Chad*, various editions up to 2016.
- *Annual Statistical Bulletin*, Organization of Petroleum Exporting Countries (OPEC), Vienna, various editions up to 2018.
- IEA Secretariat estimates.

Other non-OECD Asia

General notes

Time series for this region are obtained by summing data corresponding to individual countries (see lists in section I.5, Geographical coverage). As a consequence, intra-regional trade is included as part of total trade. Therefore, trade is likely to be overstated.

The UN Statistics Division (UNSD) database is the main data source for the countries not listed individually and included in the region. At the time when this edition was prepared only 2016 data were

available. As a consequence, all data points for 2017 have been estimated based on developments in population and GDP in the region. In the 2019 edition, only 2016 data were uploaded. In addition, following the revision made by UNSD for 2011-2016 data, it may lead to breaks in time series between 2010 and 2011.

The opening of a new LNG terminal in Papua New Guinea in 2014 may lead to breaks in time series for Natural Gas supply data.

Sources

Sources up to 2017:

- The UN Energy Statistics Database.
- *The LNG Industry*, International Group of Liquefied Natural Gas Importers (GIIGNL), Levallois, various editions up to 2017.
- IEA Secretariat estimates.

Other non-OECD Americas

General notes

Time series for this region are obtained by summing data corresponding to individual countries (see lists in section I.5, Geographical coverage). As a consequence, intra-regional trade is included as part of total trade. Therefore, trade is likely to be overstated.

The UN Statistics Division database is the main data source for the countries not listed individually and included in the region. At the time when this edition was prepared only 2016 data were available. As a consequence, all data points for 2017 have been

estimated based on developments in population and GDP in the region.

The refinery in Aruba was shut down in September 2012. This may lead to breaks in time series for the period 2011-2013.

2017 Puerto Rican transformation data has been excluded from Other non-OECD Americas since it is included in the energy data submitted by the USA. This exclusion creates high statistical differences for 2017 since Puerto Rico trade is still reported in this region.

Energy data for the French Départements d'Outre-Mer (Guadeloupe, Martinique and French Guyana) are included in Other non-OECD Americas until 2010. After that, they are included in French data.

Energy data for Bonaire, Saba, Saint Eustratius and Sint Maarten are included in Other non-OECD Americas since 2012.

Data for Suriname are no longer included in Other non-OECD Americas from 2000 on. This may lead to breaks in time series between 1999 and 2000.

Sources

Sources up to 2017:

- Annual Statistical Digest of the Central Bank of Aruba.
- The economy of Curacao and Sint Maarten in Data and Charts Yearly Overview.
- The UN Energy Statistics Database.
- US Energy Information administration, Washington D.C.
- IEA Secretariat estimates.

PART III

SUMMARY TIME SERIES

Production of coal (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	1 474.00	1 799.64	2 222.72	2 278.41	2 997.77	3 662.99	3 651.88	3 773.42	3 901.32
Non-OECD Total	654.90	830.62	1 150.60	1 311.24	1 986.10	2 665.40	2 830.73	2 929.67	3 080.47
OECD Total	819.10	969.02	1 072.12	967.18	1 011.67	997.58	821.14	843.75	827.61
Canada	11.70	20.25	37.93	34.41	34.55	33.95	30.02	30.53	27.75
Chile	0.96	0.78	1.45	0.24	0.27	0.25	1.01	0.98	0.93
Mexico	1.50	1.73	3.74	5.68	7.08	8.01	6.96	6.58	6.84
United States	333.36	447.92	542.32	536.86	565.28	531.84	348.46	373.18	367.92
OECD Americas	347.52	470.68	585.44	577.19	607.18	574.04	386.46	411.27	403.43
Australia	40.25	51.90	106.10	164.58	201.58	246.56	292.03	293.10	286.36
Israel ¹	-	-	0.02	0.03	0.03	0.03	0.04	0.04	0.04
Japan	17.90	10.90	4.47	1.54	0.65	0.59	0.75	0.77	0.59
Korea	6.65	8.20	7.58	3.64	1.26	0.96	0.77	0.69	0.56
New Zealand	1.15	1.14	1.42	2.07	3.16	3.14	1.63	1.65	1.81
OECD Asia Oceania	65.96	72.14	119.59	171.85	206.68	251.28	295.22	296.26	289.36
Austria	1.02	0.84	0.64	0.29	0.00	0.00	-	-	-
Belgium	6.42	4.71	1.18	0.21	0.06	0.01	0.01	0.01	0.03
Czech Republic	38.01	40.45	36.31	25.05	23.57	20.83	16.12	15.27	14.67
Denmark	-	-	-	-	-	-	-	-	-
Estonia	..	..	5.04	2.67	3.18	3.94	3.66	4.15	4.23
Finland	0.06	0.73	1.81	1.09	2.14	1.81	0.72	0.73	1.51
France	18.04	13.38	8.27	2.48	0.38	0.16	-	-	-
Germany	141.40	143.14	121.77	60.63	56.48	45.91	39.72	39.44	37.62
Greece	1.69	2.95	7.12	8.22	8.54	7.32	3.97	4.57	4.38
Hungary	6.05	6.34	4.22	2.89	1.75	1.59	1.46	1.28	1.27
Iceland	-	-	-	-	-	-	-	-	-
Ireland	1.06	1.08	1.43	0.97	0.84	1.01	0.68	0.74	0.80
Italy	0.30	0.32	0.28	0.00	0.06	0.06	-	-	-
Latvia	..	..	0.06	0.02	0.00	0.00	0.00	0.00	0.00
Lithuania	..	..	0.01	0.01	0.02	0.01	0.00	0.01	0.01
Luxembourg	-	-	-	-	-	-	-	-	-
Netherlands	1.14	-	-	-	-	-	-	-	-
Norway	0.29	0.20	0.20	0.42	0.99	1.30	0.55	0.09	0.10
Poland	100.73	120.35	98.97	71.30	68.86	55.38	52.31	49.79	48.06
Portugal	0.13	0.07	0.12	-	-	-	-	-	-
Slovak Republic	1.70	1.70	1.40	1.02	0.64	0.61	0.45	0.45	0.37
Slovenia	..	..	1.35	1.06	1.18	1.20	0.94	0.93	0.89
Spain	6.48	9.82	11.75	7.97	6.26	3.30	0.74	1.13	0.78
Sweden	0.01	0.01	0.17	0.16	0.21	0.24	0.13	0.11	0.16
Switzerland	-	-	-	-	-	-	-	-	-
Turkey	5.21	6.15	11.39	13.02	10.57	16.74	15.50	15.68	18.39
United Kingdom	75.89	73.96	53.61	18.66	12.07	10.84	2.50	1.82	1.55
OECD Europe	405.62	426.20	367.09	218.14	197.80	172.25	139.46	136.22	134.83
IEA	818.14	968.24	1 069.22	965.82	1 010.16	996.09	819.14	841.78	825.74
IEA/Accession/Association	1 095.18	1 397.83	1 794.24	1 990.37	2 645.91	3 269.39	3 207.48	3 312.60	3 416.84
European Union - 28	..	..	368.95	214.59	196.21	165.06	132.75	130.60	118.94
G7	598.59	709.87	768.65	654.57	669.48	623.35	421.46	445.75	435.41
G8	..	..	961.02	783.11	826.90	789.71	630.62	667.98	676.12
G20	..	..	1 994.69	2 122.15	2 804.05	3 437.83	3 419.44	3 539.11	3 660.93
OPEC	..	..	2.21	6.52	6.27	2.74	1.47	1.61	1.31

Where applicable, this table includes peat and oil shale except for 2018 provisional figures for non-OECD countries.

1. Please refer to section 'Geographical coverage'.

Production of coal (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	654.90	830.62	1 150.60	1 311.24	1 986.10	2 665.40	2 830.73	2 929.67	3 080.47
Albania	0.28	0.50	0.49	0.01	0.01	0.00	0.00	0.07	0.14
Armenia	..	..	-	-	-	-	0.00	0.00	..
Azerbaijan	..	..	-	-	-	-	-	-	..
Belarus	..	..	0.84	0.49	0.56	0.57	0.33	0.46	..
Bosnia and Herzegovina	..	..	4.18	2.46	2.95	3.50	3.52	3.61	3.67
Bulgaria	4.65	5.19	5.09	4.29	4.18	4.94	5.10	5.69	5.14
Croatia	..	..	0.10	-	-	-	-	-	..
Cyprus ¹	-	-	-	-	-	-	-	-	..
Georgia	..	..	0.66	0.00	0.00	0.04	0.12	0.11	0.06
Gibraltar	-	-	-	-	-	-	-	-	..
Kazakhstan	..	..	58.01	34.13	38.28	48.55	45.20	49.47	49.85
Kosovo	..	..	..	0.93	1.22	1.61	1.64	1.41	1.34
Kyrgyzstan	..	..	1.41	0.16	0.12	0.21	0.67	0.68	0.83
Malta	-	-	-	-	-	-	-	-	..
Republic of Moldova	..	..	-	-	-	-	-	-	..
Montenegro	..	..	..	..	0.29	0.43	0.31	0.32	0.35
North Macedonia, Republic of	..	..	1.21	1.21	1.29	1.19	0.75	0.85	0.84
Romania	6.05	8.10	8.26	5.60	5.79	5.90	4.24	4.47	4.19
Russian Federation	..	..	192.38	128.54	157.43	166.36	209.16	222.23	240.71
Serbia	..	..	10.17	8.35	7.46	7.23	7.20	7.22	6.83
Tajikistan	..	..	0.37	0.01	0.04	0.09	0.81	1.04	1.17
Turkmenistan	..	..	-	-	-	-	-	-	..
Ukraine	..	..	86.81	36.35	34.68	33.71	20.15	13.70	14.45
Uzbekistan	..	..	2.26	0.88	1.06	1.27	1.37	1.43	1.46
Former Soviet Union	331.53	339.56	x	x	x	x	x	x	x
Former Yugoslavia	7.65	9.62	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	350.17	362.97	372.25	223.41	255.36	275.61	300.56	312.75	330.72
Algeria	0.21	0.00	-	-	-	-	-	-	..
Angola	-	-	-	-	-	-	-	-	..
Benin	-	-	-	-	-	-	-	-	..
Botswana	..	..	0.45	0.53	0.56	0.56	1.06	1.25	1.40
Cameroon	-	-	-	-	-	-	-	-	..
Congo	-	-	-	-	-	-	-	-	..
Côte d'Ivoire	-	-	-	-	-	-	-	-	..
Dem. Rep. of the Congo	0.08	0.08	0.08	-	-	-	-	-	..
Egypt	-	-	-	0.04	0.02	-	-	-	..
Eritrea	..	..	..	-	-	-	-	-	..
Ethiopia	-	-	-	-	-	0.02	-	-	..
Gabon	-	-	-	-	-	-	-	-	..
Ghana	-	-	-	-	-	-	-	-	..
Kenya	-	-	-	-	-	-	-	-	..
Libya	-	-	-	-	-	-	-	-	..
Mauritius	-	-	-	-	-	-	-	-	..
Morocco	0.35	0.42	0.29	0.02	0.01	-	-	-	..
Mozambique	0.24	0.12	0.02	0.01	0.00	0.02	3.92	7.56	7.40
Namibia	..	..	..	-	-	-	-	-	..
Niger	..	..	..	0.04	0.05	0.08	0.07	0.07	0.07
Nigeria	0.21	0.11	0.06	0.00	0.00	0.02	0.03	0.03	0.03
Senegal	-	-	-	-	-	-	-	-	..
South Africa	35.14	66.76	100.16	126.93	138.37	143.94	144.55	145.39	146.57
South Sudan	..	..	..	..	..	..	-	-	..
Sudan	-	-	-	-	-	-	-	-	..
United Rep. of Tanzania	-	0.00	0.00	0.05	0.02	-	0.17	0.35	0.17
Togo	-	-	-	-	-	-	-	-	..
Tunisia	-	-	-	-	-	-	-	-	..
Zambia	0.55	0.34	0.22	0.12	0.09	0.00	0.19	0.47	0.19
Zimbabwe	1.81	1.78	3.45	2.89	2.33	1.87	1.05	1.89	1.39
Other Africa	0.10	0.34	0.13	0.28	0.31	0.12	0.13	0.13	0.13
Africa	38.69	69.95	104.86	130.91	141.75	146.63	151.17	157.14	157.34

Where applicable, this table includes peat and oil shale except for 2018 provisional figures for non-OECD countries.

1. Please refer to section 'Geographical coverage'.

Production of coal (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	-	-	-	-	0.09	0.35	0.51	0.58	0.48
Brunei Darussalam	-	-	-	-	-	-	-	-	..
Cambodia	..	..	..	-	-	-	-	0.03	..
DPR of Korea	17.51	25.44	26.62	16.91	19.87	14.51	19.08	13.30	19.07
India	32.74	47.84	93.34	130.64	163.31	212.87	268.07	269.84	288.52
Indonesia	0.09	0.17	5.85	45.45	98.23	186.31	248.85	262.71	291.43
Malaysia	-	-	0.07	0.24	0.50	1.51	1.42	1.88	1.67
Mongolia	..	..	2.66	1.81	3.65	15.19	19.52	23.92	28.12
Myanmar	0.01	0.01	0.04	0.32	0.32	0.41	0.21	0.29	0.21
Nepal	-	-	-	0.01	0.01	0.01	0.01	0.01	0.01
Pakistan	0.51	0.63	1.10	1.24	1.86	1.37	1.69	1.71	1.83
Philippines	0.01	0.17	0.65	0.72	1.52	3.51	5.92	6.30	6.17
Singapore	-	-	-	-	-	-	-	-	..
Sri Lanka	-	-	-	-	-	-	-	-	..
Chinese Taipei	2.10	1.60	0.29	0.05	-	-	-	-	..
Thailand	0.08	0.41	3.60	5.14	6.05	5.32	4.31	4.11	3.72
Viet Nam	1.67	2.91	2.60	6.50	19.00	25.11	21.69	21.41	23.16
Other non-OECD Asia	0.91	1.69	0.07	0.23	0.37	0.94	5.71	5.25	5.94
Non-OECD Asia excl. China	55.64	80.87	136.88	209.24	314.77	467.42	597.00	611.33	670.34
People's Rep. of China	206.79	310.72	518.39	713.50	1 227.03	1 722.49	1 718.90	1 785.87	1 864.63
Hong Kong, China	-	-	-	-	-	-	-	-	..
China	206.79	310.72	518.39	713.50	1 227.03	1 722.49	1 718.90	1 785.87	1 864.63
Argentina	0.27	0.23	0.16	0.15	0.01	0.04	0.01	0.01	0.01
Bolivia	-	-	-	-	-	-	-	-	..
Brazil	0.88	2.49	1.93	2.63	2.48	2.10	2.64	1.93	2.01
Colombia	1.84	2.71	13.89	24.86	38.39	48.33	58.83	58.86	53.97
Costa Rica	-	-	-	-	-	-	-	-	..
Cuba	-	-	-	-	-	-	-	-	..
Curaçao ¹	-	-	-	-	-	-	-	-	..
Dominican Republic	-	-	-	-	-	-	-	-	..
Ecuador	-	-	-	-	-	-	-	-	..
El Salvador	-	-	-	-	-	-	-	-	..
Guatemala	-	-	-	-	-	-	-	-	..
Haiti	-	-	-	-	-	-	-	-	..
Honduras	-	-	-	-	-	-	-	-	..
Jamaica	-	-	-	-	-	-	-	-	..
Nicaragua	-	-	-	-	-	-	-	-	..
Panama	-	-	-	-	-	-	-	-	..
Paraguay	-	-	-	-	-	-	-	-	..
Peru	0.02	0.03	0.07	0.01	0.03	0.06	0.18	0.20	0.15
Suriname	..	..	..	-	-	-	-	-	..
Trinidad and Tobago	-	-	-	-	-	-	-	-	..
Uruguay	-	-	-	-	-	-	-	-	..
Venezuela	0.04	0.03	1.60	5.76	5.25	1.99	0.55	0.56	0.55
Other non-OECD Americas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	..
Non-OECD Americas	3.05	5.49	17.66	33.41	46.17	52.53	62.21	61.57	56.70
Bahrain	-	-	-	-	-	-	-	-	..
Islamic Republic of Iran	0.57	0.62	0.56	0.76	1.01	0.73	0.89	1.02	0.74
Iraq	-	-	-	-	-	-	-	-	..
Jordan	-	-	-	-	-	-	-	-	..
Kuwait	-	-	-	-	-	-	-	-	..
Lebanon	-	-	-	-	-	-	-	-	..
Oman	-	-	-	-	-	-	-	-	..
Qatar	-	-	-	-	-	-	-	-	..
Saudi Arabia	-	-	-	-	-	-	-	-	..
Syrian Arab Republic	-	-	-	-	-	-	-	-	..
United Arab Emirates	-	-	-	-	-	-	-	-	..
Yemen	-	-	-	-	-	-	-	-	..
Middle East	0.57	0.62	0.56	0.76	1.01	0.73	0.89	1.02	0.74

Where applicable, this table includes peat and oil shale except for 2018 provisional figures for non-OECD countries.

1. Please refer to section 'Geographical coverage'.

Production of crude oil and NGL (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	2 938.39	3 173.56	3 241.28	3 702.62	4 050.78	4 085.08	4 473.57	4 477.21	4 585.65
Non-OECD Total	2 227.87	2 325.61	2 317.19	2 661.45	3 094.33	3 193.03	3 378.06	3 341.70	3 342.61
OECD Total	710.51	847.95	924.09	1 041.17	956.44	892.05	1 095.50	1 135.51	1 243.05
Canada	96.53	83.64	94.15	128.43	142.94	167.16	225.60	249.21	264.04
Chile	1.79	1.83	1.17	0.43	0.36	0.61	0.26	0.30	0.41
Mexico	27.49	114.64	153.28	171.19	197.52	155.26	124.69	112.77	105.68
United States	534.59	498.35	432.54	365.61	322.55	347.60	560.15	590.85	692.71
OECD Americas	660.41	698.45	681.14	665.65	663.36	670.63	910.69	953.13	1 062.85
Australia	19.85	21.30	29.03	33.91	25.67	25.54	17.57	15.32	14.70
Israel ¹	6.10	0.02	0.01	0.00	0.00	0.00	0.12	0.08	0.08
Japan	0.81	0.56	0.56	0.64	0.75	0.70	0.45	0.44	0.40
Korea	-	-	-	0.67	0.53	0.70	0.69	0.75	0.82
New Zealand	0.18	0.37	1.97	1.94	1.08	2.75	1.83	1.66	1.34
OECD Asia Oceania	26.94	22.25	31.56	37.16	28.04	29.68	20.65	18.25	17.33
Austria	2.64	1.52	1.21	1.09	0.95	1.05	0.80	0.75	0.70
Belgium	-	-	-	-	-	-	-	-	-
Czech Republic	0.04	0.24	0.22	0.38	0.59	0.27	0.19	0.23	0.22
Denmark	0.07	0.30	6.11	18.26	19.02	12.49	7.11	6.92	5.82
Estonia	..	..	-	-	-	-	-	-	-
Finland	-	-	-	0.10	0.15	0.07	-	-	-
France	2.07	2.26	3.47	1.81	1.38	1.09	0.94	0.91	0.90
Germany	6.85	5.66	4.71	3.94	5.10	3.67	3.60	3.53	3.48
Greece	-	-	0.84	0.26	0.09	0.10	0.16	0.13	0.19
Hungary	2.02	2.52	2.27	1.68	1.42	1.09	0.99	1.05	1.10
Iceland	-	-	-	-	-	-	-	-	-
Ireland	-	-	-	-	-	-	-	-	-
Italy	1.05	1.73	4.47	4.69	6.26	5.62	4.03	4.46	5.10
Latvia	..	..	-	-	-	-	-	-	-
Lithuania	..	..	0.01	0.33	0.24	0.12	0.06	0.06	0.05
Luxembourg	-	-	-	-	-	-	-	-	-
Netherlands	1.59	1.61	4.13	2.65	2.55	1.64	1.58	1.47	1.50
Norway	1.51	24.34	83.66	167.75	135.28	95.35	91.28	92.24	86.62
Poland	0.39	0.34	0.18	0.72	0.89	0.75	1.03	1.00	1.02
Portugal	-	-	-	-	-	-	0.01	0.03	0.04
Slovak Republic	0.13	0.04	0.08	0.06	0.26	0.21	0.23	0.22	0.18
Slovenia	..	..	0.00	0.00	-	-	-	0.00	0.00
Spain	0.67	1.79	1.17	0.23	0.17	0.13	0.14	0.12	0.09
Sweden	-	0.03	0.00	-	-	-	-	-	-
Switzerland	-	-	-	-	-	0.00	-	-	-
Turkey	3.59	2.27	3.61	2.73	2.23	2.65	2.72	2.70	3.01
United Kingdom	0.55	82.59	95.25	131.67	88.47	65.45	49.29	48.32	52.85
OECD Europe	23.17	127.24	211.38	338.35	265.04	191.74	164.16	164.13	162.86
IEA	702.62	846.10	922.89	1 040.41	955.85	891.32	1 095.07	1 135.07	1 242.51
IEA/Accession/Association	842.41	1 055.52	1 208.55	1 387.11	1 329.54	1 314.26	1 534.66	1 569.98	1 668.33
European Union - 28	..	..	134.65	175.47	134.49	98.71	74.68	73.56	77.52
G7	642.47	674.79	635.14	636.78	567.45	591.29	844.05	897.72	1 019.49
G8	..	..	1 161.39	960.04	1 036.15	1 097.83	1 394.42	1 446.72	1 576.26
G20	..	..	2 030.72	2 026.53	2 218.47	2 216.59	2 601.37	2 605.54	2 737.91
OPEC	..	..	1 180.28	1 568.91	1 787.78	1 749.92	1 929.35	1 898.96	1 890.99

1. Please refer to section 'Geographical coverage'.

Production of crude oil and NGL (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	2 227.87	2 325.61	2 317.19	2 661.45	3 094.33	3 193.03	3 378.06	3 341.70	3 342.61
Albania	2.11	2.00	1.16	0.31	0.42	0.74	1.06	0.96	0.84
Armenia	..	..	-	-	-	-	-	-	-
Azerbaijan	..	..	12.57	14.09	22.33	51.14	41.28	38.90	39.37
Belarus	..	..	2.11	1.91	1.84	1.78	1.72	1.73	1.75
Bosnia and Herzegovina	..	..	-	-	-	-	-	-	-
Bulgaria	0.19	0.28	0.06	0.04	0.03	0.02	0.02	0.02	0.02
Croatia	..	..	2.78	1.35	1.03	0.76	0.76	0.77	0.77
Cyprus ¹	-	-	-	-	-	-	-	-	-
Georgia	..	..	0.19	0.11	0.07	0.05	0.04	0.03	0.03
Gibraltar	-	-	-	-	-	-	-	-	-
Kazakhstan	..	..	26.45	36.10	63.85	82.99	81.30	89.73	94.61
Kosovo	..	..	-	-	-	-	-	-	-
Kyrgyzstan	..	..	0.16	0.08	0.08	0.08	0.15	0.17	0.17
Malta	-	-	-	-	-	-	-	-	-
Republic of Moldova	..	..	-	-	0.01	0.01	0.01	0.01	0.01
Montenegro	..	..	-	-	-	-	-	-	-
North Macedonia, Republic of	..	..	-	-	-	-	-	-	-
Romania	13.87	11.17	7.70	6.20	5.90	4.19	3.73	3.57	3.49
Russian Federation	..	..	526.25	323.26	468.71	506.54	550.36	549.00	556.77
Serbia	..	..	1.09	1.00	0.66	0.94	1.03	0.99	0.89
Tajikistan	..	..	0.15	0.02	0.02	0.03	0.03	0.02	0.03
Turkmenistan	..	..	4.18	7.77	10.30	10.36	12.07	11.29	10.64
Ukraine	..	..	5.27	3.71	4.39	3.59	2.30	2.21	2.35
Uzbekistan	..	..	2.81	7.74	5.61	3.98	2.55	2.44	2.29
Former Soviet Union	431.21	606.16	x	x	x	x	x	x	x
Former Yugoslavia	3.40	4.32	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	450.78	623.94	592.93	403.69	585.24	667.21	698.41	701.85	714.04
Algeria	52.57	54.22	61.24	72.32	90.94	78.50	72.68	70.95	70.63
Angola	8.33	7.58	23.83	37.60	63.75	90.26	86.92	80.23	72.82
Benin	-	-	0.21	-	-	-	-	-	-
Botswana	..	..	-	-	-	-	-	-	-
Cameroon	-	3.62	6.93	5.86	4.59	3.35	4.74	3.90	3.61
Congo	2.11	3.43	8.23	13.97	12.93	16.49	12.42	14.34	17.85
Côte d'Ivoire	-	0.08	0.09	0.37	2.08	2.01	1.66	2.05	1.81
Dem. Rep. of the Congo	-	0.91	1.46	1.18	1.28	1.12	1.00	1.21	1.15
Egypt	8.64	30.26	46.23	36.11	32.76	35.23	32.24	32.15	32.69
Eritrea	..	..	..	-	-	-	-	-	-
Ethiopia	-	-	-	-	-	-	-	-	-
Gabon	7.74	8.91	13.53	13.54	13.53	12.64	11.57	10.17	9.66
Ghana	-	-	-	-	0.01	0.20	4.62	8.30	9.43
Kenya	-	-	-	-	-	-	-	-	-
Libya	109.04	92.20	67.98	71.01	88.41	89.90	20.85	46.37	54.40
Mauritius	-	-	-	-	-	-	-	-	-
Morocco	0.04	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00
Mozambique	-	-	-	-	0.02	0.03	-	-	-
Namibia	..	..	..	-	-	-	-	-	-
Niger	..	..	..	-	-	-	0.74	0.78	0.78
Nigeria	103.54	103.93	90.18	117.60	131.35	129.17	93.57	95.04	99.53
Senegal	-	-	0.00	-	-	-	-	-	-
South Africa	-	-	-	0.94	0.85	0.49	0.40	0.13	0.13
South Sudan	..	..	..	..	..	..	6.00	5.55	6.55
Sudan	-	-	-	9.02	15.52	23.52	5.53	5.07	5.37
United Rep. of Tanzania	-	-	-	-	-	-	-	-	-
Togo	-	-	-	-	-	-	-	-	-
Tunisia	3.99	5.82	4.75	3.81	3.55	3.99	2.51	2.12	2.50
Zambia	-	-	-	-	-	-	-	-	-
Zimbabwe	-	-	-	-	-	-	-	-	-
Other Africa	-	-	-	5.90	27.54	21.59	18.54	17.56	17.56
Africa	295.99	310.97	324.67	389.24	489.14	508.49	375.99	395.92	406.48

1. Please refer to section 'Geographical coverage'.

Production of crude oil and NGL (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	0.01	-	0.09	0.10	0.11	0.24	0.39	0.42	0.42
Brunei Darussalam	11.61	12.19	7.70	10.22	11.06	8.31	6.07	5.65	5.51
Cambodia	..	..	..	-	-	-	-	-	-
DPR of Korea	-	-	-	-	-	-	-	-	-
India	7.35	10.74	35.32	37.24	37.68	43.14	41.21	41.20	40.25
Indonesia	67.43	79.50	74.59	71.60	53.45	48.44	42.63	40.85	39.23
Malaysia	4.43	13.71	30.63	32.28	37.41	34.40	35.18	34.72	34.63
Mongolia	..	..	-	0.01	0.03	0.30	1.14	1.05	1.00
Myanmar	0.99	1.57	0.73	0.57	1.14	0.94	0.61	0.60	0.55
Nepal	-	-	-	-	-	-	-	-	-
Pakistan	0.43	0.49	2.70	2.99	3.58	3.50	4.85	4.96	4.85
Philippines	-	0.49	0.23	0.06	0.78	0.98	0.75	0.67	0.67
Singapore	-	-	-	-	-	-	-	-	-
Sri Lanka	-	-	-	-	-	-	-	-	-
Chinese Taipei	0.15	0.25	0.18	0.03	0.03	0.01	0.01	0.00	0.00
Thailand	0.01	0.01	2.86	8.06	12.98	17.49	20.83	20.32	19.37
Viet Nam	-	-	2.75	16.86	19.52	16.08	16.51	14.84	13.32
Other non-OECD Asia	0.00	0.01	4.54	3.23	10.71	8.82	6.88	5.82	5.82
Non-OECD Asia excl. China	92.39	118.96	162.33	183.25	188.47	182.65	177.04	171.10	165.63
People's Rep. of China	54.58	107.85	138.31	163.08	181.43	203.16	199.89	191.73	188.09
Hong Kong, China	-	-	-	-	-	-	-	-	-
China	54.58	107.85	138.31	163.08	181.43	203.16	199.89	191.73	188.09
Argentina	22.16	25.97	26.09	41.38	37.76	35.35	29.55	27.94	28.45
Bolivia	2.57	1.40	1.30	1.84	2.82	2.39	3.29	3.17	3.08
Brazil	8.60	9.47	33.39	65.34	86.94	109.59	134.38	140.37	138.32
Colombia	9.84	6.65	23.03	35.83	27.42	40.92	46.47	44.75	46.19
Costa Rica	-	-	-	-	-	-	-	-	-
Cuba	0.24	0.55	0.86	2.86	3.06	3.15	2.76	2.54	2.39
Curaçao ¹	-	-	-	-	-	-	-	-	-
Dominican Republic	-	-	-	-	-	-	-	-	-
Ecuador	10.77	10.65	15.02	21.02	25.99	24.47	28.08	27.14	26.73
El Salvador	-	-	-	-	-	-	-	-	-
Guatemala	-	0.21	0.20	1.15	1.02	0.66	0.50	0.53	0.51
Haiti	-	-	-	-	-	-	-	-	-
Honduras	-	-	-	-	-	-	-	-	-
Jamaica	-	-	-	-	-	-	-	-	-
Nicaragua	-	-	-	-	-	-	-	-	-
Panama	-	-	-	-	-	-	-	-	-
Paraguay	-	-	-	-	-	-	-	-	-
Peru	3.63	9.96	6.55	5.18	5.38	8.82	6.45	6.48	6.45
Suriname	..	..	..	0.61	0.60	0.80	0.82	0.82	0.78
Trinidad and Tobago	8.37	10.69	7.87	6.83	8.39	6.71	4.59	4.66	4.09
Uruguay	-	-	-	-	-	-	-	-	-
Venezuela	191.53	124.47	122.72	182.20	191.12	169.36	140.01	122.93	91.62
Other non-OECD Americas	0.00	0.07	0.38	0.08	0.06	0.26	0.11	0.11	0.11
Non-OECD Americas	257.70	200.09	237.40	364.29	390.56	402.49	397.01	381.45	348.72
Bahrain	9.49	9.56	9.88	9.89	9.89	9.64	10.69	10.39	10.24
Islamic Republic of Iran	298.72	75.86	167.42	202.58	224.22	218.37	217.62	235.46	225.00
Iraq	101.83	134.37	106.85	132.26	95.80	119.96	227.05	231.47	236.45
Jordan	-	-	-	0.00	0.00	0.00	-	0.00	0.00
Kuwait	155.28	87.97	47.08	106.39	136.71	124.97	160.10	148.23	150.12
Lebanon	-	-	-	-	-	-	-	-	-
Oman	15.20	14.77	35.87	51.27	41.67	43.34	50.66	48.88	49.23
Qatar	28.24	23.63	22.14	37.69	49.47	71.08	78.05	75.43	76.41
Saudi Arabia	387.01	524.49	348.96	445.06	524.97	471.56	596.42	568.73	587.77
Syrian Arab Republic	5.57	9.23	20.71	27.79	21.09	20.20	1.04	1.04	0.98
United Arab Emirates	75.09	83.91	93.34	123.01	135.34	136.22	187.10	178.99	182.18
Yemen	-	-	9.31	21.95	20.36	13.69	0.99	1.05	1.27
Middle East	1 076.42	963.80	861.56	1 157.90	1 259.50	1 229.03	1 529.72	1 499.65	1 519.65

1. Please refer to section 'Geographical coverage'.

Production of oil products (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	2 762.10	3 004.14	3 115.20	3 553.63	3 855.75	3 942.56	4 156.01	4 239.17	..
Non-OECD Total	893.68	1 117.53	1 264.44	1 413.26	1 674.63	1 891.08	2 126.85	2 184.02	..
OECD Total	1 868.42	1 886.61	1 850.76	2 140.37	2 181.12	2 051.48	2 029.15	2 055.15	..
Canada	84.42	95.39	86.65	96.31	103.36	99.23	92.17	95.87	..
Chile	4.75	4.99	6.28	9.74	11.09	8.87	9.68	9.91	..
Mexico	26.17	51.09	68.37	66.41	71.24	64.66	51.52	45.11	..
United States	691.12	744.65	753.82	843.82	861.39	840.75	848.91	860.16	..
OECD Americas	806.47	896.12	915.11	1 016.28	1 047.08	1 013.51	1 002.28	1 011.05	..
Australia	26.15	30.26	32.06	38.26	34.38	32.17	22.85	22.09	..
Israel ¹	6.13	6.33	8.19	10.84	12.03	12.85	14.52	14.07	..
Japan	228.28	206.63	183.73	213.98	212.05	185.11	169.77	164.09	..
Korea	15.35	26.22	43.54	125.63	123.42	123.46	150.98	158.35	..
New Zealand	3.38	3.02	4.97	5.27	5.43	5.37	5.76	5.58	..
OECD Asia Oceania	279.28	272.46	272.50	393.96	387.31	358.97	363.88	364.18	..
Austria	8.80	10.24	9.07	8.92	9.31	8.26	8.74	8.66	..
Belgium	35.46	33.60	29.60	38.40	37.28	35.25	33.91	35.56	..
Czech Republic	7.47	9.60	8.00	6.18	8.23	8.31	5.71	8.32	..
Denmark	9.76	6.67	7.96	8.41	7.67	7.15	9.27	8.95	..
Estonia	..	..	-	-	-	-	-	-	..
Finland	9.11	12.61	10.60	12.89	12.90	14.25	14.67	15.12	..
France	134.20	116.73	79.67	90.19	87.67	72.43	60.49	60.56	..
Germany	140.16	138.14	107.99	118.45	125.30	103.63	102.58	103.79	..
Greece	12.35	14.09	16.56	22.39	21.41	22.45	30.50	32.02	..
Hungary	7.95	10.28	8.46	7.59	8.34	8.56	7.39	7.21	..
Iceland	-	-	-	-	-	-	-	-	..
Ireland	2.68	2.02	1.74	3.31	3.16	2.91	3.21	3.22	..
Italy	129.92	98.07	91.55	95.86	101.94	91.40	72.54	76.36	..
Latvia	..	..	-	-	-	-	-	-	..
Lithuania	..	..	9.42	5.01	9.39	9.38	9.98	10.23	..
Luxembourg	-	-	-	-	-	-	-	-	..
Netherlands	73.12	57.92	49.99	59.83	60.13	59.20	61.23	60.73	..
Norway	6.11	7.86	13.40	15.61	16.04	14.83	13.31	16.85	..
Poland	10.78	15.45	12.89	18.80	18.81	23.98	27.42	27.08	..
Portugal	4.23	7.57	11.53	12.41	13.73	12.07	15.09	15.68	..
Slovak Republic	6.00	8.03	7.06	5.97	6.39	6.25	6.44	6.35	..
Slovenia	..	..	0.56	0.17	-	-	-	-	..
Spain	42.23	48.21	53.24	60.31	60.91	58.12	65.33	66.18	..
Sweden	10.44	17.50	18.10	22.78	19.92	20.89	20.66	20.40	..
Switzerland	6.16	4.64	3.11	4.75	4.98	4.65	3.09	2.96	..
Turkey	12.52	12.68	22.96	23.82	25.81	20.23	30.00	32.26	..
United Kingdom	113.23	86.10	89.68	88.07	87.41	74.78	61.44	61.44	..
OECD Europe	782.67	718.03	663.15	730.12	746.73	679.00	663.00	679.92	..
IEA	1 857.54	1 875.29	1 826.32	2 114.61	2 148.61	2 020.38	1 994.98	2 020.94	..
IEA/Accession/Association	2 019.49	2 114.79	2 165.34	2 668.75	2 856.90	2 913.43	3 081.70	3 149.25	..
European Union - 28	..	..	661.73	708.84	726.66	660.82	639.95	651.87	..
G7	1 521.33	1 485.71	1 393.11	1 546.68	1 579.11	1 467.34	1 407.90	1 422.27	..
G8	..	..	1 662.83	1 726.59	1 787.96	1 717.38	1 683.88	1 709.26	..
G20	..	..	2 497.33	2 869.39	3 079.84	3 175.71	3 411.41	3 481.85	..
OPEC	..	..	270.01	351.36	381.53	409.19	434.66	435.59	..

In this table production refers to refinery output.

1. Please refer to section 'Geographical coverage'.

Production of oil products (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	893.68	1 117.53	1 264.44	1 413.26	1 674.63	1 891.08	2 126.85	2 184.02	..
Albania	1.59	1.86	1.10	0.29	0.37	0.14	0.17	0.48	..
Armenia	..	..	-	-	-	-	-	-	..
Azerbaijan	..	..	16.21	8.24	8.07	6.26	5.88	5.59	..
Belarus	..	..	38.64	13.30	19.49	16.32	18.83	18.57	..
Bosnia and Herzegovina	..	..	1.90	0.51	0.14	1.16	0.83	0.87	..
Bulgaria	9.26	13.13	7.78	5.27	6.40	6.05	7.09	7.32	..
Croatia	..	..	6.88	5.30	5.22	4.29	3.79	3.97	..
Cyprus ¹	0.66	0.58	0.63	1.17	-	-	-	-	..
Georgia	..	..	2.19	0.02	0.01	-	0.03	0.02	..
Gibraltar	-	-	-	-	-	-	-	-	..
Kazakhstan	..	..	18.42	6.30	11.02	13.29	12.98	15.58	..
Kosovo	..	..	..	-	-	-	-	-	..
Kyrgyzstan	..	..	-	0.14	0.09	0.10	0.39	0.45	..
Malta	-	-	-	-	-	-	-	-	..
Republic of Moldova	..	..	-	-	0.01	0.02	0.02	0.01	..
Montenegro	..	..	..	..	-	-	-	-	..
North Macedonia, Republic of	..	..	1.19	0.94	1.16	0.83	-	-	..
Romania	18.13	26.37	22.76	11.16	15.14	11.19	12.47	12.72	..
Russian Federation	..	..	269.72	179.91	208.85	250.04	275.98	286.99	..
Serbia	..	..	4.70	1.22	3.34	2.90	3.48	3.68	..
Tajikistan	..	..	0.06	0.01	0.01	0.02	0.02	0.02	..
Turkmenistan	..	..	3.62	5.22	7.04	8.69	8.70	8.69	..
Ukraine	..	..	61.14	9.32	19.43	12.14	3.20	3.01	..
Uzbekistan	..	..	7.92	6.93	5.15	3.96	2.52	2.42	..
Former Soviet Union	332.22	447.46	x	x	x	x	x	x	x
Former Yugoslavia	9.02	14.20	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	370.89	503.61	464.85	255.27	310.94	337.42	356.38	370.41	..
Algeria	6.30	11.40	21.47	21.00	18.58	27.41	30.62	29.76	..
Angola	0.74	1.25	1.63	1.88	1.86	1.90	2.54	2.48	..
Benin	-	-	-	-	-	-	-	-	..
Botswana	..	..	..	-	-	-	-	-	..
Cameroon	-	0.20	0.86	1.58	1.87	2.12	1.64	1.35	..
Congo	-	-	0.53	0.40	0.52	0.67	0.65	0.72	..
Côte d'Ivoire	1.17	1.79	2.10	3.08	4.06	3.15	3.36	3.31	..
Dem. Rep. of the Congo	0.70	0.40	0.32	-	-	-	-	-	..
Egypt	7.12	14.08	23.91	25.61	31.59	29.81	24.45	24.66	..
Eritrea	..	..	..	-	-	-	-	-	..
Ethiopia	0.62	0.59	0.66	-	-	-	-	-	..
Gabon	1.07	1.26	0.32	0.62	0.72	0.95	0.81	0.81	..
Ghana	0.99	1.08	0.76	1.08	1.65	1.00	0.67	0.02	..
Kenya	2.65	3.05	2.25	2.06	1.67	1.52	0.71	0.75	..
Libya	1.63	5.69	12.26	16.75	17.02	17.04	4.08	4.90	..
Mauritius	-	-	-	-	-	-	-	-	..
Morocco	2.26	4.25	5.66	6.69	6.95	6.54	-	-	..
Mozambique	0.74	0.70	-	-	-	-	-	-	..
Namibia	..	..	..	-	-	-	-	-	..
Niger	..	..	..	-	-	-	0.65	0.68	..
Nigeria	2.82	7.21	13.30	5.07	10.31	5.33	3.44	4.46	..
Senegal	0.68	0.76	0.68	0.92	0.89	0.59	1.16	1.24	..
South Africa	13.16	12.32	13.44	17.68	24.58	19.29	19.13	18.27	..
South Sudan	..	..	..	..	..	..	-	-	..
Sudan	1.15	0.91	0.82	1.92	3.42	4.97	4.74	4.35	..
United Rep. of Tanzania	0.79	0.55	0.59	-	-	-	-	-	..
Togo	-	0.21	-	-	-	-	-	-	..
Tunisia	1.05	1.58	1.70	1.98	1.81	0.27	1.21	0.92	..
Zambia	0.41	0.76	0.69	0.02	0.39	0.60	0.46	0.50	..
Zimbabwe	-	-	-	-	-	-	-	-	..
Other Africa	1.53	1.45	0.77	0.45	0.15	-	0.70	0.73	..
Africa	47.58	71.46	104.75	108.79	128.03	123.15	101.02	99.89	..

In this table production refers to refinery output.

1. Please refer to section 'Geographical coverage'.

Production of oil products (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	0.61	1.22	1.03	1.38	1.15	1.30	1.19	1.45	..
Brunei Darussalam	-	0.00	0.34	0.57	0.63	0.65	0.28	0.24	..
Cambodia	..	..	..	-	-	-	-	-	..
DPR of Korea	-	1.89	2.06	0.38	0.47	0.53	0.53	0.53	..
India	21.24	26.11	52.87	105.94	133.54	207.01	258.31	266.08	..
Indonesia	10.18	18.08	37.76	50.32	48.32	46.12	47.80	48.73	..
Malaysia	3.96	5.69	10.42	20.97	21.45	21.22	24.90	27.24	..
Mongolia	..	..	-	-	-	-	-	-	..
Myanmar	1.00	1.33	0.71	1.01	0.77	0.86	0.42	0.29	..
Nepal	-	-	-	-	-	-	-	-	..
Pakistan	3.43	4.49	5.85	9.17	11.48	9.58	12.29	14.09	..
Philippines	8.70	9.17	10.57	14.97	10.01	8.39	10.09	9.83	..
Singapore	22.92	31.94	41.38	41.73	59.26	50.61	50.93	55.84	..
Sri Lanka	1.73	1.83	1.72	2.34	1.87	1.70	1.71	1.64	..
Chinese Taipei	8.98	17.92	21.43	37.22	53.55	46.44	45.25	45.79	..
Thailand	7.64	7.75	11.72	36.92	47.35	53.58	60.29	61.74	..
Viet Nam	-	-	-	-	-	5.72	7.06	6.33	..
Other non-OECD Asia	-	-	-	-	0.96	0.89	1.42	1.48	..
Non-OECD Asia excl. China	90.39	127.44	197.84	322.92	390.82	454.59	522.46	541.30	..
People's Rep. of China	41.77	78.36	108.18	199.97	285.34	404.60	541.46	571.78	..
Hong Kong, China	-	-	-	-	-	-	-	-	..
China	41.77	78.36	108.18	199.97	285.34	404.60	541.46	571.78	..
Argentina	23.65	25.72	22.36	29.67	28.67	29.39	29.70	29.04	..
Bolivia	0.80	1.25	1.24	1.54	2.05	2.10	2.98	3.24	..
Brazil	38.01	55.70	61.73	85.14	91.87	96.44	99.13	95.96	93.79
Colombia	8.29	7.65	11.26	15.51	15.22	14.10	14.64	15.55	..
Costa Rica	0.39	0.51	0.44	0.01	0.49	0.51	-	-	..
Cuba	5.14	5.85	6.45	2.17	2.24	4.96	2.11	1.93	..
Curaçao ¹	42.89	27.36	10.00	11.34	11.89	4.29	8.32	6.89	..
Dominican Republic	1.20	1.56	1.06	2.13	1.98	1.33	1.11	0.91	..
Ecuador	1.61	4.73	6.06	7.77	8.22	7.66	8.22	8.22	..
El Salvador	0.62	0.66	0.69	0.95	1.03	0.81	-	-	..
Guatemala	0.94	0.75	0.43	0.85	0.07	0.07	0.06	0.09	..
Haiti	-	-	-	-	-	-	-	-	..
Honduras	0.62	0.50	0.41	-	-	-	-	-	..
Jamaica	1.76	0.92	1.35	0.96	0.45	1.18	1.07	1.02	..
Nicaragua	0.57	0.54	0.61	0.84	0.76	0.78	0.66	0.68	..
Panama	3.32	1.90	1.17	2.14	-	-	-	-	..
Paraguay	0.20	0.26	0.31	0.10	0.03	-	-	-	..
Peru	4.89	7.32	7.34	7.70	8.99	9.45	8.34	9.44	..
Suriname	..	..	..	0.27	0.39	0.37	0.54	0.68	..
Trinidad and Tobago	19.51	11.36	4.30	7.91	8.32	6.11	7.48	6.49	..
Uruguay	1.66	1.83	1.19	1.87	2.08	1.92	2.16	0.60	..
Venezuela	73.83	50.40	52.62	57.13	53.15	59.03	40.43	32.40	..
Other non-OECD Americas	12.74	8.81	0.97	12.35	11.62	0.81	0.00	0.00	..
Non-OECD Americas	242.65	215.60	192.01	248.36	249.53	241.30	226.95	213.14	..
Bahrain	12.21	12.36	12.67	13.08	13.60	13.47	13.29	13.49	..
Islamic Republic of Iran	29.13	34.27	41.37	78.02	82.58	85.27	85.18	88.25	..
Iraq	4.06	9.32	18.08	24.94	22.65	24.93	20.29	23.81	..
Jordan	0.68	1.76	2.63	3.81	4.30	3.30	2.68	2.52	..
Kuwait	18.78	16.93	12.05	36.74	42.93	43.80	38.88	33.46	..
Lebanon	2.46	2.27	0.10	-	-	-	-	-	..
Oman	-	-	3.25	4.05	4.40	8.09	11.21	12.18	..
Qatar	0.02	0.40	2.97	3.22	5.64	14.31	13.60	16.21	..
Saudi Arabia	28.22	33.14	78.42	83.69	100.35	96.38	133.75	135.19	..
Syrian Arab Republic	1.99	6.58	11.23	12.13	12.42	11.82	6.07	5.85	..
United Arab Emirates	-	0.58	9.48	14.55	17.51	25.19	52.84	55.65	..
Yemen	2.86	3.46	4.58	3.72	3.57	3.48	0.80	0.87	..
Middle East	100.40	121.07	196.81	277.95	309.97	330.03	378.57	387.49	..

In this table production refers to refinery output.

1. Please refer to section 'Geographical coverage'.

Production of natural gas (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	991.27	1 240.64	1 688.82	2 065.55	2 370.94	2 712.70	3 042.19	3 162.89	3 262.81
Non-OECD Total	284.85	521.27	971.13	1 155.11	1 461.14	1 745.97	1 948.94	2 034.76	2 054.04
OECD Total	706.42	719.37	717.69	910.44	909.81	966.72	1 093.25	1 128.14	1 208.77
Canada	61.38	63.64	88.58	148.36	154.61	129.42	148.48	153.43	159.38
Chile	0.53	0.72	1.41	1.60	1.61	1.55	1.01	1.03	1.28
Mexico	10.55	21.56	22.76	33.39	38.46	42.58	30.43	26.57	26.11
United States	502.76	454.69	418.21	446.95	421.56	494.79	627.32	641.68	715.91
OECD Americas	575.21	540.61	530.95	630.29	616.23	668.34	807.25	822.71	902.68
Australia	3.38	7.47	17.14	28.54	31.35	44.48	70.88	87.82	100.90
Israel ¹	0.05	0.13	0.03	0.01	1.31	2.67	7.58	8.28	8.41
Japan	2.29	1.94	1.92	2.29	2.89	3.21	2.45	2.56	2.33
Korea	-	-	-	-	0.44	0.49	0.14	0.31	0.27
New Zealand	0.28	0.79	3.87	5.06	3.23	3.86	4.23	4.18	3.70
OECD Asia Oceania	6.00	10.33	22.96	35.89	39.23	54.70	85.28	103.15	115.61
Austria	1.96	1.67	1.11	1.55	1.33	1.40	0.97	1.04	0.86
Belgium	0.04	0.03	0.01	0.00	-	-	-	-	-
Czech Republic	0.36	0.32	0.20	0.17	0.15	0.20	0.18	0.19	0.18
Denmark	0.00	0.00	2.77	7.41	9.38	7.34	4.05	4.35	3.69
Estonia	..	..	-	-	-	-	-	-	-
Finland	-	-	-	-	-	-	-	-	-
France	6.29	6.33	2.52	1.50	0.91	0.65	0.02	0.01	0.01
Germany	16.44	16.27	13.53	15.80	14.33	11.11	6.55	6.03	4.65
Greece	-	-	0.14	0.04	0.02	0.01	0.01	0.01	0.01
Hungary	4.03	5.09	3.81	2.48	2.33	2.23	1.43	1.41	1.46
Iceland	-	-	-	-	-	-	-	-	-
Ireland	-	0.74	1.87	0.96	0.49	0.23	2.49	2.85	2.75
Italy	12.62	10.26	14.03	13.62	9.89	6.88	4.74	4.54	4.46
Latvia	..	..	-	-	-	-	-	-	-
Lithuania	..	..	-	-	-	-	-	-	-
Luxembourg	-	-	-	-	-	-	-	-	-
Netherlands	53.76	68.91	54.53	52.76	56.18	64.72	38.08	33.17	27.75
Norway	-	22.77	24.15	46.28	75.04	94.72	102.34	108.72	105.88
Poland	4.87	4.54	2.38	3.31	3.88	3.69	3.55	3.51	3.42
Portugal	-	-	-	-	-	-	-	-	-
Slovak Republic	0.39	0.17	0.34	0.13	0.13	0.09	0.08	0.12	0.08
Slovenia	..	..	0.02	0.01	0.00	0.01	0.00	0.01	0.01
Spain	0.00	-	1.27	0.15	0.14	0.04	0.05	0.02	0.08
Sweden	-	-	-	-	-	-	-	-	-
Switzerland	-	-	0.00	-	-	-	-	-	-
Turkey	-	-	0.17	0.53	0.74	0.56	0.30	0.29	0.35
United Kingdom	24.45	31.32	40.93	97.55	79.40	49.79	35.89	36.02	34.85
OECD Europe	125.21	168.43	163.78	244.26	254.34	243.68	200.73	202.28	190.49
IEA	705.85	718.52	716.23	908.83	906.89	962.50	1 084.65	1 118.82	1 199.07
IEA/Accession/Association	712.57	748.33	793.02	1 040.74	1 071.09	1 200.85	1 337.54	1 380.76	1 463.99
European Union - 28	..	..	163.99	209.79	190.52	159.29	107.32	103.09	93.88
G7	626.23	584.46	579.71	726.08	683.59	695.85	825.45	844.27	921.59
G8	..	..	1 096.53	1 196.82	1 199.43	1 236.01	1 363.85	1 425.22	1 499.17
G20	..	..	1 336.44	1 520.30	1 586.37	1 722.28	1 862.37	1 947.80	2 033.94
OPEC	..	..	132.03	250.99	348.70	482.31	615.85	642.08	..

1. Please refer to section 'Geographical coverage'.

Production of natural gas (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	284.85	521.27	971.13	1 155.11	1 461.14	1 745.97	1 948.94	2 034.76	2 054.04
Albania	0.16	0.32	0.20	0.01	0.01	0.01	0.03	0.04	0.03
Armenia	..	..	-	-	-	-	-	-	-
Azerbaijan	..	..	8.04	4.57	4.65	13.99	15.72	15.27	16.12
Belarus	..	..	0.21	0.18	0.16	0.13	0.14	0.12	0.13
Bosnia and Herzegovina	..	..	-	-	-	-	-	-	-
Bulgaria	0.17	0.15	0.01	0.01	0.38	0.06	0.08	0.07	0.07
Croatia	..	..	1.62	1.35	1.87	2.21	1.37	1.23	1.02
Cyprus ¹	-	-	-	-	-	-	-	-	-
Georgia	..	..	0.05	0.06	0.02	0.01	0.01	0.01	0.01
Gibraltar	-	-	-	-	-	-	-	-	-
Kazakhstan	..	..	5.77	7.62	15.83	24.61	35.06	39.72	40.11
Kosovo	..	..	..	-	-	-	-	-	-
Kyrgyzstan	..	..	0.07	0.03	0.02	0.02	0.02	0.02	0.02
Malta	-	-	-	-	-	-	-	-	-
Republic of Moldova	..	..	-	-	-	0.00	0.00	0.00	0.00
Montenegro	..	..	..	..	-	-	-	-	-
North Macedonia, Republic of	..	..	-	-	-	-	-	-	-
Romania	24.31	31.28	22.91	10.97	9.70	8.62	7.78	8.52	8.54
Russian Federation	..	..	516.82	470.74	515.84	540.16	538.40	580.95	577.58
Serbia	..	..	0.53	0.62	0.23	0.31	0.42	0.39	0.36
Tajikistan	..	..	0.09	0.03	0.02	0.02	0.00	0.00	0.00
Turkmenistan	..	..	68.79	38.21	51.31	36.90	64.97	65.56	65.87
Ukraine	..	..	22.60	15.00	15.64	15.44	15.17	15.47	15.32
Uzbekistan	..	..	33.01	45.94	49.11	48.96	45.85	46.08	48.73
Former Soviet Union	195.46	359.70	x	x	x	x	x	x	x
Former Yugoslavia	1.33	1.74	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	221.42	393.19	680.71	595.35	664.79	691.43	725.02	773.47	773.91
Algeria	3.64	11.48	38.85	69.85	75.61	71.97	80.56	81.83	81.55
Angola	0.05	0.06	0.44	0.47	0.53	0.60	1.40	4.74	5.05
Benin	-	-	-	-	-	-	-	-	-
Botswana	..	..	-	-	-	-	-	-	-
Cameroon	-	-	-	-	-	0.26	0.45	0.49	1.07
Congo	0.00	-	-	-	0.02	0.08	0.49	0.52	0.52
Côte d'Ivoire	-	-	-	1.27	1.25	1.33	1.69	1.88	2.04
Dem. Rep. of the Congo	-	-	-	-	-	0.02	0.00	0.00	0.00
Egypt	0.07	1.59	6.73	14.44	42.63	46.41	34.78	42.88	48.01
Eritrea	..	..	..	-	-	-	-	-	-
Ethiopia	-	-	-	-	-	-	-	-	-
Gabon	0.40	0.01	0.09	0.10	0.12	0.27	0.45	0.33	0.33
Ghana	-	-	-	-	-	-	0.53	0.77	0.77
Kenya	-	-	-	-	-	-	-	-	-
Libya	3.42	4.22	5.06	4.80	9.23	13.73	8.09	7.43	7.73
Mauritius	-	-	-	-	-	-	-	-	-
Morocco	0.06	0.06	0.04	0.04	0.03	0.04	0.06	0.06	0.06
Mozambique	-	-	-	0.00	1.87	2.68	4.18	4.14	4.13
Namibia	..	..	..	-	-	-	-	-	-
Niger	..	..	..	-	-	-	-	-	-
Nigeria	0.35	1.24	3.27	10.18	19.78	26.58	32.92	36.84	35.87
Senegal	-	-	0.01	0.00	0.01	0.02	0.02	0.02	0.02
South Africa	-	-	1.50	1.40	1.78	1.26	0.92	0.74	0.74
South Sudan	..	..	..	..	..	..	-	-	-
Sudan	-	-	-	-	-	-	-	-	-
United Rep. of Tanzania	-	-	-	-	0.33	0.64	0.70	0.65	0.65
Togo	-	-	-	-	-	-	-	-	-
Tunisia	0.11	0.35	0.33	1.89	1.99	3.08	2.27	2.14	2.14
Zambia	-	-	-	-	-	-	-	-	-
Zimbabwe	-	-	-	-	-	-	-	-	-
Other Africa	0.00	0.00	0.00	0.00	1.91	6.17	8.32	8.56	8.55
Africa	8.11	19.02	56.33	104.43	157.11	175.15	177.82	194.01	199.22

1. Please refer to section 'Geographical coverage'.

Production of natural gas (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	0.52	1.04	3.73	7.38	10.81	16.63	23.10	23.07	23.02
Brunei Darussalam	1.54	8.94	7.94	9.47	10.00	10.27	9.08	9.95	9.60
Cambodia	..	..	..	-	-	-	-	-	-
DPR of Korea	-	-	-	-	-	-	-	-	-
India	0.63	1.26	10.57	23.07	25.94	42.96	25.86	26.60	26.78
Indonesia	0.33	14.97	42.14	61.16	65.58	74.81	64.56	62.66	63.04
Malaysia	0.10	2.24	15.49	42.56	55.37	51.01	57.23	56.09	56.08
Mongolia	..	..	-	-	-	-	-	-	-
Myanmar	0.09	0.29	0.76	5.18	10.30	10.17	16.01	15.95	15.94
Nepal	-	-	-	-	-	-	-	-	-
Pakistan	2.86	5.03	10.08	16.67	25.64	26.99	21.63	18.94	17.19
Philippines	-	-	-	0.01	2.70	3.05	3.29	3.25	3.44
Singapore	-	-	-	-	-	-	-	-	-
Sri Lanka	-	-	-	-	-	-	-	-	-
Chinese Taipei	1.22	1.59	1.04	0.60	0.44	0.24	0.23	0.19	0.19
Thailand	-	-	4.99	15.64	18.50	24.73	25.30	23.62	23.00
Viet Nam	-	-	0.00	1.12	5.99	8.12	8.76	7.81	7.97
Other non-OECD Asia	2.20	2.21	0.24	0.20	0.22	5.09	20.20	20.64	12.63
Non-OECD Asia excl. China	9.49	37.57	96.99	183.06	231.49	274.07	275.24	268.77	258.89
People's Rep. of China	5.01	11.96	12.80	22.76	41.27	80.16	114.54	123.89	128.33
Hong Kong, China	-	-	-	-	-	-	-	-	-
China	5.01	11.96	12.80	22.76	41.27	80.16	114.54	123.89	128.33
Argentina	5.75	8.55	17.02	34.32	39.93	35.37	35.96	35.86	37.29
Bolivia	1.69	2.14	2.76	4.02	10.26	12.29	17.31	16.62	16.12
Brazil	0.17	0.85	3.33	6.24	9.49	12.84	20.64	23.35	21.68
Colombia	1.42	2.39	3.37	5.46	6.12	9.43	9.58	9.81	9.56
Costa Rica	-	-	-	-	-	-	-	-	-
Cuba	0.01	0.01	0.03	0.46	0.59	0.85	0.94	0.83	0.83
Curaçao ¹	-	-	-	-	-	-	-	-	-
Dominican Republic	-	-	-	-	-	-	-	-	-
Ecuador	-	-	-	-	0.28	0.43	0.60	0.54	0.41
El Salvador	-	-	-	-	-	-	-	-	-
Guatemala	-	-	-	-	-	-	-	-	-
Haiti	-	-	-	-	-	-	-	-	-
Honduras	-	-	-	-	-	-	-	-	-
Jamaica	-	-	-	-	-	-	-	-	-
Nicaragua	-	-	-	-	-	-	-	-	-
Panama	-	-	-	-	-	-	-	-	-
Paraguay	-	-	-	-	-	-	-	-	-
Peru	0.30	0.45	0.41	0.49	1.63	7.63	14.05	12.50	12.26
Suriname	..	..	..	-	-	-	-	-	-
Trinidad and Tobago	1.59	2.44	4.70	12.19	26.50	35.83	28.06	27.93	29.56
Uruguay	-	-	-	-	-	-	-	-	-
Venezuela	8.68	11.27	16.75	21.85	19.37	19.16	21.31	20.90	20.91
Other non-OECD Americas	0.00	0.01	0.02	0.03	0.02	0.02	0.02	0.02	0.02
Non-OECD Americas	19.61	28.11	48.39	85.06	114.18	133.84	148.46	148.36	148.64
Bahrain	1.34	2.43	4.43	6.85	8.35	10.57	12.03	12.05	12.19
Islamic Republic of Iran	10.05	3.66	19.12	49.85	83.46	121.72	169.07	182.50	194.97
Iraq	0.99	1.05	3.25	2.57	1.49	4.19	6.24	7.09	7.41
Jordan	-	-	0.10	0.21	0.18	0.14	0.09	0.08	0.07
Kuwait	4.96	5.63	3.29	7.84	10.05	9.58	14.12	13.97	14.22
Lebanon	-	-	-	-	-	-	-	-	-
Oman	-	0.31	2.44	9.06	17.92	23.76	28.87	29.00	30.73
Qatar	1.29	2.85	5.56	21.78	39.86	107.30	150.33	149.79	152.08
Saudi Arabia	1.54	9.15	19.49	30.78	45.97	59.90	74.17	78.01	79.38
Syrian Arab Republic	-	0.04	1.37	4.62	4.94	7.25	3.04	3.00	3.00
United Arab Emirates	1.05	6.30	16.86	30.88	40.06	41.54	49.47	50.26	50.50
Yemen	-	-	-	-	-	5.38	0.43	0.52	0.52
Middle East	21.22	31.42	75.90	164.44	252.29	391.32	507.86	526.26	545.05

1. Please refer to section 'Geographical coverage'.

Production of nuclear energy (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	53.04	186.38	525.52	675.47	721.71	718.83	680.20	687.48	..
Non-OECD Total	3.83	24.16	69.89	87.15	106.11	122.45	167.97	177.90	..
OECD Total	49.21	162.22	455.63	588.32	615.59	596.38	512.24	509.58	515.08
Canada	4.07	10.40	19.40	18.97	23.98	23.62	26.35	26.35	26.25
Chile	-	-	-	-	-	-	-	-	-
Mexico	-	-	0.77	2.14	2.82	1.53	2.75	2.84	3.56
United States	23.23	69.36	159.36	207.85	211.24	218.59	218.85	218.57	219.22
OECD Americas	27.30	79.76	179.52	228.96	238.04	243.74	247.96	247.75	249.03
Australia	-	-	-	-	-	-	-	-	-
Israel ¹	-	-	-	-	-	-	-	-	-
Japan	2.53	21.52	52.70	83.91	79.41	75.10	4.71	8.58	16.92
Korea	-	0.91	13.78	28.39	38.24	38.72	42.21	38.67	34.79
New Zealand	-	-	-	-	-	-	-	-	-
OECD Asia Oceania	2.53	22.43	66.48	112.30	117.65	113.82	46.91	47.25	51.70
Austria	-	-	-	-	-	-	-	-	-
Belgium	0.02	3.27	11.13	12.55	12.40	12.49	11.34	11.00	7.45
Czech Republic	-	-	3.28	3.54	6.47	7.32	6.30	7.41	7.82
Denmark	-	-	-	-	-	-	-	-	-
Estonia	..	..	-	-	-	-	-	-	-
Finland	-	1.83	5.01	5.86	6.06	5.94	6.05	5.86	5.94
France	3.84	15.96	81.84	108.17	117.65	111.66	105.06	103.80	107.60
Germany	3.15	14.49	39.83	44.19	42.49	36.62	22.05	19.89	19.80
Greece	-	-	-	-	-	-	-	-	-
Hungary	-	-	3.58	3.71	3.62	4.12	4.20	4.21	4.11
Iceland	-	-	-	-	-	-	-	-	-
Ireland	-	-	-	-	-	-	-	-	-
Italy	0.82	0.58	-	-	-	-	-	-	-
Latvia	..	..	-	-	-	-	-	-	-
Lithuania	..	..	4.50	2.25	2.74	-	-	-	-
Luxembourg	-	-	-	-	-	-	-	-	-
Netherlands	0.29	1.09	0.91	1.02	1.04	1.03	1.03	0.89	0.92
Norway	-	-	-	-	-	-	-	-	-
Poland	-	-	-	-	-	-	-	-	-
Portugal	-	-	-	-	-	-	-	-	-
Slovak Republic	0.06	1.18	3.14	4.30	4.67	3.86	3.90	3.98	3.94
Slovenia	..	..	1.20	1.24	1.53	1.47	1.49	1.64	1.51
Spain	1.71	1.35	14.14	16.21	14.99	16.15	15.28	15.12	14.49
Sweden	0.55	6.90	17.77	14.93	18.86	15.07	16.44	17.12	17.15
Switzerland	1.64	3.74	6.18	6.92	6.11	6.89	5.54	5.34	6.68
Turkey	-	-	-	-	-	-	-	-	-
United Kingdom	7.29	9.65	17.13	22.16	21.27	16.19	18.69	18.33	16.95
OECD Europe	19.38	60.04	209.64	247.05	259.90	238.82	217.37	214.57	214.35
IEA	49.21	162.22	449.93	584.83	611.32	594.91	510.75	507.94	513.57
IEA/Accession/Association	49.83	163.00	454.31	598.56	635.18	627.94	584.25	590.37	..
European Union - 28	..	..	207.28	246.30	260.12	238.95	218.89	216.30	214.85
G7	44.94	141.95	370.25	485.26	496.03	481.78	395.71	395.50	406.74
G8	..	..	401.55	519.68	535.28	526.54	447.28	448.78	460.38
G20	..	..	490.85	637.32	680.70	676.17	641.00	648.63	..
OPEC	..	..	-	-	-	-	1.72	1.96	..

1. Please refer to section 'Geographical coverage'.

Production of nuclear energy (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	3.83	24.16	69.89	87.15	106.11	122.45	167.97	177.90	..
Albania	-	-	-	-	-	-	-	-	-
Armenia	..	..	-	0.52	0.71	0.65	0.62	0.68	..
Azerbaijan	..	..	-	-	-	-	-	-	-
Belarus	..	..	-	-	-	-	-	-	-
Bosnia and Herzegovina	..	..	-	-	-	-	-	-	-
Bulgaria	-	1.61	3.82	4.75	4.87	4.00	4.13	4.07	4.22
Croatia	..	..	-	-	-	-	-	-	-
Cyprus ¹	-	-	-	-	-	-	-	-	-
Georgia	..	..	-	-	-	-	-	-	-
Gibraltar	-	-	-	-	-	-	-	-	..
Kazakhstan	..	..	-	-	-	-	-	-	-
Kosovo	..	..	..	-	-	-	-	-	-
Kyrgyzstan	..	..	-	-	-	-	-	-	-
Malta	-	-	-	-	-	-	-	-	-
Republic of Moldova	..	..	-	-	-	-	-	-	-
Montenegro	..	..	..	..	-	-	-	-	-
North Macedonia, Republic of	..	..	-	-	-	-	-	-	..
Romania	-	-	-	1.42	1.45	3.03	2.94	3.00	2.96
Russian Federation	..	..	31.29	34.41	39.25	44.75	51.58	53.28	53.64
Serbia	..	..	-	-	-	-	-	-	-
Tajikistan	..	..	-	-	-	-	-	-	..
Turkmenistan	..	..	-	-	-	-	-	-	-
Ukraine	..	..	19.85	20.15	23.13	23.38	21.24	22.45	21.99
Uzbekistan	..	..	-	-	-	-	-	-	..
Former Soviet Union	3.13	19.02	x	x	x	x	x	x	x
Former Yugoslavia	-	-	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	3.13	20.63	54.96	61.26	69.40	75.81	80.51	83.48	..
Algeria	-	-	-	-	-	-	-	-	..
Angola	-	-	-	-	-	-	-	-	..
Benin	-	-	-	-	-	-	-	-	..
Botswana	..	..	-	-	-	-	-	-	..
Cameroon	-	-	-	-	-	-	-	-	..
Congo	-	-	-	-	-	-	-	-	..
Côte d'Ivoire	-	-	-	-	-	-	-	-	..
Dem. Rep. of the Congo	-	-	-	-	-	-	-	-	..
Egypt	-	-	-	-	-	-	-	-	..
Eritrea	..	..	..	-	-	-	-	-	..
Ethiopia	-	-	-	-	-	-	-	-	..
Gabon	-	-	-	-	-	-	-	-	..
Ghana	-	-	-	-	-	-	-	-	..
Kenya	-	-	-	-	-	-	-	-	..
Libya	-	-	-	-	-	-	-	-	..
Mauritius	-	-	-	-	-	-	-	-	..
Morocco	-	-	-	-	-	-	-	-	..
Mozambique	-	-	-	-	-	-	-	-	..
Namibia	..	..	..	-	-	-	-	-	..
Niger	..	..	..	-	-	-	-	-	..
Nigeria	-	-	-	-	-	-	-	-	..
Senegal	-	-	-	-	-	-	-	-	..
South Africa	-	-	2.20	3.39	2.94	3.15	3.92	3.70	..
South Sudan	..	..	..	..	..	..	-	-	..
Sudan	-	-	-	-	-	-	-	-	..
United Rep. of Tanzania	-	-	-	-	-	-	-	-	..
Togo	-	-	-	-	-	-	-	-	..
Tunisia	-	-	-	-	-	-	-	-	..
Zambia	-	-	-	-	-	-	-	-	..
Zimbabwe	-	-	-	-	-	-	-	-	..
Other Africa	-	-	-	-	-	-	-	-	..
Africa	-	-	2.20	3.39	2.94	3.15	3.92	3.70	..

1. Please refer to section 'Geographical coverage'.

Production of nuclear energy (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	-	-	-	-	-	-	-	-	..
Brunei Darussalam	-	-	-	-	-	-	-	-	..
Cambodia	..	..	..	-	-	-	-	-	..
DPR of Korea	-	-	-	-	-	-	-	-	..
India	0.62	0.78	1.60	4.40	4.51	6.84	9.88	9.99	..
Indonesia	-	-	-	-	-	-	-	-	..
Malaysia	-	-	-	-	-	-	-	-	..
Mongolia	..	..	-	-	-	-	-	-	..
Myanmar	-	-	-	-	-	-	-	-	..
Nepal	-	-	-	-	-	-	-	-	..
Pakistan	0.08	0.00	0.08	0.52	0.65	0.89	1.82	2.57	..
Philippines	-	-	-	-	-	-	-	-	..
Singapore	-	-	-	-	-	-	-	-	..
Sri Lanka	-	-	-	-	-	-	-	-	..
Chinese Taipei	-	2.14	8.56	10.03	10.42	10.85	8.25	5.85	..
Thailand	-	-	-	-	-	-	-	-	..
Viet Nam	-	-	-	-	-	-	-	-	..
Other non-OECD Asia	-	-	-	-	-	-	-	-	..
Non-OECD Asia excl. China	0.70	2.92	10.24	14.96	15.58	18.58	19.95	18.41	..
People's Rep. of China	-	-	-	4.36	13.83	19.25	55.57	64.64	76.70
Hong Kong, China	-	-	-	-	-	-	-	-	..
China	-	-	-	4.36	13.83	19.25	55.57	64.64	..
Argentina	-	0.61	1.90	1.61	1.79	1.87	2.16	1.62	..
Bolivia	-	-	-	-	-	-	-	-	..
Brazil	-	-	0.58	1.58	2.57	3.78	4.13	4.10	4.08
Colombia	-	-	-	-	-	-	-	-	..
Costa Rica	-	-	-	-	-	-	-	-	..
Cuba	-	-	-	-	-	-	-	-	..
Curaçao ¹	-	-	-	-	-	-	-	-	..
Dominican Republic	-	-	-	-	-	-	-	-	..
Ecuador	-	-	-	-	-	-	-	-	..
El Salvador	-	-	-	-	-	-	-	-	..
Guatemala	-	-	-	-	-	-	-	-	..
Haiti	-	-	-	-	-	-	-	-	..
Honduras	-	-	-	-	-	-	-	-	..
Jamaica	-	-	-	-	-	-	-	-	..
Nicaragua	-	-	-	-	-	-	-	-	..
Panama	-	-	-	-	-	-	-	-	..
Paraguay	-	-	-	-	-	-	-	-	..
Peru	-	-	-	-	-	-	-	-	..
Suriname	..	..	..	-	-	-	-	-	..
Trinidad and Tobago	-	-	-	-	-	-	-	-	..
Uruguay	-	-	-	-	-	-	-	-	..
Venezuela	-	-	-	-	-	-	-	-	..
Other non-OECD Americas	-	-	-	-	-	-	-	-	..
Non-OECD Americas	-	0.61	2.48	3.18	4.36	5.65	6.29	5.72	..
Bahrain	-	-	-	-	-	-	-	-	..
Islamic Republic of Iran	-	-	-	-	-	-	1.72	1.96	..
Iraq	-	-	-	-	-	-	-	-	..
Jordan	-	-	-	-	-	-	-	-	..
Kuwait	-	-	-	-	-	-	-	-	..
Lebanon	-	-	-	-	-	-	-	-	..
Oman	-	-	-	-	-	-	-	-	..
Qatar	-	-	-	-	-	-	-	-	..
Saudi Arabia	-	-	-	-	-	-	-	-	..
Syrian Arab Republic	-	-	-	-	-	-	-	-	..
United Arab Emirates	-	-	-	-	-	-	-	-	..
Yemen	-	-	-	-	-	-	-	-	..
Middle East	-	-	-	-	-	-	1.72	1.96	..

1. Please refer to section 'Geographical coverage'.

Production of hydro energy (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	110.29	147.62	184.10	224.69	252.35	296.07	348.55	351.03	..
Non-OECD Total	31.36	53.68	82.19	109.38	140.31	179.27	227.01	230.53	..
OECD Total	78.93	93.94	101.91	115.32	112.04	116.79	121.55	120.50	122.93
Canada	16.74	21.59	25.51	30.83	31.12	30.21	33.28	33.75	32.96
Chile	0.48	0.68	0.77	1.59	2.28	1.87	2.00	1.83	2.00
Mexico	1.39	1.45	2.02	2.85	2.38	3.19	2.64	2.75	2.80
United States	22.82	23.97	23.49	21.77	23.43	22.55	23.19	26.00	25.29
OECD Americas	41.43	47.69	51.79	57.04	59.21	57.82	61.11	64.33	63.05
Australia	0.98	1.11	1.22	1.41	1.32	1.16	1.29	1.38	1.37
Israel ¹	-	-	0.00	0.00	0.00	0.00	c	c	c
Japan	5.74	7.59	7.56	7.23	6.61	7.21	6.76	7.12	7.16
Korea	0.11	0.17	0.55	0.34	0.32	0.32	0.24	0.24	0.29
New Zealand	1.23	1.63	1.99	2.10	2.01	2.13	2.23	2.17	2.26
OECD Asia Oceania	8.06	10.50	11.32	11.08	10.25	10.81	10.52	10.91	11.08
Austria	1.61	2.47	2.71	3.60	3.19	3.30	3.43	3.30	3.24
Belgium	0.01	0.02	0.02	0.04	0.02	0.03	0.03	0.02	0.02
Czech Republic	0.09	0.21	0.10	0.15	0.20	0.24	0.17	0.16	0.14
Denmark	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Estonia	..	..	-	0.00	0.00	0.00	0.00	0.00	0.00
Finland	0.90	0.88	0.93	1.26	1.19	1.11	1.36	1.27	1.14
France	4.10	5.98	4.63	5.71	4.43	5.39	5.23	4.30	5.60
Germany	1.31	1.64	1.50	1.87	1.69	1.80	1.77	1.73	1.55
Greece	0.19	0.29	0.15	0.32	0.43	0.64	0.48	0.34	0.50
Hungary	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Iceland	0.19	0.27	0.36	0.55	0.60	1.08	1.16	1.21	1.19
Ireland	0.06	0.07	0.06	0.07	0.05	0.05	0.06	0.06	0.06
Italy	3.23	3.89	2.72	3.80	3.10	4.40	3.65	3.11	4.24
Latvia	..	..	0.39	0.24	0.29	0.30	0.22	0.38	0.21
Lithuania	..	..	0.04	0.03	0.04	0.05	0.04	0.05	0.04
Luxembourg	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Netherlands	-	-	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Norway	6.27	7.19	10.42	12.19	11.67	10.04	12.30	12.20	11.99
Poland	0.13	0.20	0.12	0.18	0.19	0.25	0.18	0.22	0.17
Portugal	0.63	0.69	0.79	0.97	0.41	1.39	1.35	0.51	1.08
Slovak Republic	0.11	0.19	0.16	0.40	0.40	0.45	0.37	0.37	0.31
Slovenia	..	..	0.25	0.33	0.30	0.39	0.39	0.33	0.40
Spain	2.49	2.54	2.19	2.43	1.58	3.64	3.13	1.61	2.98
Sweden	5.15	5.06	6.23	6.76	6.26	5.71	5.33	5.60	5.29
Switzerland	2.40	2.82	2.56	3.17	2.68	3.10	2.98	2.93	3.01
Turkey	0.22	0.98	1.99	2.66	3.40	4.45	5.78	5.01	5.14
United Kingdom	0.33	0.33	0.45	0.44	0.42	0.31	0.46	0.51	0.47
OECD Europe	29.43	35.74	38.81	47.19	42.58	48.16	49.91	45.26	48.79
IEA	78.26	93.00	100.11	112.57	108.54	113.10	117.74	116.70	119.08
IEA/Accession/Association	89.91	114.21	136.81	167.40	184.88	224.01	266.68	264.71	..
European Union - 28	..	..	24.96	30.69	26.94	32.41	30.18	25.86	30.07
G7	54.27	65.00	65.86	71.64	70.80	71.87	74.34	76.53	77.27
G8	..	..	80.12	85.75	85.65	86.18	90.21	92.43	93.66
G20	..	..	138.50	167.01	186.77	226.97	268.67	266.70	..
OPEC	..	..	4.87	7.07	10.12	9.54	9.61	9.99	..

Excludes hydro pumped storage.

1. Please refer to section 'Geographical coverage'.

Production of hydro energy (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	31.36	53.68	82.19	109.38	140.31	179.27	227.01	230.53	..
Albania	0.10	0.25	0.24	0.40	0.46	0.65	0.67	0.39	0.74
Armenia	..	..	0.13	0.11	0.15	0.22	0.20	0.20	..
Azerbaijan	..	..	0.14	0.13	0.26	0.30	0.17	0.15	0.15
Belarus	..	..	0.00	0.00	0.00	0.00	0.01	0.03	0.03
Bosnia and Herzegovina	..	..	0.26	0.44	0.52	0.69	0.49	0.34	0.56
Bulgaria	0.22	0.32	0.16	0.23	0.37	0.43	0.34	0.24	0.42
Croatia	..	..	0.34	0.55	0.60	0.78	0.59	0.46	0.66
Cyprus ¹	-	-	-	-	-	-	-	-	-
Georgia	..	..	0.65	0.50	0.54	0.81	0.80	0.79	0.86
Gibraltar	-	-	-	-	-	-	-	-	..
Kazakhstan	..	..	0.63	0.65	0.68	0.69	1.00	0.96	0.89
Kosovo	..	..	..	0.00	0.01	0.01	0.02	0.02	0.02
Kyrgyzstan	..	..	0.86	1.10	1.10	0.96	0.99	1.22	1.23
Malta	-	-	-	-	-	-	-	-	-
Republic of Moldova	..	..	0.02	0.03	0.03	0.03	0.02	0.02	0.02
Montenegro	..	..	..	..	0.16	0.24	0.16	0.09	0.18
North Macedonia, Republic of	..	..	0.04	0.10	0.13	0.21	0.16	0.10	0.15
Romania	0.65	1.09	0.98	1.27	1.74	1.71	1.55	1.25	1.52
Russian Federation	..	..	14.27	14.11	14.85	14.31	15.87	15.91	16.39
Serbia	..	..	0.64	0.84	0.98	1.02	0.93	0.79	0.91
Tajikistan	..	..	1.42	1.21	1.46	1.41	1.43	1.47	..
Turkmenistan	..	..	0.06	-	-	-	-	-	..
Ukraine	..	..	0.90	0.97	1.06	1.13	0.66	0.77	1.02
Uzbekistan	..	..	0.57	0.30	0.77	0.70	0.63	0.72	..
Former Soviet Union	10.52	15.88	x	x	x	x	x	x	x
Former Yugoslavia	1.41	2.42	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	12.89	19.96	22.34	22.95	25.87	26.32	26.69	25.92	..
Algeria	0.06	0.02	0.01	0.00	0.05	0.01	0.02	0.00	..
Angola	0.07	0.05	0.06	0.08	0.19	0.32	0.50	0.66	..
Benin	-	-	-	0.00	0.00	-	0.00	0.00	..
Botswana	..	..	-	-	-	-	-	-	..
Cameroon	0.09	0.12	0.23	0.30	0.32	0.37	0.36	0.36	..
Congo	0.00	0.01	0.04	0.03	0.03	0.04	0.10	0.10	..
Côte d'Ivoire	0.01	0.12	0.11	0.15	0.12	0.14	0.18	0.13	..
Dem. Rep. of the Congo	0.32	0.36	0.48	0.51	0.63	0.67	0.78	0.82	..
Egypt	0.44	0.84	0.85	1.18	1.09	1.12	1.10	1.15	..
Eritrea	..	..	..	-	-	-	-	-	..
Ethiopia	0.03	0.04	0.09	0.14	0.24	0.42	1.01	1.11	..
Gabon	0.00	0.02	0.06	0.07	0.07	0.08	0.08	0.08	..
Ghana	0.33	0.45	0.49	0.57	0.48	0.60	0.48	0.48	..
Kenya	0.04	0.09	0.21	0.11	0.26	0.29	0.29	0.28	..
Libya	-	-	-	-	-	-	-	-	..
Mauritius	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	..
Morocco	0.10	0.13	0.10	0.06	0.08	0.30	0.11	0.10	..
Mozambique	0.02	0.03	0.02	0.83	1.14	1.43	1.34	1.21	..
Namibia	..	..	..	0.12	0.14	0.11	0.12	0.14	..
Niger	..	..	..	-	-	-	-	-	..
Nigeria	0.16	0.24	0.38	0.48	0.67	0.55	0.48	0.48	..
Senegal	-	-	-	-	0.02	0.02	0.03	0.03	..
South Africa	0.08	0.09	0.09	0.09	0.11	0.18	0.06	0.07	..
South Sudan	..	..	..	..	..	..	-	-	..
Sudan	0.04	0.05	0.08	0.10	0.11	0.53	0.69	0.80	..
United Rep. of Tanzania	0.03	0.06	0.13	0.18	0.15	0.23	0.20	0.20	..
Togo	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.02	..
Tunisia	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.00	..
Zambia	0.27	0.79	0.68	0.67	0.76	0.90	0.95	1.05	..
Zimbabwe	0.30	0.34	0.38	0.27	0.42	0.50	0.26	0.34	..
Other Africa	0.17	0.21	0.28	0.47	0.56	0.62	0.89	0.91	..
Africa	2.59	4.08	4.82	6.45	7.70	9.45	10.05	10.54	..

Excludes hydro pumped storage.

1. Please refer to section 'Geographical coverage'.

Production of hydro energy (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	0.03	0.05	0.08	0.07	0.07	0.07	0.09	0.09	..
Brunei Darussalam	-	-	-	-	-	-	-	-	..
Cambodia	..	..	..	-	0.00	0.00	0.23	0.23	..
DPR of Korea	0.82	0.91	1.34	0.88	1.13	1.15	1.10	1.02	..
India	2.49	4.00	6.16	6.40	9.30	10.74	11.84	12.19	..
Indonesia	0.09	0.12	0.49	0.86	0.92	1.50	1.61	1.60	1.45
Malaysia	0.10	0.12	0.34	0.60	0.45	0.56	1.72	2.28	..
Mongolia	..	..	-	0.00	0.00	0.00	0.01	0.01	..
Myanmar	0.05	0.07	0.10	0.16	0.26	0.44	0.84	1.08	..
Nepal	0.01	0.02	0.08	0.14	0.22	0.28	0.36	0.40	..
Pakistan	0.37	0.75	1.46	1.48	2.65	2.74	2.77	2.40	..
Philippines	0.16	0.30	0.52	0.67	0.72	0.67	0.70	0.83	..
Singapore	-	-	-	-	-	-	-	-	..
Sri Lanka	0.06	0.13	0.27	0.27	0.30	0.48	0.36	0.35	..
Chinese Taipei	0.29	0.25	0.55	0.39	0.34	0.36	0.56	0.47	..
Thailand	0.16	0.11	0.43	0.52	0.50	0.48	0.60	0.82	..
Viet Nam	0.04	0.13	0.46	1.25	1.46	2.37	5.65	7.65	..
Other non-OECD Asia	0.09	0.20	0.39	0.69	0.74	1.14	2.48	2.59	..
Non-OECD Asia excl. China	4.76	7.15	12.67	14.38	19.05	22.97	30.92	34.02	..
People's Rep. of China	3.27	5.01	10.90	19.12	34.14	61.17	99.96	99.49	106.12
Hong Kong, China	-	-	-	-	-	-	-	-	..
China	3.27	5.01	10.90	19.12	34.14	61.17	99.96	99.49	..
Argentina	0.26	1.30	1.54	2.47	2.92	2.89	3.21	3.43	..
Bolivia	0.08	0.09	0.10	0.17	0.17	0.19	0.15	0.19	..
Brazil	4.98	11.08	17.77	26.17	29.02	34.68	32.75	31.89	33.45
Colombia	0.68	1.23	2.36	2.76	3.42	3.47	4.22	5.28	..
Costa Rica	0.10	0.18	0.29	0.49	0.56	0.62	0.69	0.75	..
Cuba	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	..
Curaçao ¹	-	-	-	-	-	-	-	-	..
Dominican Republic	0.05	0.05	0.03	0.08	0.16	0.12	0.13	0.19	..
Ecuador	0.04	0.07	0.43	0.65	0.59	0.74	1.36	1.73	..
El Salvador	0.04	0.08	0.14	0.10	0.14	0.18	0.11	0.14	..
Guatemala	0.02	0.02	0.15	0.22	0.25	0.33	0.35	0.50	..
Haiti	0.01	0.02	0.04	0.02	0.02	0.02	0.01	0.01	..
Honduras	0.03	0.07	0.20	0.19	0.15	0.26	0.20	0.27	..
Jamaica	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	..
Nicaragua	0.03	0.04	0.03	0.02	0.04	0.04	0.04	0.04	..
Panama	0.01	0.08	0.19	0.29	0.32	0.36	0.56	0.62	..
Paraguay	0.03	0.06	2.34	4.60	4.40	4.65	5.48	5.13	..
Peru	0.41	0.60	0.90	1.39	1.55	1.72	2.08	2.50	..
Suriname	..	..	..	0.09	0.07	0.10	0.10	0.10	..
Trinidad and Tobago	-	-	-	-	-	-	-	-	..
Uruguay	0.13	0.30	0.60	0.61	0.57	0.75	0.67	0.65	..
Venezuela	0.54	1.25	3.18	5.41	6.64	6.60	5.41	5.58	..
Other non-OECD Americas	0.10	0.09	0.13	0.03	0.15	0.08	0.03	0.02	..
Non-OECD Americas	7.54	16.65	30.44	45.78	51.18	57.83	57.57	59.04	..
Bahrain	-	-	-	-	-	-	-	-	..
Islamic Republic of Iran	0.24	0.48	0.52	0.32	1.38	0.82	1.41	1.29	..
Iraq	0.02	0.06	0.22	0.05	0.52	0.41	0.29	0.13	..
Jordan	-	-	0.00	0.00	0.00	0.01	0.00	0.00	..
Kuwait	-	-	-	-	-	-	-	-	..
Lebanon	0.04	0.07	0.04	0.04	0.09	0.07	0.03	0.03	..
Oman	-	-	-	-	-	-	-	-	..
Qatar	-	-	-	-	-	-	-	-	..
Saudi Arabia	-	-	-	-	-	-	-	-	..
Syrian Arab Republic	0.00	0.22	0.23	0.28	0.37	0.22	0.08	0.06	..
United Arab Emirates	-	-	-	-	-	-	-	-	..
Yemen	-	-	-	-	-	-	-	-	..
Middle East	0.31	0.84	1.03	0.69	2.37	1.53	1.82	1.52	..

Excludes hydro pumped storage.

1. Please refer to section 'Geographical coverage'.

Production of geothermal energy (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	6.08	12.40	34.09	52.11	53.46	62.07	80.24	85.86	..
Non-OECD Total	-	2.21	7.63	21.76	25.62	32.83	44.49	48.81	..
OECD Total	6.08	10.19	26.45	30.35	27.84	29.25	35.74	37.05	38.46
Canada	-	-	-	-	-	-	-	-	-
Chile	-	-	-	-	-	-	-	0.05	0.18
Mexico	0.14	0.79	4.41	5.07	6.28	3.63	3.17	3.04	2.71
United States	2.11	4.60	14.10	13.09	8.63	8.44	9.16	9.21	10.11
OECD Americas	2.25	5.39	18.51	18.16	14.91	12.07	12.33	12.31	13.01
Australia	-	-	-	-	-	0.00	0.00	0.00	-
Israel ¹	-	-	-	-	-	-	-	-	-
Japan	0.23	0.77	1.58	3.10	2.90	2.38	2.28	2.24	2.23
Korea	-	-	-	-	0.00	0.03	0.16	0.18	0.22
New Zealand	1.07	1.02	1.49	1.96	1.99	3.63	4.84	4.88	4.71
OECD Asia Oceania	1.30	1.79	3.07	5.06	4.89	6.05	7.28	7.30	7.16
Austria	-	-	0.00	0.02	0.03	0.03	0.04	0.04	0.04
Belgium	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Czech Republic	-	-	-	-	-	-	-	-	-
Denmark	-	-	0.00	0.00	0.00	0.01	0.01	0.00	0.01
Estonia	..	..	-	-	-	-	-	-	-
Finland	-	-	-	-	-	-	-	-	-
France	0.00	0.01	0.11	0.13	0.19	0.17	0.33	0.41	0.41
Germany	-	-	..	..	0.05	0.09	0.27	0.26	0.26
Greece	-	-	0.00	0.00	0.01	0.02	0.01	0.01	0.01
Hungary	-	-	0.09	0.09	0.09	0.10	0.12	0.13	0.14
Iceland	0.35	0.64	1.26	1.87	1.78	3.71	3.43	3.58	3.88
Ireland	-	-	-	-	-	-	-	-	-
Italy	2.13	2.30	2.97	4.26	4.79	4.78	5.57	5.50	5.40
Latvia	..	..	-	-	-	-	-	-	-
Lithuania	..	..	-	-	0.00	0.00	0.00	0.00	-
Luxembourg	-	-	-	-	-	-	-	-	-
Netherlands	-	-	-	-	-	0.01	0.07	0.07	0.09
Norway	-	-	-	-	-	-	-	-	-
Poland	-	-	-	0.00	0.01	0.01	0.02	0.02	0.02
Portugal	-	0.00	0.00	0.07	0.07	0.18	0.16	0.20	0.20
Slovak Republic	-	-	-	-	0.01	0.01	0.01	0.01	0.01
Slovenia	..	..	-	-	-	0.03	0.04	0.05	0.05
Spain	-	-	0.00	0.01	0.01	0.02	0.02	0.02	0.02
Sweden	-	-	-	-	-	-	-	-	-
Switzerland	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00
Turkey	0.05	0.06	0.43	0.68	1.01	1.97	6.03	7.13	7.77
United Kingdom	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OECD Europe	2.53	3.01	4.88	7.13	8.04	11.13	16.14	17.44	18.30
IEA	5.73	9.55	25.20	28.49	26.06	25.51	32.26	33.36	34.35
IEA/Accession/Association	5.73	9.55	27.13	38.52	39.76	45.19	59.99	65.74	..
European Union - 28	..	..	3.18	4.59	5.31	5.52	6.75	6.81	6.75
G7	4.47	7.68	18.76	20.58	16.56	15.86	17.61	17.62	18.40
G8	..	..	18.79	20.63	16.91	16.29	17.73	17.73	18.51
G20	..	..	25.66	36.62	38.18	42.08	55.40	61.05	..
OPEC	..	..	-	0.00	0.00	0.00	0.00	0.00	..

1. Please refer to section 'Geographical coverage'.

Production of geothermal energy (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	-	2.21	7.63	21.76	25.62	32.83	44.49	48.81	..
Albania	-	-	-	-	-	-	-	-	-
Armenia	-	-	-	-	-	-	..
Azerbaijan	-	-	-	-	-	-	-
Belarus	-	-	-	-	-	-	-
Bosnia and Herzegovina	-	-	-	-	-	-	-
Bulgaria	-	-	-	-	0.03	0.03	0.03	0.03	0.03
Croatia	-	-	-	0.01	0.01	0.01	0.01
Cyprus ¹	-	-	-	-	-	0.00	0.00	0.00	0.00
Georgia	-	0.01	0.01	0.05	0.02	0.02	0.02
Gibraltar	-	-	-	-	-	-	-	-	..
Kazakhstan	-	-	-	-	-	-	-
Kosovo	-	-	-	-	-	-	-
Kyrgyzstan	-	-	-	-	-	-	-
Malta	-	-	-	-	-	-	-	-	-
Republic of Moldova	-	-	-	-	-	-	-
Montenegro	-	-	-	-	-	-	-
North Macedonia, Republic of	-	0.02	0.01	0.01	0.01	0.01	..
Romania	-	-	-	0.01	0.02	0.02	0.04	0.04	0.04
Russian Federation	0.02	0.05	0.35	0.43	0.11	0.10	0.10
Serbia	-	-	-	0.01	0.01	0.01	0.01
Tajikistan	-	-	-	-	-	-	..
Turkmenistan	-	-	-	-	-	-	..
Ukraine	-	-	-	-	-	-	-
Uzbekistan	-	-	-	-	-	-	..
Former Soviet Union	-	-	x	x	x	x	x	x	x
Former Yugoslavia	-	-	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	-	-	0.02	0.08	0.42	0.56	0.22	0.22	..
Algeria	-	-	-	-	-	-	-	-	..
Angola	-	-	-	-	-	-	-	-	..
Benin	-	-	-	-	-	-	-	-	..
Botswana	-	-	-	-	-	-	..
Cameroon	-	-	-	-	-	-	-	-	..
Congo	-	-	-	-	-	-	-	-	..
Côte d'Ivoire	-	-	-	-	-	-	-	-	..
Dem. Rep. of the Congo	-	-	-	-	-	-	-	-	..
Egypt	-	-	-	-	-	-	-	-	..
Eritrea	-	-	-	-	-	..
Ethiopia	-	-	-	0.00	-	0.02	-	-	..
Gabon	-	-	-	-	-	-	-	-	..
Ghana	-	-	-	-	-	-	-	-	..
Kenya	-	-	0.28	0.37	0.86	1.25	3.61	4.14	..
Libya	-	-	-	-	-	-	-	-	..
Mauritius	-	-	-	-	-	-	-	-	..
Morocco	-	-	-	-	-	-	-	-	..
Mozambique	-	-	-	-	-	-	-	-	..
Namibia	-	-	-	-	-	..
Niger	-	-	-	-	-	..
Nigeria	-	-	-	-	-	-	-	-	..
Senegal	-	-	-	-	-	-	-	-	..
South Africa	-	-	-	-	-	-	-	-	..
South Sudan
Sudan	-	-	-	-	-	-	-	-	..
United Rep. of Tanzania	-	-	-	-	-	-	-	-	..
Togo	-	-	-	-	-	-	-	-	..
Tunisia	-	-	-	-	-	-	-	-	..
Zambia	-	-	-	-	-	-	-	-	..
Zimbabwe	-	-	-	-	-	-	-	-	..
Other Africa	-	-	-	-	-	-	-	-	..
Africa	-	-	0.28	0.37	0.86	1.26	3.61	4.14	..

1. Please refer to section 'Geographical coverage'.

Production of geothermal energy (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	-	-	-	-	-	-	-	-	..
Brunei Darussalam	-	-	-	-	-	-	-	-	..
Cambodia	-	-	-	-	-	..
DPR of Korea	-	-	-	-	-	-	-	-	..
India	-	-	-	-	-	-	-	-	..
Indonesia	-	-	1.93	8.37	11.36	16.09	18.33	21.95	..
Malaysia	-	-	-	-	-	-	-	-	..
Mongolia	-	-	-	-	-	-	..
Myanmar	-	-	-	-	-	-	-	-	..
Nepal	-	-	-	-	-	-	-	-	..
Pakistan	-	-	-	-	-	-	-	-	..
Philippines	-	1.79	4.70	10.00	8.51	8.54	9.52	8.83	..
Singapore	-	-	-	-	-	-	-	-	..
Sri Lanka	-	-	-	-	-	-	-	-	..
Chinese Taipei	-	-	0.00	-	-	-	-	-	..
Thailand	-	-	0.00	0.00	0.00	0.00	0.00	0.00	..
Viet Nam	-	-	-	-	-	-	-	-	..
Other non-OECD Asia	-	-	-	-	-	-	-	-	..
Non-OECD Asia excl. China	-	1.79	6.64	18.37	19.87	24.63	27.84	30.78	..
People's Rep. of China	-	-	-	1.66	2.34	3.59	9.41	10.37	..
Hong Kong, China	-	-	-	-	-	-	-	-	..
China	-	-	-	1.66	2.34	3.59	9.41	10.37	..
Argentina	-	-	-	-	-	-	-	-	..
Bolivia	-	-	-	-	-	-	-	-	..
Brazil	-	-	-	-	-	-	-	-	..
Colombia	-	-	-	-	-	-	-	-	..
Costa Rica	-	-	-	0.47	0.83	0.98	1.15	0.96	..
Cuba	-	-	-	-	-	-	-	-	..
Curaçao ¹	-	-	-	-	-	-	-	-	..
Dominican Republic	-	-	-	-	-	-	-	-	..
Ecuador	-	-	-	0.00	0.00	0.00	0.00	0.00	..
El Salvador	-	0.42	0.36	0.68	0.90	1.31	1.36	1.35	..
Guatemala	-	-	-	0.02	0.14	0.23	0.29	0.26	..
Haiti	-	-	-	-	-	-	-	-	..
Honduras	-	-	-	-	-	-	-	0.08	..
Jamaica	-	-	-	-	-	-	-	-	..
Nicaragua	-	-	0.33	0.12	0.23	0.26	0.61	0.65	..
Panama	-	-	-	-	-	-	-	-	..
Paraguay	-	-	-	-	-	-	-	-	..
Peru	-	-	-	-	-	-	-	-	..
Suriname	-	-	-	-	-	..
Trinidad and Tobago	-	-	-	-	-	-	-	-	..
Uruguay	-	-	-	-	-	-	-	-	..
Venezuela	-	-	-	-	-	-	-	-	..
Other non-OECD Americas	-	-	-	-	-	-	-	-	..
Non-OECD Americas	-	0.42	0.69	1.28	2.11	2.79	3.41	3.30	..
Bahrain	-	-	-	-	-	-	-	-	..
Islamic Republic of Iran	-	-	-	-	-	-	-	-	..
Iraq	-	-	-	-	-	-	-	-	..
Jordan	-	-	-	-	-	-	-	-	..
Kuwait	-	-	-	-	-	-	-	-	..
Lebanon	-	-	-	-	-	-	-	-	..
Oman	-	-	-	-	-	-	-	-	..
Qatar	-	-	-	-	-	-	-	-	..
Saudi Arabia	-	-	-	-	-	-	-	-	..
Syrian Arab Republic	-	-	-	-	-	-	-	-	..
United Arab Emirates	-	-	-	-	-	-	-	-	..
Yemen	-	-	-	-	-	-	-	-	..
Middle East	-	-	-	-	-	-	-	-	..

1. Please refer to section 'Geographical coverage'.

Production of energy from solar, wind, tide, etc. (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	0.048	0.071	2.471	7.940	16.559	48.002	145.376	170.974	..
Non-OECD Total	-	-	0.120	1.497	4.140	15.853	64.721	78.435	..
OECD Total	0.048	0.071	2.350	6.444	12.419	32.149	80.655	92.539	102.212
Canada	-	-	0.002	0.027	0.139	0.811	2.944	2.826	2.926
Chile	-	-	-	-	0.001	0.032	0.479	0.689	0.798
Mexico	-	-	0.018	0.046	0.087	0.225	1.175	1.251	1.699
United States	-	-	0.321	2.075	2.951	10.527	26.458	30.485	34.807
OECD Americas	-	-	0.341	2.147	3.177	11.595	31.057	35.251	40.230
Australia	-	0.019	0.081	0.090	0.146	0.719	1.939	2.153	2.551
Israel ¹	-	-	0.358	0.596	0.725	1.129	0.518	0.531	0.551
Japan	-	-	1.174	0.848	0.841	1.060	4.713	5.524	6.701
Korea	-	-	0.010	0.044	0.047	0.183	0.755	1.001	1.201
New Zealand	-	-	0.033	0.043	0.098	0.179	0.238	0.223	0.218
OECD Asia Oceania	-	0.019	1.656	1.620	1.857	3.270	8.163	9.432	11.222
Austria	-	-	0.015	0.068	0.202	0.346	0.725	0.855	0.824
Belgium	-	-	0.001	0.002	0.022	0.171	0.758	0.868	1.013
Czech Republic	-	-	-	0.000	0.004	0.091	0.245	0.259	0.274
Denmark	-	0.002	0.055	0.373	0.579	0.688	1.210	1.391	1.343
Estonia	..	..	-	-	0.005	0.024	0.051	0.062	0.055
Finland	-	-	0.000	0.007	0.015	0.027	0.267	0.418	0.520
France	0.048	0.050	0.067	0.069	0.150	1.014	2.800	3.165	3.562
Germany	-	-	0.017	0.920	2.712	4.742	10.705	13.151	14.328
Greece	-	-	0.057	0.138	0.210	0.430	0.981	1.091	1.145
Hungary	-	-	-	-	0.003	0.051	0.153	0.176	0.189
Iceland	-	-	-	-	-	-	0.001	0.001	0.000
Ireland	-	-	0.000	0.021	0.096	0.250	0.541	0.654	0.741
Italy	-	-	0.005	0.061	0.232	1.083	3.622	3.831	3.671
Latvia	..	..	0.035	0.000	0.004	0.004	0.011	0.013	0.011
Lithuania	..	..	-	-	0.000	0.019	0.103	0.123	0.106
Luxembourg	-	-	-	0.002	0.006	0.007	0.019	0.032	0.033
Netherlands	-	-	0.022	0.104	0.220	0.385	0.880	1.136	1.284
Norway	-	-	..	0.003	0.043	0.076	0.182	0.245	0.333
Poland	-	-	-	0.000	0.012	0.153	1.145	1.351	1.186
Portugal	-	-	0.011	0.033	0.175	0.856	1.231	1.226	1.267
Slovak Republic	-	-	-	-	0.001	0.006	0.052	0.051	0.057
Slovenia	..	..	-	-	-	0.009	0.034	0.036	0.033
Spain	-	-	0.022	0.439	1.886	4.841	7.383	7.575	7.368
Sweden	-	-	0.004	0.045	0.086	0.311	1.354	1.545	1.475
Switzerland	-	-	0.003	0.014	0.021	0.046	0.183	0.216	0.233
Turkey	-	-	0.028	0.283	0.421	0.728	2.648	3.042	3.633
United Kingdom	-	-	0.011	0.093	0.280	0.926	4.150	5.343	6.076
OECD Europe	0.048	0.052	0.354	2.676	7.385	17.284	41.435	47.855	50.760
IEA	0.048	0.071	1.957	5.848	11.689	30.956	79.508	91.146	100.712
IEA/Accession/Association	0.048	0.071	2.001	7.050	15.405	45.964	140.509	165.387	..
European Union - 28	..	..	0.323	2.412	6.946	16.616	39.631	45.666	47.775
G7	0.048	0.050	1.598	4.092	7.303	20.164	55.392	64.325	72.070
G8	..	..	1.598	4.092	7.304	20.164	55.444	64.385	81.255
G20	..	..	2.001	7.024	15.281	45.788	140.196	164.750	..
OPEC	..	..	-	0.003	0.006	0.015	0.141	0.231	..

1. Please refer to section 'Geographical coverage'.

Production of energy from solar, wind, tide, etc. (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	-	-	0.120	1.497	4.140	15.853	64.721	78.435	..
Albania	-	-	-	0.001	0.002	0.007	0.013	0.013	0.014
Armenia	-	-	-	0.001	0.000	0.000	..
Azerbaijan	-	-	-	0.000	0.005	0.005	0.010
Belarus	-	-	0.000	0.000	0.009	0.016	0.025
Bosnia and Herzegovina	-	-	-	-	0.002	0.002	0.011
Bulgaria	-	-	-	-	0.000	0.070	0.264	0.273	0.253
Croatia	-	0.001	0.003	0.017	0.104	0.123	0.137
Cyprus ¹	-	-	-	0.035	0.041	0.064	0.101	0.103	0.107
Georgia	-	-	-	-	0.004	0.011	0.010
Gibraltar	-	-	-	-	-	-	-	-	..
Kazakhstan	-	-	-	-	0.031	0.037	0.047
Kosovo	0.000	0.000	0.000	0.000	0.000	0.003
Kyrgyzstan	-	-	-	-	-	-	-
Malta	-	-	-	-	0.001	0.004	0.016	0.018	0.021
Republic of Moldova	-	-	-	-	0.000	0.001	0.002
Montenegro	-	-	0.000	0.009	0.014
North Macedonia, Republic of	-	-	-	-	0.011	0.012	0.008
Romania	-	-	-	0.026	0.724	0.797	0.697
Russian Federation	-	0.000	0.001	0.000	0.052	0.060	9.185
Serbia	-	-	-	-	0.003	0.005	0.014
Tajikistan	-	-	-	-	-	-	..
Turkmenistan	-	-	-	-	-	-	..
Ukraine	-	0.001	0.003	0.004	0.124	0.149	0.155
Uzbekistan	-	-	-	-	-	-	..
Former Soviet Union	-	-	x	x	x	x	x	x	x
Former Yugoslavia	-	-	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	-	-	-	0.039	0.052	0.194	1.465	1.635	..
Algeria	-	-	-	-	-	-	0.010	0.050	..
Angola	-	-	-	-	-	-	-	-	..
Benin	-	-	-	-	-	-	0.000	0.000	..
Botswana	0.001	0.001	0.000	-	0.000	0.000	..
Cameroon	-	-	-	-	-	0.000	0.001	0.001	..
Congo	-	-	-	-	-	-	0.050	0.050	..
Côte d'Ivoire	-	-	-	-	-	-	-	-	..
Dem. Rep. of the Congo	-	-	-	-	-	-	-	-	..
Egypt	-	-	-	0.012	0.047	0.147	0.239	0.239	..
Eritrea	0.000	0.000	0.000	0.000	0.000	..
Ethiopia	-	-	-	-	-	0.001	0.077	0.084	..
Gabon	-	-	-	-	-	-	0.000	0.000	..
Ghana	-	-	-	-	-	-	0.002	0.002	..
Kenya	-	-	-	0.001	0.001	0.003	0.009	0.008	..
Libya	-	-	-	-	0.000	0.001	0.001	0.001	..
Mauritius	-	-	-	-	-	0.000	0.004	0.008	..
Morocco	-	-	-	0.006	0.018	0.057	0.362	0.369	..
Mozambique	-	-	-	-	-	-	0.000	0.000	..
Namibia	-	0.000	0.002	0.003	0.003	..
Niger	-	0.000	0.000	0.000	0.000	..
Nigeria	-	-	-	-	-	-	0.002	0.002	..
Senegal	-	-	-	0.000	0.000	0.000	0.007	0.012	..
South Africa	-	-	-	-	0.019	0.069	0.789	0.999	..
South Sudan	0.000	0.000	..
Sudan	-	-	-	-	-	-	-	-	..
United Rep. of Tanzania	-	-	-	-	0.000	0.001	0.002	0.002	..
Togo	-	-	-	-	-	-	-	-	..
Tunisia	-	-	-	0.002	0.004	0.039	0.100	0.103	..
Zambia	-	-	-	-	-	-	-	-	..
Zimbabwe	-	-	-	-	-	-	-	-	..
Other Africa	-	-	-	0.001	0.001	0.008	0.022	0.022	..
Africa	-	-	0.001	0.021	0.090	0.328	1.682	1.956	..

1. Please refer to section 'Geographical coverage'.

Production of energy from solar, wind, tide, etc. (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	-	-	-	-	-	-	0.015	0.016	..
Brunei Darussalam	-	-	-	-	-	-	0.000	0.000	..
Cambodia	0.000	0.000	0.000	0.000	0.000	..
DPR of Korea	-	-	-	-	-	-	-	-	..
India	-	-	0.010	0.180	0.631	1.993	6.169	7.479	..
Indonesia	-	-	-	-	-	0.000	0.002	0.003	0.016
Malaysia	-	-	-	-	0.000	-	0.027	0.028	..
Mongolia	-	-	-	0.001	0.014	0.029	..
Myanmar	-	-	-	-	-	-	0.001	0.001	..
Nepal	-	-	-	-	-	-	0.001	0.001	..
Pakistan	-	-	-	-	-	-	0.163	0.247	..
Philippines	-	-	-	-	0.002	0.005	0.178	0.197	..
Singapore	-	-	-	-	-	0.000	0.013	0.015	..
Sri Lanka	-	-	-	0.001	0.001	0.006	0.032	0.044	..
Chinese Taipei	-	-	0.018	0.071	0.098	0.191	0.326	0.398	..
Thailand	-	-	-	-	-	0.004	0.327	0.495	..
Viet Nam	-	-	-	-	-	0.004	0.019	0.028	..
Other non-OECD Asia	-	-	-	0.017	0.018	0.023	0.010	0.011	..
Non-OECD Asia excl. China	-	-	0.028	0.270	0.750	2.228	7.296	8.991	..
People's Rep. of China	-	-	0.033	0.986	2.937	12.297	49.207	59.643	43.794
Hong Kong, China	-	-	-	-	-	0.000	0.000	0.000	..
China	-	-	0.033	0.986	2.937	12.297	49.207	59.643	..
Argentina	-	-	-	0.003	0.006	0.002	0.049	0.054	..
Bolivia	-	-	-	-	-	0.000	0.004	0.006	..
Brazil	-	-	-	0.031	0.110	0.556	3.653	4.549	5.375
Colombia	-	-	-	-	0.004	0.003	0.004	0.000	..
Costa Rica	-	-	-	0.016	0.018	0.031	0.099	0.111	..
Cuba	-	-	-	0.000	0.000	0.001	0.005	0.007	..
Curaçao ¹	-	-	-	0.001	0.006	0.005	0.020	0.030	..
Dominican Republic	-	-	-	0.003	0.004	0.005	0.041	0.053	..
Ecuador	-	-	-	-	-	0.000	0.011	0.010	..
El Salvador	-	-	-	-	-	-	0.002	0.014	..
Guatemala	-	-	-	-	-	-	0.035	0.036	..
Haiti	-	-	-	-	-	-	-	0.000	..
Honduras	-	-	-	-	-	-	0.125	0.129	..
Jamaica	-	-	-	-	0.004	0.005	0.017	0.029	..
Nicaragua	-	-	-	-	-	0.014	0.063	0.056	..
Panama	-	-	-	-	-	-	0.060	0.056	..
Paraguay	-	-	-	-	-	-	-	-	..
Peru	-	-	-	0.053	0.056	0.006	0.145	0.150	..
Suriname	-	-	-	0.001	0.001	..
Trinidad and Tobago	-	-	-	-	0.000	0.000	0.000	0.000	..
Uruguay	-	-	-	-	-	0.006	0.271	0.348	..
Venezuela	-	-	-	-	-	0.000	0.008	0.008	..
Other non-OECD Americas	-	-	-	0.002	0.021	0.017	0.014	0.000	..
Non-OECD Americas	-	-	-	0.109	0.229	0.652	4.627	5.647	..
Bahrain	-	-	-	-	-	-	-	-	..
Islamic Republic of Iran	-	-	-	0.003	0.006	0.014	0.022	0.034	..
Iraq	-	-	-	-	-	-	-	-	..
Jordan	-	-	0.058	0.065	0.067	0.124	0.238	0.284	..
Kuwait	-	-	-	-	-	-	0.000	0.000	..
Lebanon	-	-	-	0.004	0.007	0.015	0.049	0.057	..
Oman	-	-	-	-	-	-	-	-	..
Qatar	-	-	-	-	-	-	-	-	..
Saudi Arabia	-	-	-	-	-	-	0.011	0.013	..
Syrian Arab Republic	-	-	-	-	-	-	-	-	..
United Arab Emirates	-	-	-	-	-	-	0.076	0.113	..
Yemen	-	-	-	-	-	0.000	0.047	0.063	..
Middle East	-	-	0.058	0.072	0.081	0.154	0.443	0.564	..

1. Please refer to section 'Geographical coverage'.

Production of biofuels and waste (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	636.66	736.71	901.64	1 011.04	1 081.08	1 200.07	1 308.16	1 324.11	..
Non-OECD Total	549.35	626.09	751.55	825.60	868.27	935.54	1 002.66	1 011.24	..
OECD Total	..	110.62	150.09	185.44	212.81	264.53	305.50	312.87	320.68
Canada	7.82	7.65	10.89	13.88	14.61	13.22	13.05	13.56	13.28
Chile	1.33	1.79	3.13	4.72	4.83	4.90	7.78	8.09	7.88
Mexico	6.21	6.88	8.55	8.94	8.88	8.12	8.67	9.08	9.35
United States	37.50	54.50	62.27	73.19	75.50	90.13	102.11	102.60	110.64
OECD Americas	..	70.82	84.85	100.73	103.82	116.37	131.61	133.32	141.15
Australia	3.53	3.61	3.96	5.04	5.10	4.90	5.15	5.38	5.00
Israel ¹	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.03	0.03
Japan	-	-	4.54	5.32	8.12	11.28	12.83	14.02	13.12
Korea	-	-	0.71	1.35	2.12	3.46	6.41	7.19	7.93
New Zealand	..	0.52	0.78	1.16	1.32	1.24	1.20	1.26	1.23
OECD Asia Oceania	..	4.14	10.00	12.87	16.67	20.90	25.61	27.88	27.31
Austria	0.70	1.13	2.46	3.17	3.98	5.41	6.13	6.13	6.04
Belgium	0.01	0.06	0.75	0.93	1.33	2.80	2.94	2.92	2.85
Czech Republic	-	-	1.05	1.55	2.24	3.12	4.17	4.21	4.37
Denmark	0.35	0.64	1.14	1.69	2.34	2.82	2.81	2.97	2.93
Estonia	..	..	0.19	0.51	0.69	0.96	1.48	1.57	1.58
Finland	3.92	3.48	4.33	6.55	7.07	8.44	9.18	9.71	10.04
France	9.79	8.64	10.99	10.76	12.08	15.52	17.08	17.20	17.16
Germany	2.50	4.42	4.80	7.88	14.25	24.99	31.25	30.92	29.88
Greece	0.45	0.45	0.89	1.01	1.01	0.92	1.10	1.05	1.16
Hungary	0.59	0.53	0.70	0.76	1.65	2.67	3.09	3.05	2.89
Iceland	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00
Ireland	-	-	0.11	0.14	0.22	0.33	0.44	0.56	0.63
Italy	0.24	0.82	0.85	1.74	5.88	10.18	11.91	12.58	12.38
Latvia	..	..	0.68	1.15	1.57	1.67	2.22	2.20	2.63
Lithuania	..	..	0.28	0.65	0.86	1.11	1.41	1.51	1.46
Luxembourg	..	0.02	0.02	0.05	0.09	0.11	0.13	0.15	0.17
Netherlands	..	0.23	0.97	1.94	2.48	3.40	4.45	4.90	4.93
Norway	..	0.58	1.03	1.36	1.35	1.51	1.37	1.51	1.48
Poland	1.29	1.22	2.23	3.73	4.49	6.83	8.40	8.33	7.92
Portugal	0.64	0.72	2.48	2.77	2.97	3.38	3.26	3.29	3.26
Slovak Republic	0.18	0.18	0.17	0.42	0.50	0.97	1.37	1.38	1.37
Slovenia	..	..	0.24	0.46	0.49	0.69	0.68	0.67	0.67
Spain	0.01	0.27	4.07	4.13	5.11	6.31	7.41	8.02	8.22
Sweden	3.54	4.13	5.51	8.26	8.86	11.25	11.30	11.43	10.87
Switzerland	0.24	0.47	1.48	1.82	2.05	2.33	2.52	2.55	2.51
Turkey	6.45	7.68	7.21	6.50	5.33	4.53	3.12	3.03	3.04
United Kingdom	-	-	0.63	1.92	3.44	5.00	9.08	9.81	11.78
OECD Europe	..	35.66	55.24	71.84	92.32	127.26	148.28	151.67	152.23
IEA	..	108.82	145.75	178.45	205.06	256.13	293.38	300.37	308.01
IEA/Accession/Association	426.59	495.62	599.95	652.80	678.76	745.69	783.20	789.68	..
European Union - 28	..	..	47.17	66.59	88.93	125.23	148.07	151.40	..
G7	57.85	76.03	94.96	114.68	133.88	170.32	197.30	200.69	208.23
G8	..	..	107.15	121.69	140.83	177.28	205.44	208.40	217.85
G20	..	..	594.57	644.43	667.04	731.92	764.36	772.41	..
OPEC	..	..	59.37	77.26	91.45	109.57	126.02	128.89	..

1. Please refer to section 'Geographical coverage'.

Production of biofuels and waste (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	549.35	626.09	751.55	825.60	868.27	935.54	1 002.66	1 011.24	..
Albania	0.38	0.38	0.36	0.26	0.23	0.21	0.19	0.17	..
Armenia	..	..	0.01	0.01	0.01	0.01	0.12	0.13	..
Azerbaijan	..	..	0.02	0.02	0.03	0.09	0.10	0.10	..
Belarus	..	..	0.23	0.94	1.26	1.54	1.44	1.58	..
Bosnia and Herzegovina	..	..	0.16	0.18	0.18	0.18	0.73	0.68	..
Bulgaria	0.24	0.20	0.17	0.56	0.78	0.98	1.31	1.33	..
Croatia	..	..	0.86	1.00	1.25	1.37	1.59	1.62	..
Cyprus ¹	0.01	0.01	0.01	0.01	0.01	0.02	0.03	0.03	..
Georgia	..	..	0.47	0.65	0.35	0.36	0.39	0.36	..
Gibraltar	-	-	-	-	-	-	-	-	..
Kazakhstan	..	..	0.11	0.07	0.01	0.05	0.10	0.06	..
Kosovo	..	..	..	0.16	0.17	0.24	0.35	0.37	..
Kyrgyzstan	..	..	0.01	0.00	0.00	0.00	0.00	0.00	..
Malta	-	-	-	-	-	0.00	0.00	0.00	..
Republic of Moldova	..	..	0.06	0.06	0.07	0.51	0.70	0.76	..
Montenegro	..	..	..	..	0.15	0.16	0.19	0.21	..
North Macedonia, Republic of	..	..	-	0.21	0.20	0.19	0.19	0.20	..
Romania	1.37	0.96	0.60	2.85	3.31	3.98	3.86	3.85	..
Russian Federation	..	..	12.18	7.01	6.95	6.96	8.13	7.71	9.62
Serbia	..	..	1.17	0.87	0.90	1.05	1.11	1.10	..
Tajikistan	..	..	-	-	-	-	-	-	..
Turkmenistan	..	..	-	0.00	0.00	0.00	0.00	0.00	..
Ukraine	..	..	0.36	0.26	0.26	1.67	3.35	3.57	..
Uzbekistan	..	..	0.00	0.00	0.00	0.00	0.00	0.00	..
Former Soviet Union	19.48	18.41	x	x	x	x	x	x	x
Former Yugoslavia	0.89	0.72	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	22.36	20.66	16.80	15.13	16.13	19.56	23.90	23.85	..
Algeria	0.01	0.01	0.01	0.05	0.07	0.05	0.01	0.01	..
Angola	3.23	3.60	4.32	4.92	5.16	5.63	6.19	6.28	..
Benin	1.04	1.21	1.56	1.45	1.67	2.10	2.66	2.73	..
Botswana	..	..	0.42	0.54	0.46	0.49	0.55	0.56	..
Cameroon	2.46	2.97	3.82	4.99	5.87	4.43	6.37	6.54	..
Congo	0.33	0.38	0.47	0.48	0.66	0.91	1.55	1.60	..
Côte d'Ivoire	1.74	2.23	3.18	4.22	7.17	5.84	6.40	6.32	..
Dem. Rep. of the Congo	5.88	7.22	10.00	13.22	15.75	18.63	28.21	28.17	..
Egypt	0.68	0.79	1.06	1.33	1.46	1.59	1.81	1.85	..
Eritrea	..	..	..	0.51	0.50	0.58	0.66	0.67	..
Ethiopia	10.91	12.40	16.90	23.39	26.97	31.00	36.29	37.22	..
Gabon	0.51	0.59	0.74	0.92	2.32	4.04	3.78	3.73	..
Ghana	2.29	2.85	3.90	3.89	3.18	3.21	3.60	3.90	..
Kenya	4.38	5.69	8.18	10.95	12.55	14.41	16.85	17.28	..
Libya	0.11	0.13	0.13	0.14	0.15	0.15	0.14	0.14	..
Mauritius	0.27	0.24	0.29	0.26	0.25	0.23	0.22	0.21	..
Morocco	0.68	0.80	0.99	1.22	2.15	1.51	1.35	1.34	..
Mozambique	5.88	5.94	5.56	6.42	7.05	5.20	6.77	6.76	..
Namibia	..	..	..	0.26	0.28	0.30	0.36	0.36	..
Niger	..	..	..	1.24	1.46	1.71	2.29	2.38	..
Nigeria	32.63	39.34	52.43	69.67	81.75	97.66	114.07	116.93	..
Senegal	0.84	0.89	0.96	1.16	1.19	2.02	1.54	1.57	..
South Africa	5.14	6.33	10.58	10.78	7.12	6.84	6.90	6.96	..
South Sudan	..	..	..	..	..	..	0.19	0.16	..
Sudan	5.88	7.04	8.69	10.87	11.38	11.04	11.45	11.54	..
United Rep. of Tanzania	6.89	7.24	8.93	12.46	13.52	14.80	16.54	16.84	..
Togo	0.64	0.75	1.05	1.76	1.99	2.36	2.77	2.84	..
Tunisia	0.43	0.50	0.64	0.93	1.12	1.06	1.08	1.08	..
Zambia	2.32	2.96	4.03	5.18	6.05	7.24	8.83	9.11	..
Zimbabwe	3.17	3.66	4.73	5.59	6.02	6.69	7.78	7.96	..
Other Africa	19.67	23.25	35.99	41.47	49.07	56.69	62.95	64.76	..
Africa	117.99	138.99	189.56	240.26	274.34	308.43	360.18	367.79	..

1. Please refer to section 'Geographical coverage'.

Production of biofuels and waste (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	4.79	5.65	6.86	7.62	8.30	8.81	9.43	9.53	..
Brunei Darussalam	0.01	0.01	0.00	-	-	-	-	-	..
Cambodia	..	..	..	2.72	2.49	3.62	4.34	4.46	..
DPR of Korea	0.72	0.86	0.95	1.00	1.04	1.07	1.11	1.11	..
India	100.24	116.48	133.48	148.85	159.34	185.25	188.04	187.14	..
Indonesia	26.94	30.29	43.57	50.06	50.11	51.23	58.40	58.60	..
Malaysia	1.19	1.17	1.23	1.28	1.11	0.91	0.83	0.84	..
Mongolia	..	..	0.08	0.13	0.17	0.18	0.14	0.14	..
Myanmar	6.68	7.57	9.02	9.19	10.13	10.48	10.87	10.93	..
Nepal	3.75	4.39	5.43	6.99	7.93	8.59	9.62	9.78	..
Pakistan	11.33	14.03	18.77	24.01	26.67	29.56	33.81	34.57	..
Philippines	7.87	9.43	11.12	8.10	7.16	6.80	8.10	8.33	..
Singapore	-	-	0.07	0.20	0.39	0.59	0.66	0.64	..
Sri Lanka	2.79	3.08	3.92	4.47	4.62	5.05	4.69	4.61	..
Chinese Taipei	-	-	-	0.61	1.16	1.31	1.48	1.51	..
Thailand	7.91	10.65	14.69	14.60	17.16	22.57	28.13	26.29	..
Viet Nam	8.66	10.14	12.47	14.19	14.79	14.71	14.93	14.65	..
Other non-OECD Asia	2.47	2.75	3.28	4.17	4.31	4.31	4.30	4.40	..
Non-OECD Asia excl. China	185.35	216.51	264.96	298.20	316.90	355.06	378.90	377.54	..
People's Rep. of China	161.76	179.97	200.45	198.17	168.39	133.30	112.94	113.84	..
Hong Kong, China	0.03	0.04	0.04	0.05	0.05	0.10	0.10	0.10	..
China	161.79	180.01	200.49	198.22	168.45	133.40	113.04	113.94	..
Argentina	2.10	2.15	1.72	2.96	2.27	4.00	4.83	5.38	..
Bolivia	0.23	0.74	0.75	0.70	0.72	0.89	1.13	1.00	..
Brazil	36.62	40.48	47.23	45.75	64.20	83.36	85.62	86.42	89.81
Colombia	3.40	4.73	5.52	3.43	3.24	3.78	5.21	4.79	..
Costa Rica	0.27	0.31	0.39	0.25	0.64	0.71	0.62	0.59	..
Cuba	3.59	4.26	6.66	3.70	2.02	1.24	1.32	1.66	..
Curaçao ¹	-	-	-	-	-	-	-	-	..
Dominican Republic	1.16	1.28	0.91	0.84	0.83	0.83	0.84	0.91	..
Ecuador	1.05	0.98	0.95	0.74	0.67	0.48	0.56	0.57	..
El Salvador	1.29	1.41	1.19	0.57	0.74	0.81	0.48	0.56	..
Guatemala	2.02	2.35	3.03	3.89	3.99	7.11	8.43	8.08	..
Haiti	1.46	1.86	1.21	1.52	2.72	3.11	3.35	3.39	..
Honduras	1.03	1.25	1.50	1.34	1.72	1.96	2.55	2.53	..
Jamaica	0.24	0.21	0.31	0.26	0.26	0.27	0.31	0.31	..
Nicaragua	0.73	0.86	1.05	1.21	1.24	1.26	1.52	1.49	..
Panama	0.33	0.44	0.41	0.28	0.31	0.31	0.32	0.32	..
Paraguay	1.25	1.55	2.24	2.24	2.18	2.47	3.14	3.18	..
Peru	3.51	3.43	2.67	2.23	2.27	3.04	2.48	2.98	..
Suriname	..	..	..	0.04	0.02	0.03	0.03	0.03	..
Trinidad and Tobago	0.02	0.03	0.07	0.02	0.04	0.01	0.01	0.01	..
Uruguay	0.40	0.47	0.55	0.42	0.45	1.32	2.13	2.18	..
Venezuela	0.41	0.36	0.51	0.57	0.64	0.82	0.66	0.61	..
Other non-OECD Americas	0.42	0.43	0.42	0.41	0.41	0.38	0.29	0.29	..
Non-OECD Americas	61.54	69.60	79.31	73.39	91.57	118.20	125.81	127.28	..
Bahrain	-	-	-	-	-	-	-	-	..
Islamic Republic of Iran	0.15	0.14	0.22	0.15	0.58	0.62	0.51	0.52	..
Iraq	0.01	0.02	0.02	0.03	0.04	0.04	0.05	0.05	..
Jordan	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.02	..
Kuwait	0.00	0.00	0.00	-	-	-	-	-	..
Lebanon	0.10	0.10	0.10	0.13	0.16	0.12	0.12	0.12	..
Oman	-	-	-	-	-	-	-	-	..
Qatar	-	-	-	-	-	-	-	-	..
Saudi Arabia	-	-	-	-	-	-	-	-	..
Syrian Arab Republic	0.00	0.01	0.00	0.01	0.01	0.01	0.01	0.01	..
United Arab Emirates	-	-	-	-	-	-	-	-	..
Yemen	0.05	0.06	0.08	0.08	0.09	0.10	0.12	0.12	..
Middle East	0.32	0.33	0.42	0.40	0.88	0.90	0.83	0.83	..

1. Please refer to section 'Geographical coverage'.

Total production of energy (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	6 209.77	7 297.01	8 800.74	10 018.52	11 545.53	12 786.90	13 731.93	14 034.90	..
Non-OECD Total	3 752.16	4 383.64	5 350.30	6 173.27	7 686.22	8 890.66	9 665.40	9 853.82	..
OECD Total	2 457.60	2 913.38	3 450.44	3 845.24	3 859.30	3 896.25	4 066.53	4 181.07	4 379.87
Canada	198.24	207.17	276.46	374.90	401.96	398.39	479.74	509.65	526.59
Chile	5.08	5.80	7.93	8.58	9.34	9.21	12.55	12.97	13.49
Mexico	47.28	147.04	195.54	229.31	263.50	222.54	180.48	164.88	158.75
United States	1 456.38	1 553.39	1 652.61	1 667.39	1 631.13	1 724.48	1 915.69	1 992.57	2 176.60
OECD Americas	1 706.97	1 913.40	2 132.54	2 280.17	2 305.93	2 354.62	2 588.46	2 680.07	2 875.42
Australia	67.99	85.41	157.53	233.56	265.17	323.36	388.85	405.15	410.87
Israel ¹	6.15	0.15	0.42	0.64	2.08	3.86	8.28	8.96	9.10
Japan	29.51	43.29	74.50	104.86	102.17	101.53	34.93	41.26	49.44
Korea	6.76	9.27	22.62	34.44	42.98	44.95	51.43	49.09	46.12
New Zealand	3.91	5.47	11.56	14.34	12.89	16.91	16.20	16.02	15.28
OECD Asia Oceania	114.32	143.60	266.63	387.84	425.29	490.61	499.69	520.48	530.82
Austria	7.92	7.63	8.14	9.80	9.68	11.55	12.09	12.11	11.70
Belgium	6.51	8.09	13.10	13.73	13.90	15.57	15.33	15.09	11.68
Czech Republic	38.51	41.21	41.17	30.84	33.23	32.07	27.38	27.73	27.69
Denmark	0.43	0.95	10.08	27.74	31.32	23.35	15.19	15.64	13.79
Estonia	..	..	5.23	3.18	3.87	4.93	5.19	5.79	5.87
Finland	4.88	6.91	12.08	14.94	16.71	17.49	17.75	18.17	19.33
France	44.18	52.60	111.89	130.64	137.17	135.65	131.46	129.80	135.24
Germany	171.66	185.63	186.16	135.22	137.10	128.93	115.92	114.95	111.56
Greece	2.33	3.70	9.20	9.99	10.32	9.43	6.71	7.20	7.39
Hungary	12.70	14.49	14.69	11.62	10.87	11.87	11.47	11.33	11.18
Iceland	0.54	0.90	1.62	2.41	2.38	4.79	4.59	4.79	5.07
Ireland	1.12	1.89	3.47	2.16	1.70	1.87	4.20	4.86	4.98
Italy	20.39	19.90	25.32	28.17	30.21	33.00	33.52	34.02	35.25
Latvia	..	..	1.16	1.41	1.86	1.98	2.45	2.59	2.85
Lithuania	..	..	4.93	3.40	4.06	1.52	1.85	2.03	1.93
Luxembourg	0.00	0.03	0.03	0.06	0.11	0.13	0.16	0.19	0.21
Netherlands	56.78	71.84	60.57	58.49	62.48	71.19	46.10	41.78	36.54
Norway	8.06	55.09	119.48	228.03	224.40	203.03	208.05	215.04	206.43
Poland	107.41	126.64	103.88	79.24	78.35	67.08	66.65	64.24	61.81
Portugal	1.40	1.48	3.39	3.85	3.61	5.80	6.01	5.26	5.84
Slovak Republic	2.57	3.47	5.28	6.33	6.61	6.21	6.45	6.58	6.31
Slovenia	..	..	3.07	3.10	3.51	3.79	3.59	3.66	3.57
Spain	11.35	15.77	34.61	31.56	30.16	34.43	34.15	33.63	34.02
Sweden	9.25	16.13	29.68	30.52	34.57	32.85	34.72	35.95	35.09
Switzerland	4.28	7.03	10.22	11.92	10.86	12.37	11.22	11.04	12.43
Turkey	15.53	17.14	24.83	26.40	23.71	31.63	36.10	36.88	41.33
United Kingdom	108.52	197.86	208.01	272.50	205.34	148.51	120.07	120.15	124.53
OECD Europe	636.32	856.38	1 051.27	1 177.23	1 128.09	1 051.02	978.38	980.52	973.62
IEA	2 445.83	2 906.52	3 431.30	3 825.71	3 836.07	3 871.10	4 033.23	4 146.06	4 343.86
IEA/Accession/Association	3 222.28	3 984.14	5 016.04	5 883.08	6 601.20	7 473.94	7 915.11	8 140.18	..
European Union - 28	..	..	950.59	950.99	910.10	842.51	759.17	754.39	..
G7	2 028.87	2 259.83	2 534.93	2 713.68	2 645.08	2 670.49	2 831.32	2 942.40	3 159.20
G8	..	..	3 828.15	3 691.79	3 848.46	3 950.01	4 204.99	4 371.65	..
G20	..	..	6 613.52	7 162.02	8 197.67	9 100.51	9 753.83	10 007.24	..
OPEC	..	..	1 378.75	1 910.75	2 244.32	2 354.10	2 684.17	2 683.72	..

1. Please refer to section 'Geographical coverage'.

Total production of energy (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	3 752.16	4 383.64	5 350.30	6 173.27	7 686.22	8 890.66	9 665.40	9 853.82	..
Albania	3.02	3.45	2.46	0.99	1.13	1.62	1.96	1.63	..
Armenia	..	..	0.15	0.64	0.87	0.88	0.95	1.01	..
Azerbaijan	..	..	20.78	18.81	27.25	65.52	57.27	54.43	..
Belarus	..	..	3.39	3.52	3.83	4.02	3.65	3.95	..
Bosnia and Herzegovina	..	..	4.60	3.08	3.64	4.37	4.74	4.64	..
Bulgaria	5.47	7.74	9.32	9.89	10.65	10.59	11.32	11.77	..
Croatia	..	..	5.70	4.26	4.76	5.15	4.42	4.21	..
Cyprus ¹	0.01	0.01	0.01	0.04	0.05	0.09	0.13	0.13	..
Georgia	..	..	2.02	1.32	0.98	1.31	1.38	1.33	..
Gibraltar	-	-	-	-	-	-	-	-	..
Kazakhstan	..	..	90.98	78.58	118.65	156.88	162.69	179.98	..
Kosovo	..	..	..	1.10	1.40	1.86	2.02	1.79	..
Kyrgyzstan	..	..	2.50	1.37	1.32	1.27	1.83	2.09	..
Malta	-	-	-	-	0.00	0.00	0.02	0.02	..
Republic of Moldova	..	..	0.08	0.09	0.11	0.55	0.72	0.79	..
Montenegro	..	..	..	..	0.59	0.83	0.66	0.63	..
North Macedonia, Republic of	..	..	1.26	1.53	1.63	1.61	1.11	1.16	..
Romania	46.25	52.60	40.46	28.33	27.91	27.48	24.87	25.50	..
Russian Federation	..	..	1 293.22	978.11	1 203.37	1 279.51	1 373.68	1 429.25	1 464.00
Serbia	..	..	13.60	11.69	10.24	10.55	10.70	10.50	..
Tajikistan	..	..	2.03	1.26	1.55	1.54	2.26	2.54	..
Turkmenistan	..	..	73.02	45.98	61.62	47.26	77.04	76.86	..
Ukraine	..	..	135.79	76.44	79.16	78.92	63.60	58.86	..
Uzbekistan	..	..	38.66	54.87	56.55	54.91	50.40	50.68	..
Former Soviet Union	991.32	1 358.73	x	x	x	x	x	x	x
Former Yugoslavia	14.68	18.82	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	1 060.76	1 441.34	1 740.01	1 321.91	1 617.26	1 756.74	1 857.42	1 923.77	..
Algeria	56.49	65.74	100.11	142.23	166.67	150.53	153.28	152.85	..
Angola	11.68	11.30	28.65	43.06	69.63	96.82	95.01	91.91	..
Benin	1.04	1.21	1.77	1.45	1.67	2.10	2.66	2.73	..
Botswana	..	..	0.87	1.08	1.01	1.05	1.61	1.81	..
Cameroon	2.55	6.71	10.98	11.15	10.78	8.41	11.92	11.30	..
Congo	2.44	3.82	8.75	14.47	13.63	17.52	14.60	16.60	..
Côte d'Ivoire	1.76	2.42	3.38	6.01	10.63	9.31	9.94	10.38	..
Dem. Rep. of the Congo	6.28	8.58	12.02	14.91	17.66	20.44	30.00	30.19	..
Egypt	9.84	33.48	54.87	53.09	78.00	84.50	70.17	78.27	..
Eritrea	..	..	..	0.51	0.50	0.58	0.66	0.67	..
Ethiopia	10.94	12.44	17.00	23.54	27.22	31.46	37.38	38.41	..
Gabon	8.64	9.53	14.42	14.63	16.05	17.03	15.88	14.30	..
Ghana	2.63	3.31	4.39	4.46	3.67	4.01	9.24	13.46	..
Kenya	4.41	5.78	8.67	11.43	13.67	15.95	20.76	21.70	..
Libya	112.56	96.55	73.17	75.96	97.79	103.78	29.08	53.95	..
Mauritius	0.27	0.25	0.30	0.26	0.26	0.24	0.23	0.22	..
Morocco	1.24	1.41	1.45	1.35	2.30	1.92	1.89	1.87	..
Mozambique	6.13	6.09	5.61	7.26	10.08	9.37	16.21	19.67	..
Namibia	..	..	..	0.38	0.42	0.41	0.47	0.50	..
Niger	..	..	..	1.29	1.51	1.79	3.10	3.23	..
Nigeria	136.89	144.86	146.30	197.93	233.55	253.98	241.08	249.31	..
Senegal	0.84	0.89	0.96	1.19	1.27	2.09	1.61	1.65	..
South Africa	40.36	73.17	114.54	143.53	151.20	155.94	157.54	157.99	..
South Sudan	..	..	..	..	..	..	6.19	5.72	..
Sudan	5.91	7.09	8.78	19.98	27.02	35.10	17.67	17.42	..
United Rep. of Tanzania	6.91	7.30	9.07	12.69	14.02	15.68	17.62	18.04	..
Togo	0.64	0.75	1.05	1.77	2.00	2.37	2.78	2.85	..
Tunisia	4.54	6.67	5.73	6.63	6.68	8.33	6.04	5.52	..
Zambia	3.15	4.08	4.94	5.96	6.90	8.14	9.97	10.63	..
Zimbabwe	5.28	5.79	8.55	8.76	8.78	9.06	9.09	10.19	..
Other Africa	19.95	23.79	36.41	48.12	79.40	85.19	90.85	91.94	..
Africa	463.38	543.01	682.74	875.09	1 073.98	1 153.09	1 084.52	1 135.28	..

1. Please refer to section 'Geographical coverage'.

Total production of energy (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	5.34	6.75	10.76	15.16	19.38	26.10	33.54	33.71	..
Brunei Darussalam	13.16	21.14	15.64	19.69	21.06	18.58	15.15	15.60	..
Cambodia	..	..	..	2.72	2.50	3.62	4.57	4.73	..
DPR of Korea	19.05	27.21	28.91	18.79	22.04	16.73	21.29	15.43	..
India	144.07	181.11	280.49	350.79	400.71	503.81	551.08	554.44	..
Indonesia	94.89	125.05	168.57	237.51	279.64	378.39	434.37	448.37	..
Malaysia	5.81	17.24	47.75	76.96	94.84	88.39	96.41	95.85	..
Mongolia	..	..	2.74	1.95	3.85	15.68	20.82	25.15	..
Myanmar	7.81	9.52	10.66	15.42	22.14	22.44	28.53	28.85	..
Nepal	3.76	4.40	5.50	7.14	8.15	8.88	10.00	10.19	..
Pakistan	15.59	20.93	34.18	46.90	61.05	65.04	66.74	65.40	..
Philippines	8.04	12.18	17.23	19.55	21.40	23.55	28.46	28.41	..
Singapore	-	-	0.07	0.20	0.39	0.59	0.67	0.65	..
Sri Lanka	2.85	3.21	4.19	4.75	4.92	5.54	5.08	5.00	..
Chinese Taipei	3.76	5.82	10.65	11.79	12.48	12.95	10.86	8.42	..
Thailand	8.16	11.18	26.58	43.95	55.20	70.59	79.49	75.65	..
Viet Nam	10.37	13.18	18.28	39.92	60.76	66.39	67.56	66.39	..
Other non-OECD Asia	5.67	6.85	8.53	8.54	16.37	20.33	39.58	38.71	..
Non-OECD Asia excl. China	348.33	465.76	690.74	921.73	1 106.89	1 347.61	1 514.19	1 520.94	..
People's Rep. of China	431.39	615.51	880.88	1 123.65	1 671.38	2 235.42	2 360.42	2 449.47	..
Hong Kong, China	0.03	0.04	0.04	0.05	0.05	0.10	0.10	0.10	..
China	431.43	615.55	880.92	1 123.70	1 671.43	2 235.51	2 360.52	2 449.58	..
Argentina	30.53	38.82	48.42	82.90	84.70	79.52	75.77	74.29	..
Bolivia	4.57	4.37	4.92	6.73	13.96	15.76	21.88	20.99	..
Brazil	51.25	64.37	104.24	147.81	194.97	246.97	283.88	292.70	294.83
Colombia	17.19	17.71	48.18	72.33	78.60	105.93	124.31	123.48	..
Costa Rica	0.37	0.50	0.68	1.22	2.05	2.35	2.56	2.41	..
Cuba	3.85	4.83	7.56	7.02	5.68	5.25	5.03	5.06	..
Curaçao ¹	-	-	-	0.00	0.01	0.01	0.02	0.03	..
Dominican Republic	1.21	1.33	0.94	0.93	1.00	0.95	1.01	1.16	..
Ecuador	11.85	11.71	16.40	22.42	27.54	26.12	30.61	30.00	..
El Salvador	1.33	1.91	1.69	1.34	1.78	2.30	1.94	2.06	..
Guatemala	2.04	2.58	3.38	5.27	5.40	8.34	9.60	9.41	..
Haiti	1.47	1.88	1.25	1.54	2.74	3.12	3.36	3.40	..
Honduras	1.06	1.31	1.69	1.53	1.87	2.23	2.87	3.00	..
Jamaica	0.25	0.22	0.32	0.27	0.27	0.29	0.34	0.35	..
Nicaragua	0.76	0.91	1.42	1.35	1.51	1.57	2.22	2.23	..
Panama	0.34	0.53	0.60	0.57	0.63	0.67	0.94	1.00	..
Paraguay	1.27	1.61	4.58	6.84	6.58	7.12	8.62	8.32	..
Peru	7.87	14.47	10.60	9.36	10.92	21.28	25.38	24.80	..
Suriname	..	..	..	0.74	0.70	0.93	0.96	0.95	..
Trinidad and Tobago	9.98	13.16	12.63	19.04	34.93	42.56	32.66	32.60	..
Uruguay	0.54	0.77	1.15	1.03	1.02	2.07	3.07	3.18	..
Venezuela	201.18	137.39	144.75	215.79	223.02	197.94	167.94	150.59	..
Other non-OECD Americas	0.53	0.61	0.95	0.56	0.67	0.76	0.46	0.45	..
Non-OECD Americas	349.44	320.98	416.37	606.58	700.54	774.05	805.46	792.45	..
Bahrain	10.83	11.99	14.31	16.74	18.24	20.21	22.72	22.44	..
Islamic Republic of Iran	309.73	80.76	187.84	253.67	310.67	342.27	391.24	422.78	..
Iraq	102.86	135.49	110.34	134.92	97.84	124.60	233.63	238.74	..
Jordan	0.00	0.00	0.16	0.29	0.26	0.27	0.35	0.39	..
Kuwait	160.23	93.60	50.37	114.23	146.76	134.56	174.22	162.20	..
Lebanon	0.14	0.18	0.14	0.17	0.26	0.21	0.20	0.21	..
Oman	15.20	15.09	38.31	60.33	59.59	67.10	79.53	77.88	..
Qatar	29.53	26.48	27.70	59.48	89.33	178.38	228.38	225.21	..
Saudi Arabia	388.54	533.64	368.44	475.84	570.93	531.46	670.60	646.75	..
Syrian Arab Republic	5.57	9.50	22.32	32.69	26.41	27.67	4.17	4.11	..
United Arab Emirates	76.14	90.22	110.20	153.89	175.40	177.75	236.65	229.36	..
Yemen	0.05	0.06	9.38	22.03	20.45	19.17	1.58	1.75	..
Middle East	1 098.84	997.00	939.52	1 324.26	1 516.13	1 623.66	2 043.28	2 031.81	..

1. Please refer to section 'Geographical coverage'.

Net imports of coal (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	9.71	2.43	- 7.90	- 2.92	- 11.91	- 6.78	- 19.77	- 26.55	- 34.61
Non-OECD Total	- 1.11	- 12.53	- 30.10	- 96.79	- 148.51	- 90.54	- 56.64	- 54.17	- 44.53
OECD Total	10.82	14.97	22.20	93.87	136.60	83.76	36.88	27.62	9.97
Canada	2.83	- 0.04	- 11.90	- 4.22	- 4.23	- 12.21	- 13.53	- 13.30	- 12.76
Chile	0.20	0.63	1.13	2.92	2.41	3.81	6.19	6.28	6.25
Mexico	0.27	0.59	0.23	1.99	4.85	5.12	5.64	6.80	6.21
United States	- 30.32	- 57.01	- 65.87	- 28.30	- 9.86	- 36.80	- 31.00	- 53.48	- 65.78
OECD Americas	- 27.01	- 55.83	- 76.40	- 27.62	- 6.82	- 40.09	- 32.70	- 53.69	- 66.08
Australia	- 17.65	- 27.81	- 67.27	- 121.43	- 150.98	- 190.35	- 251.74	- 244.50	- 246.59
Israel ¹	0.00	0.00	2.43	6.04	7.72	7.38	5.23	5.07	4.59
Japan	40.89	47.55	72.15	95.59	110.20	114.75	115.74	115.65	114.54
Korea	0.34	3.47	15.73	39.14	46.93	72.95	81.37	81.67	83.49
New Zealand	- 0.02	- 0.05	- 0.24	- 1.11	- 1.10	- 1.58	- 0.63	- 0.60	- 0.62
OECD Asia Oceania	23.55	23.16	22.80	18.23	12.76	3.15	- 50.03	- 42.72	- 44.59
Austria	3.01	2.80	3.17	3.02	4.03	3.38	2.85	3.07	2.69
Belgium	4.55	7.18	9.61	7.32	5.24	3.69	3.00	2.94	3.23
Czech Republic	- 2.41	- 6.78	- 5.69	- 4.74	- 3.28	- 2.88	- 0.22	0.47	0.82
Denmark	1.87	6.05	6.22	3.78	3.51	2.64	1.67	1.79	1.60
Estonia	..	..	0.68	0.27	0.03	- 0.02	0.00	0.00	0.01
Finland	2.43	3.79	4.39	3.52	3.32	3.96	2.73	2.61	2.71
France	9.49	20.23	12.82	12.84	13.36	12.08	8.53	10.08	9.19
Germany	- 3.07	- 1.34	3.34	21.66	25.95	31.64	38.26	32.30	28.50
Greece	0.45	0.38	0.92	0.77	0.37	0.40	0.19	0.23	0.21
Hungary	1.63	2.20	1.63	1.08	1.30	1.13	0.71	0.99	1.02
Iceland	0.00	0.02	0.06	0.10	0.10	0.09	0.10	0.10	0.10
Ireland	0.50	0.81	1.99	1.68	1.89	0.95	1.14	1.21	0.81
Italy	7.73	11.65	13.74	13.14	16.37	13.79	10.70	9.36	8.63
Latvia	..	..	0.63	0.06	0.08	0.11	0.03	0.04	0.04
Lithuania	..	..	0.76	0.08	0.17	0.19	0.16	0.19	0.19
Luxembourg	2.44	1.84	1.11	0.11	0.08	0.07	0.05	0.05	0.04
Netherlands	1.54	3.72	8.12	7.72	8.20	7.65	10.10	9.22	8.11
Norway	0.58	0.79	0.67	0.60	- 0.41	- 0.38	0.12	0.75	0.71
Poland	- 26.17	- 20.56	- 20.12	- 16.31	- 12.99	- 2.74	- 5.80	- 1.47	3.48
Portugal	0.27	0.35	2.99	3.91	3.23	1.63	2.91	3.41	2.68
Slovak Republic	6.26	6.28	6.12	3.43	3.74	2.95	2.68	2.97	3.01
Slovenia	..	..	0.14	0.25	0.32	0.28	0.20	0.20	0.21
Spain	2.13	4.11	7.07	12.84	14.42	6.73	7.75	10.91	9.05
Sweden	1.68	1.68	2.64	2.41	2.55	2.55	2.22	1.96	2.05
Switzerland	0.22	0.51	0.34	0.19	0.10	0.13	0.11	0.11	0.08
Turkey	0.01	0.53	3.92	9.07	11.72	14.65	23.38	24.74	24.93
United Kingdom	- 0.87	1.40	8.53	14.46	27.26	16.05	6.02	5.79	6.53
OECD Europe	14.28	47.63	75.79	103.26	130.66	120.70	119.61	124.03	120.65
IEA	10.62	14.32	17.04	84.44	125.79	71.91	24.97	15.74	- 1.42
IEA/Accession/Association	8.59	- 3.28	- 15.73	- 6.49	9.73	57.03	58.45	55.36	40.33
European Union - 28	..	..	79.80	97.98	125.28	109.80	98.16	100.31	96.14
G7	26.68	22.44	32.82	125.17	179.06	139.29	134.73	106.40	88.85
G8	..	..	27.48	115.07	136.94	68.65	39.70	3.01	- 27.41
G20	..	..	- 7.14	- 15.25	- 27.77	- 17.63	- 51.16	- 65.15	- 94.01
OPEC	..	..	- 0.30	- 4.68	- 3.81	- 0.04	1.63	2.13	2.00

A negative number shows net exports. World shows the discrepancy between total exports and total imports.

Where applicable, includes quantities of peat and oil shale except for 2018 provisional figures for non-OECD countries.

1. Please refer to section 'Geographical coverage'.

Net imports of coal (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	- 1.11	- 12.53	- 30.10	- 96.79	- 148.51	- 90.54	- 56.64	- 54.17	- 44.53
Albania	0.07	0.11	0.14	0.01	0.00	0.11	0.05	0.05	0.08
Armenia	..	..	0.24	-	-	0.00	- 0.00	- 0.00	..
Azerbaijan	..	..	0.09	-	-	-	-	-	..
Belarus	..	..	1.38	0.40	0.05	- 0.06	0.42	0.35	0.47
Bosnia and Herzegovina	..	..	-	- 0.02	0.07	0.44	0.61	0.74	0.99
Bulgaria	3.71	4.27	3.53	2.26	2.55	1.70	0.56	0.57	0.49
Croatia	..	..	0.61	0.48	0.62	0.70	0.66	0.40	0.31
Cyprus ¹	-	-	0.06	0.03	0.04	0.01	-	0.01	0.01
Georgia	..	..	0.25	0.01	0.01	0.00	0.16	0.18	0.15
Gibraltar	-	-	-	-	-	-	-	-	..
Kazakhstan	..	..	- 18.06	- 14.61	- 9.96	- 13.18	- 10.82	- 12.22	- 10.99
Kosovo	..	..	..	0.01	0.02	0.03	- 0.00	0.00	0.00
Kyrgyzstan	..	..	1.12	0.31	0.43	0.49	0.25	0.27	0.35
Malta	-	-	0.18	-	-	-	-	-	..
Republic of Moldova	..	..	2.01	0.06	0.10	0.10	0.06	0.12	0.08
Montenegro	..	..	..	..	- 0.01	- 0.01	- 0.01	- 0.02	- 0.02
North Macedonia, Republic of	..	..	0.10	0.09	0.12	0.12	0.11	0.09	0.12
Romania	2.64	4.45	4.61	1.91	2.91	1.18	1.04	1.00	0.55
Russian Federation	..	..	- 5.33	- 10.10	- 42.12	- 70.64	- 95.03	- 103.40	- 116.26
Serbia	..	..	-	0.29	0.66	0.73	0.62	0.67	0.15
Tajikistan	..	..	0.26	0.00	0.00	0.00	0.01	0.00	0.00
Turkmenistan	..	..	0.30	-	-	-	-	-	..
Ukraine	..	..	- 4.33	2.20	2.62	2.97	10.12	12.43	13.50
Uzbekistan	..	..	1.13	0.01	0.00	0.00	0.31	0.32	0.33
Former Soviet Union	- 9.46	- 11.05	x	x	x	x	x	x	x
Former Yugoslavia	1.66	2.33	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	- 1.38	0.12	- 11.70	- 16.66	- 41.89	- 75.30	- 90.87	- 98.45	- 109.65
Algeria	0.28	0.12	0.70	0.44	0.63	0.34	0.05	0.20	..
Angola	-	-	-	-	-	-	-	-	..
Benin	-	-	-	-	-	-	0.07	0.08	0.08
Botswana	..	..	0.01	0.05	0.01	- 0.03	- 0.12	- 0.13	- 0.39
Cameroon	-	-	-	-	-	-	-	-	..
Congo	-	-	-	-	-	-	-	-	..
Côte d'Ivoire	-	-	-	-	-	-	-	-	..
Dem. Rep. of the Congo	0.13	0.13	0.15	-	-	-	-	-	..
Egypt	0.24	0.48	0.76	0.79	0.79	0.46	0.34	0.37	0.41
Eritrea	..	..	..	-	-	-	-	-	..
Ethiopia	-	-	-	-	-	0.02	0.32	0.36	0.38
Gabon	-	-	-	-	-	-	-	-	..
Ghana	-	-	-	-	-	-	-	-	..
Kenya	0.04	0.01	0.09	0.07	0.09	0.17	0.49	0.46	0.49
Libya	-	-	-	-	-	-	-	-	..
Mauritius	-	-	0.03	0.16	0.22	0.41	0.45	0.47	0.45
Morocco	0.00	- 0.04	0.81	2.61	3.19	2.81	4.44	4.49	5.01
Mozambique	0.12	0.05	0.01	- 0.01	- 0.00	- 0.02	- 5.81	- 7.56	- 7.42
Namibia	..	..	..	0.00	0.01	-	0.02	0.02	0.02
Niger	..	..	..	-	-	-	-	-	..
Nigeria	- 0.02	0.00	- 0.02	-	-	-	-	-	0.06
Senegal	-	-	-	-	0.09	0.18	0.46	0.38	0.42
South Africa	- 1.30	- 19.07	- 33.62	- 46.05	- 46.43	- 43.45	- 46.45	- 47.16	- 46.42
South Sudan	..	..	..	..	..	..	-	-	..
Sudan	-	0.00	-	-	-	-	-	-	..
United Rep. of Tanzania	-	0.00	0.00	-	-	-	-	-	..
Togo	-	-	-	-	-	-	-	-	..
Tunisia	0.07	0.06	0.08	0.08	-	-	-	-	..
Zambia	0.00	-	- 0.04	- 0.00	- 0.01	-	-	-	..
Zimbabwe	- 0.09	- 0.16	- 0.01	- 0.13	- 0.10	- 0.11	- 0.13	- 0.13	0.02
Other Africa	0.05	0.05	0.29	0.43	0.48	0.86	0.66	0.68	0.68
Africa	- 0.48	- 18.36	- 30.76	- 41.55	- 41.01	- 38.37	- 45.20	- 47.47	- 46.21

A negative number shows net exports.

Where applicable, includes quantities of peat and oil shale except for 2018 provisional figures for non-OECD countries.

1. Please refer to section 'Geographical coverage'.

Net imports of coal (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	0.12	0.12	0.28	0.33	0.35	0.40	1.09	1.40	1.74
Brunei Darussalam	-	-	-	-	-	-	-	-	..
Cambodia	..	..	..	..	..	0.01	0.68	0.93	1.02
DPR of Korea	0.33	0.44	1.65	-0.09	-1.63	-2.76	-13.50	-1.15	-1.02
India	-0.26	0.32	4.13	14.22	25.19	69.33	109.41	118.13	131.16
Indonesia	0.00	-0.04	-2.30	-33.45	-76.10	-154.47	-205.54	-214.33	-238.39
Malaysia	0.01	0.05	1.40	1.92	6.57	13.01	17.16	18.80	20.42
Mongolia	..	..	-0.14	0.01	-1.43	-11.32	-16.08	-19.32	-22.81
Myanmar	0.04	0.14	0.03	-	-	-	0.12	0.35	0.24
Nepal	0.05	0.05	0.05	0.25	0.24	0.29	0.68	0.78	0.81
Pakistan	0.02	0.06	0.59	0.63	1.88	2.82	4.64	9.04	9.55
Philippines	0.01	0.35	0.88	4.45	4.31	4.23	8.18	9.85	11.60
Singapore	0.00	0.00	0.02	-	0.00	0.01	0.43	0.90	0.66
Sri Lanka	0.00	0.00	0.00	0.00	0.07	0.08	1.68	1.77	1.43
Chinese Taipei	0.10	3.12	12.23	28.99	38.60	40.56	40.57	41.92	41.21
Thailand	0.01	0.06	0.21	2.57	5.40	10.71	14.24	14.74	15.59
Viet Nam	-0.12	-0.35	-0.43	-1.82	-9.72	-10.55	6.43	6.56	10.14
Other non-OECD Asia	0.07	0.17	0.12	0.12	0.05	0.16	0.62	0.62	0.85
Non-OECD Asia excl. China	0.38	4.50	18.71	18.13	-6.24	-37.51	-29.20	-9.02	-15.81
People's Rep. of China	-2.11	-3.17	-11.04	-44.09	-40.35	84.26	137.10	141.47	152.83
Hong Kong, China	0.01	0.01	5.50	3.73	6.67	6.36	6.88	6.47	6.71
China	-2.10	-3.16	-5.54	-40.36	-33.68	90.62	143.97	147.94	159.54
Argentina	0.56	0.67	0.82	0.34	0.84	0.96	0.78	0.69	1.06
Bolivia	-	-	-	-	-	-	-	-	..
Brazil	1.41	3.70	7.90	10.33	10.61	12.11	13.67	15.09	15.10
Colombia	-0.05	-0.97	-8.84	-23.12	-34.85	-45.11	-55.01	-67.96	-53.25
Costa Rica	0.00	0.00	-	0.00	0.04	0.06	0.08	0.10	0.00
Cuba	0.08	0.10	0.14	0.03	0.02	0.02	0.00	0.00	0.00
Curaçao ¹	-	-	-	-	-	-	-	-	..
Dominican Republic	-	-	0.01	0.10	0.62	0.83	1.01	1.07	0.62
Ecuador	-	-	-	-	-	-	-	-	..
El Salvador	-	0.00	-	0.00	0.00	-	-	-	..
Guatemala	-	0.01	-	0.13	0.25	0.35	1.26	1.01	1.23
Haiti	-	-	0.01	-	-	-	-	-	..
Honduras	-	-	0.00	0.08	0.15	0.16	0.17	0.25	0.33
Jamaica	-	-	0.03	0.03	0.04	0.03	0.06	0.06	0.04
Nicaragua	-	-	-	-	-	-	-	-	..
Panama	0.01	-	0.02	0.04	-	-	0.18	0.05	0.25
Paraguay	-	-	-	-	-	-	0.00	0.00	0.00
Peru	0.14	0.12	0.07	0.59	0.81	0.63	0.39	0.14	-0.06
Suriname	..	..	..	-	-	-	-	-	..
Trinidad and Tobago	-	-	-	-	-	-	-	-	..
Uruguay	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Venezuela	0.24	0.13	-1.14	-5.79	-5.21	-1.79	-0.42	-0.44	-0.43
Other non-OECD Americas	0.03	0.02	0.00	0.08	0.09	0.10	0.00	0.00	..
Non-OECD Americas	2.43	3.79	-0.96	-17.15	-26.60	-31.65	-37.82	-49.93	-35.10
Bahrain	-	-	-	-	-	-	-	-	..
Islamic Republic of Iran	0.03	0.58	0.15	0.66	0.64	0.76	0.16	0.23	-0.03
Iraq	-	-	-	-	-	-	-	-	..
Jordan	-	-	-	-	-	-	0.22	0.16	0.14
Kuwait	-	-	-	-	-	-	-	-	..
Lebanon	0.01	0.00	-	0.13	0.13	0.15	0.17	0.17	0.11
Oman	-	-	-	-	-	-	-	-	..
Qatar	-	-	-	-	-	-	-	-	..
Saudi Arabia	-	-	-	-	-	-	-	-	..
Syrian Arab Republic	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	..
United Arab Emirates	-	-	-	-	0.15	0.66	1.84	2.13	2.41
Yemen	-	-	-	-	-	0.10	0.08	0.08	0.09
Middle East	0.04	0.58	0.15	0.80	0.92	1.68	2.47	2.78	2.72

A negative number shows net exports.

Where applicable, includes quantities of peat and oil shale except for 2018 provisional figures for non-OECD countries.

1. Please refer to section 'Geographical coverage'.

Net imports of oil (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	- 84.59	- 24.85	- 2.01	- 24.82	- 54.17	64.63	- 77.65	- 41.45	..
Non-OECD Total	-1 461.99	-1 253.36	-1 098.74	-1 272.80	-1 485.29	-1 192.21	-1 058.61	- 977.87	..
OECD Total	1 377.40	1 228.51	1 096.73	1 247.98	1 431.12	1 256.84	980.96	936.42	850.11
Canada	- 14.49	8.44	- 14.86	- 39.04	- 43.87	- 69.08	- 126.73	- 147.64	- 162.83
Chile	3.50	3.40	5.89	11.05	12.61	15.37	16.62	16.60	16.66
Mexico	5.72	- 47.58	- 70.41	- 76.60	- 91.78	- 57.24	- 31.99	- 21.67	- 16.99
United States	303.36	340.08	374.40	549.54	659.40	508.20	273.75	228.07	162.56
OECD Americas	298.09	304.33	295.03	444.96	536.36	397.25	131.66	75.37	- 0.61
Australia	9.21	11.25	5.10	3.55	14.61	20.45	30.25	32.25	35.87
Israel ¹	2.44	8.47	9.01	12.25	10.24	11.71	10.03	11.12	10.41
Japan	273.08	251.70	263.31	270.01	257.69	212.06	185.84	185.79	178.99
Korea	13.22	27.28	51.72	109.50	102.49	108.80	125.54	124.05	123.66
New Zealand	4.56	4.26	2.35	4.46	6.02	4.48	6.41	6.42	6.82
OECD Asia Oceania	302.52	302.97	331.48	399.77	391.06	357.50	358.06	359.63	355.75
Austria	9.67	11.00	9.68	10.96	13.29	11.77	11.30	11.39	11.85
Belgium	31.46	26.41	22.26	29.56	32.53	32.53	29.16	29.39	30.59
Czech Republic	8.85	10.89	8.58	7.52	9.74	8.97	8.06	9.39	9.65
Denmark	18.57	13.24	2.75	- 8.49	- 9.43	- 3.78	0.19	- 0.29	1.55
Estonia	..	..	3.15	0.79	0.93	0.79	0.75	0.61	0.50
Finland	13.61	13.67	10.34	10.53	10.90	9.42	9.12	8.62	9.07
France	128.66	112.32	85.91	89.84	95.79	83.20	78.32	80.08	77.27
Germany	160.84	148.86	122.12	126.89	123.65	112.11	109.24	110.47	105.19
Greece	11.58	13.22	14.34	19.32	20.11	17.02	13.95	13.79	13.31
Hungary	6.47	8.31	6.43	5.21	5.99	5.78	6.30	6.58	6.67
Iceland	0.69	0.58	0.69	0.85	0.86	0.68	0.94	0.98	1.06
Ireland	5.45	5.83	5.06	8.15	8.79	7.66	7.41	7.15	7.39
Italy	98.34	92.76	85.14	87.96	78.55	66.80	51.88	52.82	50.95
Latvia	..	..	3.97	1.23	1.79	1.67	1.97	1.82	1.61
Lithuania	..	..	7.23	2.20	2.66	2.72	2.93	2.98	3.35
Luxembourg	1.65	1.10	1.62	2.39	3.16	2.87	2.64	2.76	2.91
Netherlands	41.73	38.15	32.86	42.69	48.05	44.36	41.20	39.54	38.39
Norway	6.58	- 14.70	- 72.83	- 157.13	- 123.77	- 84.85	- 82.20	- 81.35	- 76.26
Poland	11.76	17.74	14.31	19.83	21.90	25.67	25.35	29.76	30.63
Portugal	6.19	9.44	11.92	16.03	16.83	12.53	11.01	11.38	11.10
Slovak Republic	5.27	7.47	4.50	2.63	3.18	3.41	3.37	3.58	3.87
Slovenia	..	..	1.81	2.43	2.61	2.60	2.53	2.56	2.57
Spain	41.01	49.92	49.66	71.50	79.97	69.47	61.76	63.16	64.16
Sweden	28.60	25.91	15.28	15.73	17.47	15.51	13.94	11.49	12.23
Switzerland	15.01	13.40	13.19	12.11	12.84	11.74	10.52	10.48	9.81
Turkey	8.84	13.74	21.24	29.25	28.07	30.55	44.26	46.56	44.12
United Kingdom	115.95	1.93	- 11.00	- 46.72	- 2.74	10.89	25.34	25.71	21.45
OECD Europe	776.78	621.21	470.22	403.25	503.71	502.09	491.24	501.42	494.97
IEA	1 370.77	1 216.07	1 068.13	1 217.96	1 400.36	1 222.09	945.94	900.36	814.45
IEA/Accession/Association	1 408.48	1 251.84	1 124.43	1 483.82	1 767.57	1 762.85	1 684.46	1 696.94	..
European Union - 28	..	..	531.52	532.02	602.73	561.10	534.94	543.50	..
G7	1 065.74	956.08	905.02	1 038.48	1 168.47	924.18	597.65	535.31	433.57
G8	..	..	643.77	846.27	833.55	567.85	219.22	155.89	..
G20	..	..	598.68	988.51	1 016.51	1 049.02	826.97	854.18	..
OPEC	..	..	- 989.49	- 1 308.76	- 1 478.98	- 1 337.66	- 1 485.84	- 1 467.85	..

A negative number shows net exports. World shows the discrepancy between total exports and total imports.

1. Please refer to section 'Geographical coverage'.

Net imports of oil (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	-1 461.99	-1 253.36	-1 098.74	-1 272.80	-1 485.29	-1 192.21	-1 058.61	- 977.87	..
Albania	- 1.32	- 0.44	0.01	0.74	1.06	0.58	0.32	0.54	..
Armenia	..	..	3.84	0.35	0.42	0.43	0.36	0.39	..
Azerbaijan	..	..	- 3.68	- 7.72	- 16.52	- 47.42	- 36.54	- 33.61	..
Belarus	..	..	27.37	5.90	5.88	5.31	4.78	5.41	..
Bosnia and Herzegovina	..	..	2.04	1.17	1.13	1.72	1.82	1.74	..
Bulgaria	11.27	13.40	8.64	4.12	5.23	4.22	4.52	4.73	..
Croatia	..	..	2.10	2.43	3.62	3.04	2.60	2.71	..
Cyprus ¹	0.85	0.97	1.57	2.53	2.77	2.89	2.55	2.61	..
Georgia	..	..	5.52	0.63	0.73	0.94	1.45	1.35	..
Gibraltar	1.25	1.34	1.77	2.74	4.09	4.30	3.93	4.37	..
Kazakhstan	..	..	- 4.97	- 27.67	- 54.69	- 70.07	- 64.60	- 73.09	..
Kosovo	..	..	..	0.33	0.45	0.54	0.67	0.74	..
Kyrgyzstan	..	..	2.88	0.33	0.59	1.21	1.55	1.49	..
Malta	0.34	0.42	0.61	1.45	1.59	2.36	2.35	2.67	..
Republic of Moldova	..	..	4.87	0.47	0.66	0.73	0.91	0.92	..
Montenegro	..	..	..	..	0.29	0.31	0.35	0.37	..
North Macedonia, Republic of	..	..	1.10	0.94	0.94	0.93	1.10	1.03	..
Romania	- 0.55	7.05	10.67	3.31	3.81	4.63	5.19	6.02	..
Russian Federation	..	..	- 261.26	- 192.21	- 334.92	- 356.33	- 378.43	- 379.41	..
Serbia	..	..	4.20	0.49	3.77	2.94	2.75	2.87	..
Tajikistan	..	..	1.64	0.17	0.27	0.51	0.97	0.83	..
Turkmenistan	..	..	1.41	- 3.40	- 4.82	- 4.27	- 5.08	- 4.30	..
Ukraine	..	..	54.24	8.50	9.58	9.81	9.63	10.47	..
Uzbekistan	..	..	7.30	- 0.40	- 0.29	- 0.23	- 0.16	- 0.15	..
Former Soviet Union	- 104.22	- 156.33	x	x	x	x	x	x	x
Former Yugoslavia	9.26	11.77	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	- 83.11	- 121.83	- 128.10	- 194.80	- 364.36	- 430.94	- 437.01	- 439.30	..
Algeria	- 49.08	- 45.75	- 51.35	- 62.39	- 79.28	- 61.10	- 53.00	- 50.71	..
Angola	- 7.27	- 6.40	- 22.46	- 37.91	- 61.51	- 84.62	- 79.11	- 72.28	..
Benin	0.14	0.14	- 0.11	0.52	0.84	1.68	2.05	2.16	..
Botswana	..	..	0.34	0.59	0.69	0.89	0.98	0.99	..
Cameroon	0.33	- 2.96	- 6.08	- 4.78	- 3.55	- 1.63	- 2.58	- 2.02	..
Congo	- 1.28	- 3.16	- 7.89	- 13.76	- 12.55	- 15.68	- 11.59	- 13.60	..
Côte d'Ivoire	1.08	1.51	1.06	1.10	- 0.58	- 0.82	0.62	0.48	..
Dem. Rep. of the Congo	0.90	- 0.08	- 0.24	- 0.83	- 0.68	- 0.37	- 0.22	- 0.35	..
Egypt	- 1.87	- 17.64	- 21.52	- 10.43	- 2.27	- 1.27	9.30	10.35	..
Eritrea	..	..	..	0.21	0.23	0.16	0.20	0.21	..
Ethiopia	0.57	0.61	1.00	1.10	1.58	2.24	3.92	4.32	..
Gabon	- 7.14	- 8.21	- 12.16	- 13.49	- 12.85	- 12.38	- 10.47	- 9.08	..
Ghana	0.92	0.85	1.03	2.00	2.37	3.46	0.06	- 4.61	..
Kenya	1.75	2.19	2.14	3.45	3.13	4.15	5.53	5.60	..
Libya	- 109.39	- 87.37	- 60.60	- 58.77	- 74.96	- 73.70	- 11.54	- 36.60	..
Mauritius	0.13	0.28	0.40	0.94	1.09	1.11	1.40	1.62	..
Morocco	2.40	4.00	5.68	7.12	9.17	12.71	12.74	13.57	..
Mozambique	0.78	0.68	0.34	0.57	0.51	0.76	2.03	2.25	..
Namibia	..	..	..	0.67	0.84	1.06	1.35	1.36	..
Niger	..	..	..	0.19	0.20	0.40	- 0.16	- 0.10	..
Nigeria	- 101.01	- 95.52	- 79.40	- 105.64	- 117.14	- 108.46	- 70.63	- 68.13	..
Senegal	1.55	1.24	0.85	1.53	1.87	1.90	2.46	2.57	..
South Africa	13.01	15.13	11.31	13.41	14.87	23.01	20.77	22.43	..
South Sudan	..	..	..	..	..	..	- 5.35	- 4.98	..
Sudan	1.60	1.32	1.92	- 6.65	- 11.68	- 19.27	1.64	1.57	..
United Rep. of Tanzania	1.00	0.87	0.77	0.85	1.49	1.71	2.58	2.54	..
Togo	0.10	0.13	0.22	0.33	0.36	0.74	0.75	0.78	..
Tunisia	- 2.31	- 2.56	- 1.85	- 0.11	0.67	0.05	2.31	2.65	..
Zambia	0.95	0.74	0.77	0.52	0.70	0.66	1.11	1.49	..
Zimbabwe	0.71	0.68	0.81	1.08	0.70	0.69	1.15	1.21	..
Other Africa	3.65	4.28	4.46	0.36	- 20.11	- 12.09	- 7.59	- 6.24	..
Africa	- 247.80	- 235.01	- 230.54	- 278.22	- 355.83	- 334.03	- 179.28	- 190.56	..

A negative number shows net exports.

1. Please refer to section 'Geographical coverage'.

Net imports of oil (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	0.90	1.66	1.88	3.14	3.79	3.90	5.31	5.93	..
Brunei Darussalam	- 11.77	- 11.79	- 7.56	- 9.68	- 10.46	- 7.71	- 5.37	- 4.98	..
Cambodia	..	..	..	0.71	0.96	1.62	2.29	2.37	..
DPR of Korea	1.21	2.71	2.66	1.06	0.93	0.83	1.03	0.95	..
India	17.54	23.27	27.39	77.10	90.32	123.49	182.48	187.71	..
Indonesia	- 50.82	- 58.05	- 40.38	- 13.21	12.66	20.46	28.32	37.12	..
Malaysia	0.18	- 5.06	- 18.59	- 11.46	- 11.29	- 7.23	- 2.64	- 2.58	..
Mongolia	..	..	0.83	0.44	0.55	0.56	- 0.10	0.27	..
Myanmar	0.05	- 0.07	- 0.02	1.35	0.67	0.24	3.68	6.10	..
Nepal	0.07	0.12	0.26	0.77	0.79	1.06	2.06	2.47	..
Pakistan	3.18	4.68	8.65	16.63	13.79	17.83	23.92	23.63	..
Philippines	9.02	11.03	11.45	16.58	13.70	14.01	19.48	20.60	..
Singapore	12.24	8.00	24.50	39.71	44.63	60.70	77.95	83.40	..
Sri Lanka	1.68	1.65	1.70	3.83	4.18	4.01	5.47	5.52	..
Chinese Taipei	10.35	21.38	28.68	45.08	48.37	47.96	46.66	46.30	..
Thailand	8.28	12.16	17.59	27.51	34.70	31.99	38.30	39.61	..
Viet Nam	5.80	1.85	0.26	- 7.95	- 6.24	2.76	5.79	7.82	..
Other non-OECD Asia	2.71	3.15	- 1.34	0.19	- 6.17	- 3.01	1.23	2.47	..
Non-OECD Asia excl. China	10.61	16.70	57.98	191.82	235.86	313.48	435.88	464.69	..
People's Rep. of China	- 1.84	- 17.44	- 24.15	74.68	143.52	252.86	380.23	420.21	..
Hong Kong, China	4.83	6.39	6.45	12.86	13.58	21.25	20.35	21.48	..
China	2.99	- 11.06	- 17.70	87.54	157.10	274.11	400.58	441.69	..
Argentina	3.84	1.32	- 4.12	- 16.89	- 13.26	- 1.72	3.37	3.20	..
Bolivia	- 1.74	- 0.05	- 0.19	- 0.13	- 0.41	0.36	0.42	0.92	..
Brazil	33.41	45.31	28.46	28.48	4.74	0.17	- 18.89	- 24.06	- 29.30
Colombia	- 2.88	1.32	- 12.42	- 23.31	- 15.15	- 26.79	- 31.19	- 33.78	..
Costa Rica	0.59	0.81	1.03	1.81	2.09	2.35	2.60	2.77	..
Cuba	7.09	9.67	10.06	5.92	5.17	6.93	6.36	6.13	..
Curaçao ¹	8.02	8.27	3.14	4.16	4.28	4.38	3.35	3.27	..
Dominican Republic	1.68	2.12	3.09	6.54	5.77	5.58	6.47	6.01	..
Ecuador	- 9.15	- 6.31	- 10.08	- 13.68	- 17.60	- 13.63	- 15.87	- 15.45	..
El Salvador	0.69	0.62	0.79	1.84	2.00	2.03	2.30	2.10	..
Guatemala	1.04	1.35	1.16	1.86	2.66	2.67	3.93	3.95	..
Haiti	0.13	0.22	0.32	0.50	0.69	0.70	1.09	1.11	..
Honduras	0.40	0.56	0.73	1.40	2.04	2.22	2.54	2.83	..
Jamaica	2.93	2.18	2.48	3.58	3.53	2.41	2.95	2.72	..
Nicaragua	0.63	0.64	0.63	1.15	1.35	1.33	1.72	1.73	..
Panama	2.40	2.12	2.48	4.45	4.61	5.86	7.66	8.34	..
Paraguay	0.28	0.50	0.67	1.14	1.14	1.54	2.40	2.50	..
Peru	1.92	- 3.09	- 0.64	2.77	2.26	1.73	5.17	5.50	..
Suriname	..	..	..	- 0.11	- 0.05	- 0.18	- 0.41	- 0.55	..
Trinidad and Tobago	- 5.06	- 9.03	- 6.39	- 4.91	- 5.89	- 4.69	- 2.12	- 2.07	..
Uruguay	1.87	2.13	1.39	2.24	2.05	2.51	2.32	2.09	..
Venezuela	- 181.43	- 103.51	- 100.78	- 157.45	- 169.27	- 125.27	- 110.60	- 99.24	..
Other non-OECD Americas	8.32	6.53	4.88	5.01	4.55	5.71	4.18	3.80	..
Non-OECD Americas	- 125.01	- 36.29	- 73.30	- 143.65	- 172.70	- 123.81	- 120.26	- 116.17	..
Bahrain	- 7.59	- 8.38	- 8.55	- 8.15	- 6.62	- 6.82	- 8.10	- 8.31	..
Islamic Republic of Iran	- 279.48	- 42.16	- 116.13	- 133.63	- 139.47	- 131.87	- 143.78	- 154.56	..
Iraq	- 97.64	- 125.45	- 88.21	- 108.25	- 70.74	- 87.34	- 174.89	- 177.73	..
Jordan	0.68	1.78	3.51	4.76	5.72	5.12	5.45	5.67	..
Kuwait	- 151.56	- 79.06	- 42.90	- 95.07	- 118.43	- 104.01	- 141.66	- 132.81	..
Lebanon	2.38	2.48	1.86	4.63	4.78	5.96	8.44	8.93	..
Oman	- 13.92	- 13.58	- 33.66	- 48.84	- 38.93	- 38.14	- 45.26	- 41.90	..
Qatar	- 28.11	- 23.21	- 20.54	- 38.06	- 46.13	- 65.11	- 73.07	- 70.39	..
Saudi Arabia	- 367.79	- 497.39	- 307.04	- 373.94	- 444.33	- 349.01	- 447.09	- 425.41	..
Syrian Arab Republic	- 3.11	- 4.05	- 11.14	- 17.81	- 6.98	- 4.90	5.21	4.98	..
United Arab Emirates	- 74.79	- 78.80	- 77.86	- 104.05	- 111.60	- 108.27	- 145.46	- 148.23	..
Yemen	1.27	1.94	- 6.42	- 17.07	- 12.62	- 6.62	1.67	1.54	..
Middle East	- 1 019.67	- 865.87	- 707.08	- 935.49	- 985.36	- 891.01	- 1 158.53	- 1 138.22	..

A negative number shows net exports.

1. Please refer to section 'Geographical coverage'.

Net imports of natural gas (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	0.85	- 7.13	1.38	- 5.29	- 16.07	2.58	- 27.99	- 43.70	- 28.08
Non-OECD Total	- 11.33	- 66.57	- 148.16	- 242.78	- 315.83	- 340.87	- 341.89	- 348.28	- 326.33
OECD Total	12.18	59.45	149.54	237.49	299.76	343.46	313.90	304.58	298.25
Canada	- 22.78	- 18.38	- 32.52	- 81.35	- 79.57	- 60.42	- 51.75	- 50.96	- 49.48
Chile	-	-	-	3.67	5.28	3.01	3.35	3.33	3.83
Mexico	- 0.05	- 2.42	0.37	2.20	7.47	11.85	35.53	35.69	42.59
United States	22.12	21.68	33.19	82.21	84.18	60.76	16.87	- 4.03	- 18.07
OECD Americas	- 0.71	0.89	1.04	6.73	17.36	15.21	4.00	- 15.98	- 21.14
Australia	-	-	- 2.35	- 9.27	- 12.38	- 16.04	- 38.00	- 56.51	- 68.21
Israel ¹	-	-	-	-	-	1.73	0.29	0.35	0.60
Japan	2.79	19.54	42.29	63.47	67.86	82.65	99.22	98.21	94.31
Korea	-	-	2.68	17.07	26.11	39.29	39.61	43.63	50.21
New Zealand	-	-	-	-	-	-	-	-	-
OECD Asia Oceania	2.79	19.54	42.62	71.27	81.59	107.64	101.12	85.69	76.90
Austria	1.34	2.66	4.49	5.31	7.15	6.12	6.11	7.01	6.49
Belgium	7.11	8.89	8.22	13.28	14.82	16.79	14.38	14.25	14.94
Czech Republic	0.72	2.41	4.79	7.48	7.53	6.85	6.72	7.33	6.60
Denmark	-	-	- 0.93	- 2.88	- 5.01	- 3.02	- 1.28	- 1.54	- 1.03
Estonia	..	..	1.22	0.66	0.80	0.56	0.43	0.41	0.41
Finland	-	0.77	2.18	3.43	3.61	3.84	2.06	1.92	2.19
France	7.56	16.18	24.37	35.78	40.72	39.55	37.90	37.73	38.46
Germany	12.30	35.32	41.75	56.87	61.94	61.64	62.28	68.84	70.54
Greece	-	-	-	1.69	2.33	3.23	3.46	4.23	4.14
Hungary	0.15	3.19	5.17	7.28	9.81	7.73	6.33	8.22	6.45
Iceland	-	-	-	-	-	-	-	-	-
Ireland	-	-	-	2.48	3.01	4.48	1.70	1.41	1.74
Italy	1.65	11.77	25.31	47.01	59.84	61.60	53.29	56.82	55.27
Latvia	..	..	2.56	1.11	1.43	0.90	0.92	1.01	1.19
Lithuania	..	..	4.68	2.06	2.49	2.48	1.85	1.91	1.90
Luxembourg	0.22	0.42	0.43	0.67	1.18	1.20	0.71	0.69	0.68
Netherlands	- 25.26	- 38.48	- 23.80	- 17.19	- 20.94	- 24.21	- 9.85	- 1.36	4.59
Norway	-	- 21.90	- 22.17	- 42.14	- 70.97	- 88.48	- 96.76	- 103.99	- 99.76
Poland	1.39	4.31	6.77	6.61	8.53	8.87	11.47	12.01	12.51
Portugal	-	-	-	2.04	3.89	4.50	4.26	5.44	5.08
Slovak Republic	1.17	2.21	5.35	5.71	5.74	5.00	3.62	4.37	3.65
Slovenia	..	..	0.72	0.82	0.93	0.86	0.70	0.73	0.72
Spain	0.93	1.41	3.69	15.47	30.25	30.95	24.72	27.62	27.47
Sweden	-	-	0.58	0.78	0.84	1.47	0.82	0.94	1.02
Switzerland	0.15	0.87	1.63	2.43	2.78	3.01	3.00	3.01	2.85
Turkey	-	-	2.68	12.05	22.13	30.79	37.61	44.97	40.91
United Kingdom	0.67	9.00	6.18	- 9.31	5.97	33.90	32.34	30.90	33.48
OECD Europe	10.10	39.02	105.88	159.49	200.81	220.62	208.78	234.87	242.49
IEA	12.18	59.45	141.58	229.82	289.63	334.47	306.78	297.24	290.02
IEA/Accession/Association	12.18	49.43	115.26	201.63	283.45	350.85	397.90	407.48	429.53
European Union - 28	..	..	135.67	193.50	254.07	279.72	269.43	296.11	303.84
G7	24.30	95.11	140.58	194.66	240.95	279.70	250.15	237.51	224.50
G8	..	..	- 4.71	48.59	79.72	129.02	82.37	57.17	34.13
G20	..	..	12.24	97.67	182.50	281.79	318.59	323.42	327.51
OPEC	..	..	- 32.01	- 73.47	- 101.86	- 149.25	- 171.55	- 186.34	..

A negative number shows net exports. World shows the discrepancy between total exports and total imports.

1. Please refer to section 'Geographical coverage'.

Net imports of natural gas (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	- 11.33	- 66.57	- 148.16	- 242.78	- 315.83	- 340.87	- 341.89	- 348.28	- 326.33
Albania	-	-	-	-	-	-	-	-	-
Armenia	..	..	3.59	1.12	1.34	1.37	1.83	1.97	1.97
Azerbaijan	..	..	6.50	0.24	3.80	- 5.20	- 6.51	- 5.67	- 6.81
Belarus	..	..	12.69	14.21	16.70	17.91	15.48	15.79	16.87
Bosnia and Herzegovina	..	..	0.40	0.20	0.30	0.20	0.18	0.20	0.20
Bulgaria	-	3.03	5.43	2.74	2.46	2.13	2.59	2.70	2.58
Croatia	..	..	0.58	0.91	0.56	0.48	0.73	1.34	1.22
Cyprus ¹	-	-	-	-	-	-	-	-	-
Georgia	..	..	4.50	0.90	1.04	1.01	1.89	1.95	1.87
Gibraltar	-	-	-	-	-	-	-	-	-
Kazakhstan	..	..	4.92	- 0.83	- 3.52	- 2.28	- 6.66	- 9.65	- 9.40
Kosovo	..	..	..	..	..	..	..	..	..
Kyrgyzstan	..	..	1.45	0.55	0.60	0.23	0.22	0.23	0.26
Malta	-	-	-	-	-	-	-	0.25	0.32
Republic of Moldova	..	..	3.28	2.12	2.39	2.31	2.15	1.97	2.14
Montenegro	..	..	..	..	..	..	..	..	..
North Macedonia, Republic of	..	..	-	0.05	0.06	0.10	0.18	0.23	0.21
Romania	- 0.16	1.10	5.93	2.71	4.19	1.82	1.18	0.93	1.23
Russian Federation	..	..	- 145.28	- 146.07	- 161.22	- 150.68	- 167.78	- 180.34	- 190.37
Serbia	..	..	2.06	0.91	1.72	1.57	1.43	1.74	1.71
Tajikistan	..	..	1.30	0.60	0.51	0.14	-	-	-
Turkmenistan	..	..	- 56.53	- 27.31	- 37.06	- 19.55	- 43.62	- 44.21	- 45.53
Ukraine	..	..	73.48	47.27	48.26	29.55	8.81	11.26	8.39
Uzbekistan	..	..	- 0.52	- 4.26	- 9.20	- 11.73	- 16.48	- 17.04	- 18.34
Former Soviet Union	3.80	- 42.60	x	x	x	x	x	x	x
Former Yugoslavia	-	1.23	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	3.64	- 37.24	- 76.23	- 103.95	- 127.07	- 130.62	- 204.39	- 216.35	- 231.48
Algeria	- 2.09	- 5.65	- 26.68	- 53.01	- 55.09	- 48.65	- 45.90	- 45.93	- 44.57
Angola	-	-	-	-	-	-	- 0.74	- 4.05	- 4.58
Benin	-	-	-	-	-	-	0.00	0.03	0.03
Botswana	..	..	-	-	-	-	-	-	-
Cameroon	-	-	-	-	-	-	-	-	- 0.57
Congo	-	-	-	-	-	-	-	-	-
Côte d'Ivoire	-	-	-	-	-	-	-	-	-
Dem. Rep. of the Congo	-	-	-	-	-	-	-	-	-
Egypt	-	-	-	-	- 12.64	- 10.60	6.68	4.50	- 0.82
Eritrea	..	..	..	-	-	-	-	-	-
Ethiopia	-	-	-	-	-	-	-	-	-
Gabon	-	-	-	-	-	-	-	-	-
Ghana	-	-	-	-	-	0.35	0.09	0.27	0.27
Kenya	-	-	-	-	-	-	-	-	-
Libya	- 2.58	- 1.58	- 1.01	- 0.65	- 4.47	- 7.96	- 3.92	- 3.76	- 3.62
Mauritius	-	-	-	-	-	-	-	-	-
Morocco	-	-	-	-	0.34	0.52	0.97	0.96	0.97
Mozambique	-	-	-	-	- 1.85	- 2.61	- 3.50	- 3.53	- 3.52
Namibia	..	..	..	-	-	-	-	-	-
Niger	..	..	..	-	-	-	-	-	-
Nigeria	-	-	-	- 4.42	- 10.76	- 17.75	- 19.01	- 22.68	- 21.99
Senegal	-	-	-	-	-	-	-	-	-
South Africa	-	-	-	-	0.98	2.61	3.50	3.53	3.52
South Sudan	..	..	..	..	..	..	..	..	..
Sudan	-	-	-	-	-	-	-	-	-
United Rep. of Tanzania	-	-	-	-	-	-	-	-	-
Togo	-	-	-	-	-	-	-	-	-
Tunisia	-	-	0.90	0.85	1.10	2.01	2.94	3.30	3.30
Zambia	-	-	-	-	-	-	-	-	-
Zimbabwe	-	-	-	-	-	-	-	-	-
Other Africa	-	-	-	-	0.00	- 4.21	- 3.66	- 4.05	- 3.64
Africa	- 4.66	- 7.24	- 26.79	- 57.24	- 82.39	- 86.29	- 62.55	- 71.41	- 75.20

A negative number shows net exports.

1. Please refer to section 'Geographical coverage'.

Net imports of natural gas (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	-	-	-	-	-	-	-	-	0.74
Brunei Darussalam	-1.27	-7.77	-6.26	-7.63	-8.16	-7.59	-6.77	-7.07	-6.54
Cambodia	..	..	..	-	-	-	-	-	-
DPR of Korea	-	-	-	-	-	-	-	-	-
India	-	-	-	-	5.87	11.44	22.11	24.42	25.53
Indonesia	-	-10.02	-26.32	-34.60	-36.31	-35.98	-25.47	-23.76	-23.50
Malaysia	-	-0.01	-8.69	-17.83	-23.50	-19.81	-21.47	-23.88	-21.76
Mongolia	..	..	-	-	-	-	-	-	-
Myanmar	-	-	-	-3.98	-8.01	-8.89	-12.48	-12.30	-12.30
Nepal	-	-	-	-	-	-	-	-	-
Pakistan	-	-	-	-	-	-	4.23	7.12	9.61
Philippines	-	-	-	-	-	-	-	-	-
Singapore	-	-	-	1.12	5.01	6.49	8.71	8.88	10.87
Sri Lanka	-	-	-	-	-	-	-	-	-
Chinese Taipei	-	-	0.76	5.17	8.35	12.94	15.99	17.80	18.06
Thailand	-	-	-	1.73	7.43	8.24	11.64	12.39	12.63
Viet Nam	-	-	-	-	-1.30	-	-	-	-
Other non-OECD Asia	-2.05	-2.12	-	-	-	-4.72	-19.34	-19.77	-12.50
Non-OECD Asia excl. China	-3.32	-19.91	-40.50	-56.02	-50.61	-37.89	-22.83	-16.17	0.86
People's Rep. of China	-	-	-	-2.01	-2.48	9.22	56.24	71.31	96.58
Hong Kong, China	-	-	-	2.45	2.19	3.13	2.72	2.72	2.65
China	-	-	-	0.44	-0.30	12.35	58.96	74.02	99.22
Argentina	1.45	1.89	1.82	-3.89	-4.11	2.61	8.69	9.26	7.95
Bolivia	-1.60	-1.90	-2.13	-1.68	-8.29	-9.79	-13.53	-12.96	-12.18
Brazil	-	-	-	1.89	7.70	10.83	10.04	9.18	9.07
Colombia	-	-	-	-	-	-1.20	0.01	0.01	0.25
Costa Rica	-	-	-	-	-	-	-	-	-
Cuba	-	-	-	-	-	-	-	-	-
Curaçao ¹	-	-	-	-	-	-	-	-	-
Dominican Republic	-	-	-	-	0.20	0.68	0.88	1.02	1.08
Ecuador	-	-	-	-	-	-	-	-	-
El Salvador	-	-	-	-	-	-	-	-	-
Guatemala	-	-	-	-	-	-	-	-	-
Haiti	-	-	-	-	-	-	-	-	-
Honduras	-	-	-	-	-	-	-	-	-
Jamaica	-	-	-	-	-	-	0.01	0.07	0.08
Nicaragua	-	-	-	-	-	-	-	-	-
Panama	-	-	-	-	-	-	-	-	-
Paraguay	-	-	-	-	-	-	-	-	-
Peru	-	-	-	-	-	-2.13	-5.76	-5.48	-5.20
Suriname	..	..	..	-	-	-	-	-	-
Trinidad and Tobago	-	-	-	-3.63	-11.80	-17.48	-12.45	-12.83	-14.92
Uruguay	-	-	-	0.03	0.09	0.06	0.05	0.06	0.06
Venezuela	-	-	-	-	-	1.68	-	-	-
Other non-OECD Americas	-	-	-	0.29	0.57	0.64	1.41	1.40	1.61
Non-OECD Americas	-0.15	-0.01	-0.31	-6.98	-15.62	-14.08	-10.64	-10.27	-12.21
Bahrain	-	-	-	-	-	-	-	-	-
Islamic Republic of Iran	-6.83	-	-1.64	2.78	0.37	0.43	-2.71	-7.92	-6.08
Iraq	-	-	-1.63	-	-	-	-	-	-
Jordan	-	-	-	-	1.21	2.15	3.30	3.43	3.02
Kuwait	-	-	1.63	-	-	2.28	4.05	4.52	4.38
Lebanon	-	-	-	-	-	0.21	-	-	-
Oman	-	-	-	-3.67	-10.48	-8.86	-7.78	-8.24	-10.14
Qatar	-	-	-	-12.31	-26.09	-84.36	-108.34	-109.11	-107.99
Saudi Arabia	-	-	-	-	-	-	-	-	-
Syrian Arab Republic	-	-	-	-	-	0.56	-	-	-
United Arab Emirates	-	-2.18	-2.68	-5.83	-4.84	7.81	11.03	9.23	9.28
Yemen	-	-	-	-	-	-4.56	-	-	-
Middle East	-6.83	-2.18	-4.32	-19.03	-39.84	-84.34	-100.45	-108.10	-107.52

A negative number shows net exports.

1. Please refer to section 'Geographical coverage'.

Net imports of electricity (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	- 0.17	0.67	0.22	0.87	- 0.30	0.15	- 0.50	- 0.31	..
Non-OECD Total	- 0.70	- 0.67	- 0.34	0.78	- 1.58	- 1.41	- 1.01	0.60	..
OECD Total	0.54	1.34	0.57	0.09	1.28	1.56	0.51	- 0.92	0.92
Canada	- 1.21	- 2.34	- 0.03	- 3.06	- 2.02	- 2.19	- 5.52	- 5.35	- 4.17
Chile	0.00	-	-	0.10	0.19	0.08	- 0.00	- 0.00	- 0.00
Mexico	0.03	0.05	- 0.12	0.08	- 0.14	- 0.08	0.02	0.03	0.02
United States	1.23	2.30	0.17	2.92	2.13	2.23	5.18	4.84	3.82
OECD Americas	0.05	0.01	0.02	0.03	0.15	0.05	- 0.31	- 0.48	- 0.33
Australia	-	-	-	-	-	-	-	-	-
Israel ¹	- 0.00	- 0.01	- 0.04	- 0.13	- 0.14	- 0.34	- 0.48	- 0.49	- 0.49
Japan	-	-	-	-	-	-	-	-	-
Korea	-	-	-	-	-	-	-	-	-
New Zealand	-	-	-	-	-	-	-	-	-
OECD Asia Oceania	- 0.00	- 0.01	- 0.04	- 0.13	- 0.14	- 0.34	- 0.48	- 0.49	- 0.49
Austria	- 0.13	- 0.34	- 0.04	- 0.12	0.23	0.21	0.62	0.56	0.77
Belgium	- 0.06	- 0.23	- 0.32	0.37	0.54	0.05	0.53	0.52	1.49
Czech Republic	- 0.19	- 0.13	- 0.06	- 0.86	- 1.09	- 1.29	- 0.94	- 1.12	- 1.20
Denmark	- 0.02	- 0.11	0.61	0.06	0.12	- 0.10	0.43	0.39	0.45
Estonia	..	..	- 0.60	- 0.08	- 0.14	- 0.28	- 0.18	- 0.24	- 0.16
Finland	0.37	0.10	0.92	1.02	1.46	0.90	1.63	1.76	1.71
France	- 0.25	0.28	- 3.91	- 5.97	- 5.19	- 2.64	- 3.57	- 3.45	- 5.41
Germany	0.99	0.61	0.08	0.26	- 0.39	- 1.29	- 4.34	- 4.51	- 4.19
Greece	0.00	0.05	0.06	- 0.00	0.33	0.49	0.76	0.54	0.56
Hungary	0.40	0.64	0.96	0.30	0.54	0.45	1.09	1.11	1.23
Iceland	-	-	-	-	-	-	-	-	-
Ireland	0.00	-	-	0.01	0.18	0.04	- 0.06	- 0.06	- 0.00
Italy	0.08	0.52	2.98	3.81	4.23	3.80	3.18	3.25	3.78
Latvia	..	..	0.31	0.15	0.18	0.08	0.09	- 0.01	0.08
Lithuania	..	..	- 1.03	- 0.11	- 0.26	0.52	0.71	0.75	0.83
Luxembourg	0.18	0.24	0.34	0.49	0.28	0.35	0.54	0.53	0.53
Netherlands	- 0.12	- 0.03	0.79	1.63	1.57	0.24	0.42	0.30	0.69
Norway	- 0.45	- 0.04	- 1.37	- 1.64	- 1.04	0.65	- 1.41	- 1.30	- 0.87
Poland	- 0.15	- 0.02	- 0.09	- 0.55	- 0.96	- 0.12	0.17	0.20	0.49
Portugal	- 0.00	0.16	0.00	0.08	0.59	0.23	- 0.44	- 0.23	- 0.23
Slovak Republic	0.24	0.29	0.45	- 0.23	- 0.28	0.09	0.23	0.26	0.32
Slovenia	..	..	- 0.08	- 0.11	- 0.03	- 0.18	- 0.10	- 0.04	- 0.04
Spain	- 0.17	- 0.12	- 0.04	0.38	- 0.12	- 0.72	0.66	0.79	0.95
Sweden	0.06	0.05	- 0.15	0.40	- 0.64	0.18	- 1.01	- 1.63	- 1.48
Switzerland	- 0.30	- 0.70	- 0.18	- 0.61	0.55	0.04	0.34	0.48	- 0.14
Turkey	-	0.12	- 0.06	0.29	- 0.10	- 0.07	0.42	- 0.05	- 0.05
United Kingdom	0.01	0.00	1.03	1.22	0.72	0.23	1.53	1.27	1.64
OECD Europe	0.49	1.34	0.58	0.18	1.28	1.86	1.30	0.05	1.74
IEA	0.54	1.35	1.41	0.19	1.34	1.41	0.29	- 1.12	0.54
IEA/Accession/Association	0.54	2.17	3.92	5.00	4.68	4.41	4.18	2.78	..
European Union - 28	..	..	3.93	1.98	1.35	0.65	1.58	0.88	2.43
G7	0.85	1.37	0.32	- 0.83	- 0.53	0.15	- 3.54	- 3.95	- 4.53
G8	..	..	- 0.39	- 2.04	- 1.60	- 1.35	- 4.78	- 4.86	- 5.61
G20	..	..	5.54	6.14	3.80	2.59	4.02	2.70	..
OPEC	..	..	- 0.01	- 0.07	0.16	0.21	0.79	0.54	..

A negative number shows net exports. World shows the discrepancy between total exports and total imports.

1. Please refer to section 'Geographical coverage'.

Net imports of electricity (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	- 0.70	- 0.67	- 0.34	0.78	- 1.58	- 1.41	- 1.01	0.60	..
Albania	- 0.02	- 0.04	0.02	0.09	0.03	- 0.08	- 0.00	0.25	- 0.08
Armenia	..	..	0.08	- 0.04	- 0.07	- 0.07	- 0.08	- 0.10	..
Azerbaijan	..	..	- 0.14	0.04	0.10	- 0.03	- 0.08	- 0.10	- 0.11
Belarus	..	..	0.81	0.62	0.35	0.23	0.26	0.22	- 0.09
Bosnia and Herzegovina	..	..	-	- 0.09	- 0.12	- 0.33	- 0.32	- 0.16	- 0.40
Bulgaria	0.28	0.33	0.33	- 0.40	- 0.65	- 0.73	- 0.55	- 0.47	- 0.67
Croatia	..	..	0.59	0.29	0.38	0.34	0.48	0.60	0.46
Cyprus ¹	-	-	-	-	-	-	-	-	-
Georgia	..	..	0.28	0.02	0.12	- 0.11	- 0.01	0.07	0.08
Gibraltar	-	-	-	-	-	-	-	-	..
Kazakhstan	..	..	1.49	0.26	- 0.01	0.10	- 0.11	- 0.38	- 0.30
Kosovo	..	..	..	0.03	0.02	0.04	- 0.04	0.03	0.01
Kyrgyzstan	..	..	- 0.38	- 0.24	- 0.23	- 0.15	0.01	- 0.10	- 0.06
Malta	-	-	-	-	-	-	0.13	0.07	0.05
Republic of Moldova	..	..	- 0.26	0.15	0.27	0.00	0.00	0.10	0.08
Montenegro	..	..	..	..	0.15	0.00	0.03	0.10	- 0.02
North Macedonia, Republic of	..	..	0.01	0.01	0.14	0.12	0.17	0.17	0.17
Romania	- 0.31	0.04	0.81	- 0.06	- 0.25	- 0.20	- 0.43	- 0.25	- 0.22
Russian Federation	..	..	- 0.71	- 1.21	- 1.50	- 1.50	- 1.25	- 0.91	- 1.08
Serbia	..	..	- 0.17	0.26	- 0.17	- 0.03	- 0.17	0.07	0.01
Tajikistan	..	..	0.10	0.11	0.02	0.01	- 0.11	- 0.11	..
Turkmenistan	..	..	- 0.43	- 0.07	- 0.11	- 0.21	- 0.28	- 0.28	..
Ukraine	..	..	- 2.45	- 0.33	- 0.72	- 0.35	- 0.32	- 0.45	- 0.52
Uzbekistan	..	..	- 0.19	0.11	- 0.02	- 0.10	- 0.13	- 0.05	..
Former Soviet Union	- 0.83	- 1.64	x	x	x	x	x	x	x
Former Yugoslavia	- 0.00	- 0.04	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	- 0.89	- 1.35	- 0.21	- 0.44	- 1.83	- 3.02	- 2.80	- 1.67	..
Algeria	- 0.00	0.00	- 0.01	- 0.01	0.01	- 0.01	- 0.02	- 0.03	..
Angola	-	-	-	-	-	-	-	-	..
Benin	0.00	0.01	0.02	0.03	0.05	0.08	0.09	0.10	..
Botswana	..	..	0.01	0.08	0.16	0.26	0.14	0.11	..
Cameroon	-	-	-	-	-	-	0.02	0.00	..
Congo	0.00	0.00	0.00	0.02	0.04	0.02	- 0.00	- 0.00	..
Côte d'Ivoire	-	-	0.03	- 0.11	- 0.12	- 0.03	- 0.10	- 0.16	..
Dem. Rep. of the Congo	- 0.00	- 0.01	- 0.00	- 0.11	- 0.14	- 0.06	- 0.03	0.05	..
Egypt	-	-	-	- 0.01	- 0.07	- 0.12	- 0.02	- 0.02	..
Eritrea	..	..	..	-	-	-	-	-	..
Ethiopia	-	-	-	-	-	-	- 0.11	- 0.12	..
Gabon	-	-	-	-	-	-	0.03	0.03	..
Ghana	- 0.01	- 0.04	- 0.07	0.04	0.02	- 0.08	0.03	- 0.00	..
Kenya	0.03	0.03	0.02	0.02	- 0.00	-	0.01	0.01	..
Libya	-	-	-	-	0.00	- 0.01	0.03	0.03	..
Mauritius	-	-	-	-	-	-	-	-	..
Morocco	-	-	0.01	0.20	0.07	0.34	0.44	0.51	..
Mozambique	0.01	0.01	0.01	- 0.56	- 0.21	- 0.30	- 0.37	- 0.00	..
Namibia	..	..	..	0.06	0.14	0.21	0.26	0.25	..
Niger	..	..	..	0.02	0.03	0.05	0.07	0.07	..
Nigeria	-	- 0.01	-	-	-	-	-	-	..
Senegal	-	-	-	-	-	-	-	-	..
South Africa	- 0.02	0.78	- 0.11	1.06	- 0.20	- 0.21	- 0.52	- 0.57	..
South Sudan	..	..	..	..	..	..	-	-	..
Sudan	-	-	-	-	-	-	-	-	..
United Rep. of Tanzania	-	-	-	0.00	0.00	0.00	0.01	0.01	..
Togo	0.00	0.01	0.02	0.03	0.04	0.06	0.10	0.10	..
Tunisia	-	-	- 0.00	0.00	- 0.00	0.00	- 0.01	- 0.00	..
Zambia	0.17	- 0.22	- 0.14	- 0.11	- 0.02	- 0.05	0.12	- 0.03	..
Zimbabwe	0.01	0.25	0.03	0.44	0.26	0.06	0.16	0.19	..
Other Africa	- 0.02	- 0.02	0.02	0.05	0.07	0.11	0.14	0.14	..
Africa	0.18	0.80	- 0.16	1.14	0.13	0.32	0.46	0.66	..

A negative number shows net exports.

1. Please refer to section 'Geographical coverage'.

Net imports of electricity (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	-	-	-	-	-	-	-	-	..
Brunei Darussalam	-	-	-	-	-	-	-	-	..
Cambodia	..	..	..	-	0.00	0.12	0.14	0.13	..
DPR of Korea	-	-	-	-	-	-	-	-	..
India	-0.00	-0.00	0.12	0.11	0.13	0.48	-0.09	-0.14	..
Indonesia	-	-	-	-	-	0.00	0.06	0.10	..
Malaysia	-	0.01	-0.00	0.00	-0.19	-0.01	-0.06	-0.10	..
Mongolia	..	..	0.02	0.01	0.01	0.02	0.12	0.13	..
Myanmar	-	-	-	-	-	-	-0.20	-0.12	..
Nepal	-	0.00	-0.00	0.01	0.01	0.06	0.19	0.22	..
Pakistan	-	-	-	-	0.01	0.02	0.04	0.05	..
Philippines	-	-	-	-	-	-	-	-	..
Singapore	-	-0.01	-	-	-	-	-	-	..
Sri Lanka	-	-	-	-	-	-	-	-	..
Chinese Taipei	-	-	-	-	-	-	-	-	..
Thailand	0.01	0.07	0.05	0.24	0.32	0.49	1.59	2.01	..
Viet Nam	-	-	-	-	0.03	0.40	0.06	0.05	..
Other non-OECD Asia	-0.01	-0.04	-0.16	-0.33	-0.31	-0.14	-1.28	-1.28	..
Non-OECD Asia excl. China	-0.00	0.02	0.02	0.04	0.03	1.43	0.56	1.05	..
People's Rep. of China	-	-	0.16	-0.72	-0.53	-1.16	-1.09	-1.12	..
Hong Kong, China	-	-0.03	-0.15	0.78	0.56	0.73	0.90	0.97	..
China	-	-0.03	0.00	0.06	0.03	-0.44	-0.20	-0.16	..
Argentina	0.00	0.00	0.07	0.11	0.33	0.74	0.82	0.90	..
Bolivia	-	-	0.00	0.00	-	-	-	-	..
Brazil	-0.00	-0.02	2.28	3.81	3.36	2.98	3.51	3.13	3.01
Colombia	-	-	0.02	0.00	-0.15	-0.07	0.03	0.01	..
Costa Rica	-	-	0.01	-0.04	0.00	0.00	0.01	-0.02	..
Cuba	-	-	-	-	-	-	-	-	..
Curaçao ¹	-	-	-	-	-	-	-	-	..
Dominican Republic	-	-	-	-	-	-	-	-	..
Ecuador	-	-	-	-	0.15	0.07	-0.03	-0.02	..
El Salvador	-	-	0.00	0.06	0.02	0.01	0.08	0.14	..
Guatemala	-	-	-0.00	-0.06	-0.03	0.02	-0.05	-0.08	..
Haiti	-	-	-	-	-	-	-	-	..
Honduras	-	0.00	-0.03	0.02	0.00	0.00	0.02	0.03	..
Jamaica	-	-	-	-	-	-	-	-	..
Nicaragua	-	-0.00	0.01	0.01	0.00	-0.00	0.02	0.03	..
Panama	0.00	0.00	0.01	0.01	-0.00	0.00	-0.03	-0.03	..
Paraguay	-0.01	0.00	-2.15	-4.07	-3.77	-3.73	-4.16	-3.75	..
Peru	-	-	-	-	-	-0.01	-0.00	0.00	..
Suriname	..	..	..	-	-	-	-	-	..
Trinidad and Tobago	-	-	-	-	-	-	-	-	..
Uruguay	0.00	-0.10	-0.22	0.05	0.07	-0.03	-0.06	-0.13	..
Venezuela	-	-	-	-0.00	-0.05	-	-0.10	-0.10	..
Other non-OECD Americas	-	-	0.00	0.01	0.02	0.01	0.02	0.02	..
Non-OECD Americas	0.00	-0.11	0.00	-0.09	-0.04	0.00	0.07	0.13	..
Bahrain	-	-	-	-	-	0.01	-0.00	0.00	..
Islamic Republic of Iran	-	-	-	-0.06	-0.06	-0.32	-0.21	-0.37	..
Iraq	-	-	-	-	0.11	0.47	1.03	1.01	..
Jordan	0.00	-	-	0.00	0.06	0.05	0.02	-0.00	..
Kuwait	-	-	-	-	-	-	-	-	..
Lebanon	-	0.01	-	0.12	0.04	0.11	0.01	-	..
Oman	-	-	-	-	-	-	-	-	..
Qatar	-	-	-	-	-	-	-	-	..
Saudi Arabia	-	-	-	-	-	-	-	-	..
Syrian Arab Republic	-	-0.01	-	-	-0.06	-0.03	-0.01	-0.05	..
United Arab Emirates	-	-	-	-	-	-	0.05	-0.01	..
Yemen	-	-	-	-	-	-	-	-	..
Middle East	0.00	-	-	0.07	0.09	0.29	0.89	0.59	..

A negative number shows net exports.

1. Please refer to section 'Geographical coverage'.

Total net imports of energy (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	- 74.27	- 29.08	- 7.67	- 32.09	- 82.29	63.35	- 121.21	- 106.84	..
Non-OECD Total	-1 475.22	-1 333.40	-1 276.90	-1 611.98	-1 952.93	-1 628.20	-1 461.40	-1 382.26	..
OECD Total	1 400.95	1 304.31	1 269.23	1 579.88	1 870.64	1 691.55	1 340.19	1 275.42	1 167.10
Canada	- 35.64	- 12.33	- 59.32	- 127.71	- 129.88	- 143.98	- 197.81	- 217.12	- 229.11
Chile	3.70	4.03	7.03	17.74	20.49	22.30	26.16	26.21	26.73
Mexico	5.97	- 49.35	- 69.92	- 72.34	- 79.60	- 40.35	9.20	20.86	31.83
United States	296.39	307.05	341.90	606.38	736.10	533.70	265.04	174.07	79.55
OECD Americas	270.41	249.40	219.68	424.07	547.11	371.66	102.60	4.02	- 91.00
Australia	- 8.44	- 16.55	- 64.52	- 127.14	- 148.75	- 185.94	- 259.48	- 268.76	- 278.93
Israel ¹	2.44	8.46	11.40	18.17	17.83	20.49	15.09	16.08	15.14
Japan	316.76	318.78	377.77	429.17	435.87	409.79	401.72	400.83	389.09
Korea	13.56	30.75	70.15	165.74	175.56	221.06	246.51	249.34	257.35
New Zealand	4.54	4.22	2.12	3.35	4.92	2.91	5.78	5.83	6.19
OECD Asia Oceania	328.86	345.66	396.92	489.28	485.43	468.31	409.61	403.32	388.85
Austria	13.90	16.12	17.36	19.14	24.66	21.87	21.14	22.21	21.98
Belgium	43.06	42.26	39.76	50.63	53.42	53.63	47.92	47.99	51.12
Czech Republic	6.97	6.39	7.61	9.39	12.72	11.53	13.64	16.16	15.91
Denmark	20.42	19.19	8.65	- 7.47	- 10.49	- 3.45	2.47	2.17	4.39
Estonia	..	..	4.46	1.64	1.51	0.91	0.51	0.26	0.27
Finland	16.42	18.33	17.83	18.50	19.21	18.03	15.63	15.01	15.80
France	145.46	149.01	119.20	132.49	144.63	132.34	121.88	125.16	120.07
Germany	171.07	183.39	167.29	205.67	211.50	203.96	204.88	207.19	200.19
Greece	12.04	13.65	15.32	21.78	23.14	21.30	18.50	18.91	18.35
Hungary	8.65	14.34	14.16	13.87	17.64	15.12	14.27	16.70	15.19
Iceland	0.69	0.60	0.75	0.95	0.96	0.77	1.06	1.09	1.18
Ireland	5.96	6.64	7.05	12.32	13.87	13.17	10.33	9.88	10.09
Italy	107.79	116.81	127.27	152.44	159.77	148.48	121.51	124.56	121.00
Latvia	..	..	7.47	2.36	3.10	2.22	2.22	2.12	2.18
Lithuania	..	..	11.63	4.22	5.06	5.78	5.62	5.71	6.19
Luxembourg	4.49	3.62	3.50	3.66	4.69	4.52	4.04	4.15	4.28
Netherlands	17.90	3.36	17.98	34.76	37.17	28.16	41.11	46.63	51.07
Norway	6.72	- 35.85	- 95.70	- 200.30	- 196.17	- 172.81	- 179.91	- 185.49	- 175.84
Poland	- 13.18	1.47	0.87	9.58	16.41	32.12	30.94	40.31	47.37
Portugal	6.46	9.94	14.91	22.06	24.54	18.68	17.57	19.81	18.41
Slovak Republic	12.96	16.24	16.42	11.53	12.34	11.38	9.88	11.17	10.84
Slovenia	..	..	2.62	3.38	3.83	3.58	3.35	3.49	3.51
Spain	43.90	55.33	60.38	100.19	124.52	106.85	94.50	101.90	101.29
Sweden	30.34	27.64	18.34	19.32	20.35	19.95	17.05	14.22	15.16
Switzerland	15.08	14.08	14.98	14.12	16.27	14.94	14.08	14.26	12.82
Turkey	8.85	14.38	27.78	50.66	61.82	75.92	105.67	116.22	109.91
United Kingdom	115.75	12.33	4.73	- 40.36	31.63	62.64	68.13	66.29	66.53
OECD Europe	801.68	709.26	652.63	666.53	838.10	851.59	827.98	868.08	869.25
IEA	1 394.13	1 291.23	1 228.33	1 533.07	1 819.37	1 636.43	1 286.70	1 220.72	1 112.17
IEA/Accession/Association	1 429.74	1 299.97	1 228.44	1 684.27	2 066.12	2 179.97	2 152.42	2 170.66	..
European Union - 28	..	..	751.08	825.81	985.03	957.33	910.59	947.87	..
G7	1 117.56	1 075.03	1 078.84	1 358.09	1 589.62	1 346.93	985.36	880.99	747.33
G8	..	..	666.25	1 008.50	1 050.29	767.79	342.85	216.90	..
G20	..	..	609.91	1 077.17	1 175.27	1 318.39	1 102.90	1 120.20	..
OPEC	..	..	-1 021.79	-1 386.96	-1 584.45	-1 486.69	-1 654.91	-1 651.47	..

A negative number shows net exports. World shows the discrepancy between total exports and total imports.

1. Please refer to section 'Geographical coverage'.

Total net imports of energy (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	-1 475.22	-1 333.40	-1 276.90	-1 611.98	-1 952.93	-1 628.20	-1 461.40	-1 382.26	..
Albania	- 1.27	- 0.38	0.17	0.83	1.09	0.61	0.45	0.91	..
Armenia	..	..	7.76	1.43	1.69	1.73	2.11	2.27	..
Azerbaijan	..	..	2.77	- 7.44	- 12.62	- 52.65	- 43.13	- 39.38	..
Belarus	..	..	42.25	21.13	22.98	23.39	20.88	21.68	..
Bosnia and Herzegovina	..	..	2.44	1.26	1.38	2.02	2.13	2.30	..
Bulgaria	15.26	21.03	17.92	8.72	9.56	7.27	7.14	7.52	..
Croatia	..	..	3.88	4.11	5.19	4.45	4.19	4.75	..
Cyprus ¹	0.85	0.97	1.64	2.56	2.82	2.92	2.60	2.68	..
Georgia	..	..	10.57	1.56	1.90	1.85	3.49	3.56	..
Gibraltar	1.25	1.34	1.77	2.74	4.09	4.30	3.93	4.37	..
Kazakhstan	..	..	- 16.62	- 42.85	- 68.18	- 85.43	- 82.18	- 95.33	..
Kosovo	..	..	..	0.42	0.55	0.61	0.63	0.78	..
Kyrgyzstan	..	..	5.07	0.94	1.39	1.78	2.04	1.88	..
Malta	0.34	0.42	0.80	1.45	1.59	2.36	2.49	3.00	..
Republic of Moldova	..	..	9.89	2.82	3.42	3.15	3.11	3.11	..
Montenegro	..	..	..	..	0.44	0.30	0.34	0.42	..
North Macedonia, Republic of	..	..	1.21	1.10	1.25	1.27	1.58	1.54	..
Romania	1.62	12.64	22.03	7.87	10.65	7.56	7.08	7.91	..
Russian Federation	..	..	- 412.59	- 349.59	- 539.33	- 579.14	- 642.51	- 664.09	..
Serbia	..	..	6.09	1.88	5.88	5.20	4.58	5.32	..
Tajikistan	..	..	3.30	0.89	0.81	0.66	0.86	0.72	..
Turkmenistan	..	..	- 55.25	- 30.77	- 41.99	- 24.02	- 48.97	- 48.78	..
Ukraine	..	..	120.94	57.63	59.75	41.90	27.73	33.20	..
Uzbekistan	..	..	7.72	- 4.55	- 9.52	- 12.06	- 16.46	- 16.93	..
Former Soviet Union	- 110.71	- 211.62	x	x	x	x	x	x	x
Former Yugoslavia	10.84	15.23	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	- 81.82	- 160.37	- 216.24	- 315.85	- 535.22	- 639.96	- 735.88	- 756.58	..
Algeria	- 50.89	- 51.27	- 77.34	- 114.97	- 133.73	- 109.42	- 98.87	- 96.47	..
Angola	- 7.27	- 6.40	- 22.46	- 37.91	- 61.51	- 84.62	- 79.85	- 76.33	..
Benin	0.14	0.15	- 0.09	0.56	0.90	1.76	2.22	2.37	..
Botswana	..	..	0.36	0.72	0.87	1.11	1.01	0.98	..
Cameroon	0.33	- 2.96	- 6.08	- 4.78	- 3.55	- 1.63	- 2.56	- 2.02	..
Congo	- 1.28	- 3.16	- 7.89	- 13.74	- 12.51	- 15.66	- 11.59	- 13.60	..
Côte d'Ivoire	1.08	1.51	1.09	0.99	- 0.70	- 0.85	0.52	0.32	..
Dem. Rep. of the Congo	1.02	0.03	- 0.09	- 0.94	- 0.83	- 0.43	- 0.26	- 0.30	..
Egypt	- 1.63	- 17.16	- 20.76	- 9.67	- 14.21	- 11.55	16.27	15.16	..
Eritrea	..	..	..	0.21	0.23	0.16	0.20	0.21	..
Ethiopia	0.57	0.61	1.00	1.10	1.58	2.26	4.14	4.55	..
Gabon	- 7.14	- 8.21	- 12.16	- 13.49	- 12.85	- 12.38	- 10.44	- 9.05	..
Ghana	0.91	0.81	0.97	2.04	2.38	3.73	0.17	- 4.35	..
Kenya	1.82	2.23	2.25	3.54	3.22	4.31	6.03	6.08	..
Libya	- 111.97	- 88.96	- 61.61	- 59.42	- 79.42	- 81.68	- 15.43	- 40.33	..
Mauritius	0.13	0.28	0.44	1.10	1.32	1.52	1.85	2.09	..
Morocco	2.40	3.96	6.50	9.93	12.78	16.39	18.59	19.53	..
Mozambique	0.91	0.75	0.37	- 0.05	- 1.61	- 2.24	- 7.66	- 8.84	..
Namibia	..	..	..	0.72	0.95	1.20	1.55	1.56	..
Niger	..	..	..	0.20	0.23	0.45	- 0.09	- 0.03	..
Nigeria	- 101.03	- 95.53	- 79.42	- 110.06	- 127.91	- 126.21	- 89.63	- 90.80	..
Senegal	1.55	1.24	0.85	1.53	1.97	2.08	2.92	2.95	..
South Africa	11.69	- 3.19	- 22.59	- 31.80	- 31.01	- 18.26	- 22.92	- 22.00	..
South Sudan	..	..	..	..	..	..	- 5.35	- 4.98	..
Sudan	1.60	1.32	1.92	- 6.65	- 11.68	- 19.27	1.64	1.57	..
United Rep. of Tanzania	1.00	0.87	0.77	0.86	1.49	1.71	2.59	2.54	..
Togo	0.10	0.14	0.24	0.36	0.41	0.80	0.85	0.88	..
Tunisia	- 2.24	- 2.49	- 0.87	0.81	1.77	2.06	5.24	5.94	..
Zambia	1.13	0.52	0.59	0.41	0.67	0.61	1.23	1.47	..
Zimbabwe	0.63	0.76	0.83	1.39	0.86	0.64	1.18	1.26	..
Other Africa	3.67	4.31	4.77	0.84	- 19.56	- 15.33	- 10.46	- 9.47	..
Africa	- 252.76	- 259.83	- 288.41	- 376.17	- 479.45	- 458.75	- 286.89	- 309.11	..

A negative number shows net exports.

1. Please refer to section 'Geographical coverage'.

Total net imports of energy (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	1.02	1.79	2.16	3.47	4.14	4.30	6.40	7.33	..
Brunei Darussalam	- 13.04	- 19.55	- 13.82	- 17.31	- 18.62	- 15.31	- 12.14	- 12.05	..
Cambodia	..	..	..	0.71	0.96	1.75	3.11	3.43	..
DPR of Korea	1.54	3.15	4.31	0.96	- 0.70	- 1.93	- 12.47	- 0.20	..
India	17.28	23.59	31.64	91.43	121.52	204.74	313.88	330.12	..
Indonesia	- 50.84	- 68.14	- 69.05	- 81.31	- 99.87	- 170.59	- 203.27	- 201.41	..
Malaysia	0.18	- 5.00	- 25.86	- 27.38	- 28.45	- 14.14	- 7.11	- 8.03	..
Mongolia	..	..	0.70	0.47	- 0.87	- 10.74	- 16.06	- 18.91	..
Myanmar	0.09	0.07	0.01	- 2.63	- 7.34	- 8.65	- 8.88	- 5.98	..
Nepal	0.12	0.17	0.31	1.03	1.04	1.42	2.92	3.46	..
Pakistan	3.20	4.75	9.25	17.26	15.67	20.67	32.84	39.83	..
Philippines	9.02	11.38	12.33	21.03	18.01	18.31	27.81	30.60	..
Singapore	12.25	8.00	24.52	40.83	49.65	67.20	87.16	93.25	..
Sri Lanka	1.69	1.65	1.70	3.83	4.26	4.09	7.15	7.29	..
Chinese Taipei	10.45	24.50	41.67	79.23	95.32	101.46	103.22	106.01	..
Thailand	8.30	12.29	17.85	32.06	47.87	51.46	65.82	68.81	..
Viet Nam	5.67	1.50	- 0.17	- 9.77	- 17.22	- 7.40	12.29	14.43	..
Other non-OECD Asia	0.73	1.17	- 1.38	0.01	- 6.43	- 7.65	- 18.76	- 17.95	..
Non-OECD Asia excl. China	7.65	1.32	36.17	153.93	178.92	238.99	383.91	440.02	..
People's Rep. of China	- 3.95	- 20.61	- 35.04	27.87	100.16	345.18	572.47	631.86	..
Hong Kong, China	4.85	6.38	11.81	19.82	23.00	31.47	30.85	31.64	..
China	0.91	- 14.23	- 23.22	47.69	123.16	376.65	603.32	663.50	..
Argentina	5.85	3.88	- 1.40	- 20.33	- 16.20	1.33	12.22	12.59	..
Bolivia	- 3.35	- 1.95	- 2.32	- 1.81	- 8.70	- 9.43	- 13.11	- 12.04	..
Brazil	34.78	48.80	39.24	44.43	25.17	25.15	7.84	3.59	- 2.06
Colombia	- 2.93	0.35	- 21.24	- 46.43	- 50.16	- 73.16	- 86.16	- 101.73	..
Costa Rica	0.59	0.81	1.04	1.76	2.13	2.42	2.69	2.85	..
Cuba	7.17	9.76	10.20	5.95	5.19	6.95	6.36	6.13	..
Curaçao ¹	8.02	8.27	3.14	4.16	4.28	4.38	3.35	3.27	..
Dominican Republic	1.68	2.12	3.10	6.64	6.59	7.10	8.35	8.09	..
Ecuador	- 9.15	- 6.31	- 10.08	- 13.68	- 17.46	- 13.56	- 15.90	- 15.46	..
El Salvador	0.69	0.62	0.79	1.91	2.03	2.04	2.39	2.24	..
Guatemala	1.04	1.37	1.16	1.94	2.89	3.03	5.12	4.86	..
Haiti	0.13	0.22	0.32	0.50	0.69	0.70	1.09	1.11	..
Honduras	0.40	0.57	0.71	1.51	2.20	2.38	2.72	3.11	..
Jamaica	2.93	2.18	2.51	3.61	3.57	2.44	3.05	2.88	..
Nicaragua	0.63	0.64	0.64	1.16	1.35	1.32	1.73	1.76	..
Panama	2.41	2.12	2.51	4.50	4.61	5.86	7.82	8.36	..
Paraguay	0.27	0.50	- 1.48	- 2.93	- 2.63	- 2.34	- 1.83	- 1.32	..
Peru	2.06	- 2.96	- 0.56	3.36	3.07	0.28	0.14	0.49	..
Suriname	..	..	..	- 0.11	- 0.05	- 0.18	- 0.41	- 0.55	..
Trinidad and Tobago	- 5.06	- 9.03	- 6.39	- 8.54	- 17.69	- 22.16	- 14.57	- 14.90	..
Uruguay	1.90	2.03	1.18	2.32	2.21	2.55	2.31	2.03	..
Venezuela	- 181.20	- 103.39	- 101.92	- 163.25	- 174.53	- 125.39	- 111.12	- 99.77	..
Other non-OECD Americas	8.35	6.55	4.88	5.38	5.24	6.46	5.62	5.22	..
Non-OECD Americas	- 122.77	- 32.82	- 73.97	- 167.94	- 216.20	- 171.82	- 170.30	- 177.22	..
Bahrain	- 7.59	- 8.38	- 8.55	- 8.15	- 6.62	- 6.81	- 8.10	- 8.31	..
Islamic Republic of Iran	- 286.28	- 41.58	- 117.61	- 130.25	- 138.52	- 131.00	- 146.53	- 162.62	..
Iraq	- 97.64	- 125.44	- 89.84	- 108.25	- 70.64	- 86.87	- 173.86	- 176.72	..
Jordan	0.69	1.78	3.51	4.77	6.99	7.33	8.99	9.28	..
Kuwait	- 151.54	- 79.06	- 41.26	- 95.07	- 118.43	- 101.73	- 137.61	- 128.30	..
Lebanon	2.39	2.49	1.86	4.88	4.96	6.44	8.63	9.12	..
Oman	- 13.92	- 13.58	- 33.66	- 52.51	- 49.41	- 47.00	- 53.05	- 50.14	..
Qatar	- 28.11	- 23.21	- 20.54	- 50.37	- 72.22	- 149.47	- 181.41	- 179.50	..
Saudi Arabia	- 367.79	- 497.39	- 307.03	- 373.94	- 444.32	- 349.01	- 447.08	- 425.40	..
Syrian Arab Republic	- 3.11	- 4.06	- 11.14	- 17.81	- 7.03	- 4.37	5.21	4.93	..
United Arab Emirates	- 74.79	- 80.98	- 80.54	- 109.86	- 116.27	- 99.75	- 132.49	- 136.83	..
Yemen	1.27	1.94	- 6.42	- 17.07	- 12.62	- 11.08	1.75	1.62	..
Middle East	- 1 026.43	- 867.46	- 711.23	- 953.63	- 1 024.14	- 973.31	- 1 255.54	- 1 242.87	..

A negative number shows net exports.

1. Please refer to section 'Geographical coverage'.

Primary supply of coal (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	1 496.20	1 782.69	2 220.47	2 316.66	2 994.44	3 653.11	3 741.46	3 789.93	3 820.29
Non-OECD Total	651.73	817.06	1 140.55	1 215.53	1 845.66	2 561.50	2 845.03	2 909.61	2 974.33
OECD Total	844.47	965.63	1 079.92	1 101.14	1 148.78	1 091.61	896.43	880.32	852.51
Canada	15.26	20.58	24.26	31.61	29.66	22.48	16.96	17.02	14.83
Chile	1.20	1.22	2.50	3.07	2.70	4.46	7.10	7.34	7.13
Mexico	1.82	2.37	4.13	6.88	12.16	13.26	12.38	12.69	12.00
United States	311.05	376.23	460.12	533.94	558.36	502.61	341.57	330.75	316.88
OECD Americas	329.33	400.40	491.00	575.50	602.88	542.81	378.01	367.79	350.84
Australia	22.58	27.32	34.89	48.15	51.03	50.47	43.95	43.91	42.27
Israel ¹	0.00	0.00	2.29	6.47	7.41	7.41	5.50	4.97	4.79
Japan	57.86	59.56	76.70	97.01	110.46	115.44	116.44	116.48	115.09
Korea	8.15	13.53	25.38	41.95	49.66	73.45	81.47	82.60	84.41
New Zealand	1.13	1.02	1.18	1.11	2.19	1.31	1.15	1.16	1.29
OECD Asia Oceania	89.72	101.43	140.44	194.69	220.75	248.08	248.51	249.11	247.84
Austria	3.87	3.65	4.10	3.60	4.00	3.38	2.97	3.08	2.76
Belgium	11.18	11.39	10.57	8.02	5.17	3.79	3.17	3.09	3.11
Czech Republic	35.58	33.45	31.45	21.64	20.24	18.73	16.55	15.81	15.67
Denmark	1.93	5.88	6.09	3.99	3.71	3.81	1.97	1.55	1.57
Estonia	..	..	5.95	2.97	3.19	3.92	4.28	4.25	4.14
Finland	2.55	4.95	5.32	5.10	4.91	6.88	4.53	4.13	4.18
France	29.30	32.89	20.05	14.89	14.15	11.96	9.11	9.89	9.09
Germany	139.40	141.02	128.59	84.82	81.90	78.95	77.23	71.41	67.14
Greece	2.10	3.26	8.07	9.04	8.95	7.86	4.37	4.82	4.64
Hungary	7.91	8.42	6.23	3.85	3.04	2.72	2.19	2.24	2.23
Iceland	0.00	0.02	0.06	0.10	0.10	0.09	0.10	0.10	0.10
Ireland	1.59	1.91	3.40	2.60	2.67	1.96	2.08	1.80	1.42
Italy	8.10	11.68	14.63	12.56	16.47	13.67	10.98	9.34	8.53
Latvia	..	..	0.71	0.13	0.08	0.11	0.04	0.04	0.05
Lithuania	..	..	0.80	0.09	0.18	0.21	0.18	0.20	0.21
Luxembourg	2.44	1.82	1.11	0.11	0.08	0.07	0.05	0.05	0.04
Netherlands	2.87	3.79	8.17	7.77	8.09	7.54	10.15	9.15	8.13
Norway	0.91	1.01	0.86	1.05	0.78	0.76	0.76	0.85	0.82
Poland	74.70	99.80	78.87	56.35	54.66	54.74	49.19	49.42	49.63
Portugal	0.51	0.43	2.76	3.81	3.35	1.66	2.85	3.23	2.71
Slovak Republic	7.96	8.19	7.83	4.27	4.24	3.90	3.22	3.38	3.31
Slovenia	..	..	1.58	1.31	1.54	1.45	1.15	1.14	1.12
Spain	9.00	12.43	19.27	20.94	20.57	7.75	10.50	12.65	9.70
Sweden	1.63	1.70	2.96	2.45	2.63	2.49	2.05	2.05	2.20
Switzerland	0.33	0.33	0.36	0.14	0.15	0.15	0.11	0.11	0.08
Turkey	5.15	6.99	15.58	22.83	22.39	31.21	38.34	40.09	43.26
United Kingdom	76.43	68.80	63.11	36.53	37.91	30.97	11.78	9.56	7.99
OECD Europe	425.41	463.81	448.47	330.95	325.15	300.71	269.91	263.42	253.83
IEA	843.27	964.39	1 071.99	1 089.97	1 136.77	1 077.88	882.36	866.54	839.12
IEA/Accession/Association	1 117.36	1 377.09	1 782.43	2 020.80	2 669.09	3 317.75	3 368.60	3 403.24	3 408.46
European Union - 28	..	..	453.98	321.16	318.14	283.06	242.22	234.19	213.76
G7	637.39	710.75	787.47	811.35	848.91	776.09	584.07	564.45	539.53
G8	..	..	978.59	931.34	961.50	877.52	697.36	678.03	659.76
G20	..	..	1 995.57	2 145.21	2 786.91	3 417.02	3 473.33	3 506.22	3 518.75
OPEC	..	..	1.90	2.11	2.64	2.71	3.04	3.75	3.32

Where applicable, includes quantities of peat and oil shale except for 2018 provisional figures for non-OECD countries.

1. Please refer to section 'Geographical coverage'.

Primary supply of coal (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	651.73	817.06	1 140.55	1 215.53	1 845.66	2 561.50	2 845.03	2 909.61	2 974.33
Albania	0.35	0.61	0.63	0.02	0.01	0.11	0.05	0.12	0.22
Armenia	..	..	0.24	-	-	0.00	0.00	0.00	..
Azerbaijan	..	..	0.09	-	-	-	-	-	..
Belarus	..	..	2.38	0.97	0.61	0.56	0.81	0.83	0.38
Bosnia and Herzegovina	..	..	4.18	2.46	3.03	4.03	4.11	4.19	4.64
Bulgaria	8.34	9.39	8.67	6.40	6.91	6.90	5.68	6.12	5.49
Croatia	..	..	0.81	0.43	0.68	0.68	0.65	0.39	0.35
Cyprus ¹	-	-	0.06	0.03	0.04	0.02	-	0.00	0.01
Georgia	..	..	0.89	0.01	0.01	0.05	0.26	0.29	0.19
Gibraltar	-	-	-	-	-	-	-	-	..
Kazakhstan	..	..	39.95	19.76	28.49	34.51	35.36	38.28	38.87
Kosovo	..	..	..	0.97	1.24	1.67	1.69	1.42	1.34
Kyrgyzstan	..	..	2.53	0.47	0.55	0.70	0.91	0.87	1.18
Malta	-	-	0.18	-	-	-	-	-	..
Republic of Moldova	..	..	2.00	0.08	0.11	0.10	0.07	0.10	0.08
Montenegro	..	..	..	..	0.29	0.42	0.30	0.30	0.33
North Macedonia, Republic of	..	..	1.33	1.34	1.46	1.30	0.88	0.97	0.87
Romania	8.68	12.56	12.65	7.47	8.76	6.95	5.29	5.40	4.86
Russian Federation	..	..	191.11	119.99	112.58	101.44	113.29	113.58	120.23
Serbia	..	..	10.17	8.64	8.07	7.83	7.89	7.87	6.97
Tajikistan	..	..	0.63	0.01	0.04	0.09	0.81	1.04	1.17
Turkmenistan	..	..	0.30	-	-	-	-	-	..
Ukraine	..	..	83.06	38.55	37.30	38.25	29.73	25.76	27.95
Uzbekistan	..	..	3.39	1.11	0.99	0.93	1.60	1.82	1.79
Former Soviet Union	321.16	327.61	x	x	x	x	x	x	x
Former Yugoslavia	9.31	11.96	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	347.84	362.12	365.26	208.72	211.19	206.56	209.38	209.37	216.67
Algeria	0.24	0.13	0.69	0.52	0.77	0.34	-	0.22	..
Angola	-	-	-	-	-	-	-	-	..
Benin	-	-	-	-	-	-	0.07	0.08	0.08
Botswana	..	..	0.46	0.59	0.56	0.53	0.94	1.12	1.01
Cameroon	-	-	-	-	-	-	-	-	..
Congo	-	-	-	-	-	-	-	-	..
Côte d'Ivoire	-	-	-	-	-	-	-	-	..
Dem. Rep. of the Congo	0.21	0.21	0.22	-	-	-	-	-	..
Egypt	0.28	0.54	0.76	0.83	0.81	0.46	0.34	0.37	0.41
Eritrea	..	..	..	-	-	-	-	-	..
Ethiopia	-	-	-	-	-	0.03	0.32	0.36	0.38
Gabon	-	-	-	-	-	-	-	-	..
Ghana	-	-	-	-	-	-	-	-	..
Kenya	0.04	0.01	0.09	0.07	0.09	0.17	0.49	0.46	0.49
Libya	-	-	-	-	-	-	-	-	..
Mauritius	-	-	0.03	0.16	0.22	0.41	0.45	0.47	0.45
Morocco	0.37	0.40	1.13	2.65	3.14	2.79	4.28	4.45	5.01
Mozambique	0.35	0.17	0.03	-	-	0.01	0.01	0.02	0.02
Namibia	..	..	..	0.00	0.01	0.01	0.02	0.02	0.02
Niger	..	..	..	0.04	0.05	0.08	0.07	0.07	0.07
Nigeria	0.18	0.10	0.04	0.00	0.00	0.02	0.03	0.03	0.09
Senegal	-	-	-	-	0.09	0.18	0.46	0.38	0.42
South Africa	33.84	47.68	66.54	81.78	91.94	100.50	98.11	98.23	100.15
South Sudan	..	..	..	..	..	..	-	-	..
Sudan	-	0.00	-	-	-	-	-	-	..
United Rep. of Tanzania	-	0.00	0.00	0.05	0.02	-	0.17	0.35	0.17
Togo	-	-	-	-	-	-	-	-	..
Tunisia	0.07	0.06	0.08	0.08	-	-	-	-	..
Zambia	0.56	0.36	0.22	0.08	0.08	0.00	0.19	0.47	0.19
Zimbabwe	1.72	1.63	3.44	2.70	2.22	1.75	1.86	1.67	1.40
Other Africa	0.15	0.39	0.42	0.71	0.77	0.97	0.78	0.81	0.81
Africa	38.01	51.69	74.16	90.24	100.79	108.24	108.60	109.58	111.17

Where applicable, includes quantities of peat and oil shale except for 2018 provisional figures for non-OECD countries.

1. Please refer to section 'Geographical coverage'.

Primary supply of coal (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	0.12	0.12	0.28	0.33	0.42	0.81	1.60	1.98	2.22
Brunei Darussalam	-	-	-	-	-	-	-	-	..
Cambodia	..	..	..	..	..	0.01	0.68	1.01	1.02
DPR of Korea	17.84	25.88	28.26	16.81	18.23	11.74	5.58	12.15	18.05
India	31.51	44.31	92.70	145.92	184.22	279.03	372.28	390.94	409.33
Indonesia	0.08	0.16	3.55	12.01	22.13	31.84	43.31	48.38	53.04
Malaysia	0.01	0.05	1.36	2.31	6.89	14.60	18.82	20.74	22.09
Mongolia	..	..	2.49	1.82	2.25	2.91	3.66	3.52	3.80
Myanmar	0.05	0.15	0.07	0.32	0.32	0.41	0.33	0.63	0.45
Nepal	0.05	0.05	0.05	0.26	0.25	0.30	0.69	0.79	0.82
Pakistan	0.58	0.69	2.00	1.86	3.73	4.19	6.33	10.75	11.38
Philippines	0.02	0.51	1.53	5.16	5.83	7.63	14.30	16.83	17.55
Singapore	0.00	0.00	0.02	-	0.00	0.01	0.43	0.90	0.66
Sri Lanka	0.00	0.00	0.00	0.00	0.07	0.07	1.46	1.51	1.43
Chinese Taipei	2.28	3.88	11.36	29.91	38.13	40.64	40.67	41.49	41.93
Thailand	0.10	0.47	3.82	7.67	11.50	16.36	15.42	16.39	14.31
Viet Nam	1.55	2.27	2.22	4.37	8.26	14.65	28.50	28.20	33.30
Other non-OECD Asia	0.97	1.85	0.19	0.34	0.42	1.10	6.36	5.90	6.79
Non-OECD Asia excl. China	55.16	80.41	149.89	229.10	302.67	426.30	560.42	602.11	638.18
People's Rep. of China	204.68	312.53	530.52	664.72	1 203.69	1 790.42	1 929.39	1 953.30	1 969.57
Hong Kong, China	0.01	0.01	5.50	3.73	6.67	6.36	6.88	6.47	6.71
China	204.69	312.53	536.02	668.45	1 210.36	1 796.78	1 936.27	1 959.77	1 976.27
Argentina	0.70	0.96	0.94	0.51	0.84	0.99	0.82	0.82	0.86
Bolivia	-	-	-	-	-	-	-	-	..
Brazil	2.31	5.93	9.67	13.01	12.99	14.47	15.92	16.78	16.63
Colombia	1.85	1.78	3.08	2.63	2.70	3.22	6.67	4.06	7.50
Costa Rica	0.00	0.00	-	0.00	0.04	0.06	0.08	0.10	0.00
Cuba	0.08	0.10	0.14	0.03	0.02	0.02	0.00	0.00	0.00
Curaçao ¹	-	-	-	-	-	-	-	-	..
Dominican Republic	-	-	0.01	0.10	0.57	0.81	0.98	1.07	0.62
Ecuador	-	-	-	-	-	-	-	-	..
El Salvador	-	0.00	-	0.00	0.00	-	-	-	..
Guatemala	-	0.01	-	0.13	0.25	0.30	1.11	0.92	1.50
Haiti	-	-	0.01	-	-	-	-	-	..
Honduras	-	-	0.00	0.08	0.15	0.14	0.17	0.25	0.33
Jamaica	-	-	0.03	0.03	0.04	0.03	0.06	0.05	0.04
Nicaragua	-	-	-	-	-	-	-	-	..
Panama	0.01	-	0.02	0.04	-	-	0.18	0.05	0.25
Paraguay	-	-	-	-	-	-	0.00	0.00	0.00
Peru	0.15	0.14	0.15	0.63	0.96	0.87	0.86	0.75	0.73
Suriname	..	..	..	-	-	-	-	-	..
Trinidad and Tobago	-	-	-	-	-	-	-	-	..
Uruguay	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Venezuela	0.27	0.16	0.46	0.13	0.04	0.20	0.12	0.13	0.11
Other non-OECD Americas	0.03	0.02	0.00	0.08	0.10	0.10	0.00	0.00	..
Non-OECD Americas	5.42	9.10	14.51	17.42	18.68	21.22	27.00	24.99	28.58
Bahrain	-	-	-	-	-	-	-	-	..
Islamic Republic of Iran	0.60	1.20	0.71	1.46	1.68	1.49	1.05	1.25	0.71
Iraq	-	-	-	-	-	-	-	-	..
Jordan	-	-	-	-	-	-	0.22	0.16	0.14
Kuwait	-	-	-	-	-	-	-	-	..
Lebanon	0.01	0.00	-	0.13	0.13	0.15	0.17	0.17	0.11
Oman	-	-	-	-	-	-	-	-	..
Qatar	-	-	-	-	-	-	-	-	..
Saudi Arabia	-	-	-	-	-	-	-	-	..
Syrian Arab Republic	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	..
United Arab Emirates	-	-	-	-	0.15	0.66	1.84	2.13	2.41
Yemen	-	-	-	-	-	0.10	0.08	0.08	0.09
Middle East	0.61	1.20	0.71	1.59	1.96	2.40	3.36	3.79	3.46

Where applicable, includes quantities of peat and oil shale except for 2018 provisional figures for non-OECD countries.

1. Please refer to section 'Geographical coverage'.

Primary supply of oil (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	2 817.71	3 105.10	3 232.74	3 662.67	3 998.70	4 135.58	4 370.87	4 449.50	..
Non-OECD Total	666.32	981.39	1 149.34	1 271.33	1 486.55	1 805.30	2 078.59	2 124.37	..
OECD Total	1 967.47	1 945.54	1 881.48	2 117.89	2 194.26	1 971.65	1 896.15	1 912.89	1 903.74
Canada	79.39	88.52	76.51	87.10	95.02	96.28	99.31	99.92	99.86
Chile	4.97	5.07	6.47	10.48	11.56	15.01	16.12	15.99	16.39
Mexico	32.47	64.45	80.79	89.33	102.03	94.43	87.94	85.82	82.25
United States	817.49	796.93	756.84	871.15	929.18	806.52	784.32	790.28	805.57
OECD Americas	934.32	954.97	920.62	1 058.05	1 137.79	1 012.24	987.68	992.01	1 004.06
Australia	26.58	30.07	31.20	34.15	36.91	41.61	42.90	42.90	44.51
Israel ¹	7.72	7.70	8.83	11.27	9.13	10.57	9.50	9.33	8.91
Japan	248.93	233.68	250.26	255.02	243.14	202.69	176.78	175.99	167.33
Korea	13.31	26.65	49.73	99.04	92.49	95.11	109.80	109.10	111.92
New Zealand	4.17	4.01	3.51	5.71	6.12	6.18	6.69	6.77	6.56
OECD Asia Oceania	300.71	302.12	343.53	405.19	387.80	356.17	345.66	344.08	339.24
Austria	12.11	12.08	10.35	11.71	13.77	12.34	11.52	11.59	11.76
Belgium	27.69	23.34	17.56	22.67	23.49	23.11	21.42	21.19	20.39
Czech Republic	8.66	10.84	8.73	7.72	9.67	8.97	7.96	9.32	9.33
Denmark	16.72	12.72	7.65	8.03	7.41	7.02	5.89	6.14	6.19
Estonia	..	..	2.84	0.65	0.77	0.58	0.42	0.15	0.10
Finland	13.26	12.60	9.46	9.09	10.06	9.45	8.41	7.90	8.14
France	119.81	106.32	84.03	82.22	88.23	77.02	72.32	72.57	69.97
Germany	158.70	143.86	121.44	124.81	116.76	104.70	101.43	102.97	97.90
Greece	9.06	10.92	12.07	14.88	16.95	13.85	11.12	11.10	10.39
Hungary	8.15	10.79	8.35	6.63	7.01	6.55	6.83	7.37	7.49
Iceland	0.58	0.58	0.59	0.61	0.64	0.53	0.58	0.56	0.55
Ireland	5.26	5.52	4.47	7.52	7.90	7.04	6.49	6.14	6.27
Italy	90.30	88.23	83.32	86.85	80.25	65.30	51.53	52.00	51.04
Latvia	..	..	3.41	1.26	1.42	1.40	1.35	1.41	1.43
Lithuania	..	..	6.71	2.05	2.67	2.56	2.73	2.80	3.07
Luxembourg	1.60	1.04	1.48	2.02	2.75	2.45	2.14	2.19	2.33
Netherlands	30.46	28.86	24.92	27.41	30.84	29.86	27.40	27.86	25.62
Norway	7.56	8.74	8.13	9.02	9.90	9.81	8.10	11.39	9.24
Poland	10.68	16.65	13.04	19.16	21.56	25.40	25.79	29.03	29.70
Portugal	5.12	8.00	10.74	14.83	15.16	11.51	9.24	9.33	8.70
Slovak Republic	5.39	7.49	4.49	2.82	3.46	3.62	3.47	3.85	3.94
Slovenia	..	..	1.73	2.37	2.53	2.57	2.38	2.30	2.34
Spain	37.60	49.77	45.47	62.10	68.07	58.16	50.70	53.44	53.62
Sweden	27.91	22.64	14.30	13.57	14.27	13.92	11.67	10.38	9.90
Switzerland	14.45	12.51	12.26	11.02	11.46	10.35	8.75	8.86	8.37
Turkey	12.48	15.62	23.40	30.40	28.74	31.50	42.11	44.32	42.00
United Kingdom	108.90	79.34	76.37	73.22	72.92	63.65	61.06	60.62	60.64
OECD Europe	732.44	688.46	617.33	654.64	668.68	603.24	562.81	576.80	560.44
International marine bunkers	121.55	110.88	115.62	155.01	177.50	205.80	211.14	216.87	..
International aviation bunkers	62.36	67.28	86.30	118.43	140.39	152.82	184.99	195.37	..
IEA	1 954.21	1 932.20	1 853.74	2 089.86	2 166.30	1 939.01	1 863.49	1 880.49	1 871.05
IEA/Accession/Association	2 107.69	2 167.98	2 176.15	2 646.05	2 852.76	2 806.40	2 929.00	2 987.90	..
European Union - 28	..	..	606.98	623.96	639.86	570.30	521.73	531.13	..
G7	1 623.51	1 536.88	1 448.78	1 580.38	1 625.50	1 416.16	1 346.74	1 354.34	1 352.32
G8	..	..	1 712.56	1 706.49	1 754.70	1 555.24	1 502.05	1 508.30	..
G20	..	..	2 483.50	2 803.04	3 005.94	3 017.73	3 149.70	3 196.43	..
OPEC	..	..	170.03	242.50	290.28	383.52	390.49	389.96	..

World includes international marine bunkers and international aviation bunkers.

1. Please refer to section 'Geographical coverage'.

Primary supply of oil (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	666.32	981.39	1 149.34	1 271.33	1 486.55	1 805.30	2 078.59	2 124.37	..
Albania	0.79	1.56	1.21	1.03	1.42	1.22	1.22	1.30	..
Armenia	..	..	3.64	0.29	0.37	0.38	0.30	0.32	..
Azerbaijan	..	..	8.09	6.28	4.94	3.38	4.63	5.05	..
Belarus	..	..	29.61	7.94	7.75	7.06	6.82	6.80	..
Bosnia and Herzegovina	..	..	2.02	1.16	1.13	1.71	1.73	1.72	..
Bulgaria	11.26	13.37	9.45	4.14	4.80	3.87	4.19	4.33	..
Croatia	..	..	4.67	3.89	4.46	3.66	3.16	3.36	..
Cyprus ¹	0.77	0.86	1.29	2.06	2.13	2.31	1.98	2.03	..
Georgia	..	..	5.58	0.73	0.76	0.96	1.44	1.30	..
Gibraltar	0.03	0.03	0.06	0.13	0.15	0.17	0.23	0.25	..
Kazakhstan	..	..	20.58	8.36	9.25	11.46	16.52	16.18	..
Kosovo	..	..	..	0.33	0.45	0.53	0.66	0.73	..
Kyrgyzstan	..	..	2.95	0.41	0.53	0.99	1.71	1.60	..
Malta	0.26	0.32	0.51	0.68	0.85	0.83	0.44	0.33	..
Republic of Moldova	..	..	4.79	0.43	0.66	0.76	0.86	0.89	..
Montenegro	..	..	..	..	0.28	0.31	0.31	0.34	..
North Macedonia, Republic of	..	..	1.10	0.94	0.91	0.94	1.07	1.01	..
Romania	13.30	18.22	18.10	9.60	9.70	8.57	8.69	9.43	..
Russian Federation	..	..	263.78	126.11	129.20	139.08	155.31	153.96	..
Serbia	..	..	5.15	1.46	4.38	3.89	3.66	3.66	..
Tajikistan	..	..	1.77	0.19	0.28	0.50	0.96	0.84	..
Turkmenistan	..	..	5.34	4.04	5.03	5.55	6.51	6.52	..
Ukraine	..	..	58.47	11.94	14.38	13.18	11.19	12.70	..
Uzbekistan	..	..	10.11	7.34	5.31	3.74	2.39	2.29	..
Former Soviet Union	298.98	414.32	x	x	x	x	x	x	x
Former Yugoslavia	10.38	15.74	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	335.76	464.41	458.27	199.47	209.11	215.06	235.98	236.95	..
Algeria	2.97	5.22	9.32	9.59	11.00	16.37	19.07	19.36	..
Angola	0.78	0.85	1.06	1.35	1.62	4.66	7.38	7.06	..
Benin	0.14	0.13	0.08	0.51	0.78	1.52	2.08	2.16	..
Botswana	..	..	0.33	0.58	0.68	0.87	0.97	0.98	..
Cameroon	0.26	0.57	0.93	1.03	1.08	1.91	2.14	1.87	..
Congo	0.20	0.23	0.27	0.19	0.34	0.62	0.78	0.70	..
Côte d'Ivoire	0.93	1.23	1.03	1.25	1.19	1.03	2.05	2.28	..
Dem. Rep. of the Congo	0.68	0.68	1.10	0.28	0.42	0.59	0.66	0.73	..
Egypt	6.53	11.33	22.85	22.37	28.28	34.04	40.90	41.84	..
Eritrea	..	..	..	0.20	0.26	0.16	0.19	0.20	..
Ethiopia	0.47	0.50	0.81	1.09	1.51	1.89	3.34	3.68	..
Gabon	0.54	0.75	0.29	0.37	0.49	0.69	0.85	0.86	..
Ghana	0.75	0.76	0.96	1.84	2.21	3.49	4.33	3.83	..
Kenya	1.14	1.49	1.82	2.49	2.34	3.59	4.82	4.87	..
Libya	1.65	4.29	6.99	11.53	12.94	14.09	9.17	9.50	..
Mauritius	0.11	0.18	0.34	0.59	0.67	0.66	0.73	0.73	..
Morocco	2.31	4.02	5.34	6.85	8.99	11.52	12.02	12.72	..
Mozambique	0.54	0.57	0.29	0.48	0.49	0.72	1.91	2.02	..
Namibia	..	..	..	0.63	0.83	1.03	1.31	1.32	..
Niger	..	..	..	0.17	0.19	0.39	0.53	0.63	..
Nigeria	2.55	7.93	10.32	11.15	13.81	20.32	21.11	25.54	..
Senegal	0.48	0.68	0.72	1.21	1.43	1.70	2.25	2.29	..
South Africa	10.14	13.19	9.08	10.75	11.79	17.65	16.81	18.76	..
South Sudan	..	..	..	..	..	..	0.58	0.50	..
Sudan	1.45	1.28	1.85	2.34	3.73	4.05	6.94	6.39	..
United Rep. of Tanzania	0.78	0.72	0.67	0.77	1.40	1.58	2.44	2.38	..
Togo	0.10	0.13	0.19	0.31	0.33	0.69	0.63	0.66	..
Tunisia	1.27	2.35	2.99	3.55	4.09	3.93	4.55	4.61	..
Zambia	0.67	0.66	0.62	0.48	0.66	0.63	1.07	1.45	..
Zimbabwe	0.66	0.60	0.73	1.01	0.69	0.68	1.10	1.14	..
Other Africa	2.82	4.28	4.17	6.02	7.27	9.19	9.88	10.22	..
Africa	40.91	64.61	85.15	100.96	121.51	160.26	182.63	191.29	..

1. Please refer to section 'Geographical coverage'.

Primary supply of oil (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	0.91	1.53	1.80	3.12	3.65	3.74	5.31	5.83	..
Brunei Darussalam	0.06	0.18	0.05	0.53	0.38	0.56	0.66	0.66	..
Cambodia	..	..	..	0.69	0.93	1.58	2.20	2.25	..
DPR of Korea	1.21	2.71	2.66	1.02	0.93	0.83	1.03	0.95	..
India	24.28	33.20	61.10	111.99	124.83	162.07	216.74	223.32	..
Indonesia	10.73	20.23	33.35	57.87	65.18	67.39	69.64	75.59	..
Malaysia	4.40	7.88	11.48	19.40	24.89	25.32	30.70	29.02	..
Mongolia	..	..	0.82	0.43	0.56	0.83	1.02	1.30	..
Myanmar	1.05	1.34	0.73	1.97	1.76	1.28	4.40	6.66	..
Nepal	0.07	0.11	0.24	0.71	0.72	0.98	1.92	2.30	..
Pakistan	3.15	4.27	10.68	19.01	16.48	20.21	27.48	27.84	..
Philippines	9.13	10.39	10.84	16.05	13.93	13.60	18.55	19.65	..
Singapore	3.75	5.13	11.43	17.35	15.60	16.12	24.02	26.10	..
Sri Lanka	1.28	1.32	1.33	3.58	4.01	4.15	5.32	5.52	..
Chinese Taipei	9.32	20.04	25.86	38.27	43.27	44.17	42.93	42.48	..
Thailand	7.42	10.71	17.96	31.88	43.57	44.95	55.85	56.12	..
Viet Nam	3.71	1.85	2.71	7.81	12.06	18.84	19.53	19.80	..
Other non-OECD Asia	2.38	2.88	2.95	3.11	4.11	5.41	7.47	7.61	..
Non-OECD Asia excl. China	82.87	123.78	195.99	334.81	376.87	432.03	534.78	552.99	..
People's Rep. of China	51.93	88.59	118.79	220.81	317.82	427.96	544.96	568.08	..
Hong Kong, China	3.11	4.60	3.21	6.58	3.09	3.36	4.85	3.76	..
China	55.05	93.19	122.00	227.39	320.91	431.31	549.81	571.84	..
Argentina	25.33	26.35	21.07	23.47	22.95	31.44	31.22	29.49	..
Bolivia	0.80	1.37	1.13	1.71	2.32	2.70	3.66	4.06	..
Brazil	37.94	55.64	58.89	88.23	87.11	104.73	109.34	110.72	103.56
Colombia	6.60	7.56	9.87	11.53	11.74	12.57	15.13	14.40	..
Costa Rica	0.57	0.76	0.98	1.70	1.78	2.13	2.42	2.53	..
Cuba	7.12	10.23	10.57	8.55	8.04	9.19	8.55	8.14	..
Curaçao ¹	5.98	3.93	1.46	2.11	2.08	2.04	1.74	1.65	..
Dominican Republic	1.66	2.11	3.06	6.31	5.35	5.12	5.97	5.46	..
Ecuador	1.27	3.94	4.95	7.41	7.65	10.09	11.67	11.66	..
El Salvador	0.65	0.61	0.78	1.78	1.99	1.97	2.12	1.93	..
Guatemala	0.90	1.41	1.23	2.84	3.19	3.02	3.94	4.01	..
Haiti	0.12	0.21	0.30	0.47	0.66	0.67	1.07	1.08	..
Honduras	0.42	0.56	0.71	1.36	2.11	2.24	2.74	2.75	..
Jamaica	2.67	2.05	2.27	3.19	3.27	2.17	2.55	2.21	..
Nicaragua	0.59	0.63	0.59	1.16	1.37	1.39	1.73	1.70	..
Panama	1.68	0.88	0.85	1.77	2.15	2.88	3.39	3.62	..
Paraguay	0.25	0.48	0.66	1.09	1.15	1.61	2.28	2.56	..
Peru	5.14	6.63	5.61	7.42	7.18	8.30	10.17	10.88	..
Suriname	..	..	..	0.48	0.52	0.57	0.36	0.22	..
Trinidad and Tobago	1.02	1.36	1.23	1.39	1.34	1.42	1.19	1.61	..
Uruguay	1.82	1.97	1.32	1.98	1.78	1.98	2.16	2.00	..
Venezuela	9.14	19.57	18.61	23.20	27.94	43.96	28.20	22.72	..
Other non-OECD Americas	5.20	5.22	4.53	4.29	3.95	5.09	3.91	3.25	..
Non-OECD Americas	116.87	153.47	150.66	203.44	207.62	257.28	255.51	248.65	..
Bahrain	0.69	0.37	0.80	1.12	1.89	2.06	2.25	1.96	..
Islamic Republic of Iran	16.40	32.55	50.37	68.50	85.24	79.55	73.97	82.36	..
Iraq	3.62	8.60	18.18	23.31	24.29	31.69	47.98	53.21	..
Jordan	0.61	1.52	3.11	4.58	5.15	4.63	5.00	5.27	..
Kuwait	2.15	4.82	4.18	10.88	16.24	20.23	18.21	15.54	..
Lebanon	2.23	2.28	1.81	4.50	4.63	5.72	8.18	8.64	..
Oman	0.10	0.84	1.78	2.18	2.47	3.78	3.38	5.68	..
Qatar	0.14	0.47	0.97	1.45	2.90	4.72	0.32	2.47	..
Saudi Arabia	5.70	21.95	38.51	67.08	76.59	125.60	135.94	133.29	..
Syrian Arab Republic	2.05	4.20	8.86	10.54	15.53	13.66	6.09	5.87	..
United Arab Emirates	0.26	3.11	6.25	6.46	9.11	10.94	16.03	5.87	..
Yemen	0.92	1.21	2.44	4.67	6.50	6.78	2.54	2.48	..
Middle East	34.86	81.93	137.26	205.27	250.52	309.36	319.88	322.64	..

1. Please refer to section 'Geographical coverage'.

Primary supply of natural gas (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	977.02	1 231.88	1 663.61	2 072.29	2 360.51	2 733.09	3 031.68	3 106.80	3 249.13
Non-OECD Total	270.50	453.58	813.67	906.23	1 142.02	1 408.96	1 609.48	1 671.54	1 740.39
OECD Total	706.52	778.30	849.94	1 166.06	1 218.49	1 324.14	1 422.16	1 435.20	1 508.74
Canada	37.29	45.57	54.74	74.26	81.16	75.70	95.11	100.86	113.52
Chile	0.53	0.72	1.14	5.21	6.80	4.47	4.35	4.34	5.07
Mexico	10.50	19.14	23.13	35.48	46.11	54.24	66.18	62.60	68.70
United States	514.66	476.92	438.36	547.74	507.22	556.08	652.88	643.93	705.38
OECD Americas	562.97	542.34	517.37	662.69	641.28	690.48	818.53	811.74	892.66
Australia	3.38	7.47	14.79	19.27	18.97	28.44	32.88	31.31	32.69
Israel ¹	0.05	0.13	0.03	0.01	1.31	4.40	7.88	8.63	9.01
Japan	5.07	21.40	44.12	65.63	70.65	85.88	101.70	100.90	97.02
Korea	-	-	2.73	17.01	27.38	38.64	41.31	43.21	48.19
New Zealand	0.28	0.79	3.87	5.06	3.23	3.73	4.21	4.25	3.85
OECD Asia Oceania	8.78	29.79	65.54	106.98	121.54	161.09	187.98	188.30	190.76
Austria	3.30	4.15	5.24	6.58	8.09	8.12	7.12	7.78	7.39
Belgium	7.14	8.91	8.17	13.37	14.74	16.75	14.30	14.49	14.85
Czech Republic	1.02	2.59	5.25	7.50	7.70	8.07	7.02	7.20	6.82
Denmark	0.00	0.00	1.82	4.45	4.40	4.42	2.88	2.75	2.66
Estonia	..	..	1.22	0.66	0.80	0.56	0.43	0.41	0.41
Finland	-	0.77	2.18	3.43	3.61	3.84	2.06	1.93	2.18
France	13.50	21.64	26.03	35.77	41.03	42.62	38.29	38.49	36.73
Germany	28.65	51.21	54.98	71.85	77.78	75.90	70.33	75.34	71.47
Greece	-	-	0.14	1.70	2.35	3.23	3.49	4.20	4.12
Hungary	4.17	7.97	8.91	9.66	12.09	9.82	8.03	8.54	8.26
Iceland	-	-	-	-	-	-	-	-	-
Ireland	-	0.74	1.87	3.44	3.50	4.70	4.25	4.31	4.49
Italy	14.23	22.73	39.00	57.94	70.65	68.06	58.08	61.55	59.51
Latvia	..	..	2.38	1.09	1.36	1.46	1.11	0.99	1.20
Lithuania	..	..	4.68	2.06	2.48	2.49	1.84	1.92	1.92
Luxembourg	0.22	0.42	0.43	0.67	1.18	1.20	0.71	0.69	0.68
Netherlands	28.51	30.43	30.73	35.01	35.33	40.07	30.03	30.91	30.70
Norway	-	0.87	1.98	4.14	4.07	6.28	5.54	4.65	6.09
Poland	6.26	8.77	8.94	9.96	12.23	12.80	14.63	15.44	16.08
Portugal	-	-	-	2.03	3.75	4.49	4.32	5.42	5.02
Slovak Republic	1.56	2.32	5.09	5.78	5.88	5.01	3.90	4.14	4.08
Slovenia	..	..	0.76	0.83	0.93	0.86	0.71	0.74	0.73
Spain	0.94	1.45	4.97	15.22	29.84	31.13	25.04	27.27	27.08
Sweden	-	-	0.58	0.78	0.84	1.47	0.82	0.92	1.00
Switzerland	0.15	0.87	1.63	2.43	2.78	3.01	3.00	3.01	2.85
Turkey	-	-	2.86	12.64	22.79	31.39	38.26	44.23	41.10
United Kingdom	25.11	40.32	47.20	87.40	85.47	84.82	69.49	67.84	67.89
OECD Europe	134.77	206.17	267.03	396.39	455.68	472.57	415.65	435.16	425.31
International marine bunkers	-	-	-	-	-	-	0.05	0.06	-
IEA	705.95	777.45	840.95	1 156.86	1 205.62	1 310.45	1 406.27	1 418.57	1 490.82
IEA/Accession/Association	712.68	797.25	891.16	1 260.51	1 363.56	1 565.09	1 750.30	1 790.78	1 891.10
European Union - 28	..	..	297.00	396.00	445.13	447.60	382.74	398.38	390.43
G7	638.52	679.79	704.44	940.58	933.95	989.05	1 085.88	1 088.91	1 151.52
G8	..	..	1 071.83	1 259.59	1 283.62	1 372.59	1 457.19	1 477.25	1 545.40
G20	..	..	1 327.46	1 630.62	1 772.87	2 012.68	2 196.87	2 261.52	2 366.48
OPEC	..	..	100.02	177.52	246.84	333.06	444.30	455.74	..

1. Please refer to section 'Geographical coverage'.

Primary supply of natural gas (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	270.50	453.58	813.67	906.23	1 142.02	1 408.96	1 609.48	1 671.54	1 740.39
Albania	0.16	0.32	0.20	0.01	0.01	0.01	0.03	0.04	0.04
Armenia	..	..	3.59	1.12	1.34	1.29	1.83	1.95	1.97
Azerbaijan	..	..	14.46	4.83	8.10	7.85	9.40	9.13	9.30
Belarus	..	..	12.51	14.23	16.92	18.11	15.74	16.10	17.13
Bosnia and Herzegovina	..	..	0.40	0.20	0.30	0.20	0.18	0.20	0.20
Bulgaria	0.17	3.18	5.40	2.93	2.80	2.30	2.69	2.76	2.65
Croatia	..	..	2.19	2.21	2.37	2.63	2.17	2.49	2.29
Cyprus ¹	-	-	-	-	-	-	-	-	-
Georgia	..	..	4.55	0.95	1.06	1.02	1.89	1.96	1.88
Gibraltar	-	-	-	-	-	-	-	-	-
Kazakhstan	..	..	10.68	6.57	12.46	22.32	28.73	29.83	29.38
Kosovo	..	..	..	-	-	-	-	-	-
Kyrgyzstan	..	..	1.52	0.57	0.62	0.25	0.24	0.25	0.28
Malta	-	-	-	-	-	-	-	0.24	0.28
Republic of Moldova	..	..	3.28	2.13	2.39	2.31	2.15	1.98	2.14
Montenegro	..	..	..	..	-	-	-	-	-
North Macedonia, Republic of	..	..	-	0.05	0.06	0.10	0.18	0.23	0.21
Romania	24.15	32.38	28.84	13.68	13.92	10.79	9.02	9.62	9.93
Russian Federation	..	..	367.39	319.01	349.67	383.54	371.31	388.33	393.88
Serbia	..	..	2.59	1.53	1.95	1.85	1.89	2.12	2.10
Tajikistan	..	..	1.39	0.63	0.54	0.16	0.00	0.00	0.00
Turkmenistan	..	..	12.25	10.90	14.25	17.34	21.35	21.35	21.77
Ukraine	..	..	91.85	62.27	65.67	55.25	25.60	24.55	24.67
Uzbekistan	..	..	32.49	41.67	39.91	37.23	29.37	29.04	31.32
Former Soviet Union	196.26	316.00	x	x	x	x	x	x	x
Former Yugoslavia	1.33	2.97	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	222.06	354.85	595.59	485.50	534.33	564.55	523.78	542.18	551.41
Algeria	1.55	5.83	12.17	16.84	20.52	23.32	34.66	35.90	37.14
Angola	0.05	0.06	0.44	0.47	0.53	0.60	0.65	0.69	0.69
Benin	-	-	-	-	-	-	0.00	0.03	0.03
Botswana	..	..	-	-	-	-	-	-	-
Cameroon	-	-	-	-	-	0.26	0.45	0.49	0.49
Congo	0.00	-	-	-	0.02	0.08	0.49	0.52	0.52
Côte d'Ivoire	-	-	-	1.27	1.25	1.33	1.69	1.88	2.04
Dem. Rep. of the Congo	-	-	-	-	-	0.02	0.00	0.00	0.00
Egypt	0.07	1.59	6.73	14.44	29.99	35.81	41.46	47.37	48.54
Eritrea	..	..	..	-	-	-	-	-	-
Ethiopia	-	-	-	-	-	-	-	-	-
Gabon	0.40	0.01	0.09	0.10	0.12	0.27	0.45	0.33	0.35
Ghana	-	-	-	-	-	0.35	0.62	1.03	0.96
Kenya	-	-	-	-	-	-	-	-	-
Libya	0.84	2.64	4.05	4.15	4.76	5.77	4.17	3.68	5.86
Mauritius	-	-	-	-	-	-	-	-	-
Morocco	0.06	0.06	0.04	0.04	0.37	0.57	1.03	1.03	1.03
Mozambique	-	-	-	0.00	0.02	0.07	0.67	0.61	0.61
Namibia	..	..	..	-	-	-	-	-	-
Niger	..	..	..	-	-	-	-	-	-
Nigeria	0.35	1.24	3.27	5.76	9.02	8.83	13.91	14.16	14.16
Senegal	-	-	0.01	0.00	0.01	0.02	0.02	0.02	0.02
South Africa	-	-	1.50	1.40	2.76	3.87	4.42	4.26	4.29
South Sudan	..	..	..	..	..	..	-	-	-
Sudan	-	-	-	-	-	-	-	-	-
United Rep. of Tanzania	-	-	-	-	0.33	0.64	0.70	0.65	0.65
Togo	-	-	-	-	-	-	-	-	-
Tunisia	0.11	0.35	1.23	2.73	3.09	5.08	5.21	5.44	5.49
Zambia	-	-	-	-	-	-	-	-	-
Zimbabwe	-	-	-	-	-	-	-	-	-
Other Africa	0.00	0.00	0.00	0.00	1.92	1.96	4.66	4.51	4.56
Africa	3.45	11.78	29.54	47.19	74.72	88.86	115.27	122.60	127.44

1. Please refer to section 'Geographical coverage'.

Primary supply of natural gas (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	0.50	1.04	3.73	7.38	10.81	16.63	23.10	23.07	24.64
Brunei Darussalam	0.27	1.16	1.68	1.85	1.84	2.68	2.33	2.95	2.60
Cambodia	..	..	..	-	-	-	-	-	-
DPR of Korea	-	-	-	-	-	-	-	-	-
India	0.63	1.26	10.57	23.07	31.81	54.40	47.98	51.02	53.39
Indonesia	0.33	4.95	15.82	26.57	29.27	38.82	39.09	38.90	35.74
Malaysia	0.10	2.24	6.80	24.73	31.87	31.20	35.76	32.21	33.80
Mongolia	..	..	-	-	-	-	-	-	-
Myanmar	0.09	0.29	0.76	1.20	2.29	1.28	3.53	3.64	3.97
Nepal	-	-	-	-	-	-	-	-	-
Pakistan	2.86	5.03	10.08	16.67	25.64	27.00	25.84	26.04	31.36
Philippines	-	-	-	0.01	2.70	3.05	3.29	3.25	3.40
Singapore	-	-	-	1.12	5.01	6.49	8.76	8.93	10.87
Sri Lanka	-	-	-	-	-	-	-	-	-
Chinese Taipei	1.22	1.59	1.40	5.56	8.86	13.29	15.45	17.89	17.91
Thailand	-	-	4.99	17.37	25.93	32.97	36.94	36.01	34.83
Viet Nam	-	-	0.00	1.12	4.69	8.12	8.76	7.81	7.98
Other non-OECD Asia	0.15	0.09	0.24	0.20	0.22	0.37	0.85	0.87	0.15
Non-OECD Asia excl. China	6.14	17.64	56.07	126.84	180.95	236.30	251.68	252.59	260.63
People's Rep. of China	5.01	11.96	12.80	20.76	38.79	89.38	170.78	195.19	224.31
Hong Kong, China	-	-	-	2.45	2.19	3.13	2.72	2.72	2.91
China	5.01	11.96	12.80	23.21	40.98	92.51	173.50	197.91	227.22
Argentina	7.20	10.43	18.84	30.44	35.82	37.99	44.65	45.13	44.80
Bolivia	0.09	0.24	0.63	2.34	1.97	2.50	3.78	3.66	3.82
Brazil	0.17	0.85	3.33	8.13	17.19	23.67	30.68	32.53	30.75
Colombia	1.42	2.39	3.37	5.46	6.12	8.23	9.59	9.82	8.16
Costa Rica	-	-	-	-	-	-	-	-	-
Cuba	0.01	0.01	0.03	0.46	0.59	0.85	0.94	0.83	0.85
Curaçao ¹	-	-	-	-	-	-	-	-	-
Dominican Republic	-	-	-	-	0.17	0.68	0.88	1.01	1.08
Ecuador	-	-	-	-	0.28	0.43	0.60	0.54	0.41
El Salvador	-	-	-	-	-	-	-	-	-
Guatemala	-	-	-	-	-	-	-	-	-
Haiti	-	-	-	-	-	-	-	-	-
Honduras	-	-	-	-	-	-	-	-	-
Jamaica	-	-	-	-	-	-	0.01	0.07	0.08
Nicaragua	-	-	-	-	-	-	-	-	-
Panama	-	-	-	-	-	-	-	-	-
Paraguay	-	-	-	-	-	-	-	-	-
Peru	0.30	0.45	0.41	0.49	1.63	5.50	8.30	7.02	7.23
Suriname	..	..	..	-	-	-	-	-	-
Trinidad and Tobago	1.59	2.44	4.70	8.57	14.70	18.36	15.61	15.11	14.97
Uruguay	-	-	-	0.03	0.09	0.06	0.05	0.06	0.06
Venezuela	8.68	11.27	16.75	21.85	19.37	20.84	21.31	20.90	19.93
Other non-OECD Americas	0.00	0.01	0.02	0.32	0.59	0.66	1.43	1.41	1.62
Non-OECD Americas	19.45	28.10	48.08	78.08	98.52	119.75	137.84	138.09	133.77
Bahrain	1.34	2.43	4.43	6.85	8.42	10.57	12.03	12.06	12.19
Islamic Republic of Iran	3.22	3.66	17.48	52.63	83.84	122.15	166.36	174.57	188.64
Iraq	0.99	1.05	1.62	2.57	1.49	4.19	6.24	7.09	9.50
Jordan	-	-	0.10	0.21	1.38	2.29	3.39	3.51	3.09
Kuwait	4.96	5.63	4.92	7.84	10.05	11.86	18.18	18.49	18.81
Lebanon	-	-	-	-	-	0.21	-	-	-
Oman	-	0.31	2.44	5.39	7.44	14.90	21.09	20.76	22.16
Qatar	1.29	2.85	5.56	9.47	13.77	22.93	41.98	40.68	41.48
Saudi Arabia	1.54	9.15	19.49	30.78	45.97	59.90	74.17	78.01	79.38
Syrian Arab Republic	-	0.04	1.37	4.62	4.94	7.80	3.04	3.00	3.00
United Arab Emirates	1.05	4.12	14.18	25.05	35.22	49.35	60.50	59.49	61.17
Yemen	-	-	-	-	-	0.82	0.43	0.52	0.52
Middle East	14.39	29.24	71.58	145.42	212.52	306.98	407.40	418.17	439.92

1. Please refer to section 'Geographical coverage'.

Total primary energy supply (TPES) (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	6 096.86	7 203.42	8 765.69	10 025.38	11 479.83	12 850.11	13 712.42	13 972.24	..
Non-OECD Total	2 172.30	2 957.38	4 014.94	4 439.81	5 615.83	7 056.71	8 036.62	8 250.70	..
OECD Total	3 740.65	4 067.88	4 548.83	5 312.13	5 546.11	5 434.79	5 279.45	5 309.02	5 373.69
Canada	159.35	191.96	211.28	253.57	273.48	260.05	281.21	289.06	299.61
Chile	8.50	9.48	14.01	25.17	28.37	30.85	37.82	38.34	39.45
Mexico	52.56	95.12	123.69	150.82	180.59	178.54	184.93	180.10	183.08
United States	1 730.09	1 804.81	1 915.02	2 273.78	2 318.92	2 216.89	2 163.47	2 155.23	2 228.31
OECD Americas	1 950.50	2 101.37	2 264.00	2 703.34	2 801.36	2 686.33	2 667.42	2 662.73	2 750.46
Australia	57.06	69.61	86.14	108.11	113.48	127.30	128.11	127.03	128.38
Israel ¹	7.76	7.82	11.47	18.23	18.45	23.20	22.95	23.02	22.82
Japan	320.37	344.52	438.66	518.17	522.25	501.37	427.12	432.03	426.81
Korea	21.56	41.26	92.91	188.16	210.29	250.03	282.41	282.25	289.01
New Zealand	7.88	8.99	12.87	17.14	16.96	18.40	20.56	20.70	20.13
OECD Asia Oceania	414.64	472.19	642.04	849.81	881.43	920.30	881.15	885.04	887.15
Austria	21.48	23.16	24.88	28.61	33.45	33.56	32.81	33.49	33.01
Belgium	45.99	46.77	47.89	58.05	58.08	59.82	55.60	55.25	52.35
Czech Republic	45.16	46.95	49.80	41.24	45.25	45.13	41.50	43.33	43.25
Denmark	18.99	19.14	17.36	18.65	18.89	19.49	16.68	17.01	16.95
Estonia	..	..	9.59	4.72	5.21	5.63	5.98	5.71	5.64
Finland	21.03	24.60	28.38	32.39	34.39	36.60	33.75	33.28	34.16
France	180.14	191.77	223.84	251.74	272.66	262.86	247.33	247.09	245.29
Germany	334.70	357.19	351.23	336.60	337.59	326.36	310.12	311.25	298.28
Greece	11.81	14.98	21.44	27.09	30.25	27.61	22.43	23.28	22.64
Hungary	21.28	28.35	28.78	25.00	28.05	26.51	25.57	26.65	26.38
Iceland	1.12	1.50	2.27	3.12	3.12	5.41	5.29	5.47	5.73
Ireland	6.91	8.24	9.91	13.80	14.61	14.41	13.93	13.64	13.76
Italy	119.12	130.84	146.57	171.54	186.37	173.74	150.98	153.45	150.92
Latvia	..	..	7.89	3.83	4.53	4.51	4.26	4.40	4.66
Lithuania	..	..	16.06	7.14	8.86	7.05	7.21	7.54	7.83
Luxembourg	4.43	3.56	3.39	3.35	4.39	4.23	3.70	3.77	3.91
Netherlands	62.01	64.37	66.53	74.79	79.88	82.73	73.65	74.20	71.72
Norway	14.29	18.35	21.07	26.16	26.83	29.41	27.21	29.98	29.48
Poland	92.89	126.62	103.12	88.83	92.14	100.51	99.29	103.84	105.46
Portugal	6.90	9.99	16.78	24.59	26.46	23.50	21.81	22.77	21.81
Slovak Republic	15.52	19.84	21.33	17.74	18.83	17.83	16.50	17.40	17.32
Slovenia	..	..	5.71	6.41	7.29	7.32	6.79	6.91	6.86
Spain	51.57	67.69	90.09	121.86	141.94	127.69	119.87	126.01	124.20
Sweden	38.84	40.48	47.20	47.55	51.59	50.91	49.20	49.17	47.88
Switzerland	18.91	20.04	24.29	24.90	25.80	25.94	23.53	23.68	23.81
Turkey	24.36	31.45	51.44	76.29	83.99	105.72	136.72	146.80	145.89
United Kingdom	218.08	198.44	205.94	222.99	222.85	203.67	179.17	175.88	176.88
OECD Europe	1 375.51	1 494.31	1 642.78	1 758.98	1 863.31	1 828.15	1 730.88	1 761.25	1 736.09
International marine bunkers	121.55	110.88	115.62	155.01	177.50	205.80	211.35	217.15	..
International aviation bunkers	62.36	67.28	86.30	118.43	140.39	152.82	184.99	195.37	..
IEA	3 723.27	4 049.08	4 491.42	5 248.22	5 475.48	5 356.43	5 195.14	5 223.34	5 286.34
IEA/Accession/Association	4 510.41	5 126.83	6 074.58	7 398.53	8 445.82	9 387.07	9 894.66	10 068.86	..
European Union - 28	..	..	1 645.22	1 694.57	1 794.88	1 727.25	1 599.28	1 619.04	..
G7	3 061.85	3 219.54	3 492.55	4 028.38	4 134.13	3 944.94	3 759.39	3 763.98	3 826.12
G8	..	..	4 371.88	4 647.76	4 785.88	4 633.94	4 473.79	4 496.14	..
G20	..	..	7 064.45	8 079.02	9 158.82	10 175.65	10 698.73	10 886.26	..
OPEC	..	..	336.18	506.42	641.53	838.68	976.18	991.12	..

World includes international marine bunkers and international aviation bunkers.

1. Please refer to section 'Geographical coverage'.

Total primary energy supply (TPES) (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	2 172.30	2 957.38	4 014.94	4 439.81	5 615.83	7 056.71	8 036.62	8 250.70	..
Albania	1.75	3.07	2.67	1.79	2.17	2.12	2.25	2.35	..
Armenia	..	..	7.71	2.01	2.51	2.48	3.00	3.19	..
Azerbaijan	..	..	22.67	11.30	13.43	11.59	14.22	14.34	..
Belarus	..	..	45.55	24.70	26.89	27.50	25.04	25.51	..
Bosnia and Herzegovina	..	..	7.02	4.35	5.04	6.48	6.75	6.76	..
Bulgaria	20.50	28.39	28.00	18.61	19.90	17.87	18.16	18.74	..
Croatia	..	..	9.46	8.39	9.75	9.39	8.47	8.75	..
Cyprus ¹	0.78	0.86	1.37	2.14	2.22	2.44	2.15	2.22	..
Georgia	..	..	12.42	2.87	2.84	3.12	4.79	4.81	..
Gibraltar	0.03	0.03	0.06	0.13	0.15	0.17	0.23	0.25	..
Kazakhstan	..	..	73.45	35.68	50.88	69.13	81.63	84.99	..
Kosovo	..	..	..	1.54	1.95	2.49	2.69	2.57	..
Kyrgyzstan	..	..	7.49	2.32	2.57	2.75	3.86	3.84	..
Malta	0.26	0.32	0.69	0.68	0.85	0.84	0.59	0.68	..
Republic of Moldova	..	..	9.89	2.88	3.52	3.73	3.80	3.85	..
Montenegro	..	..	..	..	1.02	1.13	0.97	1.02	..
North Macedonia, Republic of	..	..	2.48	2.67	2.92	2.87	2.67	2.72	..
Romania	47.84	65.24	61.98	36.25	38.60	35.03	31.78	33.33	..
Russian Federation	..	..	879.33	619.37	651.75	689.00	714.40	732.16	..
Serbia	..	..	19.55	13.54	16.02	15.61	15.28	15.61	..
Tajikistan	..	..	5.31	2.15	2.34	2.18	3.09	3.25	..
Turkmenistan	..	..	17.52	14.88	19.18	22.69	27.59	27.60	..
Ukraine	..	..	252.04	133.81	141.08	132.44	91.66	89.46	..
Uzbekistan	..	..	46.38	50.54	46.96	42.51	33.87	33.83	..
Former Soviet Union	848.69	1 109.59	x	x	x	x	x	x	x
Former Yugoslavia	23.24	33.71	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	943.08	1 241.22	1 513.03	992.60	1 064.54	1 105.58	1 098.96	1 121.83	..
Algeria	4.82	11.21	22.19	27.00	32.42	40.09	53.75	55.52	..
Angola	4.13	4.56	5.88	6.81	7.50	11.22	14.73	14.68	..
Benin	1.18	1.35	1.66	1.98	2.50	3.70	4.91	5.10	..
Botswana	..	..	1.22	1.80	1.87	2.15	2.61	2.78	..
Cameroon	2.82	3.66	4.98	6.31	7.27	6.97	9.34	9.27	..
Congo	0.53	0.62	0.79	0.71	1.09	1.68	2.97	2.97	..
Côte d'Ivoire	2.69	3.57	4.35	6.79	9.62	8.31	10.22	10.45	..
Dem. Rep. of the Congo	7.09	8.47	11.80	13.91	16.67	19.85	29.62	29.77	..
Egypt	8.01	15.10	32.25	40.12	61.58	73.03	85.81	92.76	..
Eritrea	..	..	..	0.71	0.76	0.74	0.85	0.88	..
Ethiopia	11.40	12.94	17.81	24.62	28.72	33.36	40.92	42.33	..
Gabon	1.44	1.37	1.18	1.47	3.00	5.09	5.19	5.02	..
Ghana	3.37	4.02	5.29	6.33	5.88	7.58	9.06	9.24	..
Kenya	5.63	7.31	10.60	14.00	16.10	19.71	26.09	27.04	..
Libya	2.60	7.05	11.17	15.82	17.85	20.00	13.51	13.35	..
Mauritius	0.38	0.43	0.67	1.01	1.16	1.31	1.42	1.42	..
Morocco	3.52	5.41	7.62	11.02	14.83	17.08	19.60	20.51	..
Mozambique	6.80	6.72	5.92	7.13	8.43	7.06	10.34	10.62	..
Namibia	..	..	..	1.06	1.37	1.59	1.99	2.02	..
Niger	..	..	..	1.47	1.73	2.23	2.96	3.15	..
Nigeria	35.88	48.84	66.43	87.07	105.24	127.37	149.61	157.14	..
Senegal	1.32	1.56	1.69	2.40	2.79	3.96	4.32	4.31	..
South Africa	49.18	68.04	89.72	109.02	116.26	131.82	130.27	132.19	..
South Sudan	..	..	..	..	..	..	0.78	0.67	..
Sudan	7.37	8.37	10.63	13.31	15.22	15.63	19.08	18.74	..
United Rep. of Tanzania	7.69	8.02	9.73	13.46	15.43	17.26	20.06	20.43	..
Togo	0.75	0.89	1.26	2.11	2.37	3.12	3.52	3.62	..
Tunisia	1.89	3.27	4.95	7.31	8.32	10.28	11.01	11.31	..
Zambia	3.99	4.55	5.42	6.28	7.53	8.72	11.17	12.05	..
Zimbabwe	5.87	6.49	9.30	10.01	9.62	9.68	11.16	11.31	..
Other Africa	22.78	28.10	40.89	48.71	59.65	69.55	79.33	81.37	..
Africa	203.13	271.92	385.40	489.74	582.78	680.12	786.17	812.01	..

1. Please refer to section 'Geographical coverage'.

Total primary energy supply (TPES) (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	6.34	8.40	12.75	18.52	23.25	30.05	39.56	40.52	..
Brunei Darussalam	0.34	1.35	1.73	2.39	2.22	3.24	3.00	3.61	..
Cambodia	..	..	..	3.41	3.43	5.33	7.59	8.09	..
DPR of Korea	20.59	30.36	33.22	19.72	21.34	14.80	8.82	15.23	..
India	159.78	200.04	305.74	440.93	514.78	700.78	852.81	881.94	..
Indonesia	38.16	55.71	98.66	155.68	178.85	206.29	229.66	244.07	..
Malaysia	5.79	11.48	21.22	48.30	64.99	72.47	87.67	84.79	..
Mongolia	..	..	3.41	2.40	3.00	3.95	4.97	5.13	..
Myanmar	7.92	9.42	10.68	12.84	14.75	13.90	19.76	22.82	..
Nepal	3.87	4.56	5.79	8.11	9.13	10.21	12.78	13.49	..
Pakistan	18.37	24.76	43.07	63.55	75.84	84.61	98.25	104.46	..
Philippines	17.17	22.42	28.71	39.99	38.86	40.40	54.81	58.13	..
Singapore	3.75	5.13	11.53	18.67	21.01	23.21	33.94	36.66	..
Sri Lanka	4.13	4.54	5.52	8.33	9.00	9.76	11.86	12.02	..
Chinese Taipei	13.11	27.90	47.75	84.84	102.27	110.80	109.67	110.09	..
Thailand	15.61	22.00	41.95	72.29	99.02	117.86	138.96	138.15	..
Viet Nam	13.96	14.39	17.87	28.74	41.29	59.09	77.45	78.18	..
Other non-OECD Asia	6.06	7.75	6.90	8.24	9.51	12.28	20.20	20.12	..
Non-OECD Asia excl. China	334.97	450.22	696.48	1 036.94	1 232.55	1 519.03	1 811.76	1 877.49	..
People's Rep. of China	426.64	598.06	873.64	1 129.87	1 781.42	2 536.20	2 971.12	3 063.43	..
Hong Kong, China	3.17	4.63	8.62	13.59	12.57	13.67	15.45	14.02	..
China	429.81	602.68	882.26	1 143.46	1 793.99	2 549.88	2 986.57	3 077.45	..
Argentina	35.59	41.81	46.07	61.57	66.93	78.68	86.31	85.35	..
Bolivia	1.19	2.44	2.61	4.92	5.18	6.28	8.72	8.92	..
Brazil	81.99	113.88	140.30	187.67	215.81	266.53	285.35	290.24	285.99
Colombia	13.95	17.70	24.22	25.82	27.09	31.21	40.85	38.36	..
Costa Rica	0.94	1.26	1.68	2.87	3.87	4.55	5.08	5.02	..
Cuba	10.79	14.64	17.41	12.74	10.67	11.31	10.82	10.65	..
Curaçao ¹	5.98	3.93	1.46	2.11	2.09	2.04	1.75	1.68	..
Dominican Republic	2.87	3.43	4.01	7.34	7.10	7.56	8.85	8.70	..
Ecuador	2.35	5.00	6.33	8.82	9.34	11.81	14.17	14.50	..
El Salvador	1.98	2.52	2.47	3.19	3.80	4.29	4.15	4.12	..
Guatemala	2.95	3.79	4.41	7.04	7.80	11.01	14.09	13.71	..
Haiti	1.59	2.08	1.56	2.01	3.41	3.80	4.43	4.49	..
Honduras	1.48	1.87	2.38	3.00	4.12	4.61	5.79	6.02	..
Jamaica	2.92	2.28	2.62	3.49	3.58	2.49	2.99	2.72	..
Nicaragua	1.35	1.53	2.02	2.52	2.88	2.96	3.97	3.96	..
Panama	2.03	1.41	1.48	2.38	2.78	3.56	4.49	4.64	..
Paraguay	1.52	2.08	3.07	3.85	3.96	4.85	6.68	7.06	..
Peru	9.51	11.26	9.73	12.22	13.65	19.53	24.41	24.59	..
Suriname	..	..	..	0.61	0.61	0.70	0.49	0.35	..
Trinidad and Tobago	2.64	3.83	5.99	9.98	16.08	19.79	16.81	16.73	..
Uruguay	2.39	2.64	2.25	3.09	2.96	4.09	5.22	5.12	..
Venezuela	19.03	32.61	39.52	51.16	54.58	72.42	55.62	49.84	..
Other non-OECD Americas	5.75	5.77	5.11	5.14	5.23	6.35	5.70	5.00	..
Non-OECD Americas	210.78	277.79	326.70	423.54	473.52	580.40	616.72	611.76	..
Bahrain	2.04	2.81	5.23	7.97	10.31	12.64	14.28	14.03	..
Islamic Republic of Iran	20.61	38.03	69.30	123.01	172.68	204.32	244.84	261.61	..
Iraq	4.65	9.72	20.04	25.96	26.43	36.80	55.59	61.49	..
Jordan	0.61	1.52	3.27	4.87	6.68	7.10	8.90	9.27	..
Kuwait	7.13	10.46	9.11	18.72	26.28	32.09	36.39	34.03	..
Lebanon	2.38	2.47	1.95	4.92	5.06	6.42	8.57	9.04	..
Oman	0.10	1.15	4.22	7.57	9.91	18.69	24.47	26.43	..
Qatar	1.43	3.31	6.53	10.92	16.67	27.66	42.30	43.15	..
Saudi Arabia	7.23	31.10	58.01	97.87	122.56	185.51	210.13	211.32	..
Syrian Arab Republic	2.06	4.47	10.47	15.44	20.79	21.66	9.20	8.90	..
United Arab Emirates	1.31	7.23	20.43	31.53	44.51	61.00	78.55	67.65	..
Yemen	0.97	1.27	2.51	4.75	6.59	7.81	3.22	3.26	..
Middle East	50.52	113.55	211.08	353.52	468.46	621.69	736.43	750.16	..

1. Please refer to section 'Geographical coverage'.

Primary supply of renewables (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	752.77	895.55	1 114.02	1 276.24	1 382.19	1 576.40	1 844.99	1 893.58	..
Non-OECD Total	580.63	681.86	841.80	955.23	1 032.50	1 150.68	1 323.82	1 353.48	..
OECD Total	172.15	213.70	272.22	321.01	349.69	425.72	521.00	539.87	561.77
Canada	24.55	29.24	36.33	44.58	45.55	44.00	48.79	50.06	49.11
Chile	1.81	2.47	3.90	6.31	7.12	6.83	10.25	10.67	10.87
Mexico	7.74	9.12	15.00	16.91	17.63	15.15	15.64	16.11	16.46
United States	62.43	83.07	96.17	101.97	105.20	125.87	156.04	162.45	173.23
OECD Americas	96.53	123.90	151.40	169.78	175.50	191.86	230.72	239.29	249.67
Australia	4.51	4.75	5.07	6.35	6.46	6.68	8.28	8.82	8.84
Israel ¹	0.00	0.00	0.36	0.61	0.74	1.16	0.56	0.57	0.59
Japan	5.97	8.37	14.85	15.85	17.21	18.78	21.83	23.98	25.36
Korea	0.11	0.17	1.01	0.76	1.08	1.81	4.30	4.72	5.52
New Zealand	2.30	3.17	4.27	5.23	5.38	7.15	8.48	8.50	8.40
OECD Asia Oceania	12.90	16.45	25.56	28.80	30.87	35.59	43.45	46.59	48.72
Austria	2.33	3.61	5.04	6.57	6.92	8.89	9.83	9.72	9.70
Belgium	0.02	0.08	0.48	0.64	1.16	2.83	3.91	4.04	4.12
Czech Republic	0.09	0.21	1.14	1.61	2.09	3.13	4.31	4.40	4.46
Denmark	0.31	0.59	1.03	1.80	2.84	3.92	5.07	5.74	5.66
Estonia	..	..	0.19	0.51	0.59	0.85	0.97	1.06	1.08
Finland	4.85	4.34	5.49	7.75	8.09	9.34	10.63	11.23	11.53
France	13.94	14.68	15.22	15.74	15.73	21.00	24.64	24.30	25.84
Germany	3.81	5.41	5.31	8.98	17.21	27.57	38.92	41.64	42.16
Greece	0.64	0.74	1.10	1.40	1.64	2.13	2.64	2.63	2.94
Hungary	0.65	0.53	0.75	0.83	1.69	2.78	3.01	2.94	2.80
Iceland	0.54	0.90	1.62	2.41	2.38	4.79	4.61	4.81	5.09
Ireland	0.06	0.07	0.17	0.23	0.37	0.66	1.10	1.32	1.42
Italy	5.60	7.10	6.47	10.11	14.11	21.86	26.02	26.17	26.94
Latvia	..	..	1.05	1.19	1.48	1.43	1.62	1.93	1.87
Lithuania	..	..	0.32	0.67	0.88	1.06	1.46	1.56	1.51
Luxembourg	0.00	0.02	0.02	0.04	0.07	0.14	0.22	0.27	0.29
Netherlands	-	0.23	0.76	1.35	2.26	3.25	3.74	4.09	4.58
Norway	6.27	7.77	11.39	13.49	12.98	11.72	13.94	14.10	13.89
Poland	1.16	1.04	1.58	3.80	4.49	7.27	8.75	8.86	8.61
Portugal	1.27	1.41	3.28	3.76	3.47	5.46	5.63	4.83	5.39
Slovak Republic	0.30	0.36	0.33	0.49	0.81	1.32	1.58	1.59	1.54
Slovenia	..	..	0.52	0.79	0.77	1.12	1.12	1.08	1.15
Spain	2.50	2.81	6.22	6.81	8.40	15.05	17.45	16.49	18.12
Sweden	8.69	9.11	11.53	14.74	14.85	17.00	18.27	19.37	18.10
Switzerland	2.64	3.29	3.56	4.33	4.01	4.72	4.96	5.00	5.11
Turkey	6.73	8.72	9.66	10.10	10.13	11.63	17.14	17.74	19.09
United Kingdom	0.33	0.33	1.03	2.26	3.90	7.35	15.28	17.07	20.40
OECD Europe	62.72	73.34	95.26	122.43	143.32	198.27	246.84	253.99	263.39
International marine bunkers	-	-	-	-	-	-	0.17	0.22	..
IEA	169.79	210.32	264.45	309.03	336.32	409.31	501.37	519.24	540.70
IEA/Accession/Association	522.02	618.19	757.62	849.94	902.29	1 037.64	1 221.78	1 255.66	..
European Union - 28	..	..	72.15	98.52	121.77	174.92	216.50	222.33	..
G7	116.64	148.21	175.39	199.51	218.91	266.44	331.51	345.66	363.05
G8	..	..	201.86	217.56	237.60	284.14	350.47	364.43	382.53
G20	..	..	753.05	836.69	887.75	1 018.62	1 193.07	1 228.47	..
OPEC	..	..	64.25	84.35	101.60	119.18	135.83	139.17	..

Includes hydro, geothermal, solar, wind, tide, wave, biofuels and the renewable fraction of municipal waste.

Excludes hydro pumped storage.

World includes international marine bunkers and international aviation bunkers.

1. Please refer to section 'Geographical coverage'.

Primary supply of renewables (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	580.63	681.86	841.80	955.23	1 032.50	1 150.68	1 323.82	1 353.48	..
Albania	0.47	0.63	0.61	0.65	0.69	0.86	0.95	0.65	..
Armenia	..	..	0.15	0.12	0.16	0.23	0.33	0.33	..
Azerbaijan	..	..	0.16	0.15	0.28	0.39	0.24	0.22	..
Belarus	..	..	0.23	0.92	1.25	1.51	1.38	1.52	..
Bosnia and Herzegovina	..	..	0.43	0.62	0.70	0.87	1.05	0.81	..
Bulgaria	0.46	0.52	0.33	0.78	1.10	1.46	1.94	1.86	..
Croatia	..	..	1.20	1.56	1.86	2.06	2.00	1.89	..
Cyprus ¹	0.01	0.01	0.01	0.05	0.05	0.11	0.15	0.17	..
Georgia	..	..	1.11	1.16	0.90	1.21	1.21	1.18	..
Gibraltar	-	-	-	-	-	-	-	-	..
Kazakhstan	..	..	0.75	0.72	0.69	0.74	1.14	1.07	..
Kosovo	..	..	..	0.22	0.23	0.25	0.39	0.39	..
Kyrgyzstan	..	..	0.86	1.11	1.10	0.96	0.99	1.22	..
Malta	-	-	-	-	0.00	0.01	0.02	0.03	..
Republic of Moldova	..	..	0.08	0.09	0.10	0.55	0.72	0.79	..
Montenegro	..	..	..	..	0.30	0.40	0.33	0.28	..
North Macedonia, Republic of	..	..	0.04	0.33	0.34	0.41	0.38	0.35	..
Romania	2.02	2.04	1.58	4.04	4.94	5.86	6.19	6.04	..
Russian Federation	..	..	26.47	18.05	18.69	17.69	18.95	18.76	19.48
Serbia	..	..	1.81	1.65	1.78	2.05	2.00	1.88	..
Tajikistan	..	..	1.42	1.21	1.46	1.41	1.43	1.47	..
Turkmenistan	..	..	0.06	0.01	0.01	0.01	0.01	0.01	..
Ukraine	..	..	1.26	1.23	1.33	2.73	3.62	3.90	..
Uzbekistan	..	..	0.58	0.31	0.77	0.71	0.63	0.73	..
Former Soviet Union	29.99	34.29	x	x	x	x	x	x	x
Former Yugoslavia	2.23	3.08	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	35.18	40.56	39.15	34.96	38.74	42.49	46.06	45.55	..
Algeria	0.07	0.03	0.02	0.06	0.12	0.07	0.03	0.06	..
Angola	3.30	3.65	4.38	5.00	5.35	5.95	6.69	6.94	..
Benin	1.04	1.21	1.56	1.45	1.67	2.10	2.66	2.73	..
Botswana	..	..	0.42	0.54	0.46	0.49	0.55	0.56	..
Cameroon	2.55	3.09	4.05	5.28	6.19	4.80	6.73	6.90	..
Congo	0.33	0.39	0.52	0.50	0.69	0.95	1.69	1.75	..
Côte d'Ivoire	1.76	2.34	3.29	4.38	7.30	5.98	6.58	6.45	..
Dem. Rep. of the Congo	6.20	7.59	10.48	13.74	16.38	19.31	28.99	28.99	..
Egypt	1.12	1.64	1.91	2.50	2.57	2.84	3.13	3.21	..
Eritrea	..	..	..	0.51	0.50	0.58	0.66	0.67	..
Ethiopia	10.94	12.44	17.00	23.54	27.22	31.44	37.38	38.41	..
Gabon	0.51	0.61	0.80	0.99	2.39	4.12	3.86	3.80	..
Ghana	2.63	3.31	4.39	4.46	3.66	3.81	4.08	4.39	..
Kenya	4.41	5.78	8.67	11.43	13.67	15.95	20.76	21.70	..
Libya	0.11	0.13	0.13	0.14	0.15	0.15	0.14	0.14	..
Mauritius	0.27	0.25	0.30	0.26	0.26	0.24	0.23	0.22	..
Morocco	0.78	0.93	1.10	1.28	2.20	1.79	1.75	1.74	..
Mozambique	5.89	5.96	5.58	7.20	8.13	6.57	8.12	7.97	..
Namibia	..	..	..	0.37	0.39	0.35	0.40	0.43	..
Niger	..	..	..	1.24	1.46	1.71	2.29	2.38	..
Nigeria	32.79	39.58	52.80	70.16	82.42	98.21	114.56	117.40	..
Senegal	0.84	0.89	0.96	1.16	1.22	2.04	1.58	1.62	..
South Africa	5.22	6.39	10.50	10.64	7.02	6.86	7.52	7.80	..
South Sudan	..	..	..	..	..	..	0.19	0.16	..
Sudan	5.91	7.09	8.78	10.97	11.49	11.58	12.14	12.35	..
United Rep. of Tanzania	6.91	7.30	9.06	12.64	13.67	15.04	16.75	17.04	..
Togo	0.64	0.75	1.05	1.77	2.00	2.37	2.78	2.85	..
Tunisia	0.43	0.50	0.64	0.94	1.14	1.10	1.18	1.19	..
Zambia	2.59	3.75	4.71	5.85	6.81	8.14	9.78	10.16	..
Zimbabwe	3.47	4.01	5.10	5.87	6.45	7.19	8.04	8.31	..
Other Africa	19.85	23.45	36.28	41.94	49.64	57.31	63.86	65.70	..
Africa	120.58	143.04	194.50	246.79	282.60	319.03	375.13	384.02	..

Includes hydro, geothermal, solar, wind, tide, wave, biofuels and the renewable fraction of municipal waste.

Excludes hydro pumped storage.

1. Please refer to section 'Geographical coverage'.

Primary supply of renewables (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	4.82	5.70	6.94	7.68	8.37	8.88	9.54	9.64	..
Brunei Darussalam	0.01	0.01	0.00	-	-	-	0.00	0.00	..
Cambodia	..	..	..	2.72	2.50	3.62	4.57	4.70	..
DPR of Korea	1.54	1.77	2.30	1.88	2.17	2.23	2.21	2.14	..
India	102.73	120.49	139.66	155.44	169.24	197.80	205.67	206.45	..
Indonesia	27.01	30.38	45.95	59.23	62.27	68.24	77.55	80.97	..
Malaysia	1.28	1.30	1.59	1.86	1.53	1.37	2.44	2.91	..
Mongolia	..	..	0.08	0.13	0.17	0.19	0.16	0.18	..
Myanmar	6.73	7.64	9.13	9.35	10.38	10.92	11.71	12.01	..
Nepal	3.76	4.40	5.50	7.13	8.15	8.87	9.99	10.18	..
Pakistan	11.71	14.78	20.23	25.48	29.33	32.29	36.75	37.22	..
Philippines	8.02	11.51	16.34	18.77	16.39	16.11	18.67	18.40	..
Singapore	0.00	0.01	0.04	0.10	0.20	0.29	0.41	0.40	..
Sri Lanka	2.85	3.21	4.19	4.74	4.92	5.54	5.08	5.00	..
Chinese Taipei	0.29	0.25	0.57	0.85	1.10	1.33	1.70	1.70	..
Thailand	8.08	10.76	15.12	15.13	17.68	23.09	29.16	27.62	..
Viet Nam	8.69	10.27	12.93	15.44	16.25	17.08	20.60	22.32	..
Other non-OECD Asia	2.58	2.96	3.68	4.92	5.07	5.54	6.80	7.01	..
Non-OECD Asia excl. China	190.09	225.44	284.23	330.87	355.72	403.41	443.00	448.85	..
People's Rep. of China	165.02	184.97	211.37	219.94	207.81	206.58	266.42	277.87	..
Hong Kong, China	0.05	0.05	0.05	0.05	0.06	0.10	0.11	0.11	..
China	165.07	185.03	211.43	220.00	207.87	206.68	266.52	277.98	..
Argentina	2.35	3.45	3.26	5.43	5.20	5.65	6.63	7.39	..
Bolivia	0.31	0.83	0.86	0.87	0.89	1.08	1.28	1.20	..
Brazil	41.58	51.48	65.54	72.83	92.42	116.84	121.68	122.89	127.86
Colombia	4.09	5.96	7.88	6.19	6.67	7.26	9.43	10.07	..
Costa Rica	0.37	0.50	0.68	1.22	2.05	2.35	2.56	2.41	..
Cuba	3.58	4.30	6.67	3.71	2.02	1.25	1.34	1.68	..
Curaçao ¹	-	-	-	0.00	0.01	0.01	0.02	0.03	..
Dominican Republic	1.21	1.33	0.94	0.93	1.00	0.96	1.01	1.15	..
Ecuador	1.08	1.06	1.38	1.40	1.26	1.22	1.93	2.31	..
El Salvador	1.33	1.91	1.69	1.35	1.79	2.30	1.94	2.06	..
Guatemala	2.04	2.37	3.18	4.13	4.38	7.67	9.08	8.86	..
Haiti	1.47	1.88	1.25	1.54	2.74	3.12	3.36	3.40	..
Honduras	1.06	1.31	1.69	1.53	1.87	2.23	2.87	3.00	..
Jamaica	0.25	0.22	0.32	0.27	0.27	0.29	0.37	0.39	..
Nicaragua	0.76	0.91	1.42	1.35	1.51	1.57	2.22	2.23	..
Panama	0.34	0.53	0.60	0.57	0.63	0.67	0.94	1.00	..
Paraguay	1.27	1.61	4.56	6.84	6.58	6.97	8.56	8.24	..
Peru	3.92	4.04	3.57	3.68	3.88	4.87	5.07	5.94	..
Suriname	..	..	..	0.13	0.09	0.13	0.13	0.13	..
Trinidad and Tobago	0.02	0.03	0.07	0.02	0.04	0.01	0.01	0.01	..
Uruguay	0.54	0.77	1.15	1.03	1.02	2.07	3.07	3.18	..
Venezuela	0.94	1.61	3.69	5.98	7.28	7.42	6.08	6.19	..
Other non-OECD Americas	0.52	0.52	0.55	0.44	0.58	0.48	0.33	0.31	..
Non-OECD Americas	69.04	86.62	110.97	121.43	144.20	176.43	189.94	194.09	..
Bahrain	-	-	-	-	-	-	-	-	..
Islamic Republic of Iran	0.39	0.62	0.74	0.47	1.97	1.45	1.95	1.84	..
Iraq	0.05	0.08	0.25	0.08	0.55	0.45	0.34	0.17	..
Jordan	0.00	0.00	0.06	0.07	0.08	0.14	0.27	0.33	..
Kuwait	0.02	0.00	0.01	-	-	-	0.00	0.00	..
Lebanon	0.14	0.18	0.15	0.17	0.26	0.22	0.21	0.22	..
Oman	-	-	-	-	-	-	-	-	..
Qatar	-	-	-	-	-	-	-	-	..
Saudi Arabia	0.00	0.00	0.01	0.00	0.01	0.01	0.02	0.02	..
Syrian Arab Republic	0.00	0.23	0.24	0.28	0.38	0.23	0.09	0.07	..
United Arab Emirates	-	-	-	0.02	0.03	0.05	0.12	0.16	..
Yemen	0.05	0.06	0.08	0.08	0.09	0.10	0.17	0.19	..
Middle East	0.66	1.17	1.53	1.18	3.37	2.65	3.16	3.00	..

Includes hydro, geothermal, solar, wind, tide, wave, biofuels and the renewable fraction of municipal waste.

Excludes hydro pumped storage.

1. Please refer to section 'Geographical coverage'.

Electricity generation from coal (% of total)

	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	38.20	37.87	37.38	38.83	40.02	40.25	38.37	38.52	..
Non-OECD Total	38.97	31.26	31.99	38.92	43.37	46.47	46.63	46.92	..
OECD Total	37.91	40.92	40.29	38.79	37.56	34.23	27.79	27.34	25.77
Canada	12.92	16.02	17.06	19.42	16.21	13.17	9.32	9.09	7.81
Chile	14.00	16.08	35.52	21.13	13.74	27.91	38.12	36.87	35.74
Mexico	0.56	-	6.71	9.23	13.06	11.72	10.79	9.64	8.54
United States	46.16	51.20	53.07	52.90	50.46	45.80	31.49	30.99	28.43
OECD Americas	41.36	45.31	47.03	46.64	44.19	40.10	27.60	27.08	24.85
Australia	74.88	73.25	78.74	83.03	79.53	71.34	63.66	62.78	60.42
Israel ¹	-	-	50.09	68.80	74.65	58.52	36.14	32.62	30.44
Japan	8.01	9.60	14.24	21.10	26.64	26.71	33.11	33.16	31.45
Korea	9.05	6.66	16.76	38.61	38.36	44.14	42.00	45.41	45.07
New Zealand	8.52	1.89	2.06	3.94	13.65	4.60	2.40	2.74	3.66
OECD Asia Oceania	15.47	17.24	23.24	32.97	36.82	37.03	38.99	39.75	38.61
Austria	10.32	7.02	14.21	11.26	13.16	9.87	6.08	5.81	5.57
Belgium	21.68	29.36	28.25	19.37	12.24	6.35	3.12	2.84	3.16
Czech Republic	85.14	84.75	76.44	75.39	63.79	58.30	54.37	51.15	50.13
Denmark	35.80	81.84	90.67	46.25	42.66	43.76	29.03	20.00	21.36
Estonia	..	..	86.05	92.13	93.27	89.29	83.80	83.64	82.05
Finland	28.07	42.63	23.56	18.77	16.56	26.54	15.28	13.65	14.21
France	19.66	27.35	8.49	5.77	5.38	4.66	2.21	2.70	1.61
Germany	69.00	62.94	58.73	53.15	48.35	43.64	42.45	39.03	37.52
Greece	35.45	44.85	72.37	64.23	59.81	53.68	34.70	34.00	34.07
Hungary	66.01	50.44	30.49	27.58	19.99	16.99	18.05	15.51	15.05
Iceland	-	-	-	-	-	-	-	-	-
Ireland	24.92	16.40	57.37	36.27	34.49	20.35	23.21	18.94	13.85
Italy	3.60	9.95	16.78	11.31	16.65	14.87	13.34	11.94	10.57
Latvia	..	..	0.93	1.89	-	0.03	-	0.00	0.11
Lithuania	..	..	-	-	-	-	-	-	-
Luxembourg	58.82	51.63	76.44	-	-	-	-	-	-
Netherlands	6.04	13.69	38.21	30.25	26.95	21.63	34.25	29.02	26.32
Norway	0.03	0.02	0.07	0.05	0.10	0.11	0.10	0.13	0.12
Poland	93.90	94.71	97.48	96.33	92.20	88.09	80.01	78.50	78.48
Portugal	3.94	2.30	32.12	33.87	32.97	13.22	21.36	25.42	20.58
Slovak Republic	64.40	37.86	31.86	19.84	19.07	14.86	12.19	12.90	11.27
Slovenia	..	..	31.26	33.84	34.87	32.53	30.89	30.05	28.69
Spain	18.87	30.01	40.12	36.60	27.90	8.82	13.80	16.95	14.46
Sweden	0.64	0.19	1.09	1.75	1.22	1.80	0.67	0.75	1.28
Switzerland	-	0.13	0.07	-	-	-	-	-	-
Turkey	26.11	25.61	35.07	30.57	26.67	26.06	33.63	32.79	37.30
United Kingdom	62.06	73.18	64.97	32.67	34.48	28.69	9.35	6.94	5.30
OECD Europe	40.98	43.30	38.18	29.90	28.20	24.09	21.93	20.95	20.22
IEA	38.05	41.08	40.50	38.82	37.61	34.22	27.73	27.30	25.73
IEA/Accession/Association	39.09	41.66	43.24	44.10	45.82	46.35	44.26	44.42	..
European Union - 28	..	..	40.76	32.20	30.27	25.89	22.79	21.71	20.36
G7	39.47	42.67	41.44	39.76	38.91	35.51	27.02	26.34	24.29
G8	..	..	37.35	37.68	36.59	33.27	25.65	25.07	23.42
G20	..	..	40.62	42.86	44.29	44.63	42.54	42.74	..
OPEC	..	..	0.03	0.09	0.08	0.04	0.04	0.05	..

Where applicable, this table includes peat and oil shale except for 2018 provisional figures for non-OECD countries.

1. Please refer to section 'Geographical coverage'.

Electricity generation from coal (% of total)

	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	38.97	31.26	31.99	38.92	43.37	46.47	46.63	46.92	..
Albania	-	-	-	-	-	-	-	-	-
Armenia	..	..	-	-	-	-	-	-	..
Azerbaijan	..	..	-	-	-	-	-	-	-
Belarus	..	..	-	-	0.01	0.08	0.10	0.08	0.06
Bosnia and Herzegovina	..	..	71.76	50.70	51.29	52.53	67.66	75.06	64.63
Bulgaria	77.28	49.15	50.26	42.33	42.36	49.13	43.37	46.53	40.43
Croatia	..	..	7.59	13.77	17.83	16.12	20.58	11.60	10.72
Cyprus ¹	-	-	-	-	-	-	-	-	-
Georgia	..	..	-	-	-	-	0.14	0.21	0.10
Gibraltar	-	-	-	-	-	-	-	-	..
Kazakhstan	..	..	71.12	69.45	73.85	80.65	66.18	68.92	69.81
Kosovo	..	..	..	97.60	96.88	96.54	95.65	96.75	95.41
Kyrgyzstan	..	..	13.07	4.29	10.10	4.99	11.74	7.47	..
Malta	-	-	55.91	-	-	-	-	-	-
Republic of Moldova	..	..	30.75	2.94	-	-	-	-	-
Montenegro	..	..	..	..	34.85	31.63	41.32	54.85	41.34
North Macedonia, Republic of	..	..	89.67	76.48	78.31	65.33	51.39	60.47	51.00
Romania	26.02	31.44	28.77	37.16	37.26	34.22	24.74	26.37	24.68
Russian Federation	..	..	14.51	20.04	17.39	16.03	15.74	15.98	17.18
Serbia	..	..	72.56	67.06	65.38	67.06	70.75	72.86	69.33
Tajikistan	..	..	-	-	-	-	3.48	5.42	..
Turkmenistan	..	..	-	-	-	-	-	-	..
Ukraine	..	..	38.19	30.08	26.90	36.94	37.57	31.90	..
Uzbekistan	..	..	7.38	4.08	4.08	4.08	4.08	4.02	..
Former Soviet Union	42.45	31.46	x	x	x	x	x	x	x
Former Yugoslavia	46.03	42.82	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	42.45	32.23	23.12	23.91	22.58	23.46	22.44	22.18	..
Algeria	-	-	-	-	-	-	-	-	..
Angola	-	-	-	-	-	-	-	-	..
Benin	-	-	-	-	-	-	-	-	..
Botswana	..	..	88.08	97.63	99.43	100.00	99.70	99.68	..
Cameroon	-	-	-	-	-	-	-	-	..
Congo	-	-	-	-	-	-	-	-	..
Côte d'Ivoire	-	-	-	-	-	-	-	-	..
Dem. Rep. of the Congo	-	-	-	-	-	-	-	-	..
Egypt	-	-	-	-	-	-	-	-	..
Eritrea	..	..	..	-	-	-	-	-	..
Ethiopia	-	-	-	-	-	-	-	-	..
Gabon	-	-	-	-	-	-	-	-	..
Ghana	-	-	-	-	-	-	-	-	..
Kenya	-	-	-	-	-	-	-	-	..
Libya	-	-	-	-	-	-	-	-	..
Mauritius	-	-	6.15	20.42	26.85	38.68	41.65	41.56	..
Morocco	27.51	19.48	22.97	68.28	66.00	45.90	53.52	53.47	..
Mozambique	-	17.53	13.88	-	-	-	-	-	..
Namibia	..	..	..	0.78	0.18	4.21	3.73	3.98	..
Niger	..	..	..	65.53	69.00	68.94	40.87	40.87	..
Nigeria	-	-	0.10	-	-	-	-	-	..
Senegal	-	-	-	-	-	-	-	-	..
South Africa	98.47	98.96	94.28	93.06	94.64	94.27	90.79	90.45	..
South Sudan	..	..	..	..	..	..	-	-	..
Sudan	-	-	-	-	-	-	-	-	..
United Rep. of Tanzania	-	-	-	2.71	1.15	-	-	-	..
Togo	-	-	-	-	-	-	-	-	..
Tunisia	-	-	-	-	-	-	-	-	..
Zambia	6.71	0.68	0.49	0.18	0.18	-	2.79	9.02	..
Zimbabwe	32.58	11.74	53.33	53.40	47.31	31.71	55.24	44.85	..
Other Africa	0.33	15.17	4.77	10.13	11.31	12.31	0.31	0.32	..
Africa	59.80	54.58	52.12	47.27	44.55	38.62	31.58	31.03	..

Where applicable, this table includes peat and oil shale except for 2018 provisional figures for non-OECD countries.

1. Please refer to section 'Geographical coverage'.

Electricity generation from coal (% of total)

	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	-	-	-	-	0.62	1.89	1.60	1.41	..
Brunei Darussalam	-	-	-	-	-	-	-	-	..
Cambodia	..	..	..	-	-	3.10	45.60	55.89	..
DPR of Korea	37.00	47.99	40.05	43.31	39.04	35.52	18.81	16.37	..
India	49.39	51.04	65.46	68.50	66.84	67.03	74.22	73.99	..
Indonesia	-	-	29.90	36.43	40.61	40.32	54.60	58.02	..
Malaysia	-	-	12.74	11.11	24.18	34.33	44.14	43.74	..
Mongolia	..	..	92.11	96.88	96.84	94.83	92.68	88.81	..
Myanmar	2.56	1.95	1.61	-	9.79	8.90	0.06	6.31	..
Nepal	-	-	-	-	-	-	-	-	..
Pakistan	0.79	0.20	0.10	0.35	0.14	0.09	0.51	8.31	..
Philippines	0.09	1.01	7.35	36.79	26.97	34.40	47.69	49.64	..
Singapore	-	-	-	-	-	-	1.20	1.30	1.29
Sri Lanka	-	-	-	-	-	-	35.33	32.29	..
Chinese Taipei	6.94	13.96	27.70	49.09	55.63	51.50	46.87	47.51	..
Thailand	3.50	9.77	25.02	18.52	15.52	18.84	19.33	19.09	..
Viet Nam	82.13	39.93	23.05	11.80	22.69	20.75	37.44	34.01	..
Other non-OECD Asia	-	-	-	1.21	2.22	1.46	21.34	24.00	..
Non-OECD Asia excl. China	28.60	29.55	41.34	45.62	45.57	46.81	53.81	54.33	..
People's Rep. of China	57.92	53.04	71.04	78.21	79.20	77.19	68.56	67.94	..
Hong Kong, China	-	-	98.21	60.44	70.30	61.97	64.73	62.68	..
China	55.68	50.90	72.25	77.81	79.06	77.05	68.53	67.91	..
Argentina	2.37	2.06	1.30	2.00	2.07	2.41	1.73	1.68	..
Bolivia	-	-	-	-	-	-	-	-	..
Brazil	2.16	2.47	2.13	3.15	2.67	2.20	4.45	4.30	3.87
Colombia	12.45	7.91	10.20	5.10	4.90	6.89	8.08	4.03	..
Costa Rica	-	-	-	-	-	-	-	-	..
Cuba	-	-	-	-	-	-	-	-	..
Curaçao ¹	-	-	-	-	-	-	-	-	..
Dominican Republic	-	-	1.16	-	10.76	12.61	12.62	12.64	..
Ecuador	-	-	-	-	-	-	-	-	..
El Salvador	-	-	-	-	-	-	-	-	..
Guatemala	-	-	-	8.91	13.23	13.16	31.82	26.48	..
Haiti	-	-	-	-	-	-	-	-	..
Honduras	-	-	-	-	-	-	2.49	5.70	..
Jamaica	-	-	-	-	-	-	-	-	..
Nicaragua	-	-	-	-	-	-	-	-	..
Panama	-	-	-	-	-	-	6.05	1.55	..
Paraguay	-	-	-	-	-	-	-	-	..
Peru	-	-	-	1.74	3.15	2.37	1.60	1.23	..
Suriname	..	..	..	-	-	-	-	-	..
Trinidad and Tobago	-	-	-	-	-	-	-	-	..
Uruguay	-	-	-	-	-	-	-	-	..
Venezuela	-	-	-	-	-	-	-	-	..
Other non-OECD Americas	-	-	-	-	-	-	-	-	..
Non-OECD Americas	2.11	1.95	1.87	2.08	2.11	2.09	3.49	3.14	..
Bahrain	-	-	-	-	-	-	-	-	..
Islamic Republic of Iran	0.47	0.50	0.11	0.40	0.32	0.15	0.17	0.20	..
Iraq	-	-	-	-	-	-	-	-	..
Jordan	-	-	-	-	-	-	-	-	..
Kuwait	-	-	-	-	-	-	-	-	..
Lebanon	-	-	-	-	-	-	-	-	..
Oman	-	-	-	-	-	-	-	-	..
Qatar	-	-	-	-	-	-	-	-	..
Saudi Arabia	-	-	-	-	-	-	-	-	..
Syrian Arab Republic	-	-	-	-	-	-	-	-	..
United Arab Emirates	-	-	-	-	-	-	-	-	..
Yemen	-	-	-	-	-	-	-	-	..
Middle East	0.21	0.13	0.03	0.11	0.10	0.04	0.05	0.06	..

Where applicable, this table includes peat and oil shale except for 2018 provisional figures for non-OECD countries.

1. Please refer to section 'Geographical coverage'.

Electricity generation from oil (% of total)

	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	24.79	20.02	11.18	7.82	6.21	4.54	3.71	3.29	..
Non-OECD Total	23.17	25.46	14.92	10.81	7.71	6.27	4.85	4.23	..
OECD Total	25.40	17.52	9.16	6.07	5.10	2.86	2.24	2.04	1.83
Canada	3.36	3.70	3.42	2.43	2.52	1.38	1.21	1.11	1.13
Chile	20.48	14.74	9.62	4.25	6.46	14.02	3.67	2.41	1.74
Mexico	41.13	57.94	53.58	45.51	27.30	16.18	10.58	11.95	10.54
United States	17.09	10.84	4.08	2.94	3.31	1.10	0.81	0.76	0.88
OECD Americas	15.87	11.03	5.52	4.68	4.41	2.07	1.48	1.51	1.52
Australia	2.61	5.43	2.30	0.85	1.24	2.41	2.18	2.05	1.88
Israel ¹	100.00	100.00	49.89	31.09	13.69	3.66	0.43	1.28	0.48
Japan	73.24	46.23	29.04	12.73	12.33	8.24	7.82	6.59	5.15
Korea	82.29	78.67	17.90	11.99	6.70	3.81	3.18	2.10	2.16
New Zealand	6.11	0.17	0.03	0.00	0.01	0.00	0.01	0.01	0.03
OECD Asia Oceania	63.75	42.11	24.10	11.25	9.46	6.10	5.36	4.41	3.56
Austria	14.06	13.96	3.81	2.84	2.55	1.88	1.52	1.21	1.10
Belgium	53.72	34.67	1.87	0.96	2.03	0.43	0.24	0.19	0.22
Czech Republic	11.30	9.55	0.87	0.51	0.40	0.23	0.11	0.14	0.12
Denmark	64.07	18.00	3.39	12.31	3.79	1.99	1.06	0.90	0.86
Estonia	..	..	8.38	0.66	0.31	0.32	2.09	0.93	0.96
Finland	31.65	10.84	3.09	0.84	0.71	0.60	0.29	0.27	0.36
France	40.17	18.83	2.08	1.34	1.39	0.98	1.23	1.33	0.97
Germany	11.98	5.73	1.90	0.84	1.95	1.40	0.91	0.86	0.81
Greece	49.54	40.12	22.27	16.63	15.49	10.61	10.23	9.98	9.11
Hungary	17.19	13.89	4.75	12.51	1.27	1.31	0.20	0.26	0.22
Iceland	3.75	1.48	0.13	0.07	0.06	0.01	0.02	0.01	0.01
Ireland	66.32	60.43	10.04	19.59	13.03	2.14	0.97	0.46	0.46
Italy	62.36	57.00	48.19	31.81	15.88	7.27	4.21	3.92	3.72
Latvia	..	..	5.37	2.59	0.12	0.03	-	0.01	0.00
Lithuania	..	..	14.61	5.89	2.78	12.96	6.01	3.85	4.41
Luxembourg	27.62	10.89	1.44	0.07	0.02	0.02	0.04	0.03	0.03
Netherlands	12.33	38.42	4.26	2.95	2.26	1.05	1.11	1.01	1.14
Norway	0.19	0.15	0.00	0.01	0.02	0.03	0.02	0.02	0.02
Poland	2.34	2.89	1.17	1.34	1.77	1.84	1.39	1.19	1.10
Portugal	19.21	42.89	33.16	19.42	19.03	5.60	2.20	2.22	1.99
Slovak Republic	17.71	17.94	6.41	0.66	2.36	2.18	1.75	1.60	1.55
Slovenia	..	..	7.88	0.40	0.28	0.05	0.07	0.09	0.11
Spain	33.19	35.19	5.69	10.22	8.44	5.55	6.24	5.77	5.31
Sweden	19.44	10.38	0.89	1.06	0.87	1.20	0.26	0.18	0.24
Switzerland	7.07	1.02	0.70	0.34	0.37	0.10	0.06	0.06	0.05
Turkey	51.36	25.05	6.85	7.45	3.39	1.03	0.70	0.40	0.11
United Kingdom	25.65	11.67	10.91	2.26	1.35	1.27	0.56	0.48	0.51
OECD Europe	25.28	17.75	7.79	5.55	3.89	2.21	1.65	1.53	1.37
<i>IEA</i>	25.27	17.35	9.03	5.98	5.07	2.80	2.25	2.05	1.85
<i>IEA/Accession/Association</i>	24.35	17.40	8.91	5.87	4.64	2.42	1.58	1.46	..
<i>European Union - 28</i>	..	..	8.70	6.03	4.34	2.61	1.97	1.86	1.69
<i>G7</i>	26.23	16.53	9.16	5.02	4.64	2.42	1.94	1.74	1.54
<i>G8</i>	..	..	9.58	4.89	4.38	2.24	1.82	1.60	1.43
<i>G20</i>	..	..	9.50	6.07	4.94	3.05	2.30	2.05	..
<i>OPEC</i>	..	..	35.24	32.28	26.82	30.52	25.56	22.68	..

1. Please refer to section 'Geographical coverage'.

Electricity generation from oil (% of total)

	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	23.17	25.46	14.92	10.81	7.71	6.27	4.85	4.23	..
Albania	33.78	20.59	13.59	3.85	1.29	0.01	-	-	-
Armenia	..	..	68.59	-	-	-	-	-	..
Azerbaijan	..	..	34.42	71.95	25.67	0.12	10.39	5.45	0.19
Belarus	..	..	47.81	6.57	3.04	2.38	1.73	0.56	0.68
Bosnia and Herzegovina	..	..	7.34	0.46	1.12	0.28	0.33	0.38	0.31
Bulgaria	11.02	22.49	2.92	1.63	1.38	0.85	0.71	0.89	0.65
Croatia	..	..	32.69	14.98	14.21	3.78	0.55	1.78	0.48
Cyprus ¹	100.00	100.00	100.00	100.00	99.98	98.63	91.32	91.30	90.71
Georgia	..	..	29.17	3.69	0.91	0.32	-	-	-
Gibraltar	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	..
Kazakhstan	..	..	9.99	5.20	3.88	0.75	1.80	0.76	0.77
Kosovo	..	..	..	0.64	0.61	0.43	0.25	0.21	-
Kyrgyzstan	..	..	-	-	0.99	1.71	0.16	0.20	..
Malta	100.00	100.00	44.09	100.00	100.00	99.95	84.27	11.72	0.93
Republic of Moldova	..	..	25.39	0.57	0.17	0.47	0.29	0.34	0.31
Montenegro	..	..	..	..	-	-	-	-	-
North Macedonia, Republic of	..	..	1.81	6.33	0.20	0.84	1.79	1.59	0.85
Romania	9.56	9.63	18.38	6.54	3.19	1.14	1.09	0.99	0.62
Russian Federation	..	..	11.89	3.78	2.23	0.90	1.01	0.64	0.62
Serbia	..	..	4.83	0.99	1.91	0.30	0.13	0.13	0.13
Tajikistan	..	..	-	-	-	-	-	-	..
Turkmenistan	..	..	-	-	-	-	-	-	..
Ukraine	..	..	16.08	0.69	0.32	0.44	0.99	0.85	..
Uzbekistan	..	..	4.42	10.04	6.63	1.46	0.26	0.25	..
Former Soviet Union	21.92	25.95	x	x	x	x	x	x	x
Former Yugoslavia	5.34	7.97	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	20.67	24.45	13.57	4.90	2.99	1.31	1.40	0.99	..
Algeria	18.25	12.24	5.43	3.04	2.11	2.11	1.37	0.42	..
Angola	17.28	11.85	13.79	36.89	20.35	32.04	43.88	28.61	..
Benin	100.00	100.00	100.00	97.62	99.07	99.13	93.84	55.76	..
Botswana	..	..	11.92	2.37	0.57	-	0.22	0.26	..
Cameroon	4.47	6.06	1.52	1.09	5.79	19.71	26.98	26.90	..
Congo	39.58	35.48	0.61	0.34	-	1.53	4.21	2.19	..
Côte d'Ivoire	78.89	22.70	33.33	0.27	0.12	1.42	0.09	0.72	..
Dem. Rep. of the Congo	2.08	4.54	0.44	0.05	0.09	0.08	0.13	0.07	..
Egypt	36.39	27.75	31.69	28.55	13.55	13.48	15.79	13.19	..
Eritrea	..	..	..	99.52	99.65	99.36	99.50	99.50	..
Ethiopia	43.65	29.75	11.65	1.37	0.42	0.62	0.03	0.03	..
Gabon	96.97	50.94	11.25	20.53	27.19	10.65	8.99	9.22	..
Ghana	0.97	0.77	-	8.50	17.07	20.41	21.82	13.94	..
Kenya	42.73	26.38	7.14	52.90	28.27	30.85	20.63	20.28	..
Libya	100.00	100.00	100.00	78.06	72.04	52.85	37.39	37.92	..
Mauritius	47.59	69.01	62.69	49.94	48.15	37.00	36.52	37.50	..
Morocco	31.03	51.65	64.35	25.64	17.48	24.15	9.08	10.65	..
Mozambique	70.20	17.32	23.57	0.43	0.11	0.01	0.09	-	..
Namibia	..	..	..	-	0.06	0.23	0.63	0.02	..
Niger	..	..	..	34.47	30.13	30.03	58.17	58.17	..
Nigeria	17.68	17.69	13.67	-	-	-	0.08	0.08	..
Senegal	91.40	94.08	93.02	89.84	79.28	83.58	85.80	85.98	..
South Africa	-	0.03	-	-	0.03	0.08	0.07	0.07	..
South Sudan	..	..	..	..	..	..	99.67	99.45	..
Sudan	30.00	29.99	36.77	53.95	67.04	17.30	44.20	39.86	..
United Rep. of Tanzania	49.14	13.64	4.85	10.92	16.50	3.74	17.64	17.06	..
Togo	62.38	25.49	39.87	42.86	59.79	45.81	9.91	9.47	..
Tunisia	61.07	64.50	35.54	11.60	1.65	0.02	0.21	0.21	..
Zambia	1.34	0.46	0.29	0.44	0.41	0.12	2.94	4.99	..
Zimbabwe	-	-	-	0.94	0.26	0.28	0.55	0.54	..
Other Africa	48.16	38.06	40.74	35.37	37.65	41.15	38.48	38.59	..
Africa	10.77	11.92	12.88	11.66	9.14	9.50	10.09	9.21	..

1. Please refer to section 'Geographical coverage'.

Electricity generation from oil (% of total)

	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	41.74	26.60	4.31	6.47	5.77	3.62	16.52	18.22	..
Brunei Darussalam	-	1.17	0.94	0.90	0.89	1.00	1.05	1.09	..
Cambodia	..	..	..	99.78	93.88	91.40	6.78	4.24	..
DPR of Korea	5.82	2.01	3.63	4.11	3.64	2.63	5.57	5.15	..
India	7.02	7.28	4.55	5.12	3.54	2.49	1.62	1.63	..
Indonesia	56.54	82.07	46.93	19.65	30.82	20.12	6.33	7.62	..
Malaysia	76.79	84.77	45.86	5.20	2.66	2.94	0.76	0.93	..
Mongolia	..	..	7.89	2.99	3.04	4.15	3.41	4.62	..
Myanmar	20.71	31.34	10.94	13.50	0.57	0.44	0.34	0.31	..
Nepal	22.12	6.45	0.11	1.63	0.63	0.09	-	0.00	..
Pakistan	3.21	1.11	20.57	39.50	20.15	35.16	32.04	22.47	..
Philippines	85.69	67.90	47.23	20.28	10.86	10.48	6.23	4.01	..
Singapore	100.00	100.00	98.92	79.95	23.10	20.21	0.70	0.70	0.70
Sri Lanka	31.33	11.33	0.16	54.20	62.77	46.88	32.04	38.64	..
Chinese Taipei	76.66	59.92	26.49	16.56	6.81	4.43	4.32	4.92	..
Thailand	69.53	81.40	23.49	10.45	6.60	0.74	0.30	0.16	..
Viet Nam	-	18.26	15.03	17.01	4.04	3.59	1.05	0.35	..
Other non-OECD Asia	76.36	67.50	45.19	35.59	41.70	28.79	13.73	13.26	..
Non-OECD Asia excl. China	32.34	31.99	18.54	13.51	8.86	6.75	4.20	3.94	..
People's Rep. of China	19.55	27.37	8.11	3.49	2.02	0.35	0.17	0.15	..
Hong Kong, China	100.00	100.00	1.79	0.49	0.39	0.28	0.95	1.10	..
China	22.67	30.30	7.83	3.42	2.00	0.35	0.17	0.15	..
Argentina	61.65	31.64	9.74	3.24	5.45	13.30	14.29	7.89	..
Bolivia	11.61	12.72	8.61	0.77	1.31	1.93	2.04	2.02	..
Brazil	7.24	3.75	2.22	4.35	2.90	3.11	2.64	2.70	2.08
Colombia	10.58	1.83	1.04	0.23	0.23	0.84	5.31	2.80	..
Costa Rica	15.52	4.31	2.48	0.85	3.28	6.69	1.77	0.33	..
Cuba	86.32	89.01	89.59	84.43	84.18	83.72	81.74	82.55	..
Curaçao ¹	100.00	100.00	100.00	99.29	94.31	95.24	74.10	61.40	..
Dominican Republic	73.06	80.57	88.72	92.31	65.99	54.30	56.26	43.35	..
Ecuador	65.37	74.14	21.45	28.30	33.54	43.28	29.68	19.54	..
El Salvador	46.35	1.51	6.81	41.93	41.76	34.96	41.67	25.59	..
Guatemala	69.60	85.35	8.37	39.37	39.28	23.00	8.39	3.38	..
Haiti	21.31	26.11	20.60	48.26	52.34	69.85	93.45	87.86	..
Honduras	26.13	13.69	1.72	38.03	65.06	50.98	47.65	36.15	..
Jamaica	86.10	76.01	92.43	95.16	96.31	92.31	85.81	73.56	..
Nicaragua	44.10	47.06	38.64	78.60	65.39	63.00	47.81	44.02	..
Panama	91.18	45.58	14.73	29.57	35.70	42.90	27.33	26.67	..
Paraguay	9.52	8.74	0.03	-	-	0.00	0.00	0.00	..
Peru	24.47	27.38	21.49	12.31	6.74	5.84	1.96	2.11	..
Suriname	..	..	..	11.60	47.30	29.81	39.96	39.93	..
Trinidad and Tobago	1.99	2.26	0.08	0.05	0.17	0.28	0.32	0.30	..
Uruguay	38.65	24.17	5.05	6.62	12.46	11.65	3.35	1.37	..
Venezuela	19.06	32.36	11.50	9.27	13.11	15.84	16.60	13.33	..
Other non-OECD Americas	92.53	94.02	92.81	94.20	87.13	87.89	75.63	96.55	..
Non-OECD Americas	33.63	23.28	13.08	13.43	12.97	12.79	11.25	8.67	..
Bahrain	-	-	-	-	-	-	0.01	0.01	..
Islamic Republic of Iran	58.96	49.58	37.15	20.89	15.77	19.76	11.08	8.57	..
Iraq	26.43	72.56	73.49	79.32	47.37	59.45	70.30	61.76	..
Jordan	100.00	100.00	87.77	89.37	44.45	28.33	10.97	13.37	..
Kuwait	9.75	43.85	55.43	67.06	74.91	65.37	63.91	65.63	..
Lebanon	73.31	69.11	66.67	95.36	91.52	88.38	98.04	98.26	..
Oman	100.00	21.52	18.37	17.17	2.09	2.25	2.75	2.87	..
Qatar	9.52	2.69	-	-	-	-	-	-	..
Saudi Arabia	100.00	28.35	49.01	53.97	43.51	53.86	40.05	36.18	..
Syrian Arab Republic	98.81	31.94	55.96	50.09	50.51	39.45	35.78	37.95	..
United Arab Emirates	-	3.71	3.71	3.09	2.14	1.48	1.23	1.14	..
Yemen	100.00	100.00	100.00	100.00	100.00	73.43	58.81	50.64	..
Middle East	53.17	41.50	43.64	40.77	32.05	34.29	28.17	25.65	..

1. Please refer to section 'Geographical coverage'.

Electricity generation from natural gas (% of total)

	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	12.14	12.06	14.77	17.88	20.25	22.48	23.31	22.97	..
Non-OECD Total	13.48	14.58	23.33	21.27	21.76	21.23	20.02	19.83	..
OECD Total	11.64	10.90	10.14	15.90	19.13	23.68	27.51	27.16	28.02
Canada	6.00	2.46	2.00	5.53	6.39	8.53	9.22	8.75	10.34
Chile	1.12	1.30	1.02	26.07	25.91	17.69	14.94	16.81	15.56
Mexico	14.25	15.48	12.48	21.46	40.13	53.35	59.98	59.00	60.29
United States	18.56	15.26	11.92	15.76	18.34	23.38	32.98	31.37	34.29
OECD Americas	16.94	13.55	10.63	14.81	18.04	23.18	31.38	30.03	32.79
Australia	4.27	7.33	9.31	7.74	10.42	17.65	19.67	19.58	20.64
Israel ¹	-	-	-	0.03	11.58	37.47	60.95	63.24	65.93
Japan	2.26	14.17	19.55	24.48	22.53	27.98	39.56	37.52	35.39
Korea	-	-	9.11	10.21	16.02	20.77	22.65	22.38	25.28
New Zealand	1.41	7.54	17.69	24.39	21.80	21.95	13.21	15.95	12.99
OECD Asia Oceania	2.36	12.13	16.87	19.18	19.29	25.06	32.36	31.32	31.04
Austria	14.32	9.19	15.66	13.11	20.20	21.13	13.02	16.28	15.25
Belgium	23.70	11.24	7.69	19.30	26.66	33.49	26.12	26.80	32.10
Czech Republic	0.93	1.14	0.62	2.32	1.79	1.60	4.52	4.28	4.31
Denmark	-	-	2.67	24.34	24.22	20.34	7.16	6.16	6.22
Estonia	..	..	5.57	7.00	5.33	2.34	0.61	0.49	0.47
Finland	-	4.22	8.56	14.48	15.91	13.96	5.44	4.89	5.96
France	5.53	2.72	0.73	2.15	4.04	4.21	6.25	7.26	5.53
Germany	10.94	14.15	7.39	9.17	12.02	14.42	12.79	13.54	13.21
Greece	-	-	0.26	11.08	13.75	17.14	27.32	31.01	25.97
Hungary	16.22	35.21	15.73	18.76	34.62	31.03	20.31	23.84	22.65
Iceland	-	-	-	-	-	-	-	-	-
Ireland	-	15.24	27.70	39.13	45.16	64.28	50.72	51.13	52.24
Italy	3.11	5.03	18.63	37.55	50.28	51.12	43.81	47.74	44.90
Latvia	..	..	26.07	27.27	30.29	45.09	45.82	27.47	47.86
Lithuania	..	..	23.83	14.53	20.93	63.80	26.82	16.56	11.07
Luxembourg	10.19	23.53	5.45	51.19	92.86	90.25	32.86	24.58	20.74
Netherlands	79.53	39.83	50.76	57.48	57.64	63.16	46.78	50.66	50.68
Norway	-	-	-	0.15	0.27	3.95	1.75	1.70	1.77
Poland	1.68	0.12	0.09	0.65	3.32	3.05	4.71	5.90	7.46
Portugal	-	-	-	16.46	29.46	27.75	21.27	32.75	26.37
Slovak Republic	5.26	10.24	7.15	10.86	6.97	8.03	5.68	6.08	5.25
Slovenia	..	..	0.02	2.15	2.24	3.37	2.59	2.95	2.87
Spain	1.01	2.67	1.00	9.13	27.30	31.80	19.47	23.42	21.01
Sweden	-	-	0.27	0.32	0.37	1.94	0.40	0.17	0.35
Switzerland	-	0.61	0.60	1.30	1.51	1.56	1.42	1.20	1.10
Turkey	-	-	17.71	37.00	45.35	46.47	32.52	37.17	30.44
United Kingdom	0.97	0.75	1.57	39.55	38.60	46.36	42.62	40.76	39.67
OECD Europe	7.44	6.73	6.52	15.89	20.66	23.65	19.11	20.73	19.24
IEA	11.69	10.95	10.15	15.96	19.17	23.68	27.47	27.10	27.96
IEA/Accession/Association	10.74	9.76	8.90	13.78	15.43	17.39	17.70	17.12	..
European Union - 28	..	..	7.47	15.95	20.31	22.94	18.88	20.29	19.20
G7	12.21	11.94	10.72	16.66	18.67	23.00	29.10	28.13	29.27
G8	..	..	16.28	19.36	21.64	26.12	31.39	30.50	31.34
G20	..	..	13.65	16.06	17.53	19.33	19.73	19.24	..
OPEC	..	..	45.86	51.67	56.42	57.73	64.77	67.50	..

1. Please refer to section 'Geographical coverage'.

Electricity generation from natural gas (% of total)

	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	13.48	14.58	23.33	21.27	21.76	21.23	20.02	19.83	..
Albania	-	-	-	-	-	-	-	-	-
Armenia	..	..	16.41	45.18	28.94	22.15	35.28	36.98	..
Azerbaijan	..	..	58.42	19.85	61.17	81.45	80.83	86.43	91.67
Belarus	..	..	52.14	93.33	96.83	97.15	96.91	97.08	97.12
Bosnia and Herzegovina	..	..	-	-	-	0.32	0.12	0.14	0.13
Bulgaria	-	-	7.57	4.70	3.93	4.27	4.60	4.28	4.36
Croatia	..	..	15.39	13.95	13.89	17.25	12.57	26.22	16.52
Cyprus ¹	-	-	-	-	-	-	-	-	-
Georgia	..	..	15.62	17.38	13.28	7.16	19.18	19.15	17.31
Gibraltar	-	-	-	-	-	-	-	-	-
Kazakhstan	..	..	10.46	10.68	10.69	8.89	20.78	19.03	19.27
Kosovo	..	..	..	..	..	..	..	..	..
Kyrgyzstan	..	..	23.46	9.81	3.04	1.50	1.43	0.77	..
Malta	-	-	-	-	-	-	-	78.25	88.77
Republic of Moldova	..	..	42.28	89.76	93.54	92.87	95.46	93.27	93.77
Montenegro	..	..	..	..	..	..	..	..	..
North Macedonia, Republic of	..	..	-	0.01	-	0.34	10.11	14.80	13.36
Romania	48.29	40.20	35.10	17.33	16.18	11.98	14.95	16.67	16.22
Russian Federation	..	..	47.33	42.26	46.19	50.24	47.92	47.49	46.15
Serbia	..	..	3.37	1.23	0.88	0.87	0.97	1.51	1.48
Tajikistan	..	..	9.07	1.56	0.72	0.21	-	-	..
Turkmenistan	..	..	95.21	100.00	100.00	100.00	100.00	100.00	..
Ukraine	..	..	16.71	17.49	18.37	8.32	6.03	4.78	..
Uzbekistan	..	..	76.39	78.34	70.56	78.69	83.29	82.09	..
Former Soviet Union	18.45	20.59	x	x	x	x	x	x	x
Former Yugoslavia	1.87	2.05	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	18.80	20.17	38.06	35.62	38.00	39.71	39.93	40.10	..
Algeria	54.95	84.15	93.73	96.75	96.25	97.51	98.16	98.74	..
Angola	-	-	-	-	-	-	-	-	..
Benin	-	-	-	-	-	-	2.54	42.26	..
Botswana	..	..	-	-	-	-	-	-	..
Cameroon	-	-	-	-	-	7.07	20.16	21.76	..
Congo	8.33	-	-	-	18.01	43.75	47.05	53.58	..
Côte d'Ivoire	-	-	-	62.98	72.65	70.29	78.49	82.69	..
Dem. Rep. of the Congo	-	-	-	-	-	1.01	0.02	0.02	..
Egypt	-	20.50	44.80	53.74	74.31	76.48	75.82	78.22	..
Eritrea	..	..	..	-	-	-	-	-	..
Ethiopia	-	-	-	-	-	-	-	-	..
Gabon	-	-	16.36	17.87	20.71	42.04	49.66	51.07	..
Ghana	-	-	-	-	-	10.78	21.85	45.94	..
Kenya	-	-	-	-	-	-	-	-	..
Libya	-	-	-	21.94	27.95	47.13	62.59	62.05	..
Mauritius	-	-	-	-	-	-	-	-	..
Morocco	-	-	-	-	10.38	12.52	18.62	17.79	..
Mozambique	-	-	-	0.02	0.05	0.11	28.30	17.24	..
Namibia	..	..	..	-	-	-	-	-	..
Niger	..	..	..	-	-	-	-	-	..
Nigeria	11.54	43.49	53.65	61.78	67.00	75.60	82.29	82.70	..
Senegal	-	-	2.33	0.19	2.56	2.73	1.71	1.71	..
South Africa	-	-	-	-	-	-	-	-	..
South Sudan	..	..	..	..	..	..	..	..	..
Sudan	-	-	-	-	-	-	-	-	..
United Rep. of Tanzania	-	-	-	-	32.29	44.58	51.89	52.98	..
Togo	-	-	-	-	-	-	-	-	..
Tunisia	32.74	34.68	63.67	87.58	96.87	95.91	95.50	95.75	..
Zambia	-	-	-	-	-	-	-	-	..
Zimbabwe	-	-	-	-	-	-	-	-	..
Other Africa	-	-	-	-	-	1.25	3.66	3.67	..
Africa	2.03	7.62	14.31	20.76	27.76	32.79	38.89	39.82	..

1. Please refer to section 'Geographical coverage'.

Electricity generation from natural gas (% of total)

	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	34.69	48.62	84.26	88.67	90.71	92.60	80.15	78.70	..
Brunei Darussalam	100.00	98.83	99.06	99.10	99.11	99.00	98.92	98.87	..
Cambodia	..	..	..	-	-	-	-	-	..
DPR of Korea	-	-	-	-	-	-	-	-	..
India	0.49	0.52	3.40	9.82	10.54	11.54	4.76	4.63	..
Indonesia	-	-	2.25	27.96	14.97	23.71	26.50	21.71	..
Malaysia	-	1.33	24.07	73.64	66.87	56.73	41.64	38.46	..
Mongolia	..	..	-	-	-	-	-	-	..
Myanmar	6.58	13.18	39.31	49.53	39.83	22.99	45.04	37.22	..
Nepal	-	-	-	-	-	-	-	-	..
Pakistan	40.38	40.48	33.63	31.97	44.10	27.42	33.55	37.48	..
Philippines	-	-	-	0.04	29.81	28.81	21.87	21.77	..
Singapore	-	-	-	18.50	74.40	77.25	95.03	94.91	94.80
Sri Lanka	-	-	-	-	-	-	-	-	..
Chinese Taipei	-	-	1.41	9.65	16.47	23.44	31.85	34.45	..
Thailand	-	-	40.22	64.22	72.33	74.82	65.32	64.33	..
Viet Nam	-	-	0.07	16.40	41.60	46.52	25.28	20.65	..
Other non-OECD Asia	-	-	-	3.62	3.11	5.25	1.20	1.16	..
Non-OECD Asia excl. China	2.83	3.11	9.06	21.10	26.07	27.21	21.49	20.53	..
People's Rep. of China	-	0.23	0.45	0.43	0.49	1.86	2.76	2.77	..
Hong Kong, China	-	-	-	39.07	29.31	37.50	34.03	35.92	..
China	-	0.22	0.43	1.30	0.92	2.18	2.95	2.96	..
Argentina	24.54	22.02	39.16	54.65	52.45	49.98	51.36	56.85	..
Bolivia	4.36	19.64	38.94	47.71	57.43	64.11	76.07	72.14	..
Brazil	-	-	0.15	1.17	4.67	7.07	9.76	11.13	9.08
Colombia	8.70	19.28	12.37	19.14	14.70	20.14	20.74	13.57	..
Costa Rica	-	-	-	-	-	-	-	-	..
Cuba	-	0.47	0.16	8.69	12.62	13.04	14.30	13.63	..
Curaçao ¹	-	-	-	-	-	-	-	-	..
Dominican Republic	-	-	-	-	8.40	22.95	20.46	28.88	..
Ecuador	-	-	-	-	11.35	11.23	10.11	10.01	..
El Salvador	-	-	-	-	-	-	-	-	..
Guatemala	-	-	-	-	-	-	-	-	..
Haiti	-	-	-	-	-	-	-	-	..
Honduras	-	-	-	-	-	-	-	-	..
Jamaica	-	-	-	-	-	-	1.91	9.36	..
Nicaragua	-	-	-	-	-	-	-	-	..
Panama	-	-	-	-	-	-	-	-	..
Paraguay	-	-	-	-	-	-	-	-	..
Peru	0.47	1.89	1.70	3.96	17.84	34.07	45.99	37.22	..
Suriname	..	..	..	-	-	-	-	-	..
Trinidad and Tobago	95.38	96.46	99.05	99.58	99.49	99.67	99.65	99.66	..
Uruguay	-	-	-	-	0.04	0.73	-	0.30	..
Venezuela	43.08	26.90	26.15	16.99	13.60	16.67	25.01	25.99	..
Other non-OECD Americas	-	-	0.14	4.38	7.21	8.60	22.33	0.71	..
Non-OECD Americas	9.59	8.25	9.19	11.29	13.26	15.55	19.11	19.48	..
Bahrain	100.00	100.00	100.00	100.00	100.00	100.00	99.99	99.99	..
Islamic Republic of Iran	17.07	24.81	52.45	75.66	74.83	75.92	80.68	83.77	..
Iraq	65.33	21.38	15.68	18.76	32.89	30.81	25.49	36.58	..
Jordan	-	-	11.90	10.06	54.88	71.17	84.33	79.96	..
Kuwait	90.25	56.15	44.57	32.94	25.09	34.63	36.08	34.37	..
Lebanon	-	-	-	-	-	6.28	-	-	..
Oman	-	78.48	81.63	82.83	97.91	97.75	97.25	97.13	..
Qatar	90.48	97.31	100.00	100.00	100.00	100.00	100.00	100.00	..
Saudi Arabia	-	71.65	50.99	46.03	56.49	46.14	59.91	63.77	..
Syrian Arab Republic	-	3.38	20.54	37.10	37.11	54.97	59.09	57.92	..
United Arab Emirates	100.00	96.29	96.29	96.91	97.86	98.52	98.49	98.27	..
Yemen	-	-	-	-	-	26.54	30.56	35.59	..
Middle East	33.50	46.62	51.00	57.25	63.23	63.51	69.02	71.75	..

1. Please refer to section 'Geographical coverage'.

Electricity generation from nuclear energy (% of total)

	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	3.31	8.61	16.99	16.78	15.13	12.80	10.44	10.29	..
Non-OECD Total	0.89	3.54	6.40	5.86	5.23	4.42	4.58	4.66	..
OECD Total	4.22	10.95	22.71	23.15	22.42	20.93	17.94	17.80	17.79
Canada	5.65	10.19	15.14	12.02	14.83	15.01	15.18	15.36	15.48
Chile	-	-	-	-	-	-	-	-	-
Mexico	-	-	2.54	4.00	4.31	2.13	3.30	3.38	4.01
United States	4.54	10.97	19.10	19.81	18.99	19.27	19.53	19.67	19.06
OECD Americas	4.58	10.57	18.00	18.02	17.59	17.67	17.73	17.86	17.42
Australia	-	-	-	-	-	-	-	-	-
Israel ¹	-	-	-	-	-	-	-	-	-
Japan	2.09	14.43	23.48	30.52	27.72	24.76	1.71	3.10	6.38
Korea	-	9.34	50.19	37.77	37.84	29.92	28.99	26.38	23.18
New Zealand	-	-	-	-	-	-	-	-	-
OECD Asia Oceania	1.70	11.63	21.73	26.36	24.99	21.66	9.09	9.10	10.08
Austria	-	-	-	-	-	-	-	-	-
Belgium	0.19	23.64	60.78	58.18	55.53	51.10	51.39	49.40	38.64
Czech Republic	-	-	20.21	18.64	30.18	32.82	29.36	33.00	34.41
Denmark	-	-	-	-	-	-	-	-	-
Estonia	..	..	-	-	-	-	-	-	-
Finland	-	17.23	35.34	32.12	32.97	28.26	33.75	33.29	32.55
France	8.08	23.80	75.28	77.57	79.05	75.91	72.05	71.52	71.73
Germany	3.23	11.92	27.84	29.64	26.48	22.43	13.15	11.78	11.81
Greece	-	-	-	-	-	-	-	-	-
Hungary	-	-	48.29	40.29	38.69	42.17	50.32	48.97	49.31
Iceland	-	-	-	-	-	-	-	-	-
Ireland	-	-	-	-	-	-	-	-	-
Italy	2.18	1.20	-	-	-	-	-	-	-
Latvia	..	..	-	-	-	-	-	-	-
Lithuania	..	..	59.96	75.70	71.71	-	-	-	-
Luxembourg	-	-	-	-	-	-	-	-	-
Netherlands	2.11	6.48	4.87	4.38	4.00	3.33	3.44	2.90	3.10
Norway	-	-	-	-	-	-	-	-	-
Poland	-	-	-	-	-	-	-	-	-
Portugal	-	-	-	-	-	-	-	-	-
Slovak Republic	1.89	22.65	47.21	53.56	56.54	53.07	55.09	54.96	59.22
Slovenia	..	..	37.14	34.95	38.92	34.80	35.23	39.15	35.85
Spain	8.65	4.75	35.89	28.16	19.88	20.78	21.61	21.23	20.45
Sweden	2.70	27.50	46.71	39.47	45.70	38.96	40.48	40.00	41.32
Switzerland	17.14	29.78	42.98	39.99	40.39	39.88	34.60	33.88	38.42
Turkey	-	-	-	-	-	-	-	-	-
United Kingdom	9.95	13.03	20.69	22.72	20.64	16.40	21.33	20.97	19.63
OECD Europe	4.60	11.24	29.81	29.27	28.21	25.28	23.08	22.45	22.50
IEA	4.23	11.00	22.70	23.30	22.58	21.19	18.20	18.06	18.06
IEA/Accession/Association	3.94	9.83	19.31	18.54	16.67	14.02	11.30	11.12	..
European Union - 28	..	..	30.85	31.44	30.32	27.48	25.94	25.38	25.37
G7	4.67	11.89	23.49	25.04	24.20	23.14	19.35	19.42	19.70
G8	..	..	21.58	23.97	23.28	22.37	19.19	19.32	19.55
G20	..	..	18.57	18.49	16.77	14.21	11.70	11.55	..
OPEC	..	..	-	-	-	-	0.53	0.58	..

1. Please refer to section 'Geographical coverage'.

Electricity generation from nuclear energy (% of total)

	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	0.89	3.54	6.40	5.86	5.23	4.42	4.58	4.66	..
Albania	-	-	-	-	-	-	-	-	-
Armenia	..	..	-	33.65	43.00	38.36	32.54	33.73	..
Azerbaijan	..	..	-	-	-	-	-	-	-
Belarus	..	..	-	-	-	-	-	-	-
Bosnia and Herzegovina	..	..	-	-	-	-	-	-	-
Bulgaria	-	17.70	34.80	44.72	42.42	33.14	35.33	34.59	34.87
Croatia	..	..	-	-	-	-	-	-	-
Cyprus ¹	-	-	-	-	-	-	-	-	-
Georgia	..	..	-	-	-	-	-	-	-
Gibraltar	-	-	-	-	-	-	-	-	..
Kazakhstan	..	..	-	-	-	-	-	-	-
Kosovo	..	..	..	-	-	-	-	-	-
Kyrgyzstan	..	..	-	-	-	-	-	-	..
Malta	-	-	-	-	-	-	-	-	-
Republic of Moldova	..	..	-	-	-	-	-	-	-
Montenegro	..	..	..	..	-	-	-	-	-
North Macedonia, Republic of	..	..	-	-	-	-	-	-	-
Romania	-	-	-	10.51	9.35	19.17	17.47	18.00	17.76
Russian Federation	..	..	10.93	14.91	15.71	16.45	18.06	18.60	18.48
Serbia	..	..	-	-	-	-	-	-	-
Tajikistan	..	..	-	-	-	-	-	-	..
Turkmenistan	..	..	-	-	-	-	-	-	..
Ukraine	..	..	25.51	45.16	47.74	47.21	49.68	55.40	53.10
Uzbekistan	..	..	-	-	-	-	-	-	..
Former Soviet Union	1.31	5.64	x	x	x	x	x	x	x
Former Yugoslavia	-	-	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	1.17	5.42	11.26	16.52	16.97	17.11	17.44	18.20	..
Algeria	-	-	-	-	-	-	-	-	..
Angola	-	-	-	-	-	-	-	-	..
Benin	-	-	-	-	-	-	-	-	..
Botswana	..	..	-	-	-	-	-	-	..
Cameroon	-	-	-	-	-	-	-	-	..
Congo	-	-	-	-	-	-	-	-	..
Côte d'Ivoire	-	-	-	-	-	-	-	-	..
Dem. Rep. of the Congo	-	-	-	-	-	-	-	-	..
Egypt	-	-	-	-	-	-	-	-	..
Eritrea	..	..	..	-	-	-	-	-	..
Ethiopia	-	-	-	-	-	-	-	-	..
Gabon	-	-	-	-	-	-	-	-	..
Ghana	-	-	-	-	-	-	-	-	..
Kenya	-	-	-	-	-	-	-	-	..
Libya	-	-	-	-	-	-	-	-	..
Mauritius	-	-	-	-	-	-	-	-	..
Morocco	-	-	-	-	-	-	-	-	..
Mozambique	-	-	-	-	-	-	-	-	..
Namibia	..	..	..	-	-	-	-	-	..
Niger	..	..	..	-	-	-	-	-	..
Nigeria	-	-	-	-	-	-	-	-	..
Senegal	-	-	-	-	-	-	-	-	..
South Africa	-	-	5.11	6.26	4.67	4.71	6.02	5.66	..
South Sudan	..	..	..	..	..	..	-	-	..
Sudan	-	-	-	-	-	-	-	-	..
United Rep. of Tanzania	-	-	-	-	-	-	-	-	..
Togo	-	-	-	-	-	-	-	-	..
Tunisia	-	-	-	-	-	-	-	-	..
Zambia	-	-	-	-	-	-	-	-	..
Zimbabwe	-	-	-	-	-	-	-	-	..
Other Africa	-	-	-	-	-	-	-	-	..
Africa	-	-	2.68	2.95	2.02	1.80	1.88	1.74	..

1. Please refer to section 'Geographical coverage'.

Electricity generation from nuclear energy (% of total)

	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	-	-	-	-	-	-	-	-	..
Brunei Darussalam	-	-	-	-	-	-	-	-	..
Cambodia	..	..	..	-	-	-	-	-	..
DPR of Korea	-	-	-	-	-	-	-	-	..
India	3.29	2.49	2.10	2.97	2.42	2.68	2.60	2.50	..
Indonesia	-	-	-	-	-	-	-	-	..
Malaysia	-	-	-	-	-	-	-	-	..
Mongolia	..	..	-	-	-	-	-	-	..
Myanmar	-	-	-	-	-	-	-	-	..
Nepal	-	-	-	-	-	-	-	-	..
Pakistan	3.63	0.01	0.78	2.93	2.65	3.62	5.67	7.53	..
Philippines	-	-	-	-	-	-	-	-	..
Singapore	-	-	-	-	-	-	-	-	..
Sri Lanka	-	-	-	-	-	-	-	-	..
Chinese Taipei	-	19.24	37.18	21.25	17.81	17.02	12.11	8.47	..
Thailand	-	-	-	-	-	-	-	-	..
Viet Nam	-	-	-	-	-	-	-	-	..
Other non-OECD Asia	-	-	-	-	-	-	-	-	..
Non-OECD Asia excl. China	1.69	4.10	6.30	4.59	3.70	3.40	2.60	2.30	..
People's Rep. of China	-	-	-	1.23	2.12	1.76	3.45	3.76	4.14
Hong Kong, China	-	-	-	-	-	-	-	-	..
China	-	-	-	1.21	2.09	1.74	3.43	3.74	..
Argentina	-	5.89	14.35	6.95	6.52	5.72	5.65	4.28	..
Bolivia	-	-	-	-	-	-	-	-	..
Brazil	-	-	1.00	1.73	2.45	2.82	2.74	2.67	2.61
Colombia	-	-	-	-	-	-	-	-	..
Costa Rica	-	-	-	-	-	-	-	-	..
Cuba	-	-	-	-	-	-	-	-	..
Curaçao ¹	-	-	-	-	-	-	-	-	..
Dominican Republic	-	-	-	-	-	-	-	-	..
Ecuador	-	-	-	-	-	-	-	-	..
El Salvador	-	-	-	-	-	-	-	-	..
Guatemala	-	-	-	-	-	-	-	-	..
Haiti	-	-	-	-	-	-	-	-	..
Honduras	-	-	-	-	-	-	-	-	..
Jamaica	-	-	-	-	-	-	-	-	..
Nicaragua	-	-	-	-	-	-	-	-	..
Panama	-	-	-	-	-	-	-	-	..
Paraguay	-	-	-	-	-	-	-	-	..
Peru	-	-	-	-	-	-	-	-	..
Suriname	..	..	..	-	-	-	-	-	..
Trinidad and Tobago	-	-	-	-	-	-	-	-	..
Uruguay	-	-	-	-	-	-	-	-	..
Venezuela	-	-	-	-	-	-	-	-	..
Other non-OECD Americas	-	-	-	-	-	-	-	-	..
Non-OECD Americas	-	0.78	1.95	1.60	1.89	2.03	1.98	1.81	..
Bahrain	-	-	-	-	-	-	-	-	..
Islamic Republic of Iran	-	-	-	-	-	-	2.29	2.44	..
Iraq	-	-	-	-	-	-	-	-	..
Jordan	-	-	-	-	-	-	-	-	..
Kuwait	-	-	-	-	-	-	-	-	..
Lebanon	-	-	-	-	-	-	-	-	..
Oman	-	-	-	-	-	-	-	-	..
Qatar	-	-	-	-	-	-	-	-	..
Saudi Arabia	-	-	-	-	-	-	-	-	..
Syrian Arab Republic	-	-	-	-	-	-	-	-	..
United Arab Emirates	-	-	-	-	-	-	-	-	..
Yemen	-	-	-	-	-	-	-	-	..
Middle East	-	-	-	-	-	-	0.61	0.67	..

1. Please refer to section 'Geographical coverage'.

Electricity generation from hydro energy (% of total)

	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	20.92	20.73	18.07	16.93	16.04	15.99	16.22	15.94	..
Non-OECD Total	21.98	23.87	22.98	22.37	21.03	19.68	18.82	18.33	..
OECD Total	20.53	19.27	15.41	13.75	12.37	12.42	12.90	12.76	12.87
Canada	72.07	67.28	61.56	59.20	58.33	58.18	58.08	59.63	58.91
Chile	63.83	66.98	48.60	46.20	50.46	35.94	29.35	26.84	28.72
Mexico	43.64	25.22	20.27	16.11	11.05	13.48	9.58	9.93	9.54
United States	13.50	11.49	8.53	6.29	6.38	6.02	6.27	7.09	6.66
OECD Americas	21.12	19.26	15.77	13.60	13.26	12.70	13.25	14.05	13.37
Australia	17.72	13.59	9.17	7.80	6.70	5.34	5.86	6.22	6.09
Israel ¹	-	-	0.01	0.07	0.06	0.05	c	c	-
Japan	14.35	15.42	10.20	7.97	7.00	7.20	7.45	7.81	8.18
Korea	8.66	5.33	6.04	1.39	0.95	0.74	0.51	0.50	0.59
New Zealand	77.25	83.77	71.85	62.25	54.39	55.18	59.40	56.96	59.26
OECD Asia Oceania	16.40	16.51	11.21	7.88	6.60	6.24	6.18	6.37	6.54
Austria	60.65	69.05	63.92	69.87	57.52	56.47	61.13	56.89	57.89
Belgium	0.42	0.52	0.38	0.56	0.34	0.33	0.44	0.32	0.39
Czech Republic	2.63	4.56	1.86	2.41	2.90	3.27	2.44	2.18	1.87
Denmark	0.13	0.11	0.11	0.08	0.06	0.05	0.06	0.06	0.05
Estonia	..	..	-	0.06	0.22	0.21	0.29	0.20	0.13
Finland	40.28	25.07	19.97	20.95	19.53	16.02	22.98	21.88	18.98
France	26.13	27.02	12.91	12.40	9.01	11.11	10.87	8.97	11.31
Germany	4.07	4.09	3.18	3.80	3.19	3.34	3.19	3.11	2.80
Greece	15.00	15.03	5.09	6.91	8.44	13.00	10.19	7.18	11.03
Hungary	0.57	0.47	0.63	0.51	0.56	0.50	0.81	0.67	0.70
Iceland	95.13	96.95	93.22	82.72	80.81	73.81	72.61	73.08	69.66
Ireland	8.76	7.93	4.90	3.57	2.46	2.13	2.25	2.26	2.26
Italy	26.07	24.66	14.84	16.37	12.15	17.11	14.74	12.31	17.06
Latvia	..	..	67.63	68.16	67.79	53.12	39.38	58.17	36.16
Lithuania	..	..	1.46	3.06	3.13	10.81	12.35	16.70	14.45
Luxembourg	3.37	10.68	11.22	29.46	2.78	3.33	14.71	9.53	9.87
Netherlands	-	-	0.12	0.16	0.09	0.09	0.09	0.05	0.06
Norway	99.78	99.84	99.62	99.51	98.87	94.74	96.22	95.70	94.99
Poland	1.74	1.94	1.07	1.47	1.42	1.86	1.29	1.51	1.16
Portugal	74.81	52.71	32.26	26.11	10.24	30.08	26.59	10.22	21.40
Slovak Republic	10.75	11.30	7.37	14.98	14.79	19.13	16.25	15.76	14.33
Slovenia	..	..	23.71	28.14	22.89	27.79	27.76	24.10	29.19
Spain	38.21	27.05	16.84	12.79	6.35	14.18	13.42	6.87	12.77
Sweden	76.70	61.12	49.67	54.11	45.97	44.73	39.78	39.67	38.66
Switzerland	75.79	68.10	54.18	55.70	54.03	54.59	56.66	56.68	52.69
Turkey	20.95	48.76	40.23	24.72	24.43	24.52	24.50	19.58	19.68
United Kingdom	1.37	1.37	1.64	1.36	1.24	0.95	1.60	1.77	1.65
OECD Europe	21.15	20.29	16.74	16.95	14.02	15.45	16.07	14.36	15.53
IEA	20.44	19.17	15.32	13.59	12.15	12.21	12.72	12.58	12.69
IEA/Accession/Association	21.57	20.93	17.64	15.72	14.71	15.16	15.63	15.11	..
European Union - 28	..	..	11.27	11.87	9.52	11.30	10.84	9.20	10.77
G7	17.14	16.56	12.68	11.20	10.47	10.46	11.02	11.39	11.34
G8	..	..	13.08	11.99	11.29	11.10	11.74	12.07	12.06
G20	..	..	15.91	14.69	13.95	14.46	14.87	14.40	..
OPEC	..	..	18.87	15.95	16.66	11.67	8.97	8.99	..

Excludes hydro pumped storage.

1. Please refer to section 'Geographical coverage'.

Electricity generation from hydro energy (% of total)

	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	21.98	23.87	22.98	22.37	21.03	19.68	18.82	18.33	..
Albania	66.22	79.41	86.41	96.15	98.71	99.99	100.00	99.97	99.97
Armenia	..	..	15.01	21.16	28.07	39.38	32.14	29.22	..
Azerbaijan	..	..	7.16	8.20	13.16	18.42	7.85	7.18	7.01
Belarus	..	..	0.05	0.10	0.12	0.13	0.42	1.17	0.83
Bosnia and Herzegovina	..	..	20.90	48.84	47.60	46.87	31.75	24.25	34.24
Bulgaria	11.71	10.66	4.46	6.58	9.86	10.99	8.83	6.29	10.51
Croatia	..	..	44.20	57.29	53.89	61.68	54.32	45.04	56.63
Cyprus ¹	-	-	-	-	-	-	-	-	-
Georgia	..	..	55.21	78.93	85.81	92.52	80.60	79.87	81.90
Gibraltar	-	-	-	-	-	-	-	-	..
Kazakhstan	..	..	8.43	14.67	11.58	9.71	10.90	10.87	9.65
Kosovo	..	..	..	1.76	2.51	3.02	4.10	3.03	4.02
Kyrgyzstan	..	..	63.48	85.90	85.88	91.80	86.67	91.56	91.41
Malta	-	-	-	-	-	-	-	-	-
Republic of Moldova	..	..	1.58	6.72	6.29	6.66	3.93	5.74	5.13
Montenegro	..	..	..	..	65.15	68.37	58.68	41.24	54.40
North Macedonia, Republic of	..	..	8.53	17.18	21.49	33.48	33.70	19.83	32.08
Romania	16.13	18.73	17.74	28.46	34.01	32.80	27.91	22.67	27.60
Russian Federation	..	..	15.33	18.72	18.15	16.07	16.95	16.94	17.22
Serbia	..	..	19.23	30.73	31.83	31.77	27.95	25.11	28.42
Tajikistan	..	..	90.93	98.44	99.28	99.79	96.52	94.58	..
Turkmenistan	..	..	4.79	-	-	-	-	-	..
Ukraine	..	..	3.52	6.58	6.65	6.97	4.71	5.79	7.50
Uzbekistan	..	..	11.80	7.53	18.73	15.76	12.38	13.64	..
Former Soviet Union	13.37	14.27	x	x	x	x	x	x	x
Former Yugoslavia	46.76	47.16	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	14.68	15.89	13.99	18.87	19.26	18.12	17.63	17.23	..
Algeria	26.80	3.61	0.84	0.21	1.64	0.38	0.31	0.07	..
Angola	82.72	88.15	86.21	63.11	79.65	67.96	56.12	71.39	..
Benin	-	-	-	2.38	0.93	-	1.81	0.37	..
Botswana	..	..	-	-	-	-	-	-	..
Cameroon	95.53	93.94	98.48	98.91	94.21	72.20	52.67	51.16	..
Congo	52.08	64.52	99.39	99.66	81.99	54.72	32.26	29.91	..
Côte d'Ivoire	21.11	77.30	66.67	36.75	25.29	27.12	20.36	14.91	..
Dem. Rep. of the Congo	97.92	95.46	99.56	99.95	99.91	98.91	99.61	99.71	..
Egypt	63.61	51.75	23.50	17.53	11.63	8.89	6.90	7.12	..
Eritrea	..	..	..	-	-	-	-	-	..
Ethiopia	56.35	70.25	88.35	98.33	99.58	98.86	92.92	92.94	..
Gabon	3.03	49.06	72.09	61.06	51.59	46.90	40.80	39.16	..
Ghana	99.03	99.23	100.00	91.50	82.93	68.81	56.06	39.92	..
Kenya	45.28	65.03	76.57	33.00	52.01	46.23	34.12	31.06	..
Libya	-	-	-	-	-	-	-	-	..
Mauritius	39.57	23.38	10.90	5.40	5.06	3.76	3.29	2.85	..
Morocco	41.46	28.87	12.67	5.58	5.08	14.65	3.95	3.61	..
Mozambique	29.80	65.15	62.56	99.55	99.84	99.89	71.60	82.75	..
Namibia	..	..	..	99.22	99.76	95.56	95.64	96.00	..
Niger	..	..	..	-	-	-	-	-	..
Nigeria	70.78	38.82	32.59	38.22	33.00	24.40	17.55	17.14	..
Senegal	-	-	-	-	10.50	8.22	8.08	7.06	..
South Africa	1.53	1.00	0.61	0.53	0.55	0.82	0.28	0.35	..
South Sudan	..	..	..	..	..	..	-	-	..
Sudan	70.00	70.01	63.23	46.05	32.96	82.70	55.80	60.14	..
United Rep. of Tanzania	50.86	86.36	95.15	86.37	49.97	51.21	29.97	29.46	..
Togo	37.62	74.51	60.13	57.14	39.15	51.96	87.93	88.31	..
Tunisia	6.19	0.82	0.79	0.60	1.15	0.31	0.23	0.08	..
Zambia	91.95	98.86	99.23	99.38	99.41	99.88	94.27	85.99	..
Zimbabwe	67.42	88.26	46.67	45.66	52.43	66.92	42.14	52.61	..
Other Africa	51.51	46.76	54.50	54.42	50.98	44.62	53.99	53.86	..
Africa	27.25	25.77	17.78	16.99	15.99	16.37	14.65	15.00	..

Excludes hydro pumped storage.

1. Please refer to section 'Geographical coverage'.

Electricity generation from hydro energy (% of total)

	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	23.58	24.78	11.43	4.86	2.90	1.89	1.48	1.42	..
Brunei Darussalam	-	-	-	-	-	-	-	-	..
Cambodia	..	..	..	..	4.56	3.20	46.82	39.05	..
DPR of Korea	57.18	50.00	56.32	52.58	57.31	61.85	75.62	78.48	..
India	39.81	38.67	24.48	13.07	15.10	12.73	9.45	9.25	..
Indonesia	43.46	17.93	17.47	10.73	8.41	10.28	7.53	7.31	6.30
Malaysia	23.21	13.89	17.33	10.06	6.28	5.19	12.78	16.15	..
Mongolia	..	..	-	0.14	0.12	0.81	1.04	0.98	..
Myanmar	70.16	53.53	48.14	36.97	49.82	67.68	54.50	56.12	..
Nepal	77.88	93.55	99.89	98.37	99.37	99.91	99.84	99.86	..
Pakistan	51.99	58.19	44.93	25.24	32.96	33.70	26.07	21.27	..
Philippines	14.22	19.56	23.03	17.22	14.83	11.52	8.93	10.18	..
Singapore	-	-	-	-	-	-	-	-	..
Sri Lanka	68.67	88.67	99.84	45.65	37.01	52.16	29.55	25.44	..
Chinese Taipei	16.39	6.87	7.22	2.52	1.78	1.71	2.51	2.05	..
Thailand	26.97	8.82	11.26	6.28	4.39	3.47	3.66	5.11	..
Viet Nam	17.87	41.81	61.85	54.78	31.58	29.03	36.07	44.79	..
Other non-OECD Asia	23.53	32.13	54.47	58.12	51.71	63.26	63.46	61.31	..
Non-OECD Asia excl. China	34.55	30.47	23.60	13.39	13.71	12.74	12.21	12.86	..
People's Rep. of China	22.53	19.36	20.40	16.41	15.88	16.95	18.79	17.53	17.35
Hong Kong, China	-	-	-	-	-	-	-	-	..
China	21.65	18.58	19.49	16.03	15.64	16.80	18.67	17.43	..
Argentina	11.23	38.14	35.23	32.36	32.23	26.81	25.42	27.43	..
Bolivia	83.01	65.66	51.06	50.13	40.11	32.20	18.28	22.42	..
Brazil	89.44	92.49	92.77	87.24	83.73	78.20	65.80	62.93	64.68
Colombia	68.28	69.87	75.63	74.37	79.07	67.99	63.90	77.79	..
Costa Rica	83.96	95.24	97.52	82.15	79.49	75.78	73.76	76.73	..
Cuba	1.09	0.97	0.61	0.59	0.44	0.56	0.31	0.40	..
Curaçao ¹	-	-	-	-	-	-	-	-	..
Dominican Republic	23.60	17.13	9.44	7.12	14.31	9.64	8.13	11.54	..
Ecuador	34.63	25.86	78.55	71.70	54.30	44.27	57.97	68.50	..
El Salvador	53.65	64.79	74.30	34.79	34.61	34.83	20.98	29.61	..
Guatemala	25.66	11.99	78.59	41.70	36.51	43.28	32.39	45.25	..
Haiti	68.85	70.06	76.55	51.74	47.66	30.15	6.55	12.06	..
Honduras	73.87	86.31	98.28	61.78	29.75	44.39	26.76	33.04	..
Jamaica	4.53	7.16	3.58	1.74	2.05	3.52	2.73	3.52	..
Nicaragua	54.72	51.14	27.66	8.93	14.19	13.77	9.28	10.33	..
Panama	8.65	53.20	83.16	69.94	63.91	56.81	59.92	65.63	..
Paraguay	79.89	85.92	99.90	100.00	100.00	100.00	100.00	100.00	..
Peru	71.61	69.88	75.82	81.19	70.90	55.84	46.69	54.92	..
Suriname	..	..	..	88.40	52.70	70.19	59.59	59.62	..
Trinidad and Tobago	-	-	-	-	-	-	-	-	..
Uruguay	61.00	75.63	94.16	92.92	87.00	78.82	59.24	55.13	..
Venezuela	37.85	40.74	62.34	73.75	73.28	67.49	58.30	60.58	..
Other non-OECD Americas	7.47	5.98	6.80	1.01	4.77	2.67	1.08	1.95	..
Non-OECD Americas	53.33	64.33	72.40	69.78	67.24	63.01	55.00	56.58	..
Bahrain	-	-	-	-	-	-	-	-	..
Islamic Republic of Iran	23.50	25.11	10.29	3.02	9.04	4.09	5.68	4.89	..
Iraq	8.24	6.06	10.83	1.92	19.74	9.75	4.21	1.67	..
Jordan	-	-	0.30	0.53	0.59	0.41	0.21	0.18	..
Kuwait	-	-	-	-	-	-	-	-	..
Lebanon	26.69	30.89	33.33	4.64	8.48	5.34	1.96	1.74	..
Oman	-	-	-	-	-	-	-	-	..
Qatar	-	-	-	-	-	-	-	-	..
Saudi Arabia	-	-	-	-	-	-	-	-	..
Syrian Arab Republic	1.19	64.67	23.49	12.81	12.38	5.58	5.13	4.14	..
United Arab Emirates	-	-	-	-	-	-	-	-	..
Yemen	-	-	-	-	-	-	-	-	..
Middle East	13.13	11.75	5.33	1.86	4.61	2.13	1.96	1.57	..

Excludes hydro pumped storage.

1. Please refer to section 'Geographical coverage'.

Electricity generation from non-hydro renewables and waste (% of total)

	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	0.64	0.71	1.61	1.76	2.35	3.94	7.96	8.98	..
Non-OECD Total	1.52	1.28	0.37	0.77	0.90	1.93	5.09	6.04	..
OECD Total	0.31	0.44	2.28	2.33	3.41	5.88	11.62	12.90	13.72
Canada	-	0.35	0.83	1.41	1.72	3.72	7.00	6.07	6.32
Chile	0.58	0.89	5.24	2.35	3.42	4.45	13.93	17.08	18.25
Mexico	0.43	1.37	4.43	3.69	4.15	3.14	5.78	6.10	7.08
United States	0.14	0.24	3.31	2.30	2.52	4.43	8.91	10.11	10.68
OECD Americas	0.13	0.28	3.04	2.25	2.51	4.28	8.56	9.47	10.05
Australia	0.52	0.40	0.49	0.59	2.10	3.25	8.64	9.38	10.97
Israel ¹	-	-	-	-	0.02	0.29	2.47	2.86	3.15
Japan	0.06	0.16	3.49	3.20	3.79	5.10	10.35	11.81	13.46
Korea	-	-	0.00	0.04	0.13	0.61	2.68	3.23	3.72
New Zealand	6.71	6.63	8.36	9.42	10.15	18.25	24.98	24.33	24.06
OECD Asia Oceania	0.32	0.38	2.85	2.37	2.84	3.92	8.02	9.05	10.16
Austria	0.65	0.78	2.39	2.92	6.57	10.66	18.25	19.81	20.19
Belgium	0.29	0.57	1.04	1.63	3.20	8.31	18.70	20.46	25.49
Czech Republic	-	-	-	0.73	0.93	3.78	9.21	9.25	9.16
Denmark	-	0.04	3.16	17.02	29.26	33.85	62.68	72.88	71.51
Estonia	..	..	-	0.15	0.87	7.84	13.21	14.74	16.38
Finland	-	-	9.48	12.84	14.32	14.62	22.26	26.03	27.93
France	0.44	0.28	0.51	0.77	1.14	3.13	7.39	8.22	8.84
Germany	0.78	1.17	0.96	3.41	8.02	14.77	27.51	31.68	33.86
Greece	-	-	0.01	1.15	2.51	5.56	17.56	17.83	19.82
Hungary	-	-	0.12	0.34	4.87	7.98	10.31	10.75	12.07
Iceland	1.12	1.57	6.65	17.22	19.13	26.17	27.37	26.91	30.33
Ireland	-	-	-	1.43	4.85	11.11	22.85	27.21	31.19
Italy	2.67	2.16	1.56	2.96	5.04	9.63	23.90	24.09	23.75
Latvia	..	..	-	0.10	1.79	1.74	14.80	14.35	15.87
Lithuania	..	..	0.13	0.82	1.45	12.43	54.82	62.89	70.07
Luxembourg	-	3.27	5.45	19.28	4.34	6.40	52.40	65.86	69.36
Netherlands	-	1.58	1.79	4.78	9.06	10.74	14.34	16.36	18.71
Norway	-	-	0.31	0.28	0.75	1.17	1.92	2.45	3.09
Poland	0.35	0.34	0.19	0.21	1.28	5.15	12.61	12.91	11.80
Portugal	2.04	2.10	2.45	4.15	8.30	23.35	28.59	29.39	29.65
Slovak Republic	-	-	-	0.10	0.26	2.73	9.03	8.70	8.38
Slovenia	..	..	-	0.51	0.79	1.45	3.46	3.67	3.30
Spain	0.07	0.33	0.46	3.10	10.13	18.87	25.46	25.77	25.99
Sweden	0.51	0.81	1.38	3.31	5.87	11.38	18.41	19.24	18.15
Switzerland	-	0.36	1.46	2.66	3.70	3.87	7.25	8.18	7.73
Turkey	1.59	0.58	0.14	0.26	0.17	1.91	8.66	10.06	12.47
United Kingdom	-	-	0.22	1.44	3.68	6.33	24.54	29.08	33.24
OECD Europe	0.56	0.68	0.96	2.44	5.03	9.31	18.15	19.98	21.14
<i>IEA</i>	<i>0.31</i>	<i>0.44</i>	<i>2.29</i>	<i>2.34</i>	<i>3.42</i>	<i>5.90</i>	<i>11.63</i>	<i>12.91</i>	<i>13.72</i>
<i>IEA/Accession/Association</i>	<i>0.30</i>	<i>0.42</i>	<i>2.00</i>	<i>1.99</i>	<i>2.74</i>	<i>4.66</i>	<i>9.53</i>	<i>10.77</i>	<i>..</i>
<i>European Union - 28</i>	<i>..</i>	<i>..</i>	<i>0.95</i>	<i>2.50</i>	<i>5.25</i>	<i>9.79</i>	<i>19.57</i>	<i>21.55</i>	<i>15.98</i>
<i>G7</i>	<i>0.29</i>	<i>0.40</i>	<i>2.51</i>	<i>2.31</i>	<i>3.12</i>	<i>5.48</i>	<i>11.58</i>	<i>12.99</i>	<i>13.85</i>
<i>G8</i>	<i>..</i>	<i>..</i>	<i>2.13</i>	<i>2.10</i>	<i>2.82</i>	<i>4.89</i>	<i>10.21</i>	<i>11.44</i>	<i>12.19</i>
<i>G20</i>	<i>..</i>	<i>..</i>	<i>1.74</i>	<i>1.83</i>	<i>2.52</i>	<i>4.32</i>	<i>8.84</i>	<i>10.02</i>	<i>..</i>
<i>OPEC</i>	<i>..</i>	<i>..</i>	<i>0.00</i>	<i>0.01</i>	<i>0.03</i>	<i>0.05</i>	<i>0.13</i>	<i>0.21</i>	<i>..</i>

Includes geothermal, solar, biofuels, waste, tide, wave, ocean, wind and other fuel sources.

1. Please refer to section 'Geographical coverage'.

Electricity generation from non-hydro renewables and waste (% of total)

	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	1.52	1.28	0.37	0.77	0.90	1.93	5.09	6.04	..
Albania	-	-	-	-	-	-	-	0.03	0.03
Armenia	..	..	-	-	-	0.11	0.04	0.06	..
Azerbaijan	..	..	-	-	-	0.01	0.93	0.94	0.48
Belarus	..	..	-	-	0.00	0.27	0.83	1.10	0.77
Bosnia and Herzegovina	..	..	-	-	-	-	0.14	0.16	0.65
Bulgaria	-	-	-	0.04	0.05	1.62	7.16	7.42	5.79
Croatia	..	..	0.12	0.01	0.18	1.16	11.98	15.35	10.54
Cyprus ¹	-	-	-	-	0.02	1.37	8.68	8.70	8.16
Georgia	..	..	-	-	-	-	0.08	0.76	0.69
Gibraltar	-	-	-	-	-	-	-	-	..
Kazakhstan	..	..	-	-	-	-	0.34	0.42	0.51
Kosovo	..	..	..	-	-	0.02	-	0.02	0.57
Kyrgyzstan	..	..	-	-	-	-	-	-	..
Malta	-	-	-	-	-	0.05	15.73	10.04	9.81
Republic of Moldova	..	..	-	-	-	-	0.32	0.64	0.42
Montenegro	..	..	..	..	-	-	-	3.91	4.27
North Macedonia, Republic of	..	..	-	-	-	-	3.00	3.32	1.74
Romania	-	-	-	-	0.01	0.69	13.84	15.31	12.63
Russian Federation	..	..	0.01	0.30	0.32	0.32	0.32	0.35	0.36
Serbia	..	..	-	-	-	-	0.20	0.39	0.44
Tajikistan	..	..	-	-	-	-	-	-	..
Turkmenistan	..	..	-	-	-	-	-	-	..
Ukraine	..	..	-	0.00	0.02	0.13	1.02	1.28	1.14
Uzbekistan	..	..	-	-	-	-	-	-	..
Former Soviet Union	2.49	2.09	x	x	x	x	x	x	x
Former Yugoslavia	-	-	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	2.23	1.85	0.00	0.19	0.20	0.30	1.17	1.31	..
Algeria	-	-	-	-	-	-	0.16	0.76	..
Angola	-	-	-	-	-	-	-	-	..
Benin	-	-	-	-	-	0.87	1.81	1.61	..
Botswana	..	..	-	-	-	-	0.07	0.07	..
Cameroon	-	-	-	-	-	1.02	0.19	0.18	..
Congo	-	-	-	-	-	-	16.49	14.32	..
Côte d'Ivoire	-	-	-	-	1.94	1.16	1.06	1.68	..
Dem. Rep. of the Congo	-	-	-	-	-	-	0.24	0.21	..
Egypt	-	-	-	0.18	0.51	1.16	1.49	1.48	..
Eritrea	..	..	..	0.48	0.35	0.64	0.50	0.50	..
Ethiopia	-	-	-	0.30	-	0.52	7.05	7.03	..
Gabon	-	-	0.31	0.53	0.51	0.41	0.56	0.55	..
Ghana	-	-	-	-	-	-	0.27	0.20	..
Kenya	11.99	8.59	16.29	14.10	19.71	22.92	45.25	48.67	..
Libya	-	-	-	-	0.01	0.02	0.02	0.02	..
Mauritius	12.83	7.61	20.26	24.24	19.94	20.57	18.54	18.09	..
Morocco	-	-	-	0.50	1.07	2.78	14.82	14.48	..
Mozambique	-	-	-	-	-	-	0.01	0.01	..
Namibia	..	..	..	..	..	..	-	-	..
Niger	..	..	..	-	0.87	1.02	0.95	0.95	..
Nigeria	-	-	-	-	-	-	0.08	0.08	..
Senegal	8.60	5.92	4.66	9.98	7.67	5.46	4.42	5.26	..
South Africa	-	-	-	0.15	0.11	0.12	2.83	3.47	..
South Sudan	..	..	..	..	..	..	0.33	0.55	..
Sudan	-	-	-	-	-	-	-	-	..
United Rep. of Tanzania	-	-	-	-	0.08	0.47	0.49	0.51	..
Togo	-	-	-	-	1.06	2.23	2.16	2.21	..
Tunisia	-	-	-	0.22	0.33	3.76	4.06	3.95	..
Zambia	-	-	-	-	-	-	-	-	..
Zimbabwe	-	-	-	-	-	1.08	2.08	2.01	..
Other Africa	-	-	-	0.08	0.05	0.67	3.55	3.57	..
Africa	0.15	0.11	0.23	0.39	0.54	0.91	2.91	3.21	..

Includes geothermal, solar, biofuels, waste, tide, wave, ocean, wind and other fuel sources.

1. Please refer to section 'Geographical coverage'.

Electricity generation from non-hydro renewables and waste (% of total)

	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	-	-	-	-	-	-	0.25	0.25	..
Brunei Darussalam	-	-	-	-	-	-	0.02	0.04	..
Cambodia	..	..	..	0.22	1.56	2.30	0.80	0.81	..
DPR of Korea	-	-	-	-	-	-	-	-	..
India	-	-	0.01	0.52	1.55	3.54	7.35	8.00	..
Indonesia	-	-	3.44	5.22	5.20	5.57	5.03	5.35	0.07
Malaysia	-	-	-	-	0.00	0.81	0.68	0.71	..
Mongolia	..	..	-	-	-	0.21	2.88	5.59	..
Myanmar	-	-	-	-	-	-	0.06	0.04	..
Nepal	-	-	-	-	-	-	0.16	0.14	..
Pakistan	-	-	-	-	-	-	2.16	2.94	..
Philippines	-	11.53	22.40	25.67	17.54	14.79	15.27	14.39	..
Singapore	-	-	1.08	1.55	2.50	2.54	3.07	3.10	0.43
Sri Lanka	-	-	-	0.16	0.21	0.95	3.08	3.63	..
Chinese Taipei	-	-	0.00	0.94	1.50	1.90	2.33	2.60	..
Thailand	-	-	0.00	0.53	1.16	2.14	11.40	11.31	..
Viet Nam	-	-	-	-	0.09	0.11	0.16	0.20	..
Other non-OECD Asia	0.11	0.38	0.34	1.46	1.26	1.25	0.28	0.27	..
Non-OECD Asia excl. China	0.00	0.77	1.16	1.79	2.09	3.10	5.70	6.05	..
People's Rep. of China	-	-	0.01	0.23	0.30	1.89	6.28	7.86	7.16
Hong Kong, China	-	-	-	-	-	0.24	0.29	0.30	..
China	-	-	0.01	0.23	0.29	1.87	6.24	7.81	..
Argentina	0.21	0.24	0.21	0.80	1.29	1.77	1.55	1.88	..
Bolivia	1.02	1.98	1.38	1.39	1.14	1.76	3.61	3.41	..
Brazil	1.16	1.30	1.73	2.36	3.59	6.60	14.62	16.27	17.68
Colombia	-	1.11	0.75	1.15	1.10	4.13	1.97	1.81	..
Costa Rica	0.52	0.45	-	17.00	17.23	17.53	24.46	22.94	..
Cuba	12.60	9.55	9.64	6.29	2.75	2.68	3.65	3.42	..
Curaçao ¹	-	-	-	0.71	5.69	4.76	25.90	38.60	..
Dominican Republic	3.34	2.30	0.68	0.57	0.54	0.51	2.53	3.58	..
Ecuador	-	-	-	-	0.81	1.23	2.24	1.94	..
El Salvador	-	33.70	18.89	23.28	23.64	30.21	37.35	44.80	..
Guatemala	4.74	2.66	13.04	10.02	10.97	20.57	27.41	24.89	..
Haiti	9.84	3.82	2.85	-	-	-	-	0.08	..
Honduras	-	-	-	0.19	5.19	4.63	23.10	25.11	..
Jamaica	9.37	16.83	3.99	3.10	1.64	4.17	9.55	13.55	..
Nicaragua	1.18	1.79	33.70	12.46	20.42	23.23	42.91	45.65	..
Panama	0.17	1.21	2.10	0.49	0.39	0.30	6.70	6.15	..
Paraguay	10.58	5.35	0.07	-	-	-	-	-	..
Peru	3.45	0.85	0.98	0.80	1.37	1.88	3.76	4.52	..
Suriname	..	..	..	-	-	-	0.45	0.44	..
Trinidad and Tobago	2.62	1.28	0.87	0.37	0.34	0.05	0.04	0.04	..
Uruguay	0.35	0.20	0.79	0.46	0.51	8.80	37.42	43.20	..
Venezuela	-	-	-	-	-	0.00	0.09	0.09	..
Other non-OECD Americas	0.01	0.01	0.25	0.42	0.89	0.85	0.95	0.79	..
Non-OECD Americas	1.34	1.41	1.52	1.83	2.53	4.53	9.16	10.31	..
Bahrain	-	-	-	-	-	-	-	-	..
Islamic Republic of Iran	-	-	-	0.03	0.04	0.07	0.10	0.14	..
Iraq	-	-	-	-	-	-	-	-	..
Jordan	-	-	0.03	0.04	0.08	0.08	4.49	6.49	..
Kuwait	-	-	-	-	-	-	0.00	0.01	..
Lebanon	-	-	-	-	-	-	-	-	..
Oman	-	-	-	-	-	-	-	-	..
Qatar	-	-	-	-	-	-	-	-	..
Saudi Arabia	-	-	-	-	-	-	0.04	0.04	..
Syrian Arab Republic	-	-	-	-	-	-	-	-	..
United Arab Emirates	-	-	-	-	-	-	0.27	0.59	..
Yemen	-	-	-	-	-	0.03	10.64	13.77	..
Middle East	-	-	0.00	0.01	0.01	0.02	0.20	0.31	..

Includes geothermal, solar, biofuels, waste, tide, wave, ocean, wind and other fuel sources.

1. Please refer to section 'Geographical coverage'.

Total electricity generation (GWh)

	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	6 131 143	8 283 485	11 849 753	15 436 187	18 293 204	21 529 222	24 986 473	25 606 248	..
Non-OECD Total	1 659 619	2 615 259	4 159 522	5 685 742	7 760 133	10 594 088	14 028 225	14 623 228	..
OECD Total	4 471 524	5 668 226	7 690 231	9 750 445	10 533 072	10 935 134	10 958 248	10 983 020	11 109 389
Canada	270 081	373 278	482 041	605 596	620 461	603 865	666 510	658 288	650 738
Chile	8 766	11 751	18 372	40 078	52 484	60 434	79 308	79 417	81 166
Mexico	37 100	66 962	115 837	205 675	250 768	275 538	320 564	322 062	341 109
United States	1 965 509	2 427 320	3 202 813	4 025 885	4 268 887	4 354 363	4 299 595	4 263 677	4 413 406
OECD Americas	2 281 456	2 879 311	3 819 063	4 877 234	5 192 600	5 294 200	5 365 977	5 323 443	5 486 419
Australia	64 411	95 234	154 287	209 864	228 347	252 614	256 266	257 770	261 004
Israel ¹	8 720	12 404	20 898	42 661	48 602	58 592	66 976	67 674	68 983
Japan	465 387	572 531	861 542	1 055 047	1 099 417	1 164 017	1 054 790	1 061 015	1 018 441
Korea	14 825	37 239	105 371	288 526	387 874	496 718	558 816	562 693	575 967
New Zealand	18 531	22 596	32 264	39 247	42 887	44 825	43 642	44 212	44 394
OECD Asia Oceania	571 874	740 004	1 174 362	1 635 345	1 807 128	2 016 766	1 980 489	1 993 364	1 968 789
Austria	30 916	41 600	49 296	59 874	64 490	67 933	65 271	67 443	65 009
Belgium	40 615	53 091	70 292	82 773	85 709	93 833	84 690	85 481	74 012
Czech Republic	41 174	52 656	62 271	72 911	81 931	85 312	82 107	85 880	86 948
Denmark	19 120	26 765	25 982	36 053	36 246	38 862	30 535	31 039	29 992
Estonia	..	..	17 181	8 513	10 205	12 964	12 176	12 903	12 301
Finland	26 102	40 747	54 377	69 976	70 582	80 674	68 754	67 523	70 014
France	182 508	257 308	417 200	535 184	571 210	564 476	559 571	557 010	575 702
Germany	374 352	466 340	547 650	572 313	615 800	626 583	643 531	647 732	643 687
Greece	14 817	22 653	34 775	53 425	59 427	57 367	54 417	55 189	52 555
Hungary	17 643	23 876	28 436	35 191	35 756	37 371	31 902	32 871	31 905
Iceland	2 320	3 184	4 510	7 684	8 686	17 059	18 550	19 239	19 830
Ireland	7 348	10 566	14 229	23 673	25 626	28 176	30 220	30 667	30 689
Italy	143 916	183 474	213 147	269 941	296 840	298 774	287 943	294 004	288 940
Latvia	..	..	6 648	4 136	4 906	6 627	6 425	7 531	6 725
Lithuania	..	..	28 405	11 121	14 415	4 994	3 676	3 608	2 983
Luxembourg	1 394	918	624	419	3 345	3 231	785	899	937
Netherlands	52 627	64 806	71 968	89 630	99 923	119 269	115 212	117 260	113 539
Norway	73 029	83 750	121 611	142 511	137 245	123 217	148 631	148 202	146 740
Poland	83 908	120 941	134 438	143 174	155 359	157 089	166 153	169 991	169 435
Portugal	9 792	15 206	28 342	43 372	46 188	53 691	59 142	57 697	58 589
Slovak Republic	12 299	19 967	25 497	30 798	31 352	27 464	26 817	27 439	25 066
Slovenia	..	..	12 444	13 624	15 117	16 255	16 221	16 054	16 113
Spain	75 660	109 226	151 209	220 917	289 452	298 320	271 302	273 438	271 784
Sweden	78 060	96 316	145 984	145 231	158 364	148 445	155 891	164 225	159 249
Switzerland	36 817	48 175	54 992	66 124	57 789	66 052	61 110	60 147	66 397
Turkey	12 425	23 275	57 543	124 922	161 956	211 208	274 408	297 278	303 625
United Kingdom	281 352	284 071	317 755	374 375	395 426	378 921	336 342	335 464	331 418
OECD Europe	1 618 194	2 048 911	2 696 806	3 237 866	3 533 344	3 624 167	3 611 782	3 666 213	3 654 182
IEA	4 451 718	5 640 887	7 598 954	9 631 141	10 388 862	10 771 173	10 767 093	10 789 497	10 913 590
IEA/Accession/Association	4 847 020	6 346 174	9 021 717	12 387 222	14 619 996	17 182 062	19 841 514	20 369 961	..
European Union - 28	..	..	2 576 536	3 005 755	3 290 727	3 335 499	3 236 689	3 268 664	3 248 476
G7	3 683 105	4 564 322	6 042 148	7 438 342	7 868 041	7 990 999	7 848 281	7 817 189	7 922 331
G8	..	..	7 124 300	8 314 810	8 819 200	9 027 115	8 937 226	8 909 359	9 029 685
G20	..	..	10 121 881	13 219 668	15 568 613	18 254 531	21 007 079	21 543 083	..
OPEC	..	..	299 939	515 253	706 268	950 518	1 245 064	1 292 317	..

Excludes hydro pumped storage.

1. Please refer to section 'Geographical coverage'.

Total electricity generation (GWh)

	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	1 659 619	2 615 259	4 159 522	5 685 742	7 760 133	10 594 088	14 028 225	14 623 228	..
Albania	1 702	3 715	3 296	4 778	5 443	7 568	7 782	4 526	8 554
Armenia	..	..	10 362	5 958	6 317	6 491	7 315	7 765	..
Azerbaijan	..	..	23 152	18 699	22 872	18 710	24 953	24 321	25 229
Belarus	..	..	39 526	26 101	30 961	34 895	33 566	34 515	38 669
Bosnia and Herzegovina	..	..	14 632	10 429	12 602	17 124	17 767	16 438	19 141
Bulgaria	21 956	34 835	42 141	40 646	43 972	46 017	44 651	44 948	46 243
Croatia	..	..	8 862	11 263	13 057	14 796	12 615	11 783	13 592
Cyprus ¹	830	1 034	1 974	3 370	4 377	5 322	4 887	5 004	5 053
Georgia	..	..	13 724	7 424	7 267	10 124	11 574	11 531	12 149
Gibraltar	49	54	79	125	145	177	254	274	..
Kazakhstan	..	..	87 379	51 324	67 847	82 646	106 627	103 128	107 058
Kosovo	..	..	..	2 957	4 458	5 168	5 981	5 918	5 379
Kyrgyzstan	..	..	15 732	14 931	14 891	12 100	13 262	15 513	15 620
Malta	365	527	1 100	1 917	2 240	2 114	858	1 645	1 933
Republic of Moldova	..	..	16 221	5 606	5 990	6 115	5 854	4 965	5 392
Montenegro	..	..	..	..	2 864	4 022	3 141	2 483	3 798
North Macedonia, Republic of	..	..	5 758	6 811	6 942	7 260	5 629	5 600	5 584
Romania	46 779	67 486	64 309	51 934	59 413	60 619	64 595	63 937	64 064
Russian Federation	..	..	1 082 152	876 468	951 159	1 036 116	1 088 945	1 092 171	1 107 354
Serbia	..	..	38 972	31 961	35 853	37 423	38 614	36 447	37 416
Tajikistan	..	..	18 146	14 247	17 090	16 435	17 232	18 114	..
Turkmenistan	..	..	14 610	9 845	12 820	16 660	22 534	22 534	..
Ukraine	..	..	298 626	171 269	185 913	188 828	162 940	154 461	158 927
Uzbekistan	..	..	56 325	46 862	47 665	51 975	59 180	61 789	..
Former Soviet Union	914 600	1 294 000	x	x	x	x	x	x	x
Former Yugoslavia	35 062	59 716	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	1 021 343	1 461 367	1 857 078	1 414 925	1 562 158	1 688 705	1 760 756	1 749 812	..
Algeria	2 806	7 123	16 104	25 412	33 915	45 734	70 997	76 018	..
Angola	984	675	841	1 445	2 786	5 449	10 361	10 719	..
Benin	9	10	21	84	107	115	276	331	..
Botswana	..	..	906	1 140	1 052	532	2 688	3 021	..
Cameroon	1 118	1 453	2 697	3 480	4 004	5 900	7 961	8 196	..
Congo	96	155	493	296	433	784	3 494	4 022	..
Côte d'Ivoire	796	1 749	1 983	4 800	5 681	5 965	10 054	10 253	..
Dem. Rep. of the Congo	3 848	4 445	5 650	5 982	7 374	7 905	9 135	9 510	..
Egypt	8 106	18 939	42 256	78 143	108 690	146 796	186 320	188 159	..
Eritrea	..	..	..	210	288	311	403	423	..
Ethiopia	591	689	1 202	1 674	2 845	4 988	12 649	13 942	..
Gabon	165	530	978	1 315	1 574	1 934	2 336	2 282	..
Ghana	3 910	5 317	5 721	7 223	6 788	10 167	9 919	14 068	..
Kenya	901	1 630	3 235	4 015	5 818	7 413	9 791	10 324	..
Libya	1 147	4 800	10 169	15 496	22 672	32 558	36 430	36 797	..
Mauritius	187	355	780	1 778	2 272	2 689	3 042	3 157	..
Morocco	2 875	5 247	9 628	12 863	19 290	23 672	31 734	32 812	..
Mozambique	641	462	454	9 696	13 285	16 666	21 800	16 992	..
Namibia	..	..	..	1 407	1 660	1 305	1 421	1 659	..
Niger	..	..	..	206	229	293	526	552	..
Nigeria	2 625	7 169	13 463	14 727	23 539	26 121	31 831	32 250	..
Senegal	442	676	945	1 604	2 544	3 076	4 457	4 776	..
South Africa	64 390	98 951	165 385	207 837	242 055	256 648	249 453	250 655	..
South Sudan	..	..	..	..	..	..	606	542	..
Sudan	610	817	1 515	2 569	3 826	7 499	14 429	15 542	..
United Rep. of Tanzania	582	792	1 628	2 472	3 558	5 274	7 895	7 978	..
Togo	101	51	158	175	189	179	232	232	..
Tunisia	1 179	2 924	5 811	10 596	12 661	16 372	19 854	20 589	..
Zambia	3 368	9 300	8 013	7 798	8 936	10 448	11 695	14 185	..
Zimbabwe	5 172	4 541	9 362	6 995	9 374	8 665	7 084	7 544	..
Other Africa	3 912	5 160	6 002	9 982	12 773	16 032	19 130	19 728	..
Africa	110 561	183 960	315 400	441 420	560 218	671 490	798 003	817 259	..

Excludes hydro pumped storage.

1. Please refer to section 'Geographical coverage'.

Total electricity generation (GWh)

	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	1 404	2 353	7 732	15 771	26 447	40 833	68 911	73 157	..
Brunei Darussalam	246	343	1 172	2 543	3 264	3 792	4 270	4 157	..
Cambodia	..	..	..	448	964	1 000	5 594	6 998	..
DPR of Korea	16 580	21 200	27 700	19 400	22 912	21 664	16 926	15 164	..
India	72 796	120 409	292 732	569 688	715 867	981 523	1 457 323	1 532 230	..
Indonesia	2 370	7 502	32 667	93 325	127 529	169 755	247 920	254 869	267 121
Malaysia	4 773	10 049	23 016	69 255	82 673	124 786	156 660	164 502	..
Mongolia	..	..	3 348	2 946	3 419	4 313	5 667	6 027	..
Myanmar	821	1 487	2 478	5 118	6 016	7 543	17 878	22 422	..
Nepal	104	217	878	1 659	2 533	3 208	4 244	4 638	..
Pakistan	8 377	14 974	37 673	68 116	93 629	94 384	123 464	131 277	..
Philippines	13 186	18 009	26 327	45 290	56 567	67 742	90 797	94 370	..
Singapore	3 719	6 991	15 714	31 665	38 213	46 386	51 677	52 386	52 905
Sri Lanka	1 031	1 668	3 150	7 004	9 324	10 801	14 284	15 804	..
Chinese Taipei	20 735	42 607	88 398	181 188	224 475	244 647	261 388	265 071	..
Thailand	6 971	14 426	44 176	95 977	132 197	159 522	191 010	186 547	..
Viet Nam	2 350	3 559	8 681	26 561	53 656	94 903	182 184	198 659	..
Other non-OECD Asia	4 691	7 175	8 431	13 769	16 702	20 941	45 427	49 213	..
Non-OECD Asia excl. China	160 154	272 969	624 273	1 249 723	1 616 387	2 097 743	2 945 624	3 077 493	..
People's Rep. of China	168 689	300 630	621 268	1 355 738	2 500 466	4 197 204	6 187 107	6 602 147	7 111 770
Hong Kong, China	6 799	12 634	28 938	31 331	38 451	38 387	38 264	37 027	..
China	175 488	313 264	650 206	1 387 069	2 538 917	4 235 591	6 225 371	6 639 174	..
Argentina	26 661	39 706	50 740	88 910	105 491	125 263	146 726	145 286	..
Bolivia	1 171	1 619	2 311	3 880	4 896	6 777	9 409	9 965	..
Brazil	64 726	139 380	222 821	348 910	403 033	515 745	578 889	589 400	601 371
Colombia	11 627	20 446	36 357	43 125	50 337	59 424	76 828	78 973	..
Costa Rica	1 347	2 226	3 468	6 919	8 260	9 583	10 881	11 309	..
Cuba	5 708	9 989	15 024	15 033	15 344	17 397	20 458	20 558	..
Curaçao ¹	775	850	790	1 121	1 248	1 323	884	891	..
Dominican Republic	2 246	3 258	3 698	13 114	13 253	14 699	18 691	19 037	..
Ecuador	1 256	3 372	6 349	10 612	12 675	19 509	27 314	29 325	..
El Salvador	917	1 460	2 218	3 377	4 823	5 984	6 011	5 468	..
Guatemala	908	1 952	2 186	6 048	8 049	8 893	12 450	12 960	..
Haiti	122	314	597	547	556	587	1 084	1 056	..
Honduras	486	906	2 319	3 658	5 775	6 938	8 783	9 345	..
Jamaica	2 187	1 676	2 458	6 606	7 422	4 320	4 355	4 379	..
Nicaragua	678	1 005	1 457	2 351	3 051	3 659	4 591	4 525	..
Panama	1 179	1 812	2 661	4 887	5 827	7 383	10 886	11 051	..
Paraguay	378	767	27 185	53 492	51 166	54 066	63 771	59 685	..
Peru	6 660	10 031	13 808	19 914	25 499	35 890	51 741	52 918	..
Suriname	..	..	..	1 172	1 518	1 724	2 022	2 024	..
Trinidad and Tobago	1 105	2 035	3 577	5 459	7 058	8 485	10 712	11 033	..
Uruguay	2 551	4 600	7 444	7 588	7 682	10 995	13 238	13 636	..
Venezuela	16 445	35 803	59 321	85 271	105 384	113 767	107 998	107 039	..
Other non-OECD Americas	15 306	17 769	22 189	31 073	36 934	35 011	29 595	13 644	..
Non-OECD Americas	164 439	300 976	488 978	763 067	885 281	1 067 422	1 217 317	1 213 510	..
Bahrain	500	1 660	7 989	13 859	19 373	23 824	28 510	29 225	..
Islamic Republic of Iran	12 093	22 380	59 102	121 383	178 088	232 959	289 094	307 968	..
Iraq	3 519	11 383	24 000	31 900	30 400	48 908	80 030	87 365	..
Jordan	315	1 070	3 638	7 375	9 654	14 777	19 731	20 760	..
Kuwait	3 651	9 023	18 477	32 323	43 734	57 029	70 094	72 788	..
Lebanon	1 791	2 752	1 500	9 668	12 339	15 712	19 477	20 241	..
Oman	47	818	4 501	9 111	12 663	19 819	34 228	36 126	..
Qatar	420	2 416	4 818	9 134	14 396	28 144	42 307	45 555	..
Saudi Arabia	2 949	20 452	69 208	126 191	176 124	240 067	344 814	347 852	..
Syrian Arab Republic	1 423	3 960	11 611	25 217	34 935	46 413	18 112	18 231	..
United Arab Emirates	720	6 306	17 080	39 944	60 698	97 728	129 596	134 553	..
Yemen	206	503	1 663	3 433	4 768	7 757	5 161	5 316	..
Middle East	27 634	82 723	223 587	429 538	597 172	833 137	1 081 154	1 125 981	..

Excludes hydro pumped storage.

1. Please refer to section 'Geographical coverage'.

Electricity generation from renewables (% of total)

	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	21.56	21.40	19.38	18.34	18.02	19.51	23.75	24.48	..
Non-OECD Total	23.49	25.15	23.35	23.08	21.86	21.46	23.77	24.22	..
OECD Total	20.84	19.67	17.23	15.57	15.20	17.62	23.71	24.83	25.76
Canada	72.07	67.63	62.38	60.60	60.04	61.40	65.04	65.65	65.19
Chile	64.41	67.88	53.84	48.55	53.88	40.20	43.27	43.92	46.97
Mexico	44.07	26.58	24.69	19.80	15.20	16.60	15.33	15.99	16.43
United States	13.64	11.72	11.53	8.21	8.58	10.12	14.82	16.84	17.00
OECD Americas	21.25	19.55	18.55	15.53	15.50	16.65	21.51	23.23	23.12
Australia	18.24	13.99	9.66	8.38	8.80	8.60	14.50	15.60	17.05
Israel ¹	-	-	0.01	0.07	0.08	0.29	2.47	2.50	2.80
Japan	14.41	15.58	11.42	9.26	8.88	9.62	14.21	15.86	17.84
Korea	8.66	5.33	6.04	1.42	1.04	1.25	2.84	3.31	3.84
New Zealand	83.96	90.39	80.01	71.50	64.35	73.30	84.26	81.18	83.21
OECD Asia Oceania	16.72	16.88	12.39	9.02	8.27	8.57	12.19	13.28	14.59
Austria	61.30	69.83	66.20	72.54	63.40	66.21	78.02	75.40	76.92
Belgium	0.71	1.09	0.79	1.26	2.46	6.92	16.93	18.52	23.27
Czech Republic	2.63	4.56	1.86	3.13	3.82	6.92	11.43	11.20	10.82
Denmark	0.13	0.15	3.18	15.46	27.07	31.98	60.44	70.61	69.27
Estonia	..	..	-	0.21	1.09	8.05	12.43	13.85	15.50
Finland	40.28	25.07	29.45	33.41	33.25	29.99	44.23	46.61	45.71
France	26.57	27.30	13.37	12.97	9.86	13.85	17.72	16.63	19.59
Germany	4.85	4.70	3.49	6.20	10.15	16.73	29.27	33.40	35.29
Greece	15.00	15.03	5.09	7.76	10.78	18.34	27.37	25.01	30.85
Hungary	0.57	0.47	0.69	0.69	5.23	8.08	10.21	10.55	11.64
Iceland	96.25	98.52	99.87	99.93	99.94	99.99	99.98	99.99	99.99
Ireland	8.76	7.93	4.90	5.01	7.31	13.23	24.86	28.95	32.48
Italy	28.74	26.82	16.38	18.85	16.32	25.76	37.52	35.34	39.71
Latvia	..	..	67.63	68.25	69.59	54.85	54.18	72.52	52.02
Lithuania	..	..	1.46	3.06	3.19	18.24	56.99	70.34	73.92
Luxembourg	3.37	12.31	13.22	40.71	6.25	8.30	58.25	66.79	71.02
Netherlands	-	1.58	1.12	3.31	7.45	9.39	12.83	14.87	16.31
Norway	99.78	99.84	99.79	99.72	99.47	95.74	97.80	97.79	97.76
Poland	2.00	2.15	1.11	1.63	2.48	6.93	13.73	14.19	12.66
Portugal	76.85	54.81	34.72	29.67	17.88	52.81	54.63	39.12	50.59
Slovak Republic	10.75	11.30	7.37	14.98	14.91	21.63	24.72	23.81	22.35
Slovenia	..	..	23.71	28.66	23.65	29.22	31.18	27.71	32.43
Spain	38.29	27.39	17.22	15.61	14.60	32.78	38.57	32.32	38.43
Sweden	77.21	61.87	51.00	57.25	51.29	55.30	57.17	57.88	56.03
Switzerland	75.79	68.45	54.98	57.00	55.86	56.73	61.87	62.78	58.52
Turkey	22.54	49.34	40.37	24.94	24.54	26.38	32.89	29.34	31.83
United Kingdom	1.37	1.37	1.83	2.66	4.28	6.91	24.72	29.61	33.54
OECD Europe	21.71	20.84	17.47	18.94	18.30	24.07	33.30	33.44	35.75
IEA	20.75	19.56	17.15	15.41	14.98	17.42	23.53	24.65	25.58
IEA/Accession/Association	21.87	21.31	19.24	17.30	17.01	19.33	24.64	25.35	..
European Union - 28	..	..	12.00	13.93	14.01	20.38	29.47	29.83	..
G7	17.42	16.90	14.63	12.92	12.97	15.14	21.65	23.42	24.26
G8	..	..	14.74	13.53	13.54	15.25	21.09	22.64	23.41
G20	..	..	17.30	16.13	16.07	18.31	23.23	23.92	..
OPEC	..	..	18.87	15.96	16.68	11.71	9.10	9.19	..

Includes electricity from hydro, geothermal, solar, wind, tide, wave, biofuels and the renewable fraction of municipal waste.

Excludes hydro pumped storage.

1. Please refer to section 'Geographical coverage'.

Electricity generation from renewables (% of total)

	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	23.49	25.15	23.35	23.08	21.86	21.46	23.77	24.22	..
Albania	66.22	79.41	86.41	96.15	98.71	99.99	100.00	100.00	..
Armenia	..	..	15.01	21.16	28.07	39.49	32.18	29.28	..
Azerbaijan	..	..	7.16	8.20	13.16	18.42	8.43	7.77	..
Belarus	..	..	0.05	0.10	0.12	0.37	1.17	2.18	..
Bosnia and Herzegovina	..	..	20.90	48.84	47.60	46.87	31.88	24.42	..
Bulgaria	11.71	10.66	4.46	6.58	9.87	12.58	15.91	13.64	..
Croatia	..	..	44.33	57.30	54.07	62.84	66.30	60.39	..
Cyprus ¹	-	-	-	-	0.02	1.37	8.68	8.70	..
Georgia	..	..	55.21	78.93	85.81	92.52	80.68	80.64	..
Gibraltar	-	-	-	-	-	-	-	-	..
Kazakhstan	..	..	8.43	14.67	11.58	9.71	11.24	11.29	..
Kosovo	..	..	..	1.76	2.51	3.04	4.10	3.04	..
Kyrgyzstan	..	..	63.48	85.90	85.88	91.80	86.67	91.56	..
Malta	-	-	-	-	-	0.05	15.73	10.04	..
Republic of Moldova	..	..	1.58	6.72	6.29	6.66	4.25	6.38	..
Montenegro	..	..	..	..	65.15	68.37	58.68	45.15	..
North Macedonia, Republic of	..	..	8.53	17.18	21.49	33.48	36.70	23.14	..
Romania	16.13	18.73	17.74	28.46	34.02	33.49	41.75	37.98	..
Russian Federation	..	..	15.34	18.73	18.20	16.12	17.05	17.05	17.34
Serbia	..	..	19.23	30.73	31.83	31.77	28.13	25.49	..
Tajikistan	..	..	90.93	98.44	99.28	99.79	96.52	94.58	..
Turkmenistan	..	..	4.79	-	-	-	-	-	..
Ukraine	..	..	3.52	6.59	6.67	7.09	5.68	7.04	..
Uzbekistan	..	..	11.80	7.53	18.73	15.76	12.38	13.64	..
Former Soviet Union	15.86	16.36	x	x	x	x	x	x	x
Former Yugoslavia	46.76	47.16	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	16.91	17.74	13.99	18.87	19.29	18.26	18.64	18.38	..
Algeria	26.80	3.61	0.84	0.21	1.64	0.38	0.47	0.84	..
Angola	82.72	88.15	86.21	63.11	79.65	67.96	56.12	71.39	..
Benin	-	-	-	2.38	0.93	0.87	3.62	1.98	..
Botswana	..	..	-	-	-	-	0.07	0.07	..
Cameroon	95.53	93.94	98.48	98.91	94.21	73.22	52.86	51.34	..
Congo	52.08	64.52	99.39	99.66	81.99	54.72	48.74	44.23	..
Côte d'Ivoire	21.11	77.30	66.67	36.75	27.23	28.28	21.42	16.60	..
Dem. Rep. of the Congo	97.92	95.46	99.56	99.95	99.91	98.91	99.85	99.91	..
Egypt	63.61	51.75	23.50	17.70	12.14	10.05	8.39	8.60	..
Eritrea	..	..	..	0.48	0.35	0.64	0.50	0.50	..
Ethiopia	56.35	70.25	88.35	98.63	99.58	99.38	99.97	99.97	..
Gabon	3.03	49.06	72.39	61.60	52.10	47.31	41.35	39.71	..
Ghana	99.03	99.23	100.00	91.50	82.93	68.81	56.34	40.12	..
Kenya	57.27	73.62	92.86	47.10	71.73	69.15	79.37	79.72	..
Libya	-	-	-	-	0.01	0.02	0.02	0.02	..
Mauritius	52.41	30.99	31.15	29.64	25.00	24.32	21.83	20.94	..
Morocco	41.46	28.87	12.67	6.08	6.14	17.43	14.67	14.13	..
Mozambique	29.80	65.15	62.56	99.55	99.84	99.89	71.61	82.76	..
Namibia	..	..	..	99.22	99.76	95.56	95.64	96.00	..
Niger	..	..	..	-	0.87	1.02	0.95	0.95	..
Nigeria	70.78	38.82	32.59	38.22	33.00	24.40	17.63	17.22	..
Senegal	8.60	5.92	4.66	3.30	12.62	10.79	11.44	11.34	..
South Africa	1.53	1.00	0.61	0.68	0.66	0.94	3.11	3.82	..
South Sudan	..	..	..	..	..	..	0.33	0.55	..
Sudan	70.00	70.01	63.23	46.05	32.96	82.70	55.80	60.14	..
United Rep. of Tanzania	50.86	86.36	95.15	86.37	50.06	51.69	30.46	29.96	..
Togo	37.62	74.51	60.13	57.14	40.21	54.19	90.09	90.53	..
Tunisia	6.19	0.82	0.79	0.82	1.48	1.16	3.16	2.91	..
Zambia	91.95	98.86	99.23	99.38	99.41	99.88	94.27	85.99	..
Zimbabwe	67.42	88.26	46.67	45.66	52.43	68.01	44.21	54.62	..
Other Africa	51.51	46.76	54.50	54.50	51.04	45.29	57.54	57.43	..
Africa	27.40	25.88	18.01	17.35	16.50	17.20	17.37	18.01	..

Includes electricity from hydro, geothermal, solar, wind, tide, wave, biofuels and the renewable fraction of municipal waste.

Excludes hydro pumped storage.

1. Please refer to section 'Geographical coverage'.

Electricity generation from renewables (% of total)

	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	23.58	24.78	11.43	4.86	2.90	1.89	1.73	1.67	..
Brunei Darussalam	-	-	-	-	-	-	0.02	0.04	..
Cambodia	..	..	..	0.22	6.12	5.50	47.62	39.87	..
DPR of Korea	57.18	50.00	56.32	52.58	57.31	61.85	75.62	78.48	..
India	39.81	38.67	24.49	13.59	16.64	16.22	16.74	17.20	..
Indonesia	43.46	17.93	20.92	15.96	13.61	15.85	12.57	12.54	..
Malaysia	23.21	13.89	17.33	10.06	6.28	5.99	13.46	16.87	..
Mongolia	..	..	-	0.14	0.12	1.02	3.92	6.57	..
Myanmar	70.16	53.53	48.14	36.97	49.82	67.68	54.56	56.17	..
Nepal	77.88	93.55	99.89	98.37	99.37	99.91	100.00	100.00	..
Pakistan	51.99	58.19	44.93	25.24	32.96	33.70	28.23	24.21	..
Philippines	14.22	31.09	45.42	42.89	32.37	26.30	24.20	24.56	..
Singapore	-	-	0.54	0.77	1.25	1.28	1.91	1.94	..
Sri Lanka	68.67	88.67	99.84	45.80	37.23	53.12	32.63	29.07	..
Chinese Taipei	16.39	6.87	7.22	3.10	2.64	2.99	4.21	4.02	..
Thailand	26.97	8.82	11.26	6.81	5.54	5.61	15.06	16.42	..
Viet Nam	17.87	41.81	61.85	54.78	31.67	29.14	36.23	44.99	..
Other non-OECD Asia	23.64	32.50	54.81	59.58	52.97	64.51	63.74	61.58	..
Non-OECD Asia excl. China	34.55	31.25	24.75	15.10	15.68	15.71	17.80	18.79	..
People's Rep. of China	22.53	19.36	20.41	16.64	16.18	18.62	24.89	25.18	..
Hong Kong, China	-	-	-	-	-	0.24	0.29	0.30	..
China	21.65	18.58	19.50	16.26	15.93	18.46	24.74	25.04	..
Argentina	11.44	38.38	35.44	33.16	33.53	28.59	26.97	29.31	..
Bolivia	84.03	67.63	52.44	51.52	41.26	33.95	21.89	25.83	..
Brazil	90.60	93.78	94.50	89.49	87.12	84.72	80.35	79.13	82.28
Colombia	68.28	70.98	76.38	75.52	80.17	72.12	65.87	79.60	..
Costa Rica	84.48	95.69	97.52	99.15	96.72	93.31	98.23	99.67	..
Cuba	13.68	10.52	10.25	6.88	3.19	3.24	3.96	3.83	..
Curaçao ¹	-	-	-	0.71	5.69	4.76	25.90	38.60	..
Dominican Republic	26.94	19.43	10.11	7.69	14.85	10.15	10.65	15.12	..
Ecuador	34.63	25.86	78.55	71.70	55.12	45.49	60.21	70.45	..
El Salvador	53.65	98.49	93.19	58.07	58.24	65.04	58.33	74.41	..
Guatemala	30.40	14.65	91.63	51.72	47.48	63.85	59.79	70.14	..
Haiti	78.69	73.89	79.40	51.74	47.66	30.15	6.55	12.14	..
Honduras	73.87	86.31	98.28	61.97	34.94	49.02	49.86	58.15	..
Jamaica	13.90	23.99	7.57	4.84	3.69	7.69	12.28	17.08	..
Nicaragua	55.90	52.94	61.36	21.40	34.61	37.00	52.19	55.98	..
Panama	8.82	54.42	85.27	70.43	64.30	57.10	66.62	71.78	..
Paraguay	90.48	91.26	99.97	100.00	100.00	100.00	100.00	100.00	..
Peru	75.06	70.73	76.80	81.99	72.27	57.72	50.45	59.43	..
Suriname	..	..	..	88.40	52.70	70.19	60.04	60.07	..
Trinidad and Tobago	2.62	1.28	0.87	0.37	0.34	0.05	0.04	0.04	..
Uruguay	61.35	75.83	94.95	93.38	87.50	87.62	96.65	98.33	..
Venezuela	37.85	40.74	62.34	73.75	73.28	67.49	58.38	60.67	..
Other non-OECD Americas	7.47	5.98	7.05	1.42	5.66	3.51	2.04	2.74	..
Non-OECD Americas	54.66	65.74	73.91	71.56	69.68	67.50	64.13	66.86	..
Bahrain	-	-	-	-	-	-	-	-	..
Islamic Republic of Iran	23.50	25.11	10.29	3.05	9.08	4.16	5.78	5.02	..
Iraq	8.24	6.06	10.83	1.92	19.74	9.75	4.21	1.67	..
Jordan	-	-	0.33	0.57	0.67	0.49	4.70	6.68	..
Kuwait	-	-	-	-	-	-	0.00	0.01	..
Lebanon	26.69	30.89	33.33	4.64	8.48	5.34	1.96	1.74	..
Oman	-	-	-	-	-	-	-	-	..
Qatar	-	-	-	-	-	-	-	-	..
Saudi Arabia	-	-	-	-	-	-	0.04	0.04	..
Syrian Arab Republic	1.19	64.67	23.49	12.81	12.38	5.58	5.13	4.14	..
United Arab Emirates	-	-	-	-	-	-	0.27	0.59	..
Yemen	-	-	-	-	-	0.03	10.64	13.77	..
Middle East	13.13	11.75	5.33	1.87	4.62	2.16	2.16	1.87	..

Includes electricity from hydro, geothermal, solar, wind, tide, wave, biofuels and the renewable fraction of municipal waste.

Excludes hydro pumped storage.

1. Please refer to section 'Geographical coverage'.

Final consumption of coal (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	631.45	702.84	752.52	542.03	825.83	1 049.91	1 057.13	1 020.04	..
Non-OECD Total	328.16	443.95	523.53	407.72	699.13	924.96	954.03	915.33	..
OECD Total	303.29	258.88	228.98	134.31	126.69	124.95	103.10	104.70	..
Canada	5.41	4.33	3.21	3.59	3.65	3.12	2.46	2.66	..
Chile	0.70	0.57	0.63	0.64	0.60	0.42	0.21	0.29	..
Mexico	1.37	1.61	1.09	0.89	2.80	4.04	1.85	3.41	..
United States ²	74.09	56.17	55.66	32.58	31.34	26.85	17.50	17.01	..
OECD Americas	81.58	62.67	60.59	37.69	38.39	34.44	22.03	23.38	..
Australia	5.20	4.51	4.56	4.20	3.90	2.54	2.40	2.52	..
Israel ¹	0.00	0.00	0.01	0.02	-	-	0.00	0.00	..
Japan	24.08	25.25	27.26	21.02	22.74	22.77	21.25	21.75	..
Korea	6.49	9.74	11.72	9.07	7.75	9.54	9.43	8.60	..
New Zealand	0.86	0.82	0.67	0.52	0.57	0.60	0.55	0.57	..
OECD Asia Oceania	36.62	40.32	44.22	34.82	34.96	35.46	33.63	33.44	..
Austria	2.35	1.97	1.41	0.91	0.56	0.47	0.42	0.45	..
Belgium	5.71	4.23	3.54	2.79	1.52	1.17	1.38	1.35	..
Czech Republic	20.25	19.63	12.32	4.78	3.63	2.56	2.27	2.38	..
Denmark	0.46	0.58	0.43	0.31	0.27	0.15	0.13	0.13	..
Estonia	..	..	0.52	0.15	0.14	0.10	0.08	0.09	..
Finland	1.07	1.11	1.56	0.98	0.81	0.81	0.59	0.56	..
France	13.96	8.61	6.27	3.38	3.02	2.70	2.55	2.85	..
Germany	55.69	49.20	39.25	8.96	6.82	7.18	7.27	7.16	..
Greece	0.52	0.47	1.22	0.88	0.44	0.30	0.20	0.20	..
Hungary	4.08	3.54	2.36	0.58	0.62	0.41	0.33	0.44	..
Iceland	0.00	0.02	0.06	0.10	0.10	0.09	0.10	0.10	..
Ireland	1.03	1.36	1.68	0.66	0.74	0.60	0.47	0.42	..
Italy	3.68	3.82	3.57	2.68	2.68	1.89	1.02	0.77	..
Latvia	..	..	0.31	0.06	0.07	0.09	0.04	0.04	..
Lithuania	..	..	0.75	0.08	0.17	0.20	0.18	0.19	..
Luxembourg	0.98	1.04	0.52	0.11	0.08	0.07	0.05	0.05	..
Netherlands	1.08	0.78	1.49	0.83	0.83	0.71	0.76	0.83	..
Norway	0.82	0.87	0.78	0.95	0.67	0.58	0.62	0.62	..
Poland	29.02	31.96	17.34	13.18	12.52	13.81	11.65	11.84	..
Portugal	0.24	0.25	0.65	0.48	0.02	0.05	0.01	0.01	..
Slovak Republic	3.84	4.09	4.11	1.41	1.14	1.18	0.85	0.89	..
Slovenia	..	..	0.23	0.09	0.11	0.05	0.04	0.05	..
Spain	4.16	2.78	3.39	1.37	1.47	1.02	0.64	0.89	..
Sweden	1.03	0.92	1.07	0.77	0.95	0.85	0.71	0.70	..
Switzerland	0.42	0.33	0.35	0.14	0.15	0.15	0.11	0.11	..
Turkey	2.97	4.20	7.85	10.84	10.69	14.83	12.63	12.66	..
United Kingdom	31.72	14.14	11.11	4.33	3.12	3.03	2.34	2.12	..
OECD Europe	185.09	155.89	124.18	61.79	53.35	55.04	47.44	47.89	..
IEA	302.58	258.30	226.98	133.32	125.64	124.09	102.53	104.04	..
IEA/Accession/Association	486.59	518.59	601.22	471.94	748.09	963.01	950.03	913.77	..
European Union - 28	..	..	120.30	51.38	43.86	40.75	35.07	35.47	..
G7	208.64	161.52	146.33	76.53	73.37	67.55	54.39	54.33	..
G8	..	..	201.05	94.50	86.61	81.80	82.33	81.20	..
G20	..	..	658.48	485.83	755.97	969.29	973.07	934.14	..
OPEC	..	..	0.82	0.54	0.96	1.26	2.58	3.05	..

Where applicable, this table includes peat and oil shale except for 2018 provisional figures for non-OECD countries.

1. Please refer to section 'Geographical coverage'.

2. For the United States, coal used by autoproducers of electricity and heat has been included in final consumption prior to 1992.

Final consumption of coal (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	328.16	443.95	523.53	407.72	699.13	924.96	954.03	915.33	..
Albania	0.31	0.52	0.58	0.01	0.01	0.11	0.05	0.12	..
Armenia	..	..	0.24	-	-	0.00	0.00	0.00	..
Azerbaijan	..	..	0.09	-	-	-	-	-	..
Belarus	..	..	1.67	0.60	0.39	0.35	0.66	0.69	..
Bosnia and Herzegovina	..	..	1.91	0.33	0.42	0.35	0.38	0.37	..
Bulgaria	3.79	3.57	1.58	0.73	0.76	0.47	0.39	0.42	..
Croatia	..	..	0.53	0.08	0.16	0.15	0.07	0.08	..
Cyprus ¹	-	-	0.06	0.03	0.04	0.02	-	0.00	..
Georgia	..	..	0.65	0.01	0.01	0.02	0.25	0.28	..
Gibraltar	-	-	-	-	-	-	-	-	..
Kazakhstan	..	..	15.78	3.85	7.37	14.98	12.37	13.20	..
Kosovo	..	..	..	0.04	0.04	0.08	0.10	0.09	..
Kyrgyzstan	..	..	2.08	0.20	0.20	0.37	0.50	0.56	..
Malta	-	-	-	-	-	-	-	-	..
Republic of Moldova	..	..	0.87	0.06	0.10	0.10	0.07	0.10	..
Montenegro	..	..	..	..	0.02	0.01	0.01	0.01	..
North Macedonia, Republic of	..	..	0.11	0.10	0.14	0.11	0.13	0.10	..
Romania	2.98	5.65	2.98	0.77	1.16	0.71	0.64	0.58	..
Russian Federation	..	..	54.72	17.97	13.24	14.25	27.94	26.87	..
Serbia	..	..	0.95	1.24	0.99	0.88	0.72	0.63	..
Tajikistan	..	..	0.63	0.01	0.04	0.09	0.63	0.64	..
Turkmenistan	..	..	0.30	-	-	-	-	-	..
Ukraine	..	..	25.61	9.97	11.07	7.99	6.31	5.28	..
Uzbekistan	..	..	1.27	0.26	0.26	0.28	0.49	0.49	..
Former Soviet Union	109.75	139.89	x	x	x	x	x	x	x
Former Yugoslavia	4.20	2.62	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	121.03	152.24	112.63	36.27	36.42	41.34	51.73	50.49	..
Algeria	0.07	0.03	0.25	0.08	0.17	0.12	-	0.07	..
Angola	-	-	-	-	-	-	-	-	..
Benin	-	-	-	-	-	-	0.07	0.08	..
Botswana	..	..	0.10	0.17	0.15	0.03	0.04	0.04	..
Cameroon	-	-	-	-	-	-	-	-	..
Congo	-	-	-	-	-	-	-	-	..
Côte d'Ivoire	-	-	-	-	-	-	-	-	..
Dem. Rep. of the Congo	0.18	0.18	0.19	-	-	-	-	-	..
Egypt	0.14	0.29	0.35	0.45	0.47	0.23	0.18	0.19	..
Eritrea	..	..	..	-	-	-	-	-	..
Ethiopia	-	-	-	-	-	0.03	0.32	0.36	..
Gabon	-	-	-	-	-	-	-	-	..
Ghana	-	-	-	-	-	-	-	-	..
Kenya	0.04	0.01	0.09	0.07	0.09	0.17	0.49	0.46	..
Libya	-	-	-	-	-	-	-	-	..
Mauritius	-	-	0.01	0.01	0.01	0.02	0.02	0.02	..
Morocco	0.08	0.02	0.35	0.53	0.02	0.02	0.02	0.02	..
Mozambique	0.35	0.15	0.02	-	-	0.00	-	-	..
Namibia	..	..	..	-	-	-	-	-	..
Niger	..	..	..	-	-	-	-	0.00	..
Nigeria	0.17	0.10	0.04	0.00	0.00	0.02	0.03	0.03	..
Senegal	-	-	-	-	0.09	0.18	0.32	0.26	..
South Africa	16.91	18.89	16.35	15.93	18.83	15.01	15.79	18.37	..
South Sudan	..	..	..	..	..	..	-	-	..
Sudan	-	0.00	-	-	-	-	-	-	..
United Rep. of Tanzania	-	0.00	0.00	0.03	0.01	-	0.17	0.35	..
Togo	-	-	-	-	-	-	-	-	..
Tunisia	0.05	0.05	0.05	0.04	-	-	-	-	..
Zambia	0.48	0.34	0.20	0.07	0.08	0.00	0.10	0.10	..
Zimbabwe	1.18	1.24	1.60	1.21	0.52	0.66	0.25	0.27	..
Other Africa	0.03	0.19	0.35	0.46	0.46	0.50	0.73	0.75	..
Africa	19.70	21.49	19.96	19.04	20.90	17.00	18.53	21.38	..

Where applicable, this table includes peat and oil shale except for 2018 provisional figures for non-OECD countries.

1. Please refer to section 'Geographical coverage'.

Final consumption of coal (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	0.12	0.12	0.28	0.33	0.42	0.56	1.32	1.70	..
Brunei Darussalam	-	-	-	-	-	-	-	-	..
Cambodia	..	..	..	..	..	0.00	0.02	0.05	..
DPR of Korea	14.36	20.44	22.24	14.12	15.38	9.95	4.81	3.57	..
India	20.45	24.98	38.24	33.15	44.02	87.07	96.11	101.15	..
Indonesia	0.05	0.09	2.27	4.65	8.34	7.99	9.49	11.15	..
Malaysia	0.01	0.05	0.51	0.99	1.34	1.83	1.78	1.80	..
Mongolia	..	..	1.00	0.29	0.44	0.72	0.86	0.72	..
Myanmar	0.04	0.14	0.05	0.32	0.16	0.23	0.32	0.22	..
Nepal	0.05	0.05	0.04	0.26	0.25	0.30	0.69	0.79	..
Pakistan	0.54	0.64	1.52	1.38	3.42	3.95	5.69	7.50	..
Philippines	0.00	0.22	0.61	0.77	1.12	1.88	2.84	3.10	..
Singapore	0.00	0.00	0.02	-	0.00	0.01	0.17	0.17	..
Sri Lanka	0.00	0.00	0.00	0.00	0.07	0.07	0.05	0.05	..
Chinese Taipei	2.09	2.19	3.59	4.96	5.97	7.41	8.53	7.82	..
Thailand	0.02	0.09	1.31	3.54	6.75	9.21	6.07	7.49	..
Viet Nam	1.01	1.51	1.33	3.22	5.27	9.81	13.83	14.78	..
Other non-OECD Asia	1.00	1.88	0.21	0.30	0.33	1.02	1.72	1.76	..
Non-OECD Asia excl. China	39.74	52.42	73.24	68.27	93.28	142.02	154.30	163.81	..
People's Rep. of China	145.07	213.57	311.40	274.47	538.34	711.85	713.00	663.45	..
Hong Kong, China	0.01	0.00	0.00	-	0.53	0.94	1.27	1.18	..
China	145.08	213.57	311.41	274.47	538.87	712.79	714.27	664.63	..
Argentina	0.27	0.21	0.19	0.38	0.42	0.39	0.22	0.24	..
Bolivia	-	-	-	-	-	-	-	-	..
Brazil	0.72	2.07	3.67	5.72	5.54	7.34	6.66	7.63	7.90
Colombia	1.07	1.35	1.61	2.25	1.71	1.53	4.02	2.61	..
Costa Rica	0.00	0.00	-	0.00	0.04	0.06	0.08	0.10	..
Cuba	0.06	0.08	0.13	0.02	0.02	0.02	0.00	0.00	..
Curaçao ¹	-	-	-	-	-	-	-	-	..
Dominican Republic	-	-	-	0.08	0.22	0.32	0.40	0.37	..
Ecuador	-	-	-	-	-	-	-	-	..
El Salvador	-	0.00	-	0.00	0.00	-	-	-	..
Guatemala	-	0.01	-	-	-	-	-	-	..
Haiti	-	-	0.01	-	-	-	-	-	..
Honduras	-	-	0.00	0.08	0.15	0.14	0.12	0.12	..
Jamaica	-	-	0.03	0.03	0.04	0.03	0.06	0.05	..
Nicaragua	-	-	-	-	-	-	-	-	..
Panama	0.01	-	0.02	0.04	-	-	-	-	..
Paraguay	-	-	-	-	-	-	0.00	0.00	..
Peru	0.09	0.09	0.11	0.45	0.60	0.61	0.62	0.53	..
Suriname	..	..	..	-	-	-	-	-	..
Trinidad and Tobago	-	-	-	-	-	-	-	-	..
Uruguay	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	..
Venezuela	0.16	0.10	0.35	0.13	0.04	0.20	0.12	0.13	..
Other non-OECD Americas	0.03	0.02	0.00	0.00	0.01	0.00	0.00	0.00	..
Non-OECD Americas	2.43	3.95	6.13	9.20	8.77	10.64	12.29	11.78	..
Bahrain	-	-	-	-	-	-	-	-	..
Islamic Republic of Iran	0.17	0.28	0.18	0.33	0.61	0.26	0.59	0.70	..
Iraq	-	-	-	-	-	-	-	-	..
Jordan	-	-	-	-	-	-	0.22	0.16	..
Kuwait	-	-	-	-	-	-	-	-	..
Lebanon	0.01	0.00	-	0.13	0.13	0.15	0.17	0.17	..
Oman	-	-	-	-	-	-	-	-	..
Qatar	-	-	-	-	-	-	-	-	..
Saudi Arabia	-	-	-	-	-	-	-	-	..
Syrian Arab Republic	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	..
United Arab Emirates	-	-	-	-	0.15	0.66	1.84	2.13	..
Yemen	-	-	-	-	-	0.10	0.08	0.08	..
Middle East	0.18	0.28	0.18	0.46	0.89	1.18	2.90	3.24	..

Where applicable, this table includes peat and oil shale except for 2018 provisional figures for non-OECD countries.

1. Please refer to section 'Geographical coverage'.

Final consumption of oil (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	2 252.36	2 449.31	2 603.57	3 121.77	3 443.53	3 591.94	3 887.74	3 984.75	..
Non-OECD Total	484.43	693.87	807.48	1 001.47	1 210.82	1 457.61	1 751.97	1 819.45	..
OECD Total	1 584.02	1 577.27	1 594.17	1 846.85	1 914.82	1 775.71	1 739.64	1 753.06	..
Canada	75.65	79.99	68.79	80.46	88.30	89.50	92.56	89.54	..
Chile	3.84	4.03	5.49	9.19	9.56	12.09	14.80	15.22	..
Mexico	22.18	39.69	51.14	61.08	67.48	74.51	75.24	72.98	..
United States	693.49	689.14	683.29	793.42	842.42	761.97	744.39	747.62	..
OECD Americas	795.17	812.85	808.71	944.16	1 007.75	938.08	926.99	925.36	..
Australia	24.26	26.92	29.00	34.72	36.55	39.00	43.05	43.66	..
Israel ¹	2.91	3.44	5.00	8.03	7.56	9.45	8.65	9.22	..
Japan	171.06	160.29	176.57	201.54	191.43	164.35	150.69	151.07	..
Korea	9.90	18.73	43.66	79.88	79.64	81.87	94.08	97.34	..
New Zealand	3.49	3.62	4.03	5.31	5.96	5.90	6.39	6.64	..
OECD Asia Oceania	211.62	213.00	258.26	329.48	321.14	300.56	302.87	307.92	..
Austria	9.95	9.76	8.83	10.36	12.40	11.05	10.83	10.86	..
Belgium	20.16	16.85	16.28	21.18	21.73	20.65	20.13	19.41	..
Czech Republic	7.75	9.23	8.27	7.30	9.27	8.60	7.71	9.05	..
Denmark	13.31	11.32	6.85	6.58	6.73	6.20	5.31	5.34	..
Estonia	..	..	1.85	0.79	1.01	0.98	1.03	1.06	..
Finland	11.26	10.01	9.29	8.26	8.58	8.15	7.77	7.46	..
France	96.03	87.36	75.20	81.19	80.26	71.33	67.02	67.72	..
Germany	133.30	122.68	111.21	114.08	104.01	94.67	92.21	94.11	..
Greece	6.46	8.07	9.78	12.41	14.13	12.18	9.06	8.79	..
Hungary	6.46	9.00	7.12	5.20	6.53	6.06	6.49	7.01	..
Iceland	0.54	0.55	0.56	0.61	0.64	0.53	0.55	0.58	..
Ireland	3.55	3.90	3.74	6.67	7.85	6.83	6.05	5.94	..
Italy	69.94	64.20	61.45	62.30	63.46	54.43	46.12	45.46	..
Latvia	..	..	2.07	1.10	1.37	1.40	1.37	1.43	..
Lithuania	..	..	4.15	1.44	1.78	1.73	2.11	2.22	..
Luxembourg	1.46	1.01	1.48	2.01	2.72	2.45	2.14	2.19	..
Netherlands	23.47	24.35	20.99	23.00	26.43	26.59	24.73	25.45	..
Norway	7.31	8.09	7.36	7.51	8.19	8.45	7.61	7.36	..
Poland	8.96	13.00	10.94	17.51	19.75	23.24	24.43	27.89	..
Portugal	4.21	5.77	8.36	12.22	12.26	10.12	8.03	8.21	..
Slovak Republic	3.83	5.04	4.89	3.01	3.00	3.07	2.93	3.35	..
Slovenia	..	..	1.50	2.33	2.52	2.57	2.38	2.30	..
Spain	28.86	36.73	38.15	52.16	57.84	49.98	41.98	42.79	..
Sweden	24.38	20.16	14.02	14.17	12.95	11.24	9.94	9.89	..
Switzerland	13.41	12.04	11.26	11.11	11.22	10.77	9.04	8.73	..
Turkey	9.54	12.69	20.37	26.13	26.10	28.39	37.49	39.88	..
United Kingdom	73.09	59.62	61.24	62.58	63.20	55.41	55.31	55.29	..
OECD Europe	577.22	551.43	527.20	573.22	585.93	537.07	509.78	519.78	..
International marine bunkers	121.55	110.88	115.62	155.01	177.50	205.80	211.14	216.87	..
International aviation bunkers	62.36	67.28	86.30	118.43	140.39	152.82	184.99	195.37	..
IEA	1 576.73	1 569.26	1 575.41	1 824.14	1 891.40	1 747.95	1 709.79	1 722.09	..
IEA/Accession/Association	1 703.33	1 748.79	1 833.76	2 292.68	2 487.79	2 499.30	2 678.61	2 732.09	..
European Union - 28	..	..	505.73	542.00	556.29	503.08	470.61	479.39	..
G7	1 312.56	1 263.28	1 237.76	1 395.57	1 433.08	1 291.65	1 248.31	1 250.81	..
G8	..	..	1 382.76	1 486.14	1 524.97	1 401.35	1 361.57	1 371.63	..
G20	..	..	2 000.96	2 399.84	2 590.89	2 630.98	2 815.64	2 876.60	..
OPEC	..	..	128.10	176.78	217.31	259.76	283.75	287.81	..

World includes international marine bunkers and international aviation bunkers.

1. Please refer to section 'Geographical coverage'.

Final consumption of oil (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	484.43	693.87	807.48	1 001.47	1 210.82	1 457.61	1 751.97	1 819.45	..
Albania	0.47	1.23	0.89	0.90	1.25	1.18	1.18	1.20	..
Armenia	..	..	2.36	0.29	0.37	0.38	0.30	0.32	..
Azerbaijan	..	..	4.06	1.93	2.81	2.66	3.39	3.96	..
Belarus	..	..	15.66	5.30	5.57	5.63	5.22	5.41	..
Bosnia and Herzegovina	..	..	1.56	1.06	1.06	1.53	1.52	1.53	..
Bulgaria	9.04	8.22	5.52	3.58	4.01	3.15	3.41	3.55	..
Croatia	..	..	2.97	2.84	3.33	3.00	2.84	2.99	..
Cyprus ¹	0.48	0.53	0.66	1.11	1.16	1.17	1.00	1.03	..
Georgia	..	..	2.88	0.63	0.70	0.96	1.44	1.30	..
Gibraltar	0.02	0.02	0.04	0.10	0.12	0.13	0.17	0.19	..
Kazakhstan	..	..	15.08	6.38	7.79	9.12	12.96	12.79	..
Kosovo	..	..	..	0.32	0.44	0.52	0.66	0.72	..
Kyrgyzstan	..	..	2.95	0.41	0.47	0.93	1.69	1.57	..
Malta	0.12	0.12	0.19	0.18	0.24	0.25	0.27	0.28	..
Republic of Moldova	..	..	3.60	0.38	0.64	0.74	0.85	0.87	..
Montenegro	..	..	..	..	0.28	0.31	0.31	0.34	..
North Macedonia, Republic of	..	..	0.89	0.64	0.77	0.82	1.04	0.99	..
Romania	10.62	14.67	8.74	6.43	7.77	6.57	7.99	8.34	..
Russian Federation	..	..	145.00	90.57	91.90	109.70	113.25	120.82	..
Serbia	..	..	4.31	1.18	3.43	3.22	3.19	3.21	..
Tajikistan	..	..	1.68	0.19	0.28	0.50	0.85	0.84	..
Turkmenistan	..	..	4.73	3.62	4.77	5.25	6.19	6.21	..
Ukraine	..	..	42.66	10.59	12.94	12.56	9.64	9.89	..
Uzbekistan	..	..	7.33	4.85	3.75	3.37	2.20	2.11	..
Former Soviet Union	203.08	274.02	x	x	x	x	x	x	x
Former Yugoslavia	8.54	10.83	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	232.36	309.65	273.77	143.47	155.84	173.64	181.57	190.44	..
Algeria	2.26	4.61	8.04	8.36	10.37	14.28	17.81	17.70	..
Angola	0.63	0.65	0.85	1.03	1.43	3.84	4.61	3.83	..
Benin	0.13	0.13	0.08	0.46	0.87	1.50	2.05	2.09	..
Botswana	..	..	0.30	0.57	0.68	0.87	1.08	1.11	..
Cameroon	0.25	0.53	0.91	0.94	0.95	1.15	1.40	1.37	..
Congo	0.18	0.21	0.22	0.18	0.28	0.56	0.56	0.52	..
Côte d'Ivoire	0.66	0.96	0.76	0.95	0.80	0.99	2.19	1.96	..
Dem. Rep. of the Congo	0.56	0.70	0.69	0.28	0.42	0.60	0.65	0.73	..
Egypt	5.69	10.13	16.26	20.26	23.23	29.37	31.04	31.66	..
Eritrea	..	..	..	0.11	0.11	0.07	0.08	0.09	..
Ethiopia	0.35	0.38	0.65	1.08	1.50	1.90	3.45	3.80	..
Gabon	0.16	0.38	0.20	0.35	0.38	0.62	0.78	0.78	..
Ghana	0.67	0.72	0.90	1.53	1.82	2.57	3.55	3.60	..
Kenya	0.95	1.27	1.60	1.81	1.84	2.80	4.24	4.26	..
Libya	0.81	2.59	3.58	6.23	6.58	9.21	7.51	7.33	..
Mauritius	0.09	0.13	0.23	0.40	0.45	0.47	0.53	0.54	..
Morocco	2.01	3.21	3.58	5.68	7.50	9.64	11.30	11.92	..
Mozambique	0.33	0.39	0.30	0.42	0.49	0.72	1.85	2.00	..
Namibia	..	..	..	0.63	0.83	1.03	1.31	1.32	..
Niger	..	..	..	0.15	0.17	0.35	0.49	0.51	..
Nigeria	2.29	7.10	6.35	9.66	12.16	11.90	18.97	18.91	..
Senegal	0.33	0.46	0.43	0.71	0.80	0.92	1.27	1.36	..
South Africa	10.39	11.23	15.08	15.95	18.88	22.23	24.17	25.31	..
South Sudan	..	..	..	..	..	..	0.36	0.30	..
Sudan	1.42	1.12	1.67	1.51	2.60	4.64	4.88	4.79	..
United Rep. of Tanzania	0.49	0.44	0.46	0.72	1.20	1.52	2.09	2.06	..
Togo	0.08	0.12	0.17	0.28	0.31	0.66	0.65	0.68	..
Tunisia	0.95	1.62	2.33	3.34	3.99	3.87	4.35	4.55	..
Zambia	0.63	0.60	0.55	0.46	0.60	0.57	0.95	1.28	..
Zimbabwe	0.66	0.62	0.87	0.98	0.68	0.67	1.08	1.11	..
Other Africa	2.92	3.63	3.44	5.04	5.85	7.32	8.32	8.60	..
Africa	35.90	53.93	70.48	90.09	107.79	136.83	163.56	166.07	..

1. Please refer to section 'Geographical coverage'.

Final consumption of oil (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	0.59	1.24	1.57	2.71	3.17	3.22	3.93	4.58	..
Brunei Darussalam	0.06	0.18	0.26	0.36	0.40	0.58	0.59	0.64	..
Cambodia	..	..	..	0.53	0.63	1.27	2.10	2.16	..
DPR of Korea	0.80	2.42	2.11	0.66	0.55	0.57	0.61	0.59	..
India	19.91	26.55	50.17	94.47	106.17	135.03	184.52	195.52	..
Indonesia	7.69	17.29	27.24	47.96	52.02	55.01	66.72	72.49	..
Malaysia	3.27	5.28	9.32	18.32	21.41	23.96	28.26	28.96	..
Mongolia	..	..	0.72	0.40	0.52	0.77	0.92	1.19	..
Myanmar	0.96	1.15	0.59	1.53	1.96	1.04	4.14	6.68	..
Nepal	0.06	0.10	0.24	0.69	0.72	0.99	1.95	2.36	..
Pakistan	2.85	4.15	7.75	11.80	11.55	11.54	18.45	20.76	..
Philippines	6.76	6.81	8.15	13.11	11.89	11.46	16.59	17.70	..
Singapore	1.11	1.60	3.81	5.85	9.90	10.62	17.82	18.94	..
Sri Lanka	1.04	1.07	1.18	2.50	2.84	2.96	4.05	4.41	..
Chinese Taipei	4.88	11.80	18.34	28.32	36.07	39.62	38.21	37.71	..
Thailand	5.53	7.28	14.93	29.00	39.72	43.84	53.51	53.82	..
Viet Nam	3.71	1.66	2.33	6.51	11.37	16.81	19.06	19.78	..
Other non-OECD Asia	1.90	2.03	1.99	2.04	2.39	3.77	5.69	5.94	..
Non-OECD Asia excl. China	61.13	90.62	150.70	266.77	313.26	363.05	467.12	494.22	..
People's Rep. of China	42.62	58.69	84.60	180.37	273.66	369.03	494.66	514.29	..
Hong Kong, China	1.46	1.83	2.79	5.65	2.84	3.00	3.44	3.75	..
China	44.08	60.52	87.39	186.02	276.50	372.03	498.10	518.04	..
Argentina	17.13	19.07	15.54	22.14	22.40	24.59	25.62	25.96	..
Bolivia	0.70	1.11	1.12	1.62	1.84	2.60	3.79	4.35	..
Brazil	33.48	49.65	53.46	80.06	78.99	93.86	101.33	102.50	96.41
Colombia	5.76	6.51	8.74	11.13	10.71	10.12	13.29	13.17	..
Costa Rica	0.44	0.67	0.80	1.54	1.71	1.94	2.40	2.48	..
Cuba	5.16	6.74	7.00	5.26	3.93	4.51	5.20	4.94	..
Curaçao ¹	2.15	1.04	0.58	0.79	0.85	0.91	0.63	0.63	..
Dominican Republic	0.88	1.08	1.50	2.94	2.98	3.28	3.74	3.61	..
Ecuador	1.05	2.75	4.22	5.29	6.74	8.39	9.20	9.62	..
El Salvador	0.46	0.54	0.69	1.36	1.60	1.51	1.63	1.65	..
Guatemala	0.66	0.86	1.02	2.08	2.46	2.57	3.69	3.85	..
Haiti	0.12	0.18	0.22	0.41	0.61	0.60	0.76	0.77	..
Honduras	0.36	0.48	0.69	1.03	1.41	1.52	1.90	1.99	..
Jamaica	1.90	1.69	1.65	1.38	1.90	1.31	1.49	1.40	..
Nicaragua	0.43	0.45	0.43	0.71	0.83	0.84	1.18	1.25	..
Panama	0.48	0.60	0.65	1.18	1.67	2.08	2.57	2.60	..
Paraguay	0.22	0.42	0.64	1.09	1.15	1.61	2.28	2.56	..
Peru	4.30	5.02	4.80	6.52	6.15	7.71	9.49	9.68	..
Suriname	..	..	..	0.39	0.32	0.38	0.37	0.37	..
Trinidad and Tobago	0.50	0.73	0.62	0.73	1.10	1.36	1.25	1.28	..
Uruguay	1.35	1.41	1.07	1.48	1.31	1.60	1.86	1.88	..
Venezuela	7.57	12.67	14.36	18.03	21.84	27.55	19.87	16.60	..
Other non-OECD Americas	2.07	1.70	2.50	2.56	2.32	2.27	2.10	2.08	..
Non-OECD Americas	87.16	115.34	122.30	169.72	174.82	203.11	215.63	215.23	..
Bahrain	0.09	0.26	0.40	0.74	1.43	1.57	1.73	1.78	..
Islamic Republic of Iran	13.51	23.95	40.78	56.98	67.36	65.09	64.09	68.55	..
Iraq	2.22	6.31	12.46	15.13	16.37	15.83	13.76	15.45	..
Jordan	0.45	1.09	2.01	2.95	3.75	3.31	4.25	4.69	..
Kuwait	0.96	2.72	1.51	3.39	5.31	8.57	8.76	8.25	..
Lebanon	1.45	1.17	0.93	2.23	2.30	2.31	3.52	3.68	..
Oman	0.08	0.49	1.22	2.05	3.02	4.13	6.28	7.29	..
Qatar	0.12	0.43	0.98	1.48	2.90	5.68	7.32	7.05	..
Saudi Arabia	2.84	19.81	28.54	43.44	55.84	75.87	93.81	94.49	..
Syrian Arab Republic	1.36	3.58	6.14	6.67	10.05	9.34	3.81	3.68	..
United Arab Emirates	0.26	3.09	6.22	7.25	9.64	12.47	16.74	18.76	..
Yemen	0.47	0.92	1.66	3.10	4.63	4.78	1.92	1.77	..
Middle East	23.80	63.82	102.85	145.41	182.61	208.96	225.99	235.44	..

1. Please refer to section 'Geographical coverage'.

Final consumption of natural gas (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	651.76	814.74	943.51	1 116.00	1 192.55	1 353.48	1 444.29	1 502.34	..
Non-OECD Total	153.14	255.85	352.39	370.81	476.71	624.94	707.41	748.18	..
OECD Total	498.62	558.89	591.13	745.19	715.84	728.54	736.82	754.10	..
Canada	23.73	36.23	43.31	53.43	46.70	42.22	46.02	47.59	..
Chile	0.04	0.10	0.90	3.29	3.51	2.35	1.69	1.69	..
Mexico	7.27	12.84	13.91	12.57	11.56	12.94	14.26	15.13	..
United States ²	367.07	337.51	303.08	359.99	309.09	321.63	338.39	346.31	..
OECD Americas	398.11	386.68	361.20	429.28	370.86	379.15	400.35	410.73	..
Australia	2.11	5.03	8.66	11.39	12.33	12.57	13.15	12.94	..
Israel ¹	0.05	0.13	0.03	0.00	-	0.06	1.10	1.13	..
Japan	3.12	5.84	13.64	21.35	26.37	29.06	28.75	29.99	..
Korea	-	-	0.67	10.93	15.99	20.59	21.53	22.17	..
New Zealand	0.12	0.35	1.80	3.01	1.33	1.78	2.91	2.80	..
OECD Asia Oceania	5.39	11.35	24.80	46.68	56.02	64.06	67.44	69.03	..
Austria	1.45	2.83	3.03	4.27	4.93	5.11	4.96	5.11	..
Belgium	4.60	7.08	6.82	10.15	10.38	10.99	10.27	10.49	..
Czech Republic	0.81	1.18	4.24	5.92	6.18	6.18	5.38	5.62	..
Denmark	-	-	1.12	1.65	1.69	1.73	1.50	1.51	..
Estonia	..	..	0.44	0.28	0.38	0.21	0.25	0.24	..
Finland	-	0.43	0.96	0.92	0.85	0.82	0.63	0.74	..
France	10.28	19.27	23.93	32.15	34.56	33.00	30.27	29.78	..
Germany	18.58	33.49	39.06	55.13	55.09	56.38	55.04	55.35	..
Greece	-	-	0.10	0.38	0.71	1.14	1.19	1.54	..
Hungary	2.80	4.61	6.20	6.69	8.05	6.46	6.03	6.27	..
Iceland	-	-	-	-	-	-	-	-	..
Ireland	-	0.35	1.00	1.58	1.36	1.58	1.77	1.80	..
Italy	12.36	19.73	30.40	38.59	41.58	39.07	33.89	34.58	..
Latvia	..	..	0.70	0.33	0.51	0.50	0.32	0.33	..
Lithuania	..	..	2.13	0.91	1.10	1.10	1.39	1.57	..
Luxembourg	0.18	0.36	0.42	0.60	0.63	0.68	0.63	0.62	..
Netherlands	19.30	24.26	23.71	23.09	22.27	24.69	19.70	19.99	..
Norway	-	-	-	0.59	0.74	0.78	0.86	0.96	..
Poland	4.42	6.96	7.69	8.16	9.93	10.55	11.33	11.36	..
Portugal	-	-	-	0.79	1.31	1.56	1.64	1.74	..
Slovak Republic	1.40	1.63	3.91	4.17	4.31	3.70	2.90	3.13	..
Slovenia	..	..	0.71	0.69	0.79	0.70	0.60	0.62	..
Spain	0.45	0.72	4.32	12.29	18.13	14.82	13.89	13.92	..
Sweden	-	-	0.33	0.44	0.51	0.66	0.55	0.80	..
Switzerland	0.11	0.71	1.39	2.13	2.45	2.69	2.79	2.82	..
Turkey	-	-	0.71	4.91	10.05	13.14	21.80	25.15	..
United Kingdom	18.38	37.26	41.79	52.43	50.46	47.09	39.43	38.30	..
OECD Europe	95.12	160.87	205.13	269.24	288.97	285.33	269.03	274.34	..
International marine bunkers	-	-	-	-	-	-	0.05	0.06	..
IEA	498.53	558.66	586.66	739.97	709.94	723.83	731.72	748.77	..
IEA/Accession/Association	501.54	569.18	610.82	783.11	781.72	862.15	917.75	955.22	..
European Union - 28	..	..	226.72	272.04	287.28	278.44	252.07	254.39	..
G7	453.52	489.33	495.21	613.06	563.84	568.46	571.78	581.91	..
G8	..	..	638.33	730.23	691.89	711.68	722.57	747.20	..
G20	..	..	792.95	930.09	948.57	1 052.21	1 106.64	1 159.22	..
OPEC	..	..	41.67	79.06	112.05	164.98	189.37	190.62	..

1. Please refer to section 'Geographical coverage'.

2. For the United States, gas used by autoproducers of electricity and heat has been included in final consumption prior to 1989.

Final consumption of natural gas (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	153.14	255.85	352.39	370.81	476.71	624.94	707.41	748.18	..
Albania	0.16	0.32	0.20	0.00	-	0.00	0.01	0.01	..
Armenia	..	..	2.75	0.44	0.93	1.02	1.19	1.29	..
Azerbaijan	..	..	9.29	3.07	3.23	3.06	3.91	3.29	..
Belarus	..	..	4.28	3.18	3.92	4.65	4.43	4.46	..
Bosnia and Herzegovina	..	..	0.35	0.16	0.25	0.14	0.14	0.15	..
Bulgaria	0.17	3.18	2.60	1.71	1.68	1.25	1.59	1.63	..
Croatia	..	..	1.24	1.45	1.62	1.69	1.41	1.49	..
Cyprus ¹	-	-	-	-	-	-	-	-	..
Georgia	..	..	2.59	0.46	0.57	0.61	1.34	1.44	..
Gibraltar	-	-	-	-	-	-	-	-	..
Kazakhstan	..	..	7.77	2.67	2.26	3.32	3.31	3.45	..
Kosovo	..	..	..	-	-	-	-	-	..
Kyrgyzstan	..	..	0.61	0.16	0.30	0.12	0.13	0.16	..
Malta	-	-	-	-	-	-	-	-	..
Republic of Moldova	..	..	0.98	0.47	0.74	0.72	0.60	0.67	..
Montenegro	..	..	..	..	-	-	-	-	..
North Macedonia, Republic of	..	..	-	0.01	0.05	0.04	0.04	0.04	..
Romania	13.90	27.26	19.85	7.28	8.26	6.78	5.48	5.86	..
Russian Federation	..	..	143.12	117.17	128.05	143.23	150.79	165.30	..
Serbia	..	..	2.36	1.16	1.24	1.15	1.02	1.18	..
Tajikistan	..	..	0.73	0.38	0.29	0.15	0.00	0.00	..
Turkmenistan	..	..	6.74	4.98	6.46	8.28	10.45	10.45	..
Ukraine	..	..	33.23	28.51	34.55	28.40	15.68	14.97	..
Uzbekistan	..	..	19.68	25.62	24.85	21.90	14.04	13.66	..
Former Soviet Union	116.23	181.72	x	x	x	x	x	x	x
Former Yugoslavia	0.98	2.12	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	131.44	214.61	258.38	198.90	219.24	226.50	215.56	229.49	..
Algeria	0.27	0.81	3.36	5.31	7.70	9.11	15.47	15.74	..
Angola	0.05	0.06	0.44	0.47	0.53	0.60	0.59	0.33	..
Benin	-	-	-	-	-	-	-	-	..
Botswana	..	..	-	-	-	-	-	-	..
Cameroon	-	-	-	-	-	-	-	-	..
Congo	-	-	-	-	-	-	-	-	..
Côte d'Ivoire	-	-	-	0.49	0.14	0.18	0.05	0.31	..
Dem. Rep. of the Congo	-	-	-	-	-	-	-	-	..
Egypt	-	0.75	2.42	3.95	9.08	10.95	11.80	13.48	..
Eritrea	..	..	..	-	-	-	-	-	..
Ethiopia	-	-	-	-	-	-	-	-	..
Gabon	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	..
Ghana	-	-	-	-	-	-	0.00	0.03	..
Kenya	-	-	-	-	-	-	-	-	..
Libya	0.26	1.01	1.29	2.15	2.07	2.21	0.13	0.16	..
Mauritius	-	-	-	-	-	-	-	-	..
Morocco	0.06	0.06	0.04	0.04	0.03	0.04	0.06	0.06	..
Mozambique	-	-	-	0.00	0.02	0.06	0.13	0.10	..
Namibia	..	..	..	-	-	-	-	-	..
Niger	..	..	..	-	-	-	-	-	..
Nigeria	0.03	0.04	0.72	0.97	2.81	1.21	3.41	3.47	..
Senegal	-	-	-	-	-	-	-	-	..
South Africa	-	-	-	-	-	0.82	1.69	1.67	..
South Sudan	..	..	..	..	..	..	-	-	..
Sudan	-	-	-	-	-	-	-	-	..
United Rep. of Tanzania	-	-	-	-	0.05	0.10	0.15	0.14	..
Togo	-	-	-	-	-	-	-	-	..
Tunisia	0.01	0.08	0.31	0.61	0.84	1.49	1.40	1.50	..
Zambia	-	-	-	-	-	-	-	-	..
Zimbabwe	-	-	-	-	-	-	-	-	..
Other Africa	-	-	0.00	0.00	1.92	1.55	4.18	3.97	..
Africa	0.68	2.80	8.58	13.99	25.21	28.35	39.07	40.96	..

1. Please refer to section 'Geographical coverage'.

Final consumption of natural gas (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	0.33	0.66	1.85	3.57	4.67	7.42	9.61	10.00	..
Brunei Darussalam	-	-	-	-	-	0.48	0.46	0.42	..
Cambodia	..	..	..	-	-	-	-	-	..
DPR of Korea	-	-	-	-	-	-	-	-	..
India	0.29	0.68	5.64	9.67	13.27	27.21	33.39	36.10	..
Indonesia	0.12	2.36	6.02	11.56	13.63	15.86	13.95	14.75	..
Malaysia	0.01	0.04	1.09	3.86	6.98	6.25	12.30	16.84	..
Mongolia	..	..	-	-	-	-	-	-	..
Myanmar	0.03	0.08	0.22	0.32	0.42	0.60	0.55	0.54	..
Nepal	-	-	-	-	-	-	-	-	..
Pakistan	1.80	3.02	6.01	10.18	15.54	19.13	19.63	19.19	..
Philippines	-	-	-	-	0.01	0.07	0.07	0.05	..
Singapore	0.02	0.05	0.06	0.11	0.51	1.02	1.22	1.29	..
Sri Lanka	-	-	-	-	-	-	-	-	..
Chinese Taipei	0.94	1.35	0.88	1.55	1.78	2.12	3.00	3.21	..
Thailand	-	-	0.14	1.11	1.86	4.59	7.20	7.03	..
Viet Nam	-	-	-	0.02	0.54	0.49	1.08	1.04	..
Other non-OECD Asia	0.15	0.09	0.24	0.10	0.11	0.13	0.15	0.15	..
Non-OECD Asia excl. China	3.69	8.33	22.17	42.05	59.32	85.37	102.61	110.63	..
People's Rep. of China	2.25	6.36	8.87	12.38	29.10	73.30	113.91	131.58	..
Hong Kong, China	0.03	0.08	0.32	0.56	0.59	0.59	0.62	0.62	..
China	2.28	6.44	9.19	12.94	29.68	73.89	114.53	132.21	..
Argentina	3.68	5.41	9.57	15.60	18.71	20.14	22.15	20.72	..
Bolivia	0.00	0.04	0.17	0.35	0.53	0.99	1.53	1.55	..
Brazil	0.22	0.91	2.48	4.99	9.89	13.12	12.91	12.28	13.32
Colombia	0.21	0.54	0.91	1.62	2.83	3.58	4.06	4.06	..
Costa Rica	-	-	-	-	-	-	-	-	..
Cuba	0.03	0.05	0.06	0.20	0.20	0.38	0.33	0.25	..
Curaçao ¹	-	-	-	-	-	-	-	-	..
Dominican Republic	-	-	-	-	-	0.03	0.10	0.10	..
Ecuador	-	-	-	-	-	-	0.04	0.05	..
El Salvador	-	-	-	-	-	-	-	-	..
Guatemala	-	-	-	-	-	-	-	-	..
Haiti	-	-	-	-	-	-	-	-	..
Honduras	-	-	-	-	-	-	-	-	..
Jamaica	-	-	-	-	-	-	-	-	..
Nicaragua	-	-	-	-	-	-	-	-	..
Panama	-	-	-	-	-	-	-	-	..
Paraguay	-	-	-	-	-	-	-	-	..
Peru	0.04	0.07	0.07	0.00	0.15	1.14	1.90	2.14	..
Suriname	..	..	..	-	-	-	-	-	..
Trinidad and Tobago	0.52	0.86	2.82	6.06	9.69	11.97	9.52	9.98	..
Uruguay	-	-	-	0.03	0.07	0.05	0.05	0.05	..
Venezuela	3.16	6.07	6.73	8.87	12.04	13.57	6.18	6.36	..
Other non-OECD Americas	-	0.01	0.01	0.02	0.01	0.01	0.01	0.01	..
Non-OECD Americas	7.87	13.96	22.82	37.74	54.12	64.97	58.78	57.53	..
Bahrain	0.59	0.87	1.05	1.19	1.21	1.63	2.20	2.11	..
Islamic Republic of Iran	1.92	1.61	9.35	29.22	46.63	75.59	101.82	102.95	..
Iraq	0.49	0.52	0.81	1.29	0.07	0.20	1.39	1.36	..
Jordan	-	-	-	-	-	-	-	-	..
Kuwait	2.77	3.16	1.61	3.03	4.44	3.28	6.47	6.91	..
Lebanon	-	-	-	-	-	-	-	-	..
Oman	-	-	0.32	0.40	1.13	6.73	11.47	11.18	..
Qatar	0.58	1.30	2.40	3.68	4.52	4.91	7.49	7.81	..
Saudi Arabia	-	0.24	6.21	11.57	15.97	27.33	21.27	22.54	..
Syrian Arab Republic	-	-	0.75	2.30	1.78	1.72	0.51	0.50	..
United Arab Emirates	0.82	2.00	8.74	12.52	13.37	24.44	24.25	22.00	..
Yemen	-	-	-	-	-	-	-	-	..
Middle East	7.17	9.71	31.25	65.20	89.12	145.85	176.87	177.36	..

1. Please refer to section 'Geographical coverage'.

Final consumption of electricity (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	439.18	585.67	834.43	1 092.06	1 303.91	1 542.25	1 790.96	1 837.64	..
Non-OECD Total	114.81	176.37	279.83	373.16	518.08	728.41	974.01	1 019.23	..
OECD Total	324.37	409.29	554.60	718.89	785.83	813.84	816.96	818.41	..
Canada	18.92	26.07	35.95	41.40	44.16	44.45	40.79	43.74	..
Chile	0.63	0.84	1.33	3.16	4.15	4.71	6.03	6.00	..
Mexico	2.71	4.91	8.62	12.50	16.31	18.55	23.25	23.38	..
United States	143.37	174.16	226.45	300.90	320.85	325.74	327.40	321.42	..
OECD Americas	165.63	205.99	272.34	357.96	385.48	393.44	397.47	394.55	..
Australia	4.51	6.81	11.11	14.85	16.27	18.06	18.20	18.11	..
Israel ¹	0.65	0.94	1.56	3.32	3.65	4.19	4.79	4.84	..
Japan	35.70	44.13	65.76	83.64	88.12	89.03	81.67	82.88	..
Korea	1.10	2.81	8.12	22.62	30.75	38.64	44.48	44.99	..
New Zealand	1.37	1.68	2.46	2.94	3.26	3.45	3.34	3.35	..
OECD Asia Oceania	43.33	56.38	89.01	127.37	142.06	153.36	152.48	154.17	..
Austria	2.18	2.84	3.62	4.32	4.94	5.14	5.33	5.40	..
Belgium	2.94	3.73	4.99	6.67	6.90	7.16	7.06	7.04	..
Czech Republic	2.54	3.26	4.14	4.25	4.75	4.66	4.80	4.93	..
Denmark	1.38	1.86	2.44	2.79	2.88	2.76	2.67	2.69	..
Estonia	..	..	0.59	0.43	0.52	0.59	0.63	0.62	..
Finland	2.32	3.20	5.07	6.51	6.94	7.18	6.95	6.97	..
France	12.78	17.98	25.99	33.10	36.35	38.18	37.79	37.56	..
Germany	26.91	33.69	39.13	41.57	44.91	45.78	44.49	44.62	..
Greece	1.09	1.71	2.45	3.71	4.38	4.57	4.59	4.64	..
Hungary	1.51	2.20	2.72	2.53	2.78	2.94	3.19	3.31	..
Iceland	0.18	0.25	0.34	0.59	0.67	1.35	1.49	1.54	..
Ireland	0.53	0.74	1.02	1.74	2.09	2.19	2.20	2.22	..
Italy	10.58	13.74	18.45	23.47	25.87	25.74	24.59	25.10	..
Latvia	..	..	0.72	0.38	0.49	0.53	0.56	0.56	..
Lithuania	..	..	1.03	0.53	0.69	0.72	0.84	0.86	..
Luxembourg	0.26	0.31	0.36	0.50	0.53	0.57	0.55	0.55	..
Netherlands	3.81	4.94	6.15	8.18	8.98	9.26	9.12	9.08	..
Norway	5.23	6.43	8.32	9.42	9.52	9.73	9.77	9.78	..
Poland	5.01	7.31	8.27	8.43	9.03	10.21	11.42	11.68	..
Portugal	0.70	1.23	2.02	3.30	3.98	4.29	3.99	4.01	..
Slovak Republic	1.06	1.64	2.01	1.89	1.96	2.08	2.15	2.22	..
Slovenia	..	..	0.79	0.90	1.10	1.03	1.12	1.16	..
Spain	5.08	7.72	10.82	16.20	20.83	21.05	19.99	20.17	..
Sweden	5.95	7.30	10.35	11.07	11.24	11.28	10.96	10.94	..
Switzerland	2.49	3.03	4.00	4.50	4.93	5.14	5.01	5.03	..
Turkey	0.85	1.68	3.87	8.24	11.06	14.62	19.62	21.14	..
United Kingdom	20.04	20.15	23.60	28.33	29.98	28.29	26.13	25.85	..
OECD Europe	115.41	146.92	193.25	233.56	258.30	267.04	267.01	269.69	..
IEA	322.91	407.27	548.82	710.00	775.08	801.32	802.13	803.44	..
IEA/Accession/Association	350.68	457.92	645.25	895.04	1 064.80	1 251.56	1 448.67	1 487.42	..
European Union - 28	..	..	185.79	217.22	239.41	244.02	239.20	240.59	..
G7	268.29	329.93	435.32	552.40	590.24	597.21	582.86	581.19	..
G8	..	..	506.40	604.72	646.13	659.69	646.83	646.61	..
G20	..	..	716.96	942.69	1 116.21	1 313.35	1 515.85	1 555.21	..
OPEC	..	..	20.01	34.09	45.92	64.43	82.50	83.90	..

1. Please refer to section 'Geographical coverage'.

Final consumption of electricity (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	114.81	176.37	279.83	373.16	518.08	728.41	974.01	1 019.23	..
Albania	0.11	0.25	0.14	0.37	0.44	0.49	0.47	0.51	..
Armenia	..	..	0.78	0.31	0.36	0.40	0.46	0.48	..
Azerbaijan	..	..	1.36	1.24	1.55	1.05	1.51	1.47	..
Belarus	..	..	3.41	2.30	2.38	2.53	2.53	2.58	..
Bosnia and Herzegovina	..	..	0.87	0.50	0.67	0.89	0.95	0.98	..
Bulgaria	1.78	2.55	3.03	2.09	2.21	2.33	2.48	2.57	..
Croatia	..	..	1.14	1.02	1.24	1.36	1.32	1.37	..
Cyprus ¹	0.06	0.08	0.15	0.26	0.34	0.42	0.38	0.39	..
Georgia	..	..	1.16	0.54	0.53	0.63	0.90	0.96	..
Gibraltar	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.02	..
Kazakhstan	..	..	8.30	3.03	5.23	4.93	5.67	5.29	..
Kosovo	..	..	..	0.20	0.27	0.35	0.33	0.37	..
Kyrgyzstan	..	..	0.85	0.69	0.58	0.61	0.87	0.95	..
Malta	0.03	0.04	0.08	0.13	0.16	0.16	0.18	0.20	..
Republic of Moldova	..	..	0.89	0.47	0.58	0.42	0.40	0.43	..
Montenegro	..	..	..	..	0.32	0.28	0.23	0.25	..
North Macedonia, Republic of	..	..	0.40	0.45	0.54	0.58	0.53	0.52	..
Romania	2.89	4.65	4.66	2.92	3.34	3.55	3.72	3.84	..
Russian Federation	..	..	71.08	52.32	55.89	62.48	63.97	65.42	..
Serbia	..	..	2.68	2.36	2.21	2.39	2.37	2.42	..
Tajikistan	..	..	1.53	1.14	1.25	1.21	1.12	1.18	..
Turkmenistan	..	..	0.72	0.50	0.64	0.79	1.07	1.07	..
Ukraine	..	..	17.67	9.76	10.59	11.53	10.10	10.09	..
Uzbekistan	..	..	3.69	3.48	3.03	3.22	3.74	3.87	..
Former Soviet Union	62.40	82.84	x	x	x	x	x	x	x
Former Yugoslavia	2.46	4.20	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	69.74	94.61	124.63	86.08	94.34	102.62	105.34	107.26	..
Algeria	0.17	0.43	1.06	1.60	2.29	2.88	4.50	4.85	..
Angola	0.06	0.04	0.05	0.10	0.17	0.40	0.77	0.80	..
Benin	0.00	0.01	0.01	0.03	0.05	0.07	0.09	0.10	..
Botswana	..	..	0.07	0.15	0.20	0.27	0.30	0.28	..
Cameroon	0.09	0.12	0.20	0.23	0.28	0.42	0.54	0.54	..
Congo	0.01	0.01	0.03	0.02	0.03	0.04	0.12	0.13	..
Côte d'Ivoire	0.05	0.12	0.16	0.24	0.25	0.35	0.57	0.57	..
Dem. Rep. of the Congo	0.30	0.34	0.18	0.39	0.42	0.54	0.60	0.62	..
Egypt	0.60	1.34	3.11	5.56	7.92	10.76	13.15	13.70	..
Eritrea	..	..	..	0.01	0.02	0.02	0.03	0.03	..
Ethiopia	0.05	0.05	0.08	0.12	0.20	0.33	0.74	0.81	..
Gabon	0.01	0.04	0.07	0.09	0.10	0.13	0.17	0.17	..
Ghana	0.31	0.39	0.38	0.55	0.45	0.59	0.98	1.04	..
Kenya	0.09	0.14	0.25	0.28	0.40	0.53	0.71	0.73	..
Libya	0.07	0.26	0.50	0.87	1.64	1.70	1.20	1.21	..
Mauritius	0.01	0.02	0.06	0.14	0.17	0.21	0.24	0.25	..
Morocco	0.20	0.37	0.70	1.10	1.52	2.03	2.67	2.79	..
Mozambique	0.05	0.04	0.04	0.18	0.78	0.85	0.98	1.24	..
Namibia	..	..	..	0.16	0.25	0.29	0.34	0.35	..
Niger	..	..	..	0.03	0.04	0.06	0.08	0.09	..
Nigeria	0.18	0.40	0.68	0.74	1.48	1.78	2.18	2.22	..
Senegal	0.03	0.05	0.06	0.08	0.15	0.22	0.32	0.34	..
South Africa	4.74	7.96	11.91	14.97	16.61	17.43	16.58	16.72	..
South Sudan	..	..	..	..	..	..	0.05	0.04	..
Sudan	0.04	0.06	0.11	0.19	0.26	0.52	1.08	1.21	..
United Rep. of Tanzania	0.04	0.06	0.11	0.17	0.22	0.35	0.46	0.51	..
Togo	0.01	0.01	0.03	0.04	0.05	0.07	0.11	0.11	..
Tunisia	0.08	0.21	0.42	0.77	0.97	1.17	1.34	1.39	..
Zambia	0.44	0.50	0.51	0.52	0.69	0.67	0.93	1.05	..
Zimbabwe	0.42	0.60	0.77	0.90	0.90	0.63	0.63	0.66	..
Other Africa	0.08	0.25	0.46	0.77	0.97	1.23	1.46	1.50	..
Africa	8.14	13.81	22.01	31.02	39.47	46.54	53.91	56.06	..

1. Please refer to section 'Geographical coverage'.

Final consumption of electricity (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	0.09	0.12	0.40	1.07	1.91	2.97	4.87	5.17	..
Brunei Darussalam	0.02	0.03	0.09	0.21	0.23	0.25	0.28	0.27	..
Cambodia	..	..	..	0.03	0.07	0.18	0.52	0.58	..
DPR of Korea	1.21	1.55	2.03	1.25	1.47	1.39	1.09	0.97	..
India	4.77	7.80	18.49	32.35	42.10	62.52	95.22	100.09	..
Indonesia	0.17	0.56	2.43	6.81	9.26	12.72	18.57	19.20	..
Malaysia	0.35	0.75	1.71	5.26	6.94	9.53	12.39	12.61	..
Mongolia	..	..	0.23	0.16	0.22	0.29	0.47	0.51	..
Myanmar	0.05	0.09	0.15	0.28	0.31	0.54	1.32	1.47	..
Nepal	0.01	0.01	0.05	0.11	0.17	0.24	0.42	0.49	..
Pakistan	0.53	0.89	2.47	4.18	5.83	6.64	8.21	9.19	..
Philippines	1.03	1.46	1.82	3.14	3.88	4.75	6.38	6.69	..
Singapore	0.25	0.47	1.11	2.35	3.05	3.63	4.18	4.27	..
Sri Lanka	0.08	0.12	0.22	0.42	0.53	0.79	1.09	1.15	..
Chinese Taipei	1.50	3.17	6.59	13.76	17.10	18.77	20.33	20.77	..
Thailand	0.53	1.12	3.30	7.56	10.42	12.84	15.91	15.93	..
Viet Nam	0.16	0.23	0.53	1.93	4.05	7.47	13.53	14.86	..
Other non-OECD Asia	0.08	0.28	0.41	0.72	0.97	1.48	2.43	2.55	..
Non-OECD Asia excl. China	10.81	18.65	42.06	81.59	108.53	147.01	207.23	216.77	..
People's Rep. of China	11.83	21.34	39.03	89.13	171.51	296.71	445.15	476.11	..
Hong Kong, China	0.52	0.94	2.05	3.12	3.44	3.61	3.80	3.77	..
China	12.35	22.28	41.08	92.25	174.95	300.32	448.94	479.89	..
Argentina	1.96	2.83	3.47	6.49	7.76	9.70	11.35	11.09	..
Bolivia	0.07	0.12	0.15	0.30	0.37	0.53	0.71	0.72	..
Brazil	4.66	10.19	18.13	27.61	31.10	37.65	42.23	42.86	43.41
Colombia	0.77	1.37	2.31	2.87	3.35	4.06	5.17	5.29	..
Costa Rica	0.10	0.17	0.28	0.49	0.63	0.74	0.84	0.85	..
Cuba	0.38	0.61	1.03	1.01	1.04	1.18	1.40	1.33	..
Curaçao ¹	0.05	0.05	0.05	0.07	0.08	0.08	0.06	0.06	..
Dominican Republic	0.16	0.21	0.27	0.94	0.95	1.05	1.34	1.37	..
Ecuador	0.08	0.25	0.41	0.68	0.93	1.45	2.02	2.13	..
El Salvador	0.07	0.11	0.16	0.31	0.37	0.43	0.52	0.53	..
Guatemala	0.07	0.14	0.17	0.33	0.52	0.65	0.83	0.82	..
Haiti	0.01	0.02	0.03	0.03	0.03	0.02	0.04	0.04	..
Honduras	0.04	0.07	0.15	0.28	0.37	0.44	0.65	0.71	..
Jamaica	0.16	0.09	0.14	0.52	0.55	0.27	0.27	0.28	..
Nicaragua	0.05	0.08	0.09	0.13	0.17	0.23	0.32	0.30	..
Panama	0.08	0.13	0.18	0.33	0.41	0.54	0.74	0.77	..
Paraguay	0.02	0.07	0.17	0.38	0.41	0.59	0.95	0.99	..
Peru	0.52	0.75	1.01	1.49	1.96	2.95	3.90	3.99	..
Suriname	..	..	..	0.09	0.12	0.13	0.15	0.15	..
Trinidad and Tobago	0.07	0.15	0.27	0.41	0.55	0.68	0.87	0.90	..
Uruguay	0.16	0.24	0.33	0.57	0.56	0.80	0.96	0.93	..
Venezuela	1.00	2.37	3.87	5.22	6.12	7.02	6.21	6.10	..
Other non-OECD Americas	1.30	1.51	1.86	2.41	2.84	2.69	2.39	1.12	..
Non-OECD Americas	11.77	21.51	34.54	52.95	61.18	73.86	83.91	83.33	..
Bahrain	0.04	0.14	0.65	1.12	1.58	1.91	2.38	2.39	..
Islamic Republic of Iran	0.91	1.67	4.24	8.12	11.65	16.00	20.72	21.67	..
Iraq	0.29	0.93	1.96	2.51	1.94	3.03	3.33	3.44	..
Jordan	0.01	0.07	0.26	0.52	0.76	1.10	1.44	1.50	..
Kuwait	0.18	0.37	0.83	1.72	2.42	3.20	3.93	4.17	..
Lebanon	0.13	0.20	0.12	0.83	0.96	1.30	1.45	1.47	..
Oman	0.00	0.06	0.30	0.59	0.82	1.39	2.61	2.78	..
Qatar	0.04	0.19	0.39	0.66	1.04	2.12	3.19	3.44	..
Saudi Arabia	0.23	1.09	4.72	8.51	11.61	17.44	24.39	23.67	..
Syrian Arab Republic	0.11	0.26	0.71	1.25	2.02	2.89	1.13	1.14	..
United Arab Emirates	0.05	0.48	1.23	3.26	4.52	7.26	9.76	9.91	..
Yemen	0.02	0.04	0.11	0.18	0.28	0.43	0.34	0.35	..
Middle East	2.01	5.51	15.52	29.27	39.60	58.06	74.68	75.93	..

1. Please refer to section 'Geographical coverage'.

Total final consumption of energy (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	4 659.06	5 369.02	6 263.95	7 029.94	7 972.04	8 833.68	9 533.58	9 717.29	..
Non-OECD Total	1 659.47	2 245.43	2 944.32	3 113.81	3 892.85	4 771.32	5 464.60	5 593.31	..
OECD Total	2 815.68	2 945.43	3 117.71	3 642.68	3 761.30	3 703.75	3 672.64	3 711.46	..
Canada	131.43	155.07	161.79	191.54	195.96	190.34	192.10	195.93	..
Chile	6.52	7.30	11.10	20.38	21.84	23.86	26.49	26.71	..
Mexico	39.74	65.93	83.32	95.27	105.99	117.25	121.76	122.34	..
United States ²	1 315.46	1 311.37	1 293.56	1 546.29	1 563.08	1 512.99	1 517.33	1 520.46	..
OECD Americas	1 493.16	1 539.66	1 549.77	1 853.49	1 886.87	1 844.43	1 857.68	1 865.43	..
Australia	39.58	46.79	56.66	69.58	72.23	76.58	81.40	81.84	..
Israel ¹	3.61	4.51	6.97	11.98	11.95	14.84	14.94	15.60	..
Japan	233.98	235.62	287.34	332.41	335.04	311.93	289.34	292.80	..
Korea	17.49	31.29	64.91	127.11	140.45	157.69	178.71	183.15	..
New Zealand	5.83	6.91	9.76	12.95	12.55	13.01	14.43	14.65	..
OECD Asia Oceania	300.48	325.12	425.63	554.03	572.23	574.05	578.81	588.04	..
Austria	16.61	18.64	19.71	23.44	26.95	27.20	27.39	27.70	..
Belgium	33.73	32.29	32.22	41.80	41.72	42.28	41.40	40.73	..
Czech Republic	31.35	34.66	32.98	26.12	28.09	26.84	25.30	27.14	..
Denmark	15.31	14.74	13.17	14.24	14.93	14.97	13.74	13.89	..
Estonia	..	..	5.67	2.58	3.05	2.96	2.89	2.93	..
Finland	19.19	19.34	22.32	24.44	25.30	26.44	25.52	25.61	..
France	142.23	141.29	141.66	162.16	167.61	159.82	153.68	154.29	..
Germany	241.72	248.67	240.79	231.40	230.69	228.90	224.19	226.98	..
Greece	8.53	10.70	14.49	18.45	20.79	19.43	16.41	16.59	..
Hungary	16.53	21.57	20.69	17.22	20.47	18.97	19.33	20.22	..
Iceland	1.02	1.28	1.36	1.77	1.92	2.53	2.99	2.97	..
Ireland	5.11	6.34	7.55	10.78	12.23	11.50	10.90	10.89	..
Italy	96.56	102.23	114.95	128.84	141.29	133.75	117.89	118.93	..
Latvia	..	..	6.42	3.30	4.06	4.07	3.79	3.96	..
Lithuania	..	..	10.41	4.40	5.34	5.40	6.04	6.44	..
Luxembourg	2.87	2.71	2.78	3.26	4.09	3.94	3.58	3.66	..
Netherlands	47.66	54.32	53.86	59.33	63.01	65.26	57.72	58.79	..
Norway	13.36	15.98	17.43	19.80	20.45	21.33	20.53	20.59	..
Poland	60.55	78.01	61.44	57.77	61.86	69.98	70.67	75.08	..
Portugal	5.74	7.91	13.39	19.36	20.46	18.95	16.14	16.42	..
Slovak Republic	10.86	13.03	15.75	11.42	11.71	11.44	10.26	11.05	..
Slovenia	..	..	3.69	4.65	5.16	5.22	4.99	4.98	..
Spain	38.54	48.12	60.63	85.49	102.06	92.24	82.03	83.54	..
Sweden	34.82	34.60	32.12	35.30	34.56	34.86	33.35	33.65	..
Switzerland	16.67	16.62	18.24	19.27	20.29	20.53	18.83	18.62	..
Turkey	19.86	26.32	40.39	57.84	65.38	78.46	97.87	105.05	..
United Kingdom	143.23	131.29	138.17	150.74	148.72	137.99	128.72	127.27	..
OECD Europe	1 022.04	1 080.65	1 142.30	1 235.17	1 302.20	1 285.26	1 236.14	1 257.98	..
International marine bunkers	121.55	110.88	115.62	155.01	177.50	205.80	211.35	217.15	..
International aviation bunkers	62.36	67.28	86.30	118.43	140.39	152.82	184.99	195.37	..
IEA	2 804.52	2 932.34	3 077.76	3 596.21	3 711.02	3 647.82	3 613.40	3 650.80	..
IEA/Accession/Association	3 477.20	3 811.90	4 271.28	5 107.61	5 777.39	6 328.42	6 772.27	6 872.85	..
European Union - 28	..	..	1 133.50	1 178.16	1 240.28	1 204.72	1 137.77	1 154.03	..
G7	2 304.60	2 325.53	2 378.25	2 743.39	2 782.38	2 675.71	2 623.24	2 636.67	..
G8	..	..	3 003.30	3 161.27	3 194.35	3 122.35	3 087.99	3 124.62	..
G20	..	..	4 964.18	5 559.80	6 222.04	6 825.49	7 288.14	7 410.31	..
OPEC	..	..	247.88	363.81	461.46	591.90	673.71	683.52	..

World includes international marine bunkers and international aviation bunkers.

1. Please refer to section 'Geographical coverage'.

2. For the United States, fuels used by autoproducers of electricity and heat have been included in final consumption for some years.

Total final consumption of energy (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	1 659.47	2 245.43	2 944.32	3 113.81	3 892.85	4 771.32	5 464.60	5 593.31	..
Albania	1.42	2.69	2.18	1.54	1.94	2.00	1.99	2.09	..
Armenia	..	..	6.48	1.11	1.71	1.83	2.08	2.23	..
Azerbaijan	..	..	16.71	6.53	8.06	6.92	8.99	8.89	..
Belarus	..	..	34.49	18.03	19.03	19.62	18.44	18.89	..
Bosnia and Herzegovina	..	..	4.89	2.26	2.61	3.22	3.61	3.55	..
Bulgaria	15.78	19.62	17.45	9.54	10.37	9.12	9.95	10.15	..
Croatia	..	..	7.04	6.60	7.85	7.72	7.05	7.32	..
Cyprus ¹	0.55	0.61	0.88	1.44	1.59	1.71	1.51	1.57	..
Georgia	..	..	8.98	2.30	2.22	2.66	4.33	4.37	..
Gibraltar	0.02	0.03	0.05	0.11	0.13	0.15	0.19	0.21	..
Kazakhstan	..	..	59.63	21.61	30.60	38.78	40.36	40.70	..
Kosovo	..	..	..	0.77	0.98	1.19	1.47	1.56	..
Kyrgyzstan	..	..	6.91	1.70	1.84	2.27	3.48	3.54	..
Malta	0.15	0.16	0.27	0.32	0.39	0.41	0.47	0.50	..
Republic of Moldova	..	..	6.68	1.60	2.39	2.72	2.81	3.02	..
Montenegro	..	..	..	..	0.76	0.76	0.72	0.76	..
North Macedonia, Republic of	..	..	1.51	1.57	1.78	1.82	1.98	1.94	..
Romania	35.34	57.90	43.00	23.78	25.92	23.34	22.88	23.76	..
Russian Federation	..	..	625.05	417.89	411.97	446.65	464.75	487.95	..
Serbia	..	..	12.02	7.15	9.74	9.48	9.08	9.25	..
Tajikistan	..	..	4.68	1.80	1.94	1.96	2.65	2.70	..
Turkmenistan	..	..	12.49	9.22	12.02	14.52	17.96	17.97	..
Ukraine	..	..	150.17	72.35	81.93	73.95	51.80	49.91	..
Uzbekistan	..	..	34.96	36.83	34.20	31.78	23.26	22.80	..
Former Soviet Union	562.52	767.89	x	x	x	x	x	x	x
Former Yugoslavia	17.00	20.44	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	632.79	869.34	1 056.50	646.04	671.98	704.57	701.81	725.63	..
Algeria	2.78	5.88	12.72	15.40	20.61	26.44	37.79	38.36	..
Angola	3.13	3.42	4.53	5.30	6.04	9.12	10.67	9.72	..
Benin	1.03	1.18	1.44	1.67	2.26	3.03	4.08	4.17	..
Botswana	..	..	0.89	1.41	1.49	1.67	1.98	1.99	..
Cameroon	2.69	3.48	4.75	5.94	6.84	5.82	7.30	7.41	..
Congo	0.44	0.51	0.62	0.48	0.75	1.25	1.92	1.93	..
Côte d'Ivoire	1.80	2.48	2.91	4.33	5.04	5.71	7.07	7.23	..
Dem. Rep. of the Congo	6.65	8.11	10.60	13.67	16.33	18.94	21.94	25.23	..
Egypt	7.11	13.29	23.20	31.53	42.14	52.90	57.96	60.86	..
Eritrea	..	..	..	0.53	0.48	0.49	0.53	0.54	..
Ethiopia	10.75	12.20	16.77	23.41	27.31	31.51	38.54	39.86	..
Gabon	0.68	1.01	1.01	1.36	2.80	4.79	4.72	4.68	..
Ghana	2.92	3.42	4.32	5.39	4.77	5.22	6.80	6.96	..
Kenya	3.98	5.19	7.35	9.43	10.66	13.05	16.63	16.93	..
Libya	1.24	3.99	5.49	9.39	10.44	13.28	8.99	8.85	..
Mauritius	0.36	0.39	0.53	0.65	0.72	0.74	0.83	0.84	..
Morocco	3.02	4.44	5.65	8.54	11.21	13.22	15.37	16.09	..
Mozambique	5.37	5.27	4.75	6.54	7.74	5.02	5.58	5.72	..
Namibia	..	..	..	0.99	1.25	1.45	1.82	1.85	..
Niger	..	..	..	1.38	1.63	2.07	2.79	2.90	..
Nigeria	34.36	45.85	59.32	78.36	93.53	105.88	129.72	132.41	..
Senegal	0.88	1.05	1.08	1.47	1.72	2.56	3.01	3.09	..
South Africa	37.09	43.74	51.05	54.59	59.98	61.08	63.90	67.81	..
South Sudan	..	..	..	..	..	..	0.56	0.47	..
Sudan	4.37	4.66	6.07	7.50	9.39	11.79	12.77	12.87	..
United Rep. of Tanzania	6.83	7.12	8.75	12.08	13.48	14.97	17.25	17.69	..
Togo	0.48	0.59	0.85	1.28	1.45	2.03	2.31	2.38	..
Tunisia	1.45	2.36	3.64	5.51	6.70	7.43	8.01	8.36	..
Zambia	3.29	3.65	4.31	4.99	6.00	6.85	8.87	9.53	..
Zimbabwe	5.43	6.11	7.95	8.66	8.09	8.52	9.67	9.93	..
Other Africa	22.39	26.88	36.75	42.64	50.88	57.99	65.62	67.24	..
Africa	170.52	216.26	287.30	364.42	431.73	494.81	574.99	593.92	..

1. Please refer to section 'Geographical coverage'.

Total final consumption of energy (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	5.92	7.78	10.88	15.16	18.32	22.81	29.00	30.82	..
Brunei Darussalam	0.10	0.21	0.35	0.57	0.63	1.31	1.33	1.33	..
Cambodia	..	..	..	2.95	2.87	4.56	6.36	6.62	..
DPR of Korea	16.94	25.14	27.19	16.83	18.23	12.77	7.38	6.02	..
India	143.37	173.90	242.88	314.09	358.29	484.50	569.37	591.23	..
Indonesia	34.13	49.65	79.97	120.23	132.45	141.45	165.02	173.73	..
Malaysia	4.52	6.92	13.41	29.11	37.30	41.74	55.13	60.59	..
Mongolia	..	..	2.80	1.47	2.00	2.67	3.33	3.53	..
Myanmar	7.16	8.36	9.40	11.47	12.89	12.85	17.16	19.79	..
Nepal	3.86	4.55	5.76	8.04	9.05	10.11	12.68	13.40	..
Pakistan	16.86	22.49	36.21	51.06	62.48	70.22	84.80	90.10	..
Philippines	14.34	16.31	19.65	23.92	22.79	23.71	31.64	33.41	..
Singapore	1.40	2.13	5.01	8.31	13.46	15.27	23.40	24.67	..
Sri Lanka	3.90	4.28	5.30	7.36	8.05	8.79	9.80	10.15	..
Chinese Taipei	9.41	18.52	29.42	48.69	61.03	68.07	70.28	70.05	..
Thailand	10.88	15.18	28.87	50.58	69.89	84.90	97.18	98.94	..
Viet Nam	13.12	13.06	16.06	25.09	35.16	48.38	61.41	64.05	..
Other non-OECD Asia	5.57	6.99	5.90	7.07	7.84	10.55	14.02	14.52	..
Non-OECD Asia excl. China	291.47	375.46	539.05	742.00	872.73	1 064.67	1 259.29	1 312.97	..
People's Rep. of China	363.54	487.31	657.59	781.19	1 227.11	1 645.01	1 973.52	1 995.06	..
Hong Kong, China	2.06	2.91	5.22	9.38	7.46	8.20	9.18	9.38	..
China	365.60	490.22	662.81	790.58	1 234.58	1 653.21	1 982.71	2 004.44	..
Argentina	24.81	29.30	30.07	47.21	50.82	56.70	62.00	61.03	..
Bolivia	0.99	1.96	2.16	2.90	3.40	4.90	6.94	7.43	..
Brazil	72.73	95.92	111.40	153.48	172.13	211.30	224.62	227.81	223.56
Colombia	11.19	14.38	18.93	21.11	21.69	22.43	31.29	29.42	..
Costa Rica	0.81	1.14	1.47	2.27	3.00	3.43	3.91	3.98	..
Cuba	8.71	11.16	13.93	9.70	6.91	7.03	7.97	7.83	..
Curaçao ¹	2.20	1.09	0.63	0.87	0.93	0.99	0.69	0.69	..
Dominican Republic	2.01	2.34	2.38	4.74	4.93	5.45	6.34	6.25	..
Ecuador	2.18	3.98	5.58	6.72	8.06	10.28	11.74	12.28	..
El Salvador	1.81	2.06	2.03	2.23	2.46	2.34	2.34	2.39	..
Guatemala	2.58	3.29	4.04	5.98	6.34	8.50	10.84	11.39	..
Haiti	1.33	1.70	1.23	1.71	2.68	2.91	3.31	3.35	..
Honduras	1.41	1.78	2.33	2.73	3.33	3.79	4.99	5.16	..
Jamaica	2.09	1.79	1.89	2.01	2.66	1.77	2.03	1.91	..
Nicaragua	1.18	1.34	1.47	1.91	1.99	2.05	2.59	2.58	..
Panama	0.89	1.13	1.22	1.80	2.34	2.87	3.56	3.63	..
Paraguay	1.43	1.97	2.93	3.65	3.66	4.37	6.01	6.35	..
Peru	8.19	9.16	8.56	10.60	10.98	15.25	18.52	19.19	..
Suriname	..	..	..	0.52	0.46	0.54	0.55	0.55	..
Trinidad and Tobago	1.10	1.76	3.71	7.22	11.35	14.02	11.65	12.16	..
Uruguay	1.92	2.12	1.93	2.51	2.38	3.63	4.70	4.75	..
Venezuela	12.29	21.56	25.82	32.82	40.69	49.16	33.04	29.80	..
Other non-OECD Americas	3.83	3.66	4.76	5.34	5.53	5.29	4.72	3.42	..
Non-OECD Americas	165.68	214.61	248.48	330.03	368.70	438.98	464.37	463.35	..
Bahrain	0.72	1.27	2.09	3.05	4.23	5.12	6.32	6.28	..
Islamic Republic of Iran	16.60	27.58	54.71	94.79	126.82	157.56	187.72	194.37	..
Iraq	3.02	7.77	15.25	18.94	18.40	19.08	18.50	20.27	..
Jordan	0.46	1.16	2.33	3.54	4.58	4.54	6.12	6.59	..
Kuwait	3.93	6.26	3.95	8.15	12.17	15.05	19.16	19.33	..
Lebanon	1.69	1.48	1.14	3.31	3.55	3.91	5.29	5.47	..
Oman	0.09	0.55	1.84	3.04	4.98	12.25	20.36	21.26	..
Qatar	0.73	1.92	3.77	5.82	8.46	12.72	18.00	18.30	..
Saudi Arabia	3.07	21.14	39.49	63.52	83.42	120.65	139.48	140.71	..
Syrian Arab Republic	1.47	3.85	7.61	10.24	13.85	13.96	5.45	5.32	..
United Arab Emirates	1.13	5.57	16.19	23.04	27.71	44.87	52.64	52.85	..
Yemen	0.51	0.99	1.81	3.32	4.96	5.36	2.41	2.26	..
Middle East	33.42	79.54	150.18	240.75	313.13	415.07	481.45	493.00	..

1. Please refer to section 'Geographical coverage'.

Industry consumption of coal (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	361.67	426.10	482.73	421.48	682.21	894.17	903.75	867.96	..
Non-OECD Total	175.77	263.50	325.51	305.57	574.33	794.65	819.21	781.62	..
OECD Total	185.89	162.60	157.22	115.91	107.88	99.52	84.55	86.34	..
Canada	4.89	4.22	3.16	3.55	3.60	3.09	2.46	2.65	..
Chile	0.46	0.44	0.52	0.59	0.57	0.40	0.21	0.29	..
Mexico	1.37	1.61	0.94	0.76	2.68	3.90	1.77	3.33	..
United States	60.25	48.25	46.02	30.36	28.80	25.35	16.97	16.54	..
OECD Americas	66.97	54.52	50.64	35.26	35.65	32.74	21.40	22.81	..
Australia	4.90	4.09	4.28	4.04	3.62	2.43	2.39	2.51	..
Israel ¹	0.00	0.00	0.01	0.02	-	-	-	-	..
Japan	18.65	21.42	27.19	21.01	22.73	22.72	21.15	21.63	..
Korea	0.39	1.35	3.05	8.51	6.79	8.69	8.87	8.10	..
New Zealand	0.68	0.56	0.54	0.43	0.48	0.52	0.49	0.48	..
OECD Asia Oceania	24.62	27.42	35.08	34.01	33.63	34.35	32.90	32.72	..
Austria	0.76	0.92	0.71	0.66	0.47	0.42	0.40	0.43	..
Belgium	3.55	3.20	3.01	2.59	1.39	1.04	1.29	1.26	..
Czech Republic	11.43	11.69	7.21	3.32	2.84	1.56	1.41	1.51	..
Denmark	0.23	0.39	0.32	0.27	0.21	0.11	0.11	0.11	..
Estonia	..	..	0.37	0.11	0.11	0.09	0.08	0.09	..
Finland	0.94	1.01	1.54	0.95	0.77	0.75	0.53	0.50	..
France	7.28	5.40	4.35	2.59	2.48	2.24	2.47	2.78	..
Germany	29.51	26.48	21.08	7.66	6.12	6.09	6.72	6.64	..
Greece	0.46	0.42	1.18	0.85	0.44	0.30	0.19	0.19	..
Hungary	1.57	1.29	0.57	0.33	0.36	0.26	0.21	0.30	..
Iceland	-	0.02	0.06	0.10	0.10	0.09	0.10	0.10	..
Ireland	0.07	0.12	0.24	0.10	0.21	0.11	0.11	0.10	..
Italy	2.66	2.98	3.29	2.45	2.51	1.75	0.95	0.71	..
Latvia	..	..	0.03	0.01	0.03	0.05	0.02	0.02	..
Lithuania	..	..	0.05	0.01	0.09	0.09	0.09	0.09	..
Luxembourg	0.94	1.02	0.52	0.11	0.08	0.07	0.05	0.04	..
Netherlands	0.76	0.69	1.47	0.83	0.83	0.70	0.75	0.82	..
Norway	0.76	0.84	0.77	0.95	0.67	0.58	0.62	0.62	..
Poland	10.80	10.85	6.74	7.48	4.83	3.82	3.38	3.65	..
Portugal	0.14	0.20	0.59	0.43	0.02	0.05	0.01	0.01	..
Slovak Republic	2.66	1.79	1.93	1.16	1.06	0.84	0.76	0.79	..
Slovenia	..	..	0.12	0.09	0.11	0.05	0.04	0.05	..
Spain	3.59	2.18	2.81	1.11	1.19	0.77	0.53	0.77	..
Sweden	0.89	0.83	1.00	0.74	0.92	0.84	0.71	0.69	..
Switzerland	0.11	0.23	0.31	0.11	0.10	0.14	0.11	0.11	..
Turkey	1.14	2.17	4.54	8.90	8.26	7.37	6.88	6.90	..
United Kingdom	14.04	5.96	6.67	2.72	2.42	2.27	1.74	1.54	..
OECD Europe	94.30	80.66	71.50	46.64	38.61	32.43	30.25	30.81	..
IEA	185.43	162.14	156.42	115.09	107.00	98.84	84.09	85.80	..
IEA/Accession/Association	293.58	325.35	394.83	371.17	619.36	823.30	808.09	774.03	..
European Union - 28	..	..	69.21	37.89	31.29	25.37	23.41	23.94	..
G7	137.29	114.72	111.76	70.34	68.67	63.51	52.45	52.49	..
G8	..	..	126.32	78.34	76.23	73.66	77.22	76.80	..
G20	..	..	409.36	374.83	621.31	825.21	827.68	791.59	..
OPEC	..	..	0.82	0.53	0.96	1.25	2.57	3.04	..

Includes non-energy use for industry/transformation/energy.

1. Please refer to section 'Geographical coverage'.

Industry consumption of coal (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	175.77	263.50	325.51	305.57	574.33	794.65	819.21	781.62	..
Albania	0.20	0.34	0.17	0.01	0.01	0.11	0.05	0.11	..
Armenia	..	..	-	-	-	-	-	-	..
Azerbaijan	..	..	-	-	-	-	-	-	..
Belarus	..	..	0.07	0.07	0.07	0.08	0.51	0.53	..
Bosnia and Herzegovina	..	..	0.76	0.30	0.15	0.19	0.20	0.22	..
Bulgaria	2.43	2.55	0.87	0.49	0.51	0.27	0.23	0.25	..
Croatia	..	..	0.38	0.06	0.14	0.14	0.06	0.07	..
Cyprus ¹	-	-	0.06	0.03	0.04	0.02	-	0.00	..
Georgia	..	..	0.58	-	0.01	0.01	0.25	0.27	..
Gibraltar	-	-	-	-	-	-	-	-	..
Kazakhstan	..	..	15.78	3.84	7.33	10.89	10.84	10.17	..
Kosovo	..	..	..	0.03	0.03	0.05	0.03	0.02	..
Kyrgyzstan	..	..	2.08	0.20	0.06	0.07	0.12	0.12	..
Malta	-	-	-	-	-	-	-	-	..
Republic of Moldova	..	..	0.20	0.01	0.01	0.03	0.02	0.03	..
Montenegro	..	..	..	..	0.01	0.00	0.01	0.01	..
North Macedonia, Republic of	..	..	0.11	0.10	0.13	0.11	0.13	0.10	..
Romania	1.74	3.43	2.08	0.73	1.14	0.70	0.58	0.53	..
Russian Federation	..	..	14.56	8.00	7.56	10.15	24.77	24.31	..
Serbia	..	..	0.38	0.68	0.45	0.44	0.44	0.36	..
Tajikistan	..	..	-	-	-	-	0.22	0.37	..
Turkmenistan	..	..	-	-	-	-	-	-	..
Ukraine	..	..	17.99	7.30	9.65	7.29	5.87	4.90	..
Uzbekistan	..	..	-	0.08	0.07	0.06	0.26	0.24	..
Former Soviet Union	42.09	66.61	x	x	x	x	x	x	x
Former Yugoslavia	3.05	1.58	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	49.50	74.50	56.08	21.94	27.35	30.60	44.55	42.60	..
Algeria	0.06	0.03	0.25	0.08	0.17	0.12	-	0.07	..
Angola	-	-	-	-	-	-	-	-	..
Benin	-	-	-	-	-	-	0.07	0.08	..
Botswana	..	..	0.10	0.15	0.15	0.03	0.04	0.04	..
Cameroon	-	-	-	-	-	-	-	-	..
Congo	-	-	-	-	-	-	-	-	..
Côte d'Ivoire	-	-	-	-	-	-	-	-	..
Dem. Rep. of the Congo	0.18	0.13	0.14	-	-	-	-	-	..
Egypt	0.12	0.24	0.35	0.44	0.46	0.23	0.18	0.19	..
Eritrea	..	..	..	-	-	-	-	-	..
Ethiopia	-	-	-	-	-	0.03	0.32	0.36	..
Gabon	-	-	-	-	-	-	-	-	..
Ghana	-	-	-	-	-	-	-	-	..
Kenya	0.01	0.01	0.09	0.07	0.09	0.17	0.49	0.46	..
Libya	-	-	-	-	-	-	-	-	..
Mauritius	-	-	0.01	0.01	0.01	0.02	0.02	0.02	..
Morocco	0.07	0.02	0.35	0.53	0.02	0.02	0.02	0.02	..
Mozambique	0.35	0.15	0.02	-	-	0.00	-	-	..
Namibia	..	..	..	-	-	-	-	-	..
Niger	..	..	..	-	-	-	-	-	..
Nigeria	0.08	0.09	0.04	0.00	0.00	0.02	0.03	0.03	..
Senegal	-	-	-	-	0.09	0.18	0.32	0.26	..
South Africa	10.96	15.31	13.87	14.35	14.07	11.66	10.59	9.71	..
South Sudan	..	..	..	..	..	..	-	-	..
Sudan	-	0.00	-	-	-	-	-	-	..
United Rep. of Tanzania	-	0.00	0.00	0.03	0.01	-	0.17	0.35	..
Togo	-	-	-	-	-	-	-	-	..
Tunisia	0.05	0.04	0.05	0.04	-	-	-	-	..
Zambia	0.47	0.31	0.18	0.06	0.07	0.00	0.10	0.10	..
Zimbabwe	0.68	0.77	1.03	0.61	0.31	0.28	0.24	0.26	..
Other Africa	0.03	0.16	0.33	0.43	0.44	0.48	0.71	0.73	..
Africa	13.06	17.29	16.80	16.81	15.91	13.24	13.31	12.68	..

Includes non-energy use for industry/transformation/energy.

1. Please refer to section 'Geographical coverage'.

Industry consumption of coal (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	0.12	0.12	0.28	0.33	0.42	0.56	1.32	1.70	..
Brunei Darussalam	-	-	-	-	-	-	-	-	..
Cambodia	..	..	..	..	..	0.00	0.02	0.05	..
DPR of Korea	11.33	16.23	18.09	10.68	11.74	7.50	3.66	2.73	..
India	9.73	13.45	26.38	25.77	35.96	74.97	84.46	89.27	..
Indonesia	0.03	0.08	2.27	4.65	8.34	7.97	9.49	11.14	..
Malaysia	0.01	0.05	0.51	0.99	1.34	1.83	1.78	1.80	..
Mongolia	..	..	0.54	0.09	0.07	0.18	0.12	0.10	..
Myanmar	0.04	0.14	0.05	0.30	0.15	0.22	0.29	0.22	..
Nepal	0.05	0.05	0.04	0.26	0.24	0.30	0.69	0.79	..
Pakistan	0.50	0.62	1.52	1.38	3.42	3.95	5.69	7.50	..
Philippines	0.00	0.22	0.61	0.77	1.12	1.88	2.84	3.10	..
Singapore	0.00	0.00	0.02	-	0.00	0.01	0.17	0.17	..
Sri Lanka	0.00	0.00	0.00	0.00	0.07	0.07	0.05	0.05	..
Chinese Taipei	1.83	2.10	3.58	4.96	5.97	7.41	8.53	7.82	..
Thailand	0.02	0.09	1.31	3.54	6.75	9.21	6.07	7.49	..
Viet Nam	0.00	0.93	1.02	2.34	3.96	8.23	12.09	12.41	..
Other non-OECD Asia	0.97	1.85	0.19	0.30	0.33	1.02	1.43	1.46	..
Non-OECD Asia excl. China	24.64	35.94	56.43	56.34	79.90	125.31	138.70	147.79	..
People's Rep. of China	86.21	131.87	190.14	201.08	441.26	613.03	606.49	562.67	..
Hong Kong, China	0.01	0.00	0.00	-	0.53	0.94	1.27	1.18	..
China	86.22	131.87	190.14	201.08	441.79	613.97	607.76	563.84	..
Argentina	0.27	0.21	0.19	0.38	0.42	0.39	0.22	0.24	..
Bolivia	-	-	-	-	-	-	-	-	..
Brazil	0.67	1.93	3.55	5.58	5.38	7.19	6.51	7.48	7.75
Colombia	0.91	1.18	1.48	2.17	1.65	1.47	3.95	2.55	..
Costa Rica	0.00	0.00	-	0.00	0.00	0.00	0.00	0.01	..
Cuba	0.06	0.08	0.13	0.02	0.02	0.02	0.00	0.00	..
Curaçao ¹	-	-	-	-	-	-	-	-	..
Dominican Republic	-	-	-	0.08	0.22	0.32	0.40	0.37	..
Ecuador	-	-	-	-	-	-	-	-	..
El Salvador	-	0.00	-	0.00	0.00	-	-	-	..
Guatemala	-	0.01	-	-	-	-	-	-	..
Haiti	-	-	0.01	-	-	-	-	-	..
Honduras	-	-	0.00	0.08	0.15	0.14	0.12	0.12	..
Jamaica	-	-	0.03	0.03	0.04	0.03	0.06	0.05	..
Nicaragua	-	-	-	-	-	-	-	-	..
Panama	0.01	-	0.02	0.04	-	-	-	-	..
Paraguay	-	-	-	-	-	-	0.00	0.00	..
Peru	0.09	0.09	0.10	0.44	0.60	0.61	0.62	0.53	..
Suriname	..	..	..	-	-	-	-	-	..
Trinidad and Tobago	-	-	-	-	-	-	-	-	..
Uruguay	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	..
Venezuela	0.16	0.10	0.35	0.13	0.04	0.20	0.12	0.13	..
Other non-OECD Americas	-	-	-	-	-	-	-	-	..
Non-OECD Americas	2.17	3.62	5.87	8.96	8.51	10.38	12.00	11.47	..
Bahrain	-	-	-	-	-	-	-	-	..
Islamic Republic of Iran	0.17	0.28	0.18	0.31	0.60	0.25	0.58	0.69	..
Iraq	-	-	-	-	-	-	-	-	..
Jordan	-	-	-	-	-	-	0.22	0.16	..
Kuwait	-	-	-	-	-	-	-	-	..
Lebanon	0.01	0.00	-	0.13	0.13	0.15	0.17	0.17	..
Oman	-	-	-	-	-	-	-	-	..
Qatar	-	-	-	-	-	-	-	-	..
Saudi Arabia	-	-	-	-	-	-	-	-	..
Syrian Arab Republic	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	..
United Arab Emirates	-	-	-	-	0.15	0.66	1.84	2.13	..
Yemen	-	-	-	-	-	0.10	0.08	0.08	..
Middle East	0.18	0.28	0.18	0.45	0.88	1.17	2.89	3.23	..

Includes non-energy use for industry/transformation/energy.

1. Please refer to section 'Geographical coverage'.

Industry consumption of oil (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	701.44	768.37	678.49	783.76	861.38	885.19	893.83	917.83	..
Non-OECD Total	184.17	269.33	263.31	325.16	381.75	453.00	493.92	511.81	..
OECD Total	517.26	499.04	415.18	458.60	479.63	432.19	399.91	406.02	..
Canada	20.85	20.28	17.13	20.48	22.17	21.02	23.28	20.70	..
Chile	1.21	1.26	1.51	2.13	2.24	3.33	4.19	3.95	..
Mexico	5.34	9.10	14.12	13.81	12.51	12.66	11.87	11.17	..
United States	157.11	187.39	144.53	156.44	180.45	153.65	130.74	132.07	..
OECD Americas	184.51	218.03	177.30	192.86	217.37	190.66	170.08	167.89	..
Australia	7.94	7.93	6.38	7.63	7.22	6.90	7.90	7.69	..
Israel ¹	1.12	1.44	1.68	2.25	1.70	2.32	2.25	2.46	..
Japan	95.20	70.73	68.37	70.47	66.48	56.56	52.11	52.92	..
Korea	6.40	10.07	17.61	35.49	37.64	43.16	52.39	54.90	..
New Zealand	0.99	0.83	0.60	0.64	0.71	0.77	0.83	0.77	..
OECD Asia Oceania	111.64	91.00	94.64	116.48	113.74	109.70	115.47	118.75	..
Austria	3.06	1.89	1.80	1.85	1.96	1.97	1.85	1.67	..
Belgium	7.79	4.45	4.18	7.57	7.39	7.63	8.05	7.52	..
Czech Republic	5.04	5.93	4.50	2.59	3.05	2.63	1.26	2.43	..
Denmark	3.38	2.52	1.17	1.00	1.00	0.77	0.63	0.64	..
Estonia	..	..	0.76	0.13	0.18	0.13	0.12	0.12	..
Finland	5.00	3.73	2.67	2.55	2.65	2.52	2.63	2.57	..
France	34.42	29.97	17.22	18.84	18.77	15.45	14.39	14.92	..
Germany	46.05	36.06	26.40	27.39	26.04	23.56	20.49	21.81	..
Greece	2.37	3.04	2.05	2.50	2.36	2.06	1.61	1.50	..
Hungary	2.22	3.24	2.08	1.53	2.10	1.75	1.98	2.31	..
Iceland	0.13	0.15	0.11	0.14	0.17	0.05	0.06	0.06	..
Ireland	1.61	1.59	0.84	1.34	1.46	0.97	0.73	0.71	..
Italy	29.40	22.25	16.50	13.48	13.46	12.14	7.94	8.75	..
Latvia	..	..	0.48	0.21	0.16	0.14	0.11	0.12	..
Lithuania	..	..	1.41	0.26	0.28	0.20	0.22	0.23	..
Luxembourg	0.80	0.20	0.29	0.09	0.05	0.04	0.04	0.04	..
Netherlands	10.08	13.74	10.43	11.05	13.90	14.32	13.82	14.33	..
Norway	2.99	3.55	2.77	2.43	2.73	2.76	2.58	2.75	..
Poland	2.92	4.61	2.98	3.86	3.73	4.15	3.80	4.17	..
Portugal	1.74	2.54	3.80	4.55	3.87	2.70	1.73	1.79	..
Slovak Republic	1.73	2.90	2.89	1.48	1.11	0.89	0.68	0.78	..
Slovenia	..	..	0.23	0.39	0.35	0.24	0.21	0.23	..
Spain	13.32	15.83	10.93	14.30	13.01	11.22	7.05	7.02	..
Sweden	8.13	6.08	3.97	4.61	3.92	3.09	2.83	2.90	..
Switzerland	3.61	2.71	1.49	1.30	1.24	1.06	0.74	0.72	..
Turkey	2.59	4.17	6.04	7.95	7.60	7.43	7.88	8.46	..
United Kingdom	32.75	18.86	15.23	15.89	15.99	11.97	10.92	10.84	..
OECD Europe	221.12	190.01	143.24	149.26	148.51	131.83	114.36	119.38	..
IEA	514.80	496.19	409.76	453.22	474.72	425.90	392.87	398.98	..
IEA/Accession/Association	564.17	566.35	500.27	611.99	669.97	662.55	667.69	678.80	..
European Union - 28	..	..	138.78	142.41	141.58	123.16	105.82	110.10	..
G7	415.77	385.54	305.38	322.97	343.35	294.34	259.87	262.01	..
G8	..	..	349.00	358.61	375.79	337.56	302.34	307.46	..
G20	..	..	554.02	662.03	711.59	717.69	715.11	734.19	..
OPEC	..	..	38.00	52.70	64.51	84.88	88.30	94.69	..

Includes non-energy use for industry/transformation/energy.

1. Please refer to section 'Geographical coverage'.

Industry consumption of oil (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	184.17	269.33	263.31	325.16	381.75	453.00	493.92	511.81	..
Albania	0.06	0.66	0.56	0.18	0.21	0.26	0.21	0.19	..
Armenia	..	..	0.74	0.02	0.04	0.04	0.04	0.04	..
Azerbaijan	..	..	1.36	0.90	1.09	0.55	0.83	1.04	..
Belarus	..	..	9.26	2.29	2.26	1.69	1.32	1.27	..
Bosnia and Herzegovina	..	..	0.75	0.06	0.09	0.17	0.19	0.20	..
Bulgaria	0.35	0.66	1.84	1.50	1.33	0.51	0.35	0.48	..
Croatia	..	..	0.94	0.66	0.80	0.50	0.42	0.42	..
Cyprus ¹	0.19	0.27	0.20	0.45	0.30	0.23	0.18	0.17	..
Georgia	..	..	0.92	0.07	0.10	0.10	0.18	0.19	..
Gibraltar	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.03	..
Kazakhstan	..	..	7.38	2.00	3.07	2.50	4.82	4.44	..
Kosovo	..	..	..	0.08	0.10	0.12	0.19	0.23	..
Kyrgyzstan	..	..	-	0.01	0.04	0.14	0.13	0.09	..
Malta	-	0.00	0.01	-	0.03	0.02	0.02	0.03	..
Republic of Moldova	..	..	0.00	0.01	0.01	0.03	0.04	0.04	..
Montenegro	..	..	..	..	0.11	0.08	0.07	0.08	..
North Macedonia, Republic of	..	..	0.41	0.19	0.23	0.23	0.27	0.19	..
Romania	2.16	3.72	2.96	2.37	2.34	1.37	1.74	1.61	..
Russian Federation	..	..	43.62	35.64	32.44	43.22	42.47	45.45	..
Serbia	..	..	2.47	0.31	1.13	0.88	0.92	0.90	..
Tajikistan	..	..	-	-	-	-	0.03	0.03	..
Turkmenistan	..	..	-	-	-	-	-	-	..
Ukraine	..	..	15.44	2.42	3.43	2.22	0.70	1.06	..
Uzbekistan	..	..	1.92	0.97	0.70	0.53	0.36	0.34	..
Former Soviet Union	89.45	119.16	x	x	x	x	x	x	x
Former Yugoslavia	3.76	5.24	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	95.98	129.73	90.82	50.14	49.88	55.42	55.50	58.51	..
Algeria	0.48	0.95	1.45	1.57	1.58	1.80	1.38	1.24	..
Angola	0.10	0.10	0.29	0.33	0.28	0.46	0.56	0.42	..
Benin	0.00	0.01	0.01	0.05	0.04	0.04	0.05	0.03	..
Botswana	..	..	0.03	0.09	0.11	0.16	0.20	0.20	..
Cameroon	0.02	0.05	0.09	0.09	0.08	0.12	0.08	0.08	..
Congo	0.05	0.02	0.03	0.02	0.02	0.03	0.05	0.06	..
Côte d'Ivoire	0.26	0.26	0.19	0.27	0.14	0.20	0.37	0.31	..
Dem. Rep. of the Congo	0.00	0.00	0.10	0.02	0.04	0.05	0.03	0.02	..
Egypt	2.62	4.76	7.60	6.93	7.52	7.51	6.48	6.88	..
Eritrea	..	..	..	0.02	0.03	0.01	0.01	0.01	..
Ethiopia	0.12	0.11	0.21	0.29	0.41	0.56	0.98	1.08	..
Gabon	0.13	0.27	0.05	0.19	0.19	0.30	0.39	0.39	..
Ghana	0.16	0.16	0.17	0.28	0.39	0.53	0.71	0.81	..
Kenya	0.22	0.35	0.38	0.44	0.54	0.74	0.79	0.76	..
Libya	0.13	0.75	1.04	1.65	1.38	2.36	0.92	1.05	..
Mauritius	0.01	0.03	0.04	0.10	0.09	0.09	0.08	0.08	..
Morocco	0.91	1.57	1.43	1.36	2.13	2.48	2.29	2.60	..
Mozambique	0.04	0.00	0.02	0.03	0.08	0.10	0.16	0.17	..
Namibia	..	..	..	0.06	0.08	0.10	0.13	0.13	..
Niger	..	..	..	0.02	0.03	0.08	0.07	0.07	..
Nigeria	0.64	1.37	0.97	0.52	0.47	0.33	0.71	0.59	..
Senegal	0.13	0.18	0.09	0.18	0.13	0.08	0.15	0.16	..
South Africa	2.36	3.00	3.60	1.85	2.28	4.48	4.57	4.63	..
South Sudan	..	..	..	..	..	..	0.01	0.02	..
Sudan	0.54	0.34	0.32	0.34	0.52	1.23	0.76	0.74	..
United Rep. of Tanzania	0.14	0.12	0.12	0.13	0.11	0.10	0.14	0.09	..
Togo	-	-	0.01	0.08	0.04	0.07	0.06	0.06	..
Tunisia	0.30	0.59	0.78	0.89	1.25	0.92	1.12	1.09	..
Zambia	0.30	0.23	0.21	0.16	0.21	0.28	0.43	0.48	..
Zimbabwe	0.11	0.10	0.12	0.12	0.09	0.07	0.07	0.08	..
Other Africa	1.21	1.35	0.53	0.73	0.87	1.45	1.92	1.98	..
Africa	10.99	16.65	19.86	18.78	21.14	26.71	25.64	26.29	..

Includes non-energy use for industry/transformation/energy.

1. Please refer to section 'Geographical coverage'.

Industry consumption of oil (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	0.27	0.41	0.27	0.72	0.19	0.22	0.36	0.57	..
Brunei Darussalam	0.03	0.06	0.06	0.07	0.06	0.16	0.11	0.15	..
Cambodia	..	..	..	0.02	0.04	0.06	0.20	0.15	..
DPR of Korea	0.09	0.36	0.37	0.07	0.08	0.09	0.09	0.09	..
India	8.26	8.61	16.54	36.06	36.68	36.77	56.48	58.19	..
Indonesia	1.81	5.37	8.82	12.25	14.60	15.71	11.27	13.41	..
Malaysia	1.53	2.70	3.71	6.02	6.18	6.29	5.39	5.68	..
Mongolia	..	..	0.22	0.09	0.15	0.28	0.30	0.44	..
Myanmar	0.27	0.43	0.14	0.20	0.22	0.24	0.93	2.43	..
Nepal	0.00	0.01	0.02	0.04	0.04	0.02	0.03	0.03	..
Pakistan	0.37	0.43	1.47	2.27	2.31	1.70	2.54	2.38	..
Philippines	2.30	2.32	2.51	2.74	1.79	1.52	2.59	2.81	..
Singapore	0.45	0.58	2.02	3.99	7.95	8.26	15.39	16.55	..
Sri Lanka	0.21	0.19	0.15	0.32	0.35	0.32	0.51	0.24	..
Chinese Taipei	2.38	6.87	8.57	13.79	20.12	25.13	23.20	22.90	..
Thailand	1.90	2.26	3.20	9.95	16.55	19.73	26.74	25.12	..
Viet Nam	0.01	0.50	0.48	1.65	2.86	4.38	4.40	4.46	..
Other non-OECD Asia	0.11	0.18	0.19	0.57	0.71	0.34	1.01	1.05	..
Non-OECD Asia excl. China	19.98	31.28	48.73	90.81	110.88	121.23	151.55	156.67	..
People's Rep. of China	21.39	28.02	36.45	64.60	89.33	118.58	128.89	130.44	..
Hong Kong, China	0.76	0.75	1.09	1.68	0.65	0.69	0.78	0.90	..
China	22.14	28.77	37.54	66.28	89.98	119.27	129.67	131.35	..
Argentina	4.42	4.34	2.78	6.86	7.45	7.41	7.31	7.29	..
Bolivia	0.16	0.16	0.14	0.16	0.12	0.12	0.22	0.15	..
Brazil	11.09	19.48	16.93	26.59	23.48	27.29	25.00	24.93	22.64
Colombia	1.46	1.33	1.54	3.29	2.80	1.67	1.14	1.25	..
Costa Rica	0.13	0.19	0.22	0.33	0.31	0.28	0.32	0.35	..
Cuba	2.51	3.38	3.50	3.45	2.06	2.82	3.69	3.42	..
Curaçao ¹	1.59	0.39	0.20	0.28	0.30	0.32	0.22	0.22	..
Dominican Republic	0.28	0.38	0.37	0.60	0.53	0.75	0.83	0.76	..
Ecuador	0.18	0.79	1.08	1.59	1.98	2.04	1.40	1.17	..
El Salvador	0.18	0.21	0.21	0.36	0.40	0.27	0.30	0.38	..
Guatemala	0.22	0.24	0.24	0.43	0.54	0.44	0.63	0.71	..
Haiti	0.05	0.07	0.06	0.09	0.13	0.17	0.20	0.20	..
Honduras	0.11	0.17	0.24	0.23	0.42	0.37	0.36	0.37	..
Jamaica	1.19	1.24	1.14	0.60	0.97	0.53	0.72	0.58	..
Nicaragua	0.08	0.08	0.12	0.15	0.22	0.17	0.23	0.23	..
Panama	0.13	0.19	0.14	0.27	0.56	0.62	0.71	0.70	..
Paraguay	0.04	0.04	0.06	0.09	0.08	0.05	0.06	0.05	..
Peru	1.30	1.71	1.15	1.83	1.79	1.49	1.08	1.17	..
Suriname	..	..	..	0.22	0.02	0.02	0.02	0.02	..
Trinidad and Tobago	0.06	0.19	0.10	0.10	0.30	0.21	0.16	0.18	..
Uruguay	0.45	0.48	0.23	0.27	0.20	0.22	0.32	0.32	..
Venezuela	1.77	2.53	3.21	5.20	5.60	9.84	5.13	4.22	..
Other non-OECD Americas	0.04	0.07	0.20	0.33	0.26	0.22	0.23	0.23	..
Non-OECD Americas	27.44	37.66	33.87	53.32	50.51	57.32	50.28	48.92	..
Bahrain	-	0.02	0.02	0.16	0.51	0.44	0.41	0.43	..
Islamic Republic of Iran	4.85	7.45	12.37	12.55	15.11	16.90	18.28	21.75	..
Iraq	0.51	1.65	3.02	3.24	3.14	2.71	2.08	2.46	..
Jordan	0.09	0.26	0.53	0.82	1.04	0.79	0.62	0.56	..
Kuwait	0.13	0.82	0.48	1.21	2.38	4.16	3.68	3.50	..
Lebanon	0.47	-	0.10	0.29	0.45	0.17	0.21	0.23	..
Oman	0.01	0.06	0.51	0.92	1.29	0.69	1.14	2.18	..
Qatar	-	-	0.45	0.62	1.26	2.64	2.80	2.43	..
Saudi Arabia	1.13	12.37	11.21	21.83	29.03	39.02	46.35	50.92	..
Syrian Arab Republic	0.43	1.82	1.37	1.56	2.13	2.39	0.92	0.89	..
United Arab Emirates	-	0.79	2.39	2.20	2.03	2.21	4.55	4.49	..
Yemen	-	-	0.06	0.42	0.96	0.93	0.23	0.24	..
Middle East	7.63	25.24	32.49	45.83	59.35	73.05	81.28	90.07	..

Includes non-energy use for industry/transformation/energy.

1. Please refer to section 'Geographical coverage'.

Industry consumption of natural gas (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	374.77	459.28	450.73	528.65	552.10	652.20	711.55	753.56	..
Non-OECD Total	118.68	191.10	186.57	201.28	272.18	372.02	405.09	436.02	..
OECD Total	256.09	268.18	264.16	327.37	279.92	280.18	306.46	317.54	..
Canada	11.87	18.54	20.24	23.41	17.22	15.68	17.32	17.75	..
Chile	0.00	0.01	0.74	2.98	3.04	1.82	1.08	1.01	..
Mexico	6.88	12.37	13.10	11.97	10.64	11.95	13.25	14.12	..
United States ²	177.26	151.57	123.81	155.35	111.56	121.68	144.27	148.69	..
OECD Americas	196.01	182.49	157.89	193.71	142.47	151.13	175.92	181.57	..
Australia	1.49	3.73	6.03	7.46	8.24	8.14	7.99	7.69	..
Israel ¹	0.05	0.13	0.03	0.00	-	0.06	1.02	1.05	..
Japan	1.64	2.14	4.70	7.50	10.75	11.27	11.49	11.62	..
Korea	-	-	0.07	2.88	4.17	7.09	7.51	7.48	..
New Zealand	0.03	0.26	1.53	2.68	0.98	1.47	2.57	2.46	..
OECD Asia Oceania	3.21	6.26	12.36	20.52	24.14	28.03	30.57	30.30	..
Austria	1.29	2.10	1.97	2.38	2.69	2.93	2.93	3.03	..
Belgium	3.15	3.63	3.30	5.31	4.86	4.78	4.74	5.06	..
Czech Republic	0.46	0.28	2.42	2.60	2.42	2.31	2.12	2.23	..
Denmark	-	-	0.53	0.78	0.71	0.71	0.67	0.69	..
Estonia	..	..	0.37	0.22	0.28	0.11	0.11	0.10	..
Finland	-	0.40	0.92	0.84	0.76	0.73	0.57	0.67	..
France	5.65	9.43	11.10	14.67	14.18	12.14	11.27	10.86	..
Germany	12.52	19.52	19.30	21.41	21.73	22.02	22.11	22.94	..
Greece	-	-	0.10	0.36	0.55	0.73	0.70	1.01	..
Hungary	2.22	3.50	3.76	1.70	1.62	1.33	1.78	1.92	..
Iceland	-	-	-	-	-	-	-	-	..
Ireland	-	0.35	0.79	0.85	0.46	0.44	0.75	0.76	..
Italy	8.64	11.10	14.65	17.60	14.85	10.92	9.01	9.53	..
Latvia	..	..	0.44	0.21	0.29	0.24	0.11	0.11	..
Lithuania	..	..	1.53	0.75	0.87	0.82	1.13	1.29	..
Luxembourg	0.14	0.25	0.28	0.30	0.33	0.31	0.28	0.27	..
Netherlands	8.15	8.41	9.05	8.40	7.77	7.22	7.37	7.83	..
Norway	-	-	-	0.59	0.70	0.68	0.70	0.80	..
Poland	4.00	5.40	4.43	4.12	4.81	4.75	5.52	5.86	..
Portugal	-	-	-	0.66	0.96	1.05	1.12	1.21	..
Slovak Republic	0.82	0.60	1.33	1.12	1.35	1.10	1.13	1.24	..
Slovenia	..	..	0.57	0.61	0.67	0.56	0.42	0.44	..
Spain	0.39	0.60	3.77	9.63	13.77	8.24	6.98	7.32	..
Sweden	-	-	0.25	0.30	0.34	0.43	0.39	0.66	..
Switzerland	0.01	0.35	0.42	0.73	0.80	0.89	0.95	0.97	..
Turkey	-	-	0.67	1.76	3.19	6.51	9.21	10.70	..
United Kingdom	9.42	13.50	11.96	15.26	12.33	9.08	7.93	8.15	..
OECD Europe	56.87	79.43	93.91	113.14	113.31	101.02	99.97	105.67	..
IEA	256.04	268.05	260.85	322.81	275.05	276.67	302.71	313.64	..
IEA/Accession/Association	258.75	277.95	282.66	361.11	331.79	375.94	417.90	442.87	..
European Union - 28	..	..	113.16	117.31	115.99	98.31	93.42	97.72	..
G7	227.00	225.81	205.75	255.20	202.63	202.78	223.40	229.54	..
G8	..	..	257.37	297.96	254.18	269.13	293.98	307.20	..
G20	..	..	364.80	422.73	408.55	475.82	512.89	546.59	..
OPEC	..	..	37.23	56.57	75.13	113.80	122.32	125.39	..

Includes non-energy use for industry/transformation/energy.

1. Please refer to section 'Geographical coverage'.

2. For the United States, gas used by autoproducers of electricity and heat has been included in final consumption prior to 1989.

Industry consumption of natural gas (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	118.68	191.10	186.57	201.28	272.18	372.02	405.09	436.02	..
Albania	-	-	0.16	0.00	-	0.00	0.01	0.01	..
Armenia	..	..	0.97	0.31	0.58	0.22	0.14	0.17	..
Azerbaijan	..	..	6.26	0.80	0.74	0.54	1.05	0.65	..
Belarus	..	..	2.89	1.78	2.42	2.76	2.19	2.24	..
Bosnia and Herzegovina	..	..	0.32	0.12	0.19	0.07	0.08	0.09	..
Bulgaria	-	-	2.58	1.52	1.36	0.89	1.21	1.21	..
Croatia	..	..	0.99	0.95	0.92	0.92	0.74	0.80	..
Cyprus ¹	-	-	-	-	-	-	-	-	..
Georgia	..	..	1.31	0.20	0.27	0.27	0.28	0.32	..
Gibraltar	-	-	-	-	-	-	-	-	..
Kazakhstan	..	..	-	-	-	1.59	2.08	2.18	..
Kosovo	..	..	..	-	-	-	-	-	..
Kyrgyzstan	..	..	-	-	0.18	0.04	0.02	0.04	..
Malta	-	-	-	-	-	-	-	-	..
Republic of Moldova	..	..	0.53	0.18	0.40	0.35	0.28	0.33	..
Montenegro	..	..	..	..	-	-	-	-	..
North Macedonia, Republic of	..	..	-	0.01	0.05	0.04	0.03	0.04	..
Romania	11.45	27.26	16.77	4.78	5.11	3.55	2.36	2.52	..
Russian Federation	..	..	51.61	42.76	51.54	66.35	70.58	77.66	..
Serbia	..	..	0.78	0.86	1.03	0.83	0.67	0.78	..
Tajikistan	..	..	-	-	-	-	-	-	..
Turkmenistan	..	..	0.31	0.28	0.36	0.65	1.00	1.00	..
Ukraine	..	..	23.30	11.95	16.30	10.55	4.27	3.80	..
Uzbekistan	..	..	-	6.94	6.96	6.17	4.05	3.95	..
Former Soviet Union	88.83	128.32	x	x	x	x	x	x	x
Former Yugoslavia	0.86	1.80	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	101.13	157.39	108.79	73.44	88.43	95.79	91.03	97.78	..
Algeria	0.18	0.45	2.02	2.60	3.14	4.27	6.98	6.64	..
Angola	0.05	0.06	0.44	0.47	0.53	0.60	0.59	0.33	..
Benin	-	-	-	-	-	-	-	-	..
Botswana	..	..	-	-	-	-	-	-	..
Cameroon	-	-	-	-	-	-	-	-	..
Congo	-	-	-	-	-	-	-	-	..
Côte d'Ivoire	-	-	-	-	-	0.18	0.05	0.31	..
Dem. Rep. of the Congo	-	-	-	-	-	-	-	-	..
Egypt	-	0.75	2.35	3.62	8.26	9.76	9.80	11.20	..
Eritrea	..	..	..	-	-	-	-	-	..
Ethiopia	-	-	-	-	-	-	-	-	..
Gabon	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	..
Ghana	-	-	-	-	-	-	0.00	0.03	..
Kenya	-	-	-	-	-	-	-	-	..
Libya	0.26	1.01	1.29	2.15	2.07	2.21	0.13	0.16	..
Mauritius	-	-	-	-	-	-	-	-	..
Morocco	0.06	0.06	0.04	0.04	0.03	0.04	0.06	0.06	..
Mozambique	-	-	-	-	0.02	0.06	0.13	0.10	..
Namibia	..	..	..	-	-	-	-	-	..
Niger	..	..	..	-	-	-	-	-	..
Nigeria	0.03	0.04	0.72	0.97	2.81	1.21	3.41	3.47	..
Senegal	-	-	-	-	-	-	-	-	..
South Africa	-	-	-	-	-	0.82	1.69	1.66	..
South Sudan	..	..	..	..	..	..	-	-	..
Sudan	-	-	-	-	-	-	-	-	..
United Rep. of Tanzania	-	-	-	-	0.05	0.10	0.15	0.14	..
Togo	-	-	-	-	-	-	-	-	..
Tunisia	0.01	0.08	0.26	0.45	0.62	0.81	0.79	0.86	..
Zambia	-	-	-	-	-	-	-	-	..
Zimbabwe	-	-	-	-	-	-	-	-	..
Other Africa	-	-	0.00	0.00	1.91	1.54	4.17	3.97	..
Africa	0.59	2.45	7.12	10.30	19.46	21.63	27.95	28.94	..

Includes non-energy use for industry/transformation/energy.

1. Please refer to section 'Geographical coverage'.

Industry consumption of natural gas (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	0.33	0.56	1.56	2.78	3.23	4.34	4.95	5.04	..
Brunei Darussalam	-	-	-	-	-	0.46	0.44	0.40	..
Cambodia	..	..	..	-	-	-	-	-	..
DPR of Korea	-	-	-	-	-	-	-	-	..
India	0.27	0.63	5.52	9.19	11.92	24.62	29.09	31.42	..
Indonesia	0.12	2.36	6.01	11.50	13.58	15.70	13.72	14.55	..
Malaysia	-	0.00	1.09	3.84	6.86	5.97	12.07	16.66	..
Mongolia	..	..	-	-	-	-	-	-	..
Myanmar	0.03	0.08	0.22	0.32	0.39	0.41	0.39	0.38	..
Nepal	-	-	-	-	-	-	-	-	..
Pakistan	1.69	2.58	4.25	6.49	10.22	10.64	10.93	10.58	..
Philippines	-	-	-	-	0.01	0.07	0.07	0.05	..
Singapore	-	-	-	-	0.40	0.87	1.07	1.15	..
Sri Lanka	-	-	-	-	-	-	-	-	..
Chinese Taipei	0.87	1.09	0.34	0.74	0.81	1.01	1.69	2.23	..
Thailand	-	-	0.14	1.11	1.81	3.12	4.94	5.07	..
Viet Nam	-	-	-	0.02	0.54	0.49	1.08	1.04	..
Other non-OECD Asia	-	-	-	-	-	-	0.14	0.15	..
Non-OECD Asia excl. China	3.31	7.32	19.13	35.99	49.77	67.70	80.59	88.72	..
People's Rep. of China	2.16	6.09	7.07	8.99	18.21	41.84	53.63	64.89	..
Hong Kong, China	0.00	0.00	0.01	0.02	0.02	0.02	0.03	0.03	..
China	2.16	6.10	7.08	9.02	18.22	41.85	53.66	64.92	..
Argentina	2.31	3.02	4.31	6.59	7.78	8.08	8.51	8.64	..
Bolivia	0.00	0.04	0.17	0.32	0.38	0.54	0.77	0.75	..
Brazil	0.10	0.76	2.28	4.48	7.76	10.44	9.91	9.42	9.55
Colombia	0.21	0.54	0.79	0.98	1.70	1.93	1.46	1.46	..
Costa Rica	-	-	-	-	-	-	-	-	..
Cuba	0.00	0.00	0.00	0.13	0.13	0.33	0.27	0.20	..
Curaçao ¹	-	-	-	-	-	-	-	-	..
Dominican Republic	-	-	-	-	-	0.03	0.09	0.08	..
Ecuador	-	-	-	-	-	-	0.04	0.05	..
El Salvador	-	-	-	-	-	-	-	-	..
Guatemala	-	-	-	-	-	-	-	-	..
Haiti	-	-	-	-	-	-	-	-	..
Honduras	-	-	-	-	-	-	-	-	..
Jamaica	-	-	-	-	-	-	-	-	..
Nicaragua	-	-	-	-	-	-	-	-	..
Panama	-	-	-	-	-	-	-	-	..
Paraguay	-	-	-	-	-	-	-	-	..
Peru	0.00	0.04	0.03	-	0.14	0.70	1.14	1.33	..
Suriname	..	..	..	-	-	-	-	-	..
Trinidad and Tobago	0.52	0.86	2.82	5.94	9.60	11.88	9.45	9.91	..
Uruguay	-	-	-	0.03	0.05	0.01	0.01	0.02	..
Venezuela	2.75	5.57	6.24	7.73	10.66	12.32	5.14	5.30	..
Other non-OECD Americas	-	0.00	0.00	0.00	0.01	0.00	0.00	0.00	..
Non-OECD Americas	5.89	10.82	16.63	26.19	38.20	46.27	36.80	37.15	..
Bahrain	0.59	0.87	1.05	1.19	1.21	1.63	2.20	2.11	..
Islamic Republic of Iran	1.91	0.94	6.74	10.57	15.66	30.50	44.31	47.88	..
Iraq	0.49	0.52	0.81	1.29	0.07	0.20	1.39	1.36	..
Jordan	-	-	-	-	-	-	-	-	..
Kuwait	1.20	1.15	1.61	3.03	4.44	3.28	6.47	6.91	..
Lebanon	-	-	-	-	-	-	-	-	..
Oman	-	-	0.25	0.19	1.08	4.73	7.17	7.39	..
Qatar	0.58	1.30	2.40	3.68	4.52	4.91	7.49	7.81	..
Saudi Arabia	-	0.24	6.21	11.57	15.97	27.33	21.27	22.54	..
Syrian Arab Republic	-	-	-	2.30	1.78	1.72	0.51	0.50	..
United Arab Emirates	0.82	2.00	8.74	12.52	13.37	24.44	24.25	22.00	..
Yemen	-	-	-	-	-	-	-	-	..
Middle East	5.59	7.03	27.82	46.33	58.10	98.77	115.05	118.50	..

Includes non-energy use for industry/transformation/energy.

1. Please refer to section 'Geographical coverage'.

Industry consumption of electricity (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	234.90	297.87	388.44	464.20	539.23	639.38	748.01	769.11	..
Non-OECD Total	76.42	111.32	158.19	182.93	266.46	379.19	486.91	505.84	..
OECD Total	158.49	186.55	230.25	281.28	272.77	260.19	261.10	263.26	..
Canada	9.10	11.67	14.44	17.48	18.01	15.10	14.48	15.40	..
Chile	0.41	0.55	0.87	2.21	2.80	3.08	3.75	3.58	..
Mexico	1.56	2.60	4.59	7.11	9.40	10.55	12.55	12.68	..
United States	55.53	64.16	74.51	98.20	77.23	71.06	68.52	66.93	..
OECD Americas	66.60	78.97	94.41	125.00	107.44	99.80	99.30	98.59	..
Australia	1.99	2.80	5.09	6.62	6.37	7.06	6.65	6.46	..
Israel ¹	0.20	0.30	0.45	0.90	1.01	1.07	1.16	1.11	..
Japan	25.05	28.18	36.42	35.99	35.02	32.53	29.47	29.78	..
Korea	0.76	1.95	4.97	12.93	15.82	19.61	22.82	23.60	..
New Zealand	0.48	0.66	0.99	1.19	1.32	1.30	1.19	1.19	..
OECD Asia Oceania	28.49	33.90	47.92	57.63	59.54	61.58	61.28	62.14	..
Austria	1.04	1.22	1.49	1.67	2.08	2.22	2.51	2.55	..
Belgium	1.93	2.06	2.62	3.43	3.39	3.28	3.30	3.35	..
Czech Republic	1.61	1.91	2.31	1.63	1.99	1.87	1.98	2.05	..
Denmark	0.40	0.50	0.72	0.86	0.88	0.73	0.72	0.74	..
Estonia	..	..	0.23	0.16	0.19	0.18	0.19	0.19	..
Finland	1.55	1.96	2.80	3.69	3.70	3.47	3.31	3.32	..
France	7.22	8.20	9.86	11.58	12.00	10.10	10.17	10.15	..
Germany	15.33	17.16	18.61	18.19	19.82	19.31	19.48	19.61	..
Greece	0.63	0.90	1.04	1.16	1.24	1.22	0.97	1.06	..
Hungary	0.92	1.19	1.18	0.76	0.80	0.84	1.38	1.44	..
Iceland	0.13	0.17	0.22	0.45	0.51	1.16	1.28	1.32	..
Ireland	0.19	0.28	0.39	0.66	0.66	0.78	0.87	0.88	..
Italy	6.63	8.08	9.54	12.20	12.45	10.99	9.74	9.94	..
Latvia	..	..	0.27	0.12	0.15	0.14	0.14	0.15	..
Lithuania	..	..	0.47	0.20	0.24	0.23	0.29	0.31	..
Luxembourg	0.20	0.21	0.24	0.28	0.29	0.31	0.30	0.27	..
Netherlands	1.95	2.41	2.87	3.48	3.57	3.37	3.13	3.08	..
Norway	3.20	3.43	3.94	4.43	4.47	3.83	3.93	3.96	..
Poland	3.28	4.48	3.68	3.43	3.52	3.56	4.40	4.69	..
Portugal	0.44	0.71	1.05	1.37	1.48	1.50	1.35	1.39	..
Slovak Republic	0.72	1.11	1.29	0.84	0.95	0.94	1.04	1.06	..
Slovenia	..	..	0.51	0.48	0.62	0.47	0.54	0.55	..
Spain	3.26	4.64	5.44	7.36	9.03	6.32	6.70	6.83	..
Sweden	3.40	3.49	4.64	4.90	4.95	4.68	4.32	4.38	..
Switzerland	0.95	1.02	1.48	1.55	1.62	1.66	1.53	1.54	..
Turkey	0.55	1.04	2.35	3.96	5.22	6.65	9.05	9.75	..
United Kingdom	7.85	7.51	8.65	9.81	9.98	9.00	7.90	7.97	..
OECD Europe	63.40	73.68	87.91	98.65	105.79	98.81	100.52	102.53	..
IEA	157.75	185.52	227.45	276.93	267.44	254.04	253.94	256.23	..
IEA/Accession/Association	176.78	219.44	287.35	380.85	439.84	527.78	622.64	640.16	..
European Union - 28	..	..	85.37	91.02	97.23	88.33	87.66	89.03	..
G7	126.72	144.95	172.04	203.45	184.51	168.10	159.76	159.79	..
G8	..	..	213.46	230.31	212.87	196.20	187.83	188.92	..
G20	..	..	328.99	401.50	460.92	548.86	642.11	660.30	..
OPEC	..	..	6.00	9.09	10.95	15.32	18.29	17.91	..

1. Please refer to section 'Geographical coverage'.

Industry consumption of electricity (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	76.42	111.32	158.19	182.93	266.46	379.19	486.91	505.84	..
Albania	-	-	0.04	0.08	0.06	0.09	0.11	0.11	..
Armenia	..	..	0.29	0.06	0.08	0.09	0.14	0.14	..
Azerbaijan	..	..	0.61	0.06	0.25	0.15	0.30	0.31	..
Belarus	..	..	1.94	1.11	1.14	1.14	1.03	1.08	..
Bosnia and Herzegovina	..	..	0.52	0.10	0.21	0.33	0.35	0.37	..
Bulgaria	1.21	1.42	1.60	0.74	0.85	0.67	0.77	0.81	..
Croatia	..	..	0.51	0.25	0.29	0.30	0.29	0.31	..
Cyprus ¹	0.02	0.02	0.03	0.04	0.05	0.05	0.04	0.04	..
Georgia	..	..	0.65	0.08	0.06	0.18	0.25	0.28	..
Gibraltar	-	-	-	-	-	-	-	-	..
Kazakhstan	..	..	5.50	1.82	3.79	3.45	3.80	3.39	..
Kosovo	..	..	..	0.02	0.03	0.10	0.09	0.09	..
Kyrgyzstan	..	..	0.44	0.24	0.17	0.15	0.15	0.15	..
Malta	-	-	-	0.04	0.04	0.03	0.04	0.04	..
Republic of Moldova	..	..	0.39	0.24	0.22	0.16	0.11	0.13	..
Montenegro	..	..	..	..	0.22	0.16	0.06	0.06	..
North Macedonia, Republic of	..	..	0.22	0.13	0.18	0.17	0.14	0.12	..
Romania	2.30	3.46	3.31	1.71	2.04	1.75	1.79	1.87	..
Russian Federation	..	..	41.42	26.86	28.36	28.10	28.06	29.13	..
Serbia	..	..	1.19	0.54	0.52	0.64	0.69	0.72	..
Tajikistan	..	..	0.99	0.46	0.57	0.64	0.35	0.38	..
Turkmenistan	..	..	0.34	0.18	0.23	0.29	0.39	0.39	..
Ukraine	..	..	12.50	5.18	5.65	5.67	4.29	4.32	..
Uzbekistan	..	..	1.87	1.33	1.20	1.19	1.41	1.49	..
Former Soviet Union	43.76	55.64	x	x	x	x	x	x	x
Former Yugoslavia	1.35	2.32	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	48.64	62.87	74.37	41.30	46.20	45.51	44.65	45.74	..
Algeria	0.08	0.24	0.51	0.59	0.76	1.09	1.60	1.74	..
Angola	0.01	0.01	0.01	0.03	0.05	0.14	0.26	0.27	..
Benin	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.02	..
Botswana	..	..	0.05	0.07	0.10	0.12	0.12	0.09	..
Cameroon	0.07	0.07	0.12	0.13	0.13	0.24	0.31	0.31	..
Congo	0.00	0.01	0.02	0.01	0.01	0.02	0.01	0.01	..
Côte d'Ivoire	0.02	0.04	0.04	0.08	0.11	0.09	0.18	0.19	..
Dem. Rep. of the Congo	-	0.22	0.09	0.16	0.27	0.34	0.33	0.40	..
Egypt	0.36	0.86	1.45	2.11	2.81	3.50	3.57	3.72	..
Eritrea	..	..	..	0.01	0.00	0.01	0.01	0.01	..
Ethiopia	0.03	0.03	0.04	0.05	0.08	0.12	0.27	0.29	..
Gabon	0.00	0.02	0.03	0.02	0.03	0.03	0.05	0.05	..
Ghana	0.28	0.34	0.31	0.37	0.22	0.27	0.26	0.26	..
Kenya	0.05	0.07	0.17	0.18	0.25	0.30	0.38	0.37	..
Libya	0.01	0.07	0.14	0.26	0.27	0.18	0.10	0.11	..
Mauritius	0.00	0.01	0.02	0.06	0.07	0.08	0.08	0.09	..
Morocco	0.10	0.20	0.35	0.52	0.62	0.76	0.96	1.02	..
Mozambique	0.02	0.02	0.02	0.13	0.72	0.74	0.74	1.07	..
Namibia	..	..	..	0.05	0.05	0.07	0.05	0.05	..
Niger	..	..	..	0.01	0.02	0.01	0.02	0.02	..
Nigeria	0.11	0.15	0.17	0.16	0.18	0.28	0.35	0.36	..
Senegal	0.02	0.03	0.04	0.03	0.05	0.06	0.09	0.10	..
South Africa	3.06	5.06	7.08	8.34	9.46	10.41	9.97	10.04	..
South Sudan	..	..	..	..	..	..	-	0.02	..
Sudan	0.02	0.02	0.02	0.05	0.04	0.08	0.15	0.17	..
United Rep. of Tanzania	0.02	0.02	0.03	0.03	0.06	0.09	0.12	0.13	..
Togo	0.00	0.00	0.01	0.01	0.02	0.02	0.04	0.04	..
Tunisia	0.05	0.13	0.24	0.38	0.43	0.44	0.47	0.46	..
Zambia	0.36	0.41	0.38	0.36	0.48	0.35	0.56	0.59	..
Zimbabwe	0.29	0.41	0.49	0.46	0.40	0.27	0.23	0.29	..
Other Africa	0.05	0.10	0.13	0.28	0.31	0.38	0.60	0.63	..
Africa	5.03	8.54	11.98	14.95	18.02	20.50	21.88	22.90	..

1. Please refer to section 'Geographical coverage'.

Industry consumption of electricity (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	0.07	0.08	0.23	0.46	0.97	1.68	2.71	2.88	..
Brunei Darussalam	0.00	0.01	0.02	0.02	0.01	0.02	0.01	0.01	..
Cambodia	..	..	..	0.00	0.01	0.03	0.13	0.13	..
DPR of Korea	0.60	0.77	1.01	0.62	0.74	0.70	0.54	0.49	..
India	3.24	4.75	9.08	13.62	18.13	27.51	37.62	40.07	..
Indonesia	0.03	0.15	1.25	2.92	3.67	4.40	5.86	6.22	..
Malaysia	0.20	0.38	0.83	2.80	3.37	4.53	5.82	6.14	..
Mongolia	..	..	0.16	0.10	0.13	0.18	0.29	0.32	..
Myanmar	0.03	0.05	0.07	0.12	0.12	0.20	0.18	0.45	..
Nepal	0.00	0.00	0.02	0.04	0.07	0.09	0.15	0.17	..
Pakistan	0.31	0.35	0.89	1.23	1.72	1.83	2.06	2.36	..
Philippines	0.41	0.71	0.86	1.13	1.33	1.60	2.07	2.20	..
Singapore	0.12	0.21	0.47	0.92	1.21	1.45	1.63	1.73	..
Sri Lanka	0.04	0.06	0.08	0.19	0.21	0.27	0.36	0.37	..
Chinese Taipei	1.00	2.05	3.80	7.47	9.33	10.68	11.67	12.13	..
Thailand	0.34	0.54	1.54	3.45	4.89	5.47	7.64	7.55	..
Viet Nam	-	0.13	0.24	0.78	1.96	4.00	7.74	8.70	..
Other non-OECD Asia	0.04	0.20	0.23	0.34	0.42	0.57	1.08	1.13	..
Non-OECD Asia excl. China	6.44	10.44	20.79	36.25	48.30	65.20	87.57	93.06	..
People's Rep. of China	9.20	16.59	29.61	59.33	116.53	203.17	284.47	296.57	..
Hong Kong, China	0.21	0.36	0.60	0.42	0.35	0.26	0.27	0.27	..
China	9.41	16.96	30.20	59.76	116.88	203.44	284.74	296.83	..
Argentina	1.06	1.49	1.84	3.00	3.72	4.16	4.42	4.33	..
Bolivia	0.05	0.07	0.06	0.11	0.11	0.15	0.18	0.19	..
Brazil	2.54	5.87	9.66	12.62	15.08	17.48	16.80	17.17	17.27
Colombia	0.30	0.43	0.68	0.98	1.08	1.21	1.63	1.69	..
Costa Rica	0.03	0.06	0.07	0.12	0.15	0.16	0.17	0.17	..
Cuba	0.19	0.23	0.49	0.34	0.31	0.33	0.32	0.26	..
Curaçao ¹	0.03	0.03	0.03	0.04	0.04	0.05	0.03	0.03	..
Dominican Republic	0.06	0.08	0.05	0.34	0.35	0.41	0.46	0.48	..
Ecuador	0.03	0.10	0.13	0.19	0.26	0.62	0.81	0.88	..
El Salvador	0.03	0.04	0.05	0.15	0.18	0.19	0.17	0.18	..
Guatemala	0.03	0.07	0.06	0.13	0.23	0.26	0.31	0.31	..
Haiti	0.00	0.01	0.02	0.01	0.01	0.01	0.02	0.02	..
Honduras	0.02	0.03	0.07	0.08	0.10	0.11	0.14	0.16	..
Jamaica	0.13	0.05	0.02	0.32	0.41	0.05	0.17	0.17	..
Nicaragua	0.03	0.03	0.03	0.03	0.03	0.08	0.10	0.10	..
Panama	0.02	0.02	0.03	0.04	0.03	0.07	0.06	0.07	..
Paraguay	0.01	0.03	0.05	0.08	0.11	0.14	0.19	0.20	..
Peru	0.33	0.45	0.62	0.85	1.08	1.44	2.25	2.30	..
Suriname	..	..	..	0.05	0.06	0.07	0.07	0.07	..
Trinidad and Tobago	0.04	0.09	0.16	0.26	0.36	0.41	0.52	0.54	..
Uruguay	0.06	0.09	0.13	0.14	0.15	0.22	0.29	0.29	..
Venezuela	0.48	1.19	2.12	2.37	2.97	3.17	2.02	1.94	..
Other non-OECD Americas	0.50	0.58	0.74	1.28	1.53	1.26	1.12	0.52	..
Non-OECD Americas	5.96	11.06	17.10	23.52	28.34	32.04	32.27	32.07	..
Bahrain	0.01	0.02	0.42	0.72	1.03	0.99	1.20	1.19	..
Islamic Republic of Iran	0.59	0.75	1.24	2.83	3.92	5.42	6.94	6.94	..
Iraq	0.10	0.33	0.78	1.03	0.38	0.60	0.45	0.44	..
Jordan	0.01	0.02	0.10	0.16	0.22	0.27	0.33	0.33	..
Kuwait	-	-	-	-	-	-	-	-	..
Lebanon	-	-	-	0.22	0.25	0.34	0.37	0.38	..
Oman	0.00	0.00	0.01	0.03	0.05	0.13	0.44	0.43	..
Qatar	-	0.04	0.05	0.14	0.24	0.67	1.03	0.97	..
Saudi Arabia	0.15	0.11	0.71	1.07	1.32	2.46	3.45	2.88	..
Syrian Arab Republic	0.08	0.15	0.36	0.58	0.73	0.97	0.38	0.38	..
United Arab Emirates	0.00	0.03	0.09	0.37	0.55	0.65	1.20	1.30	..
Yemen	0.00	0.00	-	-	0.03	0.00	0.01	0.01	..
Middle East	0.94	1.45	3.76	7.15	8.71	12.50	15.81	15.25	..

1. Please refer to section 'Geographical coverage'.

Total industry consumption of energy (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	1 811.33	2 112.24	2 264.75	2 459.32	2 917.32	3 376.56	3 595.38	3 654.18	..
Non-OECD Total	640.45	930.79	1 143.97	1 187.46	1 684.71	2 211.53	2 444.39	2 478.67	..
OECD Total	1 170.89	1 181.45	1 120.78	1 271.85	1 232.62	1 165.03	1 150.99	1 175.51	..
Canada	52.52	61.22	61.29	73.62	70.78	61.44	62.96	63.62	..
Chile	2.32	2.79	4.33	9.04	9.71	9.73	11.17	10.48	..
Mexico	16.47	27.21	34.71	35.03	36.62	39.97	40.37	42.50	..
United States	478.72	485.32	397.92	480.49	432.72	405.60	395.46	399.17	..
OECD Americas	550.03	576.54	498.24	598.18	549.83	516.74	509.96	515.76	..
Australia	17.81	20.45	23.26	28.22	27.10	27.17	27.77	27.31	..
Israel ¹	1.37	1.87	2.17	3.17	2.71	3.46	4.43	4.62	..
Japan	140.54	122.47	139.16	137.59	138.11	126.52	117.89	119.76	..
Korea	7.55	13.37	25.99	62.99	68.73	82.64	97.20	100.22	..
New Zealand	2.18	2.62	4.24	5.88	4.64	5.07	6.04	5.92	..
OECD Asia Oceania	169.45	160.79	194.83	237.85	241.28	244.85	253.33	257.83	..
Austria	6.19	6.34	6.67	7.52	8.65	9.19	9.55	9.61	..
Belgium	16.73	13.70	13.50	19.71	17.97	17.99	18.65	18.35	..
Czech Republic	18.54	19.82	17.52	11.10	11.49	9.54	8.02	9.45	..
Denmark	4.06	3.56	2.93	3.17	3.09	2.63	2.40	2.50	..
Estonia	..	..	2.76	0.75	0.94	0.66	0.55	0.57	..
Finland	7.57	7.22	10.56	12.66	12.38	12.06	12.08	12.25	..
France	55.75	54.13	44.03	49.24	49.01	42.19	41.11	41.81	..
Germany	105.02	101.22	88.59	76.00	78.45	77.56	76.99	79.01	..
Greece	3.47	4.36	4.56	5.11	4.83	4.54	3.65	3.90	..
Hungary	7.41	9.86	7.82	4.89	5.37	4.61	5.94	6.58	..
Iceland	0.28	0.36	0.40	0.70	0.79	1.31	1.45	1.50	..
Ireland	1.87	2.34	2.32	3.06	2.95	2.46	2.68	2.73	..
Italy	47.34	44.53	44.20	46.01	46.40	39.37	31.04	32.44	..
Latvia	..	..	2.02	0.63	0.77	0.83	0.81	0.86	..
Lithuania	..	..	4.18	1.42	1.75	1.59	2.01	2.25	..
Luxembourg	2.09	1.68	1.33	0.79	0.80	0.78	0.70	0.67	..
Netherlands	20.94	25.26	24.76	26.70	29.35	27.98	26.85	27.75	..
Norway	6.95	8.00	7.87	9.02	9.03	8.44	8.20	8.50	..
Poland	29.46	36.75	27.15	21.03	18.91	18.25	19.97	21.51	..
Portugal	2.64	3.77	6.65	8.40	8.01	7.13	5.51	5.69	..
Slovak Republic	6.14	6.59	7.64	4.93	4.85	4.26	4.27	4.53	..
Slovenia	..	..	1.54	1.66	1.93	1.47	1.37	1.44	..
Spain	20.57	23.42	24.81	33.70	38.36	27.69	22.64	23.38	..
Sweden	15.36	13.42	13.71	15.23	14.06	13.72	13.02	13.31	..
Switzerland	4.69	4.46	3.97	4.29	4.39	4.35	3.98	4.02	..
Turkey	4.28	7.38	13.61	23.05	25.24	29.31	34.23	37.13	..
United Kingdom	64.06	45.95	42.60	45.06	41.73	33.53	30.03	30.19	..
OECD Europe	451.41	444.12	427.71	435.82	441.50	403.45	387.69	401.93	..
IEA	1 166.91	1 176.43	1 106.14	1 255.24	1 214.95	1 146.64	1 129.75	1 154.37	..
IEA/Accession/Association	1 374.98	1 494.34	1 579.07	1 892.94	2 251.10	2 603.23	2 758.24	2 785.23	..
European Union - 28	..	..	440.65	416.28	420.55	373.31	352.01	363.21	..
G7	943.95	914.84	817.80	908.02	857.20	786.20	755.50	765.99	..
G8	..	..	1 066.67	1 072.15	1 024.50	978.89	965.44	984.89	..
G20	..	..	1 870.33	2 075.87	2 433.96	2 818.62	2 974.22	3 015.04	..
OPEC	..	..	83.47	121.79	156.92	224.99	238.95	248.46	..

Includes non-energy use for industry/transformation/energy.

1. Please refer to section 'Geographical coverage'.

Total industry consumption of energy (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	640.45	930.79	1 143.97	1 187.46	1 684.71	2 211.53	2 444.39	2 478.67	..
Albania	0.26	1.00	0.94	0.33	0.29	0.46	0.38	0.43	..
Armenia	..	..	2.10	0.42	0.72	0.36	0.32	0.35	..
Azerbaijan	..	..	9.56	1.98	2.46	1.24	2.18	2.00	..
Belarus	..	..	19.31	7.41	7.95	7.52	6.49	6.61	..
Bosnia and Herzegovina	..	..	2.36	0.58	0.64	0.76	0.83	0.89	..
Bulgaria	4.57	5.80	10.45	4.56	4.51	2.99	3.15	3.21	..
Croatia	..	..	2.93	2.04	2.26	1.97	1.61	1.72	..
Cyprus ¹	0.21	0.30	0.30	0.52	0.39	0.31	0.25	0.26	..
Georgia	..	..	4.26	0.38	0.46	0.58	0.97	1.07	..
Gibraltar	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.03	..
Kazakhstan	..	..	28.65	10.40	18.07	21.39	23.40	22.06	..
Kosovo	..	..	..	0.16	0.20	0.28	0.32	0.36	..
Kyrgyzstan	..	..	2.52	0.45	0.49	0.43	0.45	0.43	..
Malta	-	0.00	0.01	0.04	0.07	0.05	0.05	0.07	..
Republic of Moldova	..	..	1.12	0.50	0.74	0.62	0.49	0.58	..
Montenegro	..	..	..	..	0.35	0.24	0.14	0.16	..
North Macedonia, Republic of	..	..	0.78	0.53	0.61	0.57	0.57	0.46	..
Romania	17.64	37.87	25.12	10.36	11.28	7.94	7.12	7.18	..
Russian Federation	..	..	248.87	164.13	167.30	192.69	209.94	218.90	..
Serbia	..	..	5.04	2.40	3.74	3.19	3.05	3.16	..
Tajikistan	..	..	0.99	0.46	0.57	0.64	0.60	0.77	..
Turkmenistan	..	..	0.65	0.46	0.59	0.94	1.39	1.39	..
Ukraine	..	..	85.64	33.99	41.79	30.40	18.32	17.48	..
Uzbekistan	..	..	3.80	9.33	8.94	7.96	6.07	6.02	..
Former Soviet Union	304.62	405.25	x	x	x	x	x	x	x
Former Yugoslavia	9.02	10.94	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	336.33	461.17	455.40	251.47	274.43	283.56	288.11	295.59	..
Algeria	0.81	1.68	4.24	4.88	5.70	7.31	9.96	9.69	..
Angola	0.23	0.24	0.82	0.91	0.95	1.30	1.51	1.14	..
Benin	0.00	0.01	0.02	0.07	0.05	0.06	0.16	0.14	..
Botswana	..	..	0.19	0.31	0.36	0.31	0.36	0.34	..
Cameroon	0.10	0.15	0.25	0.22	0.21	0.35	0.38	0.39	..
Congo	0.05	0.03	0.04	0.03	0.04	0.05	0.08	0.09	..
Côte d'Ivoire	0.27	0.30	0.23	0.35	0.25	0.48	0.61	0.80	..
Dem. Rep. of the Congo	1.37	1.81	2.34	2.89	3.54	4.13	3.53	4.00	..
Egypt	3.10	6.61	11.75	13.10	19.05	21.00	20.03	21.99	..
Eritrea	..	..	..	0.02	0.03	0.01	0.02	0.02	..
Ethiopia	0.15	0.14	0.25	0.34	0.50	0.71	1.57	1.73	..
Gabon	0.24	0.41	0.23	0.39	1.69	3.39	3.06	3.02	..
Ghana	0.63	0.74	0.76	1.34	1.10	1.19	1.38	1.51	..
Kenya	0.28	0.42	0.64	0.68	0.88	1.21	1.65	1.60	..
Libya	0.40	1.84	2.47	4.06	3.73	4.76	1.15	1.31	..
Mauritius	0.25	0.24	0.26	0.25	0.25	0.23	0.21	0.21	..
Morocco	1.15	1.84	2.17	2.51	2.89	3.41	3.44	3.80	..
Mozambique	0.94	0.71	0.56	0.17	0.82	0.90	1.03	1.34	..
Namibia	..	..	..	0.11	0.13	0.17	0.20	0.21	..
Niger	..	..	..	0.03	0.04	0.09	0.09	0.10	..
Nigeria	1.34	2.26	2.48	3.54	6.78	7.76	8.58	8.56	..
Senegal	0.16	0.21	0.13	0.21	0.28	0.34	0.59	0.55	..
South Africa	17.12	24.39	25.94	26.05	27.33	28.90	28.34	27.61	..
South Sudan	..	..	..	..	..	..	0.01	0.03	..
Sudan	1.00	0.88	0.99	1.37	1.43	2.09	1.65	1.65	..
United Rep. of Tanzania	0.78	0.79	0.96	1.24	1.34	1.44	1.81	1.96	..
Togo	0.00	0.00	0.02	0.09	0.06	0.10	0.10	0.10	..
Tunisia	0.40	0.83	1.32	1.76	2.30	2.17	2.37	2.41	..
Zambia	1.39	1.29	1.23	1.19	1.58	1.87	2.74	2.88	..
Zimbabwe	1.14	1.35	1.73	1.29	0.91	0.74	0.69	0.77	..
Other Africa	2.12	2.40	1.85	2.31	4.64	5.36	9.21	9.17	..
Africa	35.41	51.59	63.85	71.70	88.84	101.83	106.50	109.12	..

Includes non-energy use for industry/transformation/energy.

1. Please refer to section 'Geographical coverage'.

Total industry consumption of energy (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	0.79	1.17	2.34	4.29	4.81	6.81	9.35	10.19	..
Brunei Darussalam	0.03	0.06	0.08	0.09	0.07	0.64	0.56	0.56	..
Cambodia	..	..	..	0.61	0.70	0.75	1.29	1.35	..
DPR of Korea	12.03	17.37	19.48	11.37	12.56	8.28	4.29	3.30	..
India	38.40	47.09	80.03	110.21	130.00	193.25	239.28	250.95	..
Indonesia	1.99	7.96	25.58	39.94	46.47	50.11	46.54	51.44	..
Malaysia	1.91	3.34	6.40	14.00	18.13	18.62	25.07	30.30	..
Mongolia	..	..	1.17	0.47	0.58	0.85	0.95	1.11	..
Myanmar	0.36	0.70	0.49	1.24	1.20	1.39	2.13	3.83	..
Nepal	0.06	0.09	0.11	0.39	0.41	0.46	0.92	1.06	..
Pakistan	4.08	5.47	10.12	13.98	20.57	21.34	24.88	26.54	..
Philippines	3.03	3.64	4.88	5.62	5.41	6.53	8.74	9.35	..
Singapore	0.57	0.80	2.52	4.90	9.56	10.59	18.26	19.60	..
Sri Lanka	0.68	0.67	0.81	1.78	2.06	2.18	2.69	2.51	..
Chinese Taipei	6.10	12.11	16.29	26.99	36.25	44.27	45.20	45.22	..
Thailand	3.52	4.21	9.08	22.35	35.44	44.55	54.03	54.01	..
Viet Nam	1.97	3.85	4.57	7.99	12.30	19.68	34.91	35.91	..
Other non-OECD Asia	1.12	2.23	0.74	1.35	1.60	2.07	3.99	4.13	..
Non-OECD Asia excl. China	76.63	110.75	184.71	267.59	338.12	432.39	523.08	551.38	..
People's Rep. of China	118.95	188.40	274.00	352.96	694.57	1 019.23	1 134.32	1 118.92	..
Hong Kong, China	0.98	1.12	1.70	2.12	1.56	1.91	2.35	2.38	..
China	119.93	189.52	275.70	355.09	696.13	1 021.14	1 136.67	1 121.30	..
Argentina	9.42	10.52	10.20	18.97	20.40	20.95	21.35	21.54	..
Bolivia	0.26	0.35	0.51	1.01	1.05	1.32	1.78	1.70	..
Brazil	24.05	40.43	49.28	69.74	80.17	96.81	93.12	94.05	88.90
Colombia	3.09	4.15	5.41	8.13	7.98	7.02	9.74	8.62	..
Costa Rica	0.31	0.42	0.50	0.63	0.78	0.88	0.94	0.96	..
Cuba	4.87	6.18	8.44	6.09	3.35	4.11	5.01	4.87	..
Curaçao ¹	1.62	0.42	0.23	0.32	0.35	0.37	0.25	0.25	..
Dominican Republic	0.85	0.96	0.55	1.28	1.37	1.77	2.02	1.98	..
Ecuador	0.33	1.09	1.51	2.15	2.30	2.82	2.50	2.38	..
El Salvador	0.34	0.39	0.55	0.80	0.67	0.48	0.47	0.56	..
Guatemala	0.36	0.50	0.48	0.88	0.77	0.70	0.94	1.02	..
Haiti	0.17	0.22	0.15	0.34	0.27	0.26	0.30	0.30	..
Honduras	0.26	0.43	0.58	0.60	0.78	0.74	1.01	0.99	..
Jamaica	1.32	1.29	1.19	0.95	1.50	0.67	1.03	0.85	..
Nicaragua	0.27	0.28	0.24	0.32	0.31	0.31	0.40	0.40	..
Panama	0.20	0.32	0.26	0.44	0.68	0.77	0.85	0.87	..
Paraguay	0.42	0.63	0.96	1.31	1.24	1.30	1.63	1.61	..
Peru	2.07	2.67	1.97	3.12	3.61	4.25	5.11	5.67	..
Suriname	..	..	..	0.28	0.09	0.10	0.10	0.10	..
Trinidad and Tobago	0.62	1.15	3.09	6.31	10.26	12.50	10.13	10.62	..
Uruguay	0.58	0.70	0.58	0.54	0.54	1.29	2.03	2.08	..
Venezuela	5.45	9.59	12.24	15.78	19.66	26.00	12.81	11.93	..
Other non-OECD Americas	0.93	1.04	1.14	1.86	2.04	1.69	1.49	0.88	..
Non-OECD Americas	57.80	83.75	100.06	141.86	160.13	187.11	175.00	174.22	..
Bahrain	0.60	0.91	1.48	2.07	2.75	3.06	3.82	3.73	..
Islamic Republic of Iran	7.51	9.41	20.53	26.26	35.29	53.08	70.11	77.26	..
Iraq	1.10	2.50	4.61	5.56	3.59	3.51	3.91	4.26	..
Jordan	0.10	0.29	0.63	0.97	1.26	1.06	1.17	1.05	..
Kuwait	1.33	1.98	2.09	4.24	6.82	7.45	10.15	10.41	..
Lebanon	0.49	0.00	0.10	0.64	0.84	0.66	0.76	0.79	..
Oman	0.01	0.06	0.77	1.14	2.43	5.55	8.75	10.00	..
Qatar	0.58	1.34	2.90	4.44	6.03	8.22	11.32	11.21	..
Saudi Arabia	1.28	12.71	18.14	34.47	46.32	68.82	71.08	76.34	..
Syrian Arab Republic	0.51	1.97	1.73	4.45	4.63	5.09	1.81	1.77	..
United Arab Emirates	0.83	2.82	11.21	15.08	16.10	27.97	31.84	29.91	..
Yemen	0.00	0.00	0.06	0.42	0.99	1.03	0.32	0.33	..
Middle East	14.34	34.00	64.25	99.76	127.05	185.49	215.03	227.06	..

Includes non-energy use for industry/transformation/energy.

1. Please refer to section 'Geographical coverage'.

Transport consumption of oil (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	1 028.09	1 198.06	1 488.55	1 884.00	2 103.90	2 258.80	2 541.35	2 599.53	..
Non-OECD Total	172.22	256.79	363.87	489.16	611.17	771.97	987.70	1 021.25	..
OECD Total	671.96	763.11	922.76	1 121.39	1 174.85	1 128.21	1 157.52	1 166.04	..
Canada	33.19	42.49	40.22	47.06	49.87	54.62	55.58	55.11	..
Chile	1.69	2.02	3.02	5.64	6.11	7.09	8.73	9.06	..
Mexico	12.38	22.76	28.24	35.74	44.13	50.98	52.82	51.28	..
United States	400.90	414.29	476.68	574.32	600.31	555.73	569.14	573.34	..
OECD Americas	448.16	481.57	548.16	662.77	700.42	668.40	686.27	688.79	..
Australia	12.85	16.74	20.87	25.06	26.28	29.12	31.72	32.38	..
Israel ¹	1.15	1.39	2.69	4.45	4.49	5.48	5.85	5.97	..
Japan	39.79	52.92	67.85	84.81	80.29	74.88	70.24	69.64	..
Korea	2.48	4.74	14.49	26.57	29.26	29.07	33.50	34.29	..
New Zealand	1.94	2.28	2.89	4.06	4.53	4.56	4.91	5.23	..
OECD Asia Oceania	58.22	78.07	108.79	144.96	144.85	143.11	146.20	147.51	..
Austria	3.85	4.03	4.56	6.05	7.97	7.26	7.58	7.76	..
Belgium	4.34	5.42	6.78	8.09	8.58	8.39	8.40	8.21	..
Czech Republic	2.12	2.19	2.52	4.14	5.81	5.58	6.03	6.20	..
Denmark	2.69	3.02	3.46	4.04	4.47	4.34	3.92	3.99	..
Estonia	..	..	0.80	0.55	0.71	0.74	0.77	0.80	..
Finland	2.39	2.78	3.91	3.89	4.18	4.11	3.92	3.73	..
France	24.52	30.10	38.28	44.09	43.24	40.50	41.14	41.21	..
Germany	33.97	43.41	53.77	58.27	51.50	49.02	53.14	53.93	..
Greece	2.05	3.18	5.15	6.42	7.35	7.36	5.73	5.64	..
Hungary	1.84	2.66	2.83	2.95	3.98	3.88	4.03	4.23	..
Iceland	0.13	0.16	0.21	0.21	0.23	0.28	0.31	0.33	..
Ireland	1.17	1.58	1.68	3.56	4.34	3.90	3.92	3.83	..
Italy	18.37	23.68	32.18	39.11	40.86	35.74	33.02	31.82	..
Latvia	..	..	1.04	0.73	1.02	1.06	1.05	1.09	..
Lithuania	..	..	1.85	1.05	1.38	1.42	1.78	1.87	..
Luxembourg	0.23	0.43	0.88	1.61	2.37	2.14	1.83	1.86	..
Netherlands	6.46	7.60	9.16	10.78	11.54	11.36	10.03	10.24	..
Norway	2.25	2.83	3.35	4.00	4.32	4.84	4.42	3.92	..
Poland	5.01	6.96	6.53	9.30	11.63	15.69	17.55	20.26	..
Portugal	1.60	2.30	3.28	5.89	6.32	6.10	5.36	5.48	..
Slovak Republic	1.62	1.21	1.35	1.35	1.69	2.05	2.11	2.44	..
Slovenia	..	..	0.88	1.19	1.43	1.72	1.85	1.78	..
Spain	10.71	14.90	21.23	30.08	36.16	32.31	28.92	29.84	..
Sweden	5.17	5.73	6.78	7.29	7.68	7.24	6.65	6.57	..
Switzerland	3.42	3.56	4.97	5.64	5.60	5.76	5.35	5.25	..
Turkey	3.85	5.29	9.31	11.93	12.67	15.05	26.16	27.30	..
United Kingdom	27.84	30.46	39.08	41.43	42.55	38.85	40.08	40.16	..
OECD Europe	165.58	203.47	265.81	313.66	329.58	316.70	325.05	329.75	..
International marine bunkers	121.55	110.88	115.62	155.01	177.50	205.80	211.14	216.87	x
International aviation bunkers	62.36	67.28	86.30	118.43	140.39	152.82	184.99	195.37	x
IEA	668.99	759.54	913.06	1 108.12	1 160.19	1 111.16	1 137.96	1 145.93	..
IEA/Accession/Association	719.72	831.13	1 017.78	1 321.92	1 443.59	1 489.12	1 656.74	1 691.33	..
European Union - 28	..	..	255.80	298.96	315.82	300.68	300.01	304.73	..
G7	578.59	637.35	748.05	889.10	908.61	849.34	862.34	865.22	..
G8	..	..	820.95	931.41	956.19	905.64	919.96	924.14	..
G20	..	..	1 103.67	1 371.56	1 497.76	1 562.06	1 738.72	1 769.52	..
OPEC	..	..	65.69	93.58	120.32	145.79	172.72	170.92	..

Includes non-energy use in transport.

World includes international marine bunkers and international aviation bunkers.

1. Please refer to section 'Geographical coverage'.

Transport consumption of oil (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	172.22	256.79	363.87	489.16	611.17	771.97	987.70	1 021.25	..
Albania	0.26	0.49	0.23	0.48	0.78	0.73	0.75	0.75	..
Armenia	..	..	1.02	0.20	0.19	0.20	0.23	0.25	..
Azerbaijan	..	..	1.99	0.80	1.37	1.70	2.23	2.60	..
Belarus	..	..	3.71	2.03	2.41	3.15	3.22	3.38	..
Bosnia and Herzegovina	..	..	0.73	0.70	0.76	1.11	1.18	1.24	..
Bulgaria	1.39	1.42	2.17	1.70	2.37	2.45	2.87	2.89	..
Croatia	..	..	1.23	1.47	1.83	1.95	2.02	2.17	..
Cyprus ¹	0.25	0.21	0.38	0.58	0.67	0.75	0.64	0.66	..
Georgia	..	..	1.25	0.32	0.50	0.74	1.21	1.08	..
Gibraltar	0.01	0.01	0.03	0.08	0.10	0.11	0.15	0.16	..
Kazakhstan	..	..	4.90	3.19	3.25	4.48	5.19	4.97	..
Kosovo	..	..	..	0.19	0.27	0.32	0.39	0.41	..
Kyrgyzstan	..	..	2.01	0.29	0.37	0.66	1.13	0.61	..
Malta	0.08	0.09	0.15	0.15	0.17	0.19	0.19	0.20	..
Republic of Moldova	..	..	0.83	0.21	0.39	0.58	0.66	0.67	..
Montenegro	..	..	..	..	0.16	0.23	0.22	0.24	..
North Macedonia, Republic of	..	..	0.26	0.34	0.35	0.46	0.68	0.71	..
Romania	2.39	2.37	3.90	3.19	4.01	4.58	5.48	5.86	..
Russian Federation	..	..	72.90	42.30	47.58	56.30	57.62	58.93	..
Serbia	..	..	1.48	0.77	2.18	2.17	1.99	2.07	..
Tajikistan	..	..	0.25	0.01	0.03	0.08	0.43	0.39	..
Turkmenistan	..	..	1.39	1.26	1.65	2.14	2.64	2.64	..
Ukraine	..	..	18.13	6.74	7.66	8.84	7.15	7.37	..
Uzbekistan	..	..	1.97	2.40	1.90	1.83	1.20	1.15	..
Former Soviet Union	59.96	84.11	x	x	x	x	x	x	x
Former Yugoslavia	3.51	4.31	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	67.84	93.01	120.92	69.40	80.94	95.75	99.48	101.39	..
Algeria	1.00	2.08	5.03	5.08	7.07	9.99	14.36	14.22	..
Angola	0.47	0.33	0.34	0.36	0.83	2.15	2.60	2.21	..
Benin	0.10	0.09	0.05	0.31	0.52	1.06	1.95	2.01	..
Botswana	..	..	0.22	0.41	0.51	0.65	0.84	0.86	..
Cameroon	0.21	0.39	0.58	0.62	0.70	0.90	1.08	1.05	..
Congo	0.12	0.17	0.17	0.14	0.24	0.49	0.48	0.44	..
Côte d'Ivoire	0.31	0.52	0.40	0.42	0.40	0.50	1.28	1.19	..
Dem. Rep. of the Congo	0.17	0.21	0.19	0.26	0.37	0.55	0.63	0.71	..
Egypt	1.49	2.73	5.36	9.57	9.94	14.55	18.80	19.08	..
Eritrea	..	..	..	0.07	0.06	0.05	0.06	0.06	..
Ethiopia	0.19	0.21	0.31	0.52	0.71	0.90	1.90	2.11	..
Gabon	0.01	0.08	0.11	0.11	0.12	0.21	0.27	0.27	..
Ghana	0.37	0.42	0.54	0.98	1.20	1.71	2.43	2.37	..
Kenya	0.50	0.64	0.90	0.90	0.95	1.66	2.96	2.89	..
Libya	0.55	1.57	2.07	3.71	4.31	6.10	6.17	5.83	..
Mauritius	0.06	0.08	0.15	0.25	0.28	0.31	0.38	0.38	..
Morocco	0.67	0.86	1.28	2.66	3.31	4.43	5.55	5.74	..
Mozambique	0.10	0.10	0.20	0.28	0.34	0.56	1.28	1.37	..
Namibia	..	..	..	0.38	0.52	0.59	0.71	0.70	..
Niger	..	..	..	0.12	0.13	0.27	0.39	0.41	..
Nigeria	1.27	4.54	3.97	7.41	9.74	9.65	17.42	17.43	..
Senegal	0.17	0.24	0.24	0.38	0.48	0.67	0.97	1.04	..
South Africa	6.54	6.92	9.91	11.86	14.50	15.56	16.98	17.92	..
South Sudan	..	..	..	..	..	..	0.32	0.25	..
Sudan	0.80	0.75	1.29	0.87	1.61	2.87	3.71	3.68	..
United Rep. of Tanzania	0.27	0.23	0.23	0.48	0.91	1.16	1.77	1.79	..
Togo	0.07	0.11	0.14	0.14	0.21	0.53	0.52	0.54	..
Tunisia	0.35	0.58	0.82	1.33	1.51	2.03	2.21	2.38	..
Zambia	0.24	0.29	0.26	0.24	0.33	0.22	0.43	0.39	..
Zimbabwe	0.42	0.40	0.52	0.63	0.43	0.44	0.72	0.73	..
Other Africa	0.63	1.27	2.15	3.14	3.64	4.72	5.17	5.34	..
Africa	17.09	25.80	37.43	53.64	65.87	85.46	114.31	115.39	..

Includes non-energy use in transport.

1. Please refer to section 'Geographical coverage'.

Transport consumption of oil (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	0.08	0.32	0.54	1.00	1.59	1.68	2.34	2.71	..
Brunei Darussalam	0.03	0.11	0.19	0.27	0.32	0.40	0.45	0.45	..
Cambodia	..	..	..	0.44	0.50	1.03	1.68	1.76	..
DPR of Korea	0.67	1.84	1.56	0.56	0.43	0.44	0.48	0.46	..
India	6.80	11.62	18.20	31.07	37.33	62.23	86.68	93.77	..
Indonesia	3.06	5.94	10.71	20.83	23.41	29.96	44.81	47.47	..
Malaysia	1.56	2.14	4.88	10.80	13.58	14.66	20.96	20.38	..
Mongolia	..	..	0.47	0.30	0.35	0.45	0.57	0.67	..
Myanmar	0.43	0.63	0.44	1.16	1.52	0.64	1.55	1.94	..
Nepal	0.02	0.05	0.11	0.27	0.27	0.64	1.28	1.57	..
Pakistan	1.08	2.21	4.50	8.26	8.20	9.02	14.26	16.70	..
Philippines	3.41	3.26	4.52	8.10	8.29	7.85	11.02	11.38	..
Singapore	0.60	0.95	1.34	1.73	1.85	2.23	2.32	2.28	..
Sri Lanka	0.54	0.68	0.82	1.68	2.07	2.28	3.10	3.64	..
Chinese Taipei	1.11	2.83	6.58	11.46	12.71	12.04	12.71	12.57	..
Thailand	2.39	3.21	9.01	14.60	18.05	17.79	21.29	23.52	..
Viet Nam	0.97	0.59	1.37	3.50	6.41	10.32	12.09	12.66	..
Other non-OECD Asia	0.71	0.93	0.95	1.18	1.42	2.87	4.06	4.25	..
Non-OECD Asia excl. China	23.47	37.31	66.19	117.21	138.32	176.51	241.67	258.19	..
People's Rep. of China	10.14	15.88	24.24	84.23	134.97	185.03	268.62	280.20	..
Hong Kong, China	0.50	0.82	1.50	3.76	2.04	2.19	2.57	2.77	..
China	10.64	16.70	25.74	87.99	137.01	187.22	271.19	282.97	..
Argentina	8.76	10.45	9.34	11.49	10.13	11.79	12.79	13.18	..
Bolivia	0.39	0.71	0.75	0.96	1.05	1.49	2.25	2.39	..
Brazil	18.84	24.20	27.00	41.18	43.86	53.66	63.80	65.43	62.18
Colombia	2.63	4.01	5.70	6.24	6.67	6.77	10.08	10.11	..
Costa Rica	0.28	0.44	0.53	1.00	1.26	1.52	1.89	1.93	..
Cuba	1.48	1.77	1.77	0.78	0.68	0.45	0.52	0.54	..
Curaçao ¹	0.45	0.51	0.29	0.44	0.47	0.51	0.36	0.36	..
Dominican Republic	0.53	0.60	0.78	1.81	1.96	1.96	2.25	2.21	..
Ecuador	0.70	1.34	2.59	2.91	3.22	4.37	5.66	6.29	..
El Salvador	0.22	0.29	0.42	0.84	1.02	1.00	1.15	1.13	..
Guatemala	0.32	0.45	0.57	1.29	1.71	1.90	2.69	2.79	..
Haiti	0.06	0.10	0.14	0.24	0.39	0.36	0.47	0.48	..
Honduras	0.18	0.21	0.35	0.70	0.76	1.04	1.39	1.47	..
Jamaica	0.54	0.29	0.37	0.66	0.75	0.63	0.64	0.68	..
Nicaragua	0.28	0.29	0.25	0.48	0.48	0.53	0.73	0.78	..
Panama	0.30	0.35	0.43	0.78	0.95	1.19	1.57	1.59	..
Paraguay	0.16	0.36	0.53	0.92	1.00	1.46	2.10	2.39	..
Peru	2.10	2.04	2.38	3.20	3.31	5.29	7.18	7.25	..
Suriname	..	..	..	0.10	0.17	0.22	0.21	0.22	..
Trinidad and Tobago	0.38	0.48	0.46	0.55	0.72	1.07	1.02	1.02	..
Uruguay	0.59	0.55	0.50	0.80	0.76	1.03	1.20	1.25	..
Venezuela	4.96	9.19	9.71	11.57	14.30	16.38	13.59	11.45	..
Other non-OECD Americas	0.15	0.35	0.65	1.41	1.46	1.73	1.32	1.30	..
Non-OECD Americas	44.28	58.98	65.50	90.34	97.07	116.32	134.88	136.23	..
Bahrain	0.08	0.21	0.34	0.52	0.84	1.06	1.22	1.26	..
Islamic Republic of Iran	3.44	7.12	13.03	25.38	34.56	34.92	37.32	38.79	..
Iraq	0.98	3.26	7.25	8.77	8.69	9.29	8.47	9.64	..
Jordan	0.24	0.55	0.91	1.20	1.61	1.75	2.77	3.05	..
Kuwait	0.75	1.79	0.97	2.06	2.78	4.22	4.79	4.43	..
Lebanon	0.55	0.64	0.64	1.38	1.39	1.74	3.00	3.15	..
Oman	0.04	0.22	0.58	0.90	1.25	2.76	4.17	4.13	..
Qatar	0.11	0.35	0.50	0.81	1.57	2.94	4.37	4.46	..
Saudi Arabia	1.45	6.59	16.40	20.37	25.32	35.23	45.68	41.79	..
Syrian Arab Republic	0.58	1.21	2.42	2.79	4.48	4.33	1.77	1.71	..
United Arab Emirates	0.26	2.30	3.72	4.92	7.56	10.05	11.69	13.78	..
Yemen	0.41	0.76	1.35	1.49	1.90	2.42	0.93	0.89	..
Middle East	8.88	24.99	48.10	70.60	91.96	110.70	126.18	127.08	..

Includes non-energy use in transport.

1. Please refer to section 'Geographical coverage'.

Transport consumption of electricity (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	10.594	13.862	20.961	18.754	22.380	25.367	30.013	31.269	..
Non-OECD Total	5.291	7.798	13.270	9.748	13.498	16.869	20.272	21.334	..
OECD Total	5.302	6.064	7.691	9.006	8.882	8.498	9.741	9.936	..
Canada	0.278	0.196	0.281	0.389	0.366	0.351	0.594	0.675	..
Chile	0.017	0.017	0.018	0.019	0.022	0.037	0.085	0.083	..
Mexico	0.031	0.037	0.069	0.095	0.094	0.102	0.098	0.093	..
United States	0.369	0.266	0.355	0.380	0.534	0.552	0.912	0.954	..
OECD Americas	0.694	0.517	0.723	0.882	1.016	1.042	1.689	1.804	..
Australia	0.057	0.077	0.155	0.201	0.297	0.315	0.524	0.505	..
Israel ¹	-	-	-	-	-	-	-	-	..
Japan	1.138	1.309	1.445	1.597	1.625	1.569	1.501	1.501	..
Korea	0.011	0.034	0.087	0.175	0.224	0.188	0.231	0.246	..
New Zealand	0.003	0.003	0.005	0.006	0.006	0.005	0.005	0.005	..
OECD Asia Oceania	1.209	1.423	1.693	1.979	2.152	2.078	2.262	2.258	..
Austria	0.151	0.196	0.238	0.298	0.294	0.276	0.276	0.277	..
Belgium	0.070	0.083	0.107	0.124	0.146	0.149	0.140	0.143	..
Czech Republic	0.163	0.197	0.272	0.201	0.188	0.140	0.141	0.146	..
Denmark	0.009	0.012	0.018	0.030	0.032	0.035	0.036	0.035	..
Estonia	..	..	0.030	0.008	0.009	0.008	0.004	0.004	..
Finland	0.005	0.019	0.037	0.046	0.056	0.064	0.061	0.066	..
France	0.550	0.595	0.643	0.807	0.848	0.863	0.929	0.934	..
Germany	0.848	1.030	1.175	1.368	1.129	1.039	1.009	1.028	..
Greece	0.004	0.008	0.011	0.020	0.017	0.016	0.016	0.016	..
Hungary	0.068	0.093	0.102	0.087	0.094	0.095	0.101	0.104	..
Iceland	-	-	-	-	-	-	0.005	0.005	..
Ireland	-	-	0.001	0.002	0.005	0.004	0.004	0.004	..
Italy	0.325	0.412	0.578	0.732	0.853	0.917	0.960	0.979	..
Latvia	..	..	0.022	0.013	0.013	0.011	0.009	0.009	..
Lithuania	..	..	0.018	0.007	0.009	0.007	0.006	0.006	..
Luxembourg	0.003	0.004	0.005	0.005	0.008	0.010	0.011	0.012	..
Netherlands	0.077	0.084	0.111	0.141	0.139	0.151	0.169	0.167	..
Norway	0.045	0.059	0.056	0.054	0.052	0.049	0.074	0.079	..
Poland	0.298	0.414	0.471	0.400	0.343	0.287	0.283	0.286	..
Portugal	0.019	0.021	0.027	0.031	0.041	0.041	0.037	0.042	..
Slovak Republic	0.054	0.084	0.100	0.083	0.049	0.046	0.052	0.050	..
Slovenia	..	..	0.019	0.023	0.017	0.015	0.014	0.020	..
Spain	0.125	0.164	0.315	0.358	0.461	0.277	0.445	0.455	..
Sweden	0.179	0.195	0.213	0.275	0.242	0.207	0.229	0.213	..
Switzerland	0.174	0.180	0.221	0.227	0.256	0.272	0.275	0.271	..
Turkey	0.009	0.013	0.030	0.066	0.064	0.051	0.099	0.111	..
United Kingdom	0.225	0.261	0.454	0.741	0.349	0.350	0.403	0.411	..
OECD Europe	3.400	4.125	5.274	6.145	5.715	5.378	5.790	5.874	..
IEA	5.286	6.047	7.613	8.945	8.822	8.429	9.622	9.812	..
IEA/Accession/Association	5.868	6.939	8.972	11.718	13.178	15.814	21.086	22.618	..
European Union - 28	..	..	5.336	6.024	5.546	5.180	5.478	5.557	..
G7	3.733	4.070	4.932	6.014	5.705	5.640	6.308	6.482	..
G8	..	..	13.854	11.252	12.856	12.973	13.408	13.153	..
G20	..	..	18.015	16.917	20.162	22.836	27.691	28.809	..
OPEC	..	..	0.047	0.055	0.073	0.105	0.126	0.134	..

1. Please refer to section 'Geographical coverage'.

Transport consumption of electricity (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	5.291	7.798	13.270	9.748	13.498	16.869	20.272	21.334	..
Albania	-	-	-	-	0.001	-	-	-	..
Armenia	..	..	0.033	0.011	0.011	0.010	0.009	0.009	..
Azerbaijan	..	..	0.069	0.046	0.050	0.047	0.037	0.034	..
Belarus	..	..	0.254	0.158	0.172	0.139	0.102	0.105	..
Bosnia and Herzegovina	..	..	-	-	-	0.012	0.006	0.007	..
Bulgaria	-	0.089	0.112	0.045	0.043	0.034	0.030	0.032	..
Croatia	..	..	0.032	0.021	0.022	0.023	0.022	0.023	..
Cyprus ¹	0.003	0.000	-	-	-	-	-	-	..
Georgia	..	..	0.093	0.039	0.031	0.047	0.026	0.029	..
Gibraltar	-	-	-	-	-	-	-	-	..
Kazakhstan	..	..	0.556	0.130	0.296	0.269	0.279	0.346	..
Kosovo	..	..	..	-	-	-	-	-	..
Kyrgyzstan	..	..	0.012	0.010	-	-	0.004	0.004	..
Malta	-	-	-	-	-	-	-	-	..
Republic of Moldova	..	..	0.007	0.008	0.007	0.008	0.009	0.011	..
Montenegro	..	..	..	..	0.002	0.002	0.002	0.002	..
North Macedonia, Republic of	..	..	0.002	0.002	0.002	0.002	0.001	0.001	..
Romania	-	0.165	0.225	0.160	0.138	0.117	0.090	0.094	..
Russian Federation	..	..	8.922	5.238	7.151	7.333	7.100	6.671	..
Serbia	..	..	0.039	0.021	0.021	0.019	0.030	0.032	..
Tajikistan	..	..	0.017	0.004	0.002	0.003	0.003	0.003	..
Turkmenistan	..	..	0.089	0.013	0.017	0.020	0.028	0.028	..
Ukraine	..	..	1.245	0.794	0.815	0.771	0.584	0.606	..
Uzbekistan	..	..	0.107	0.115	0.118	0.104	0.100	0.105	..
Former Soviet Union	4.626	6.535	x	x	x	x	x	x	x
Former Yugoslavia	0.062	0.077	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	4.691	6.867	11.816	6.814	8.901	8.959	8.461	8.141	..
Algeria	0.002	0.001	0.024	0.030	0.041	0.055	0.087	0.092	..
Angola	-	-	-	-	-	-	-	-	..
Benin	-	-	-	-	-	-	-	-	..
Botswana	..	..	-	-	-	-	-	-	..
Cameroon	-	-	-	-	-	-	-	-	..
Congo	-	-	-	-	-	-	-	-	..
Côte d'Ivoire	-	-	-	-	-	-	-	-	..
Dem. Rep. of the Congo	-	-	-	-	-	-	-	0.001	..
Egypt	-	-	-	-	-	-	0.050	0.052	..
Eritrea	..	..	..	-	-	-	-	-	..
Ethiopia	-	-	-	-	-	-	-	-	..
Gabon	-	-	-	0.000	0.000	0.001	0.001	0.001	..
Ghana	-	-	-	-	-	-	0.001	0.001	..
Kenya	-	-	-	-	-	-	-	-	..
Libya	-	-	-	-	-	-	-	-	..
Mauritius	-	-	-	-	-	-	-	-	..
Morocco	0.007	0.009	0.017	0.018	0.018	0.024	0.030	0.032	..
Mozambique	-	-	-	-	-	-	-	-	..
Namibia	..	..	..	-	-	-	-	-	..
Niger	..	..	..	-	-	-	-	-	..
Nigeria	-	-	-	-	-	-	-	-	..
Senegal	-	-	-	-	-	-	-	-	..
South Africa	0.249	0.372	0.340	0.463	0.468	0.309	0.297	0.323	..
South Sudan	..	..	..	..	..	..	-	-	..
Sudan	-	-	-	-	-	-	-	-	..
United Rep. of Tanzania	-	-	-	-	-	-	-	-	..
Togo	-	-	-	-	-	-	-	-	..
Tunisia	-	0.004	0.009	0.016	0.020	0.007	0.008	0.008	..
Zambia	-	-	0.001	0.001	0.001	0.002	0.002	0.003	..
Zimbabwe	-	-	-	-	-	-	-	-	..
Other Africa	-	-	-	0.001	0.001	-	-	-	..
Africa	0.259	0.387	0.391	0.529	0.549	0.397	0.476	0.512	..

1. Please refer to section 'Geographical coverage'.

Transport consumption of electricity (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	-	-	-	-	-	-	-	-	..
Brunei Darussalam	-	-	-	-	-	-	-	-	..
Cambodia	..	..	..	-	-	-	-	-	..
DPR of Korea	-	-	-	-	-	-	-	-	..
India	0.132	0.195	0.354	0.706	0.855	1.146	1.348	1.234	..
Indonesia	-	-	-	-	-	-	-	-	..
Malaysia	-	-	-	0.004	0.005	0.018	0.029	0.039	..
Mongolia	..	..	-	-	-	-	-	-	..
Myanmar	-	-	-	-	-	-	-	-	..
Nepal	-	0.000	0.000	0.001	0.001	0.001	0.001	0.000	..
Pakistan	0.002	0.003	0.003	0.001	0.001	0.000	-	-	..
Philippines	-	-	-	0.005	0.008	0.010	0.009	0.010	..
Singapore	-	-	0.016	0.025	0.103	0.180	0.227	0.237	..
Sri Lanka	-	-	-	-	-	-	-	-	..
Chinese Taipei	0.000	0.018	0.017	0.039	0.045	0.100	0.117	0.122	..
Thailand	-	-	-	0.003	0.005	0.006	0.016	0.016	..
Viet Nam	-	-	-	-	-	-	-	-	..
Other non-OECD Asia	-	-	-	-	-	-	-	-	..
Non-OECD Asia excl. China	0.134	0.216	0.390	0.784	1.023	1.461	1.747	1.659	..
People's Rep. of China	0.126	0.228	0.510	1.432	2.783	5.539	9.238	10.657	..
Hong Kong, China	-	-	-	-	-	-	-	-	..
China	0.126	0.228	0.510	1.432	2.783	5.539	9.238	10.657	..
Argentina	0.025	0.023	0.027	0.045	0.052	0.058	0.047	0.057	..
Bolivia	-	-	-	-	-	-	-	-	..
Brazil	0.052	0.071	0.103	0.107	0.102	0.143	0.222	0.225	0.269
Colombia	-	-	-	0.004	0.004	0.005	0.008	0.008	..
Costa Rica	0.001	0.001	0.001	-	-	-	-	-	..
Cuba	0.003	0.006	0.008	0.008	0.009	0.022	0.025	0.025	..
Curaçao ¹	-	-	-	-	-	-	-	-	..
Dominican Republic	-	-	-	-	-	0.002	0.005	0.004	..
Ecuador	-	-	-	0.001	0.001	0.001	0.001	0.001	..
El Salvador	-	-	-	-	-	-	-	-	..
Guatemala	-	-	-	-	-	-	-	-	..
Haiti	-	-	-	-	-	-	-	-	..
Honduras	-	-	-	-	-	-	-	-	..
Jamaica	-	-	-	-	-	-	-	-	..
Nicaragua	-	-	-	-	-	-	-	-	..
Panama	-	-	-	-	-	-	-	-	..
Paraguay	-	-	-	-	-	-	-	-	..
Peru	-	-	-	-	-	0.233	0.004	0.005	..
Suriname	..	..	..	-	-	-	-	-	..
Trinidad and Tobago	-	-	-	-	-	-	-	-	..
Uruguay	-	-	-	-	-	-	-	-	..
Venezuela	-	-	0.024	0.022	0.022	0.024	-	-	..
Other non-OECD Americas	-	-	-	-	0.043	0.000	-	-	..
Non-OECD Americas	0.081	0.100	0.162	0.187	0.233	0.488	0.312	0.325	..
Bahrain	-	-	-	-	-	-	-	-	..
Islamic Republic of Iran	-	-	-	0.001	0.009	0.026	0.037	0.041	..
Iraq	-	-	-	-	-	-	-	-	..
Jordan	-	-	-	-	-	-	-	-	..
Kuwait	-	-	-	-	-	-	-	-	..
Lebanon	-	-	-	-	-	-	-	-	..
Oman	-	-	-	-	-	-	-	-	..
Qatar	-	-	-	-	-	-	-	-	..
Saudi Arabia	-	-	-	-	-	-	-	-	..
Syrian Arab Republic	-	-	-	-	-	-	-	-	..
United Arab Emirates	-	-	-	-	-	-	-	-	..
Yemen	-	-	-	-	-	-	-	-	..
Middle East	-	-	-	0.001	0.009	0.026	0.037	0.041	..

1. Please refer to section 'Geographical coverage'.

Total transport consumption of energy (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	1 088.53	1 253.95	1 580.93	1 970.90	2 219.66	2 429.32	2 755.46	2 819.16	..
Non-OECD Total	203.01	287.05	429.53	541.98	684.54	872.53	1 110.15	1 147.04	..
OECD Total	701.61	788.74	949.48	1 155.48	1 217.24	1 198.17	1 248.97	1 259.60	..
Canada	33.60	44.32	43.40	52.34	54.71	58.60	61.56	61.37	..
Chile	1.84	2.09	3.05	5.67	6.16	7.14	8.84	9.16	..
Mexico	12.41	22.80	28.31	35.84	44.24	51.09	52.94	51.42	..
United States	418.12	429.31	492.45	593.07	623.08	595.94	626.10	630.42	..
OECD Americas	465.95	498.52	567.20	686.92	728.19	712.76	749.43	752.37	..
Australia	12.93	16.82	21.11	25.66	27.14	29.99	32.69	33.35	..
Israel ¹	1.15	1.39	2.69	4.45	4.49	5.48	5.85	5.97	..
Japan	41.13	54.22	69.29	86.44	82.00	76.75	72.19	71.61	..
Korea	2.50	4.78	14.57	26.75	29.82	30.62	35.42	36.25	..
New Zealand	1.94	2.29	2.96	4.06	4.54	4.57	4.92	5.23	..
OECD Asia Oceania	59.66	79.51	110.62	147.36	147.99	147.39	151.06	152.43	..
Austria	4.13	4.28	4.90	6.51	8.50	8.24	8.65	8.80	..
Belgium	4.42	5.50	6.88	8.21	8.73	8.99	9.02	8.87	..
Czech Republic	2.40	2.48	2.79	4.43	6.04	6.03	6.53	6.73	..
Denmark	2.70	3.03	3.48	4.07	4.50	4.40	4.17	4.25	..
Estonia	..	..	0.84	0.56	0.72	0.75	0.78	0.81	..
Finland	2.41	2.80	3.95	3.95	4.25	4.32	4.17	4.19	..
France	25.15	30.72	38.92	45.23	44.69	43.82	45.25	45.57	..
Germany	36.54	44.75	54.96	59.90	55.33	53.46	57.17	58.01	..
Greece	2.07	3.19	5.16	6.44	7.38	7.51	5.92	5.84	..
Hungary	2.28	2.88	2.93	3.04	4.09	4.18	4.37	4.55	..
Iceland	0.13	0.16	0.21	0.21	0.23	0.28	0.33	0.36	..
Ireland	1.17	1.58	1.68	3.56	4.34	4.00	4.05	4.01	..
Italy	18.96	24.35	32.96	40.17	42.26	38.77	36.13	34.93	..
Latvia	..	..	1.09	0.74	1.04	1.10	1.07	1.10	..
Lithuania	..	..	1.87	1.05	1.41	1.50	1.87	1.97	..
Luxembourg	0.23	0.44	0.88	1.61	2.38	2.20	1.93	1.99	..
Netherlands	6.53	7.68	9.27	10.92	11.68	11.75	10.49	10.76	..
Norway	2.30	2.89	3.41	4.06	4.38	5.06	4.96	4.60	..
Poland	8.97	9.17	7.17	9.76	12.26	17.06	18.67	21.53	..
Portugal	1.64	2.32	3.31	5.92	6.38	6.47	5.67	5.78	..
Slovak Republic	1.68	1.50	1.45	1.43	2.35	2.59	2.45	2.79	..
Slovenia	..	..	0.90	1.21	1.45	1.78	1.88	1.85	..
Spain	10.85	15.07	21.54	30.52	36.88	34.11	30.81	31.92	..
Sweden	5.35	5.92	6.99	7.57	8.09	7.88	8.23	8.43	..
Switzerland	3.59	3.74	5.21	5.88	5.89	6.08	5.73	5.68	..
Turkey	4.38	5.49	9.35	12.04	12.84	15.33	26.74	27.96	..
United Kingdom	28.12	30.76	39.53	42.18	42.97	40.37	41.44	41.52	..
OECD Europe	176.00	210.71	271.66	321.20	341.05	338.01	348.47	354.80	..
International marine bunkers	121.55	110.88	115.62	155.01	177.50	205.80	211.35	217.15	x
International aviation bunkers	62.36	67.28	86.30	118.43	140.39	152.82	184.99	195.37	x
IEA	698.49	785.10	939.66	1 142.14	1 202.46	1 180.89	1 229.13	1 239.18	..
IEA/Accession/Association	765.36	872.77	1 060.45	1 365.60	1 501.91	1 594.86	1 807.31	1 846.76	..
European Union - 28	..	..	261.71	306.52	327.24	321.72	322.71	328.87	..
G7	601.62	658.44	771.52	919.32	945.05	907.70	939.83	943.44	..
G8	..	..	887.40	993.80	1 033.62	1 004.19	1 034.13	1 039.30	..
G20	..	..	1 189.60	1 449.85	1 600.82	1 709.69	1 926.44	1 962.17	..
OPEC	..	..	66.03	94.48	122.36	151.62	180.41	178.70	..

Includes non-energy use in transport.

World includes international marine bunkers and international aviation bunkers.

1. Please refer to section 'Geographical coverage'.

Total transport consumption of energy (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	203.01	287.05	429.53	541.98	684.54	872.53	1 110.15	1 147.04	..
Albania	0.26	0.49	0.23	0.48	0.78	0.73	0.83	0.83	..
Armenia	..	..	1.05	0.21	0.25	0.50	0.62	0.65	..
Azerbaijan	..	..	2.23	0.88	1.53	1.75	2.27	2.63	..
Belarus	..	..	4.15	2.34	2.81	3.62	3.79	3.94	..
Bosnia and Herzegovina	..	..	0.73	0.70	0.76	1.13	1.19	1.24	..
Bulgaria	1.59	1.51	2.28	1.91	2.65	2.71	3.28	3.33	..
Croatia	..	..	1.26	1.49	1.85	1.98	2.05	2.20	..
Cyprus ¹	0.25	0.21	0.38	0.58	0.67	0.76	0.65	0.67	..
Georgia	..	..	1.39	0.36	0.55	0.80	1.46	1.32	..
Gibraltar	0.01	0.01	0.03	0.08	0.10	0.11	0.15	0.16	..
Kazakhstan	..	..	5.45	3.32	3.54	4.75	5.47	5.33	..
Kosovo	..	..	..	0.19	0.27	0.32	0.39	0.41	..
Kyrgyzstan	..	..	2.02	0.30	0.37	0.67	1.14	0.62	..
Malta	0.08	0.09	0.15	0.15	0.17	0.19	0.20	0.21	..
Republic of Moldova	..	..	0.84	0.26	0.41	0.59	0.70	0.70	..
Montenegro	..	..	..	..	0.16	0.23	0.22	0.24	..
North Macedonia, Republic of	..	..	0.26	0.34	0.35	0.46	0.68	0.71	..
Romania	2.84	2.54	4.15	3.38	4.18	4.83	5.82	6.25	..
Russian Federation	..	..	115.88	74.48	88.57	96.49	94.29	95.86	..
Serbia	..	..	1.52	0.79	2.21	2.19	2.03	2.10	..
Tajikistan	..	..	0.27	0.02	0.05	0.10	0.43	0.39	..
Turkmenistan	..	..	3.90	2.44	3.25	2.96	4.33	4.33	..
Ukraine	..	..	19.45	10.44	11.77	12.95	9.18	9.63	..
Uzbekistan	..	..	2.08	3.90	3.35	3.10	2.04	1.98	..
Former Soviet Union	73.23	97.65	x	x	x	x	x	x	x
Former Yugoslavia	3.82	4.44	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	82.07	106.93	169.71	109.03	130.61	143.90	143.20	145.74	..
Algeria	1.00	2.09	5.35	5.77	8.29	10.67	15.13	15.07	..
Angola	0.47	0.33	0.34	0.36	0.83	2.15	2.60	2.21	..
Benin	0.10	0.09	0.05	0.31	0.52	1.06	1.95	2.01	..
Botswana	..	..	0.22	0.41	0.51	0.65	0.84	0.86	..
Cameroon	0.21	0.39	0.58	0.62	0.70	0.90	1.08	1.05	..
Congo	0.12	0.17	0.17	0.14	0.24	0.49	0.48	0.44	..
Côte d'Ivoire	0.31	0.52	0.40	0.42	0.40	0.50	1.28	1.19	..
Dem. Rep. of the Congo	0.17	0.21	0.19	0.26	0.37	0.55	0.63	0.71	..
Egypt	1.49	2.73	5.36	9.57	10.19	14.89	19.13	19.45	..
Eritrea	..	..	..	0.07	0.06	0.05	0.06	0.06	..
Ethiopia	0.19	0.21	0.31	0.52	0.71	0.91	1.91	2.12	..
Gabon	0.01	0.08	0.11	0.11	0.12	0.21	0.27	0.27	..
Ghana	0.37	0.42	0.54	0.98	1.20	1.71	2.43	2.37	..
Kenya	0.53	0.64	0.90	0.90	0.95	1.66	2.96	2.89	..
Libya	0.55	1.57	2.07	3.71	4.31	6.10	6.17	5.83	..
Mauritius	0.06	0.08	0.15	0.25	0.28	0.31	0.38	0.38	..
Morocco	0.68	0.87	1.30	2.68	3.33	4.45	5.58	5.78	..
Mozambique	0.10	0.10	0.20	0.28	0.34	0.56	1.28	1.37	..
Namibia	..	..	..	0.38	0.52	0.59	0.71	0.70	..
Niger	..	..	..	0.12	0.13	0.27	0.39	0.41	..
Nigeria	1.36	4.54	3.97	7.41	9.74	9.65	17.42	17.43	..
Senegal	0.17	0.24	0.24	0.38	0.48	0.67	0.97	1.04	..
South Africa	9.53	8.55	10.30	12.32	14.97	15.87	17.27	18.25	..
South Sudan	..	..	..	..	..	..	0.32	0.25	..
Sudan	0.80	0.75	1.29	0.87	1.61	2.87	3.71	3.68	..
United Rep. of Tanzania	0.27	0.23	0.23	0.48	0.91	1.16	1.77	1.79	..
Togo	0.07	0.11	0.14	0.14	0.21	0.53	0.52	0.54	..
Tunisia	0.35	0.58	0.83	1.34	1.53	2.40	2.45	2.61	..
Zambia	0.25	0.29	0.26	0.24	0.33	0.22	0.43	0.39	..
Zimbabwe	0.68	0.57	0.65	0.64	0.44	0.45	0.75	0.76	..
Other Africa	0.63	1.28	2.16	3.14	3.64	4.72	5.17	5.34	..
Africa	20.48	27.61	38.30	54.84	67.86	87.20	116.03	117.24	..

Includes non-energy use in transport.

1. Please refer to section 'Geographical coverage'.

Total transport consumption of energy (Mtoe)

Mtoe	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	0.08	0.32	0.54	1.00	1.67	2.61	3.45	3.83	..
Brunei Darussalam	0.03	0.11	0.19	0.27	0.32	0.40	0.45	0.45	..
Cambodia	..	..	..	0.44	0.50	1.03	1.68	1.76	..
DPR of Korea	0.67	1.84	1.56	0.56	0.43	0.44	0.48	0.46	..
India	12.53	16.76	20.75	31.92	38.96	64.80	91.18	98.22	..
Indonesia	3.08	5.95	10.71	20.85	23.42	30.14	46.95	49.34	..
Malaysia	1.56	2.14	4.88	10.81	13.69	14.93	21.59	20.95	..
Mongolia	..	..	0.51	0.32	0.35	0.48	0.59	0.70	..
Myanmar	0.43	0.63	0.44	1.16	1.54	0.81	1.71	2.10	..
Nepal	0.02	0.05	0.11	0.27	0.27	0.64	1.28	1.57	..
Pakistan	1.09	2.21	4.50	8.36	9.07	11.53	15.76	18.27	..
Philippines	3.41	3.26	4.52	8.10	8.30	8.04	11.46	11.85	..
Singapore	0.60	0.95	1.36	1.75	1.96	2.43	2.56	2.53	..
Sri Lanka	0.54	0.68	0.82	1.68	2.07	2.28	3.10	3.64	..
Chinese Taipei	1.21	2.85	6.60	11.50	12.76	12.14	12.83	12.69	..
Thailand	2.39	3.21	9.01	14.61	18.13	19.92	25.17	27.27	..
Viet Nam	0.97	0.65	1.38	3.50	6.41	10.32	12.09	12.67	..
Other non-OECD Asia	0.71	0.93	0.95	1.18	1.42	2.87	4.06	4.25	..
Non-OECD Asia excl. China	29.31	42.55	68.83	118.29	141.27	185.80	256.39	272.54	..
People's Rep. of China	17.14	23.59	31.35	86.29	139.92	199.18	297.60	312.17	..
Hong Kong, China	0.50	0.82	1.50	3.76	2.04	2.19	2.57	2.77	..
China	17.65	24.41	32.85	90.04	141.97	201.37	300.17	314.94	..
Argentina	8.82	10.47	9.55	13.83	13.95	15.71	17.51	17.65	..
Bolivia	0.39	0.71	0.75	0.98	1.17	1.87	2.84	3.01	..
Brazil	19.09	25.71	32.96	47.38	52.59	70.05	83.03	84.87	85.30
Colombia	2.63	4.02	5.72	6.30	6.91	7.35	10.65	10.60	..
Costa Rica	0.28	0.44	0.53	1.00	1.26	1.52	1.89	1.93	..
Cuba	1.48	1.78	1.77	0.78	0.69	0.47	0.55	0.56	..
Curaçao ¹	0.45	0.51	0.29	0.44	0.47	0.51	0.36	0.36	..
Dominican Republic	0.53	0.60	0.78	1.81	1.96	1.97	2.28	2.23	..
Ecuador	0.70	1.34	2.59	2.91	3.22	4.37	5.68	6.30	..
El Salvador	0.22	0.29	0.42	0.84	1.02	1.00	1.15	1.13	..
Guatemala	0.32	0.45	0.57	1.29	1.71	1.90	2.69	2.79	..
Haiti	0.06	0.10	0.14	0.24	0.39	0.36	0.47	0.48	..
Honduras	0.18	0.21	0.35	0.70	0.76	1.04	1.39	1.47	..
Jamaica	0.54	0.29	0.37	0.66	0.75	0.63	0.67	0.71	..
Nicaragua	0.28	0.29	0.25	0.48	0.48	0.53	0.73	0.78	..
Panama	0.30	0.35	0.43	0.78	0.95	1.19	1.57	1.59	..
Paraguay	0.18	0.37	0.56	0.92	1.01	1.53	2.25	2.54	..
Peru	2.10	2.04	2.38	3.20	3.31	5.98	8.16	8.27	..
Suriname	..	..	..	0.10	0.17	0.22	0.21	0.22	..
Trinidad and Tobago	0.38	0.48	0.46	0.55	0.72	1.07	1.02	1.02	..
Uruguay	0.59	0.55	0.50	0.80	0.76	1.04	1.28	1.32	..
Venezuela	4.96	9.19	9.74	11.67	14.43	16.41	13.60	11.46	..
Other non-OECD Americas	0.15	0.35	0.65	1.41	1.50	1.73	1.32	1.30	..
Non-OECD Americas	44.62	60.55	71.74	99.07	110.18	138.42	161.30	162.59	..
Bahrain	0.08	0.21	0.34	0.52	0.84	1.06	1.22	1.26	..
Islamic Republic of Iran	3.44	7.12	13.03	25.49	35.25	40.05	44.20	45.70	..
Iraq	0.98	3.26	7.25	8.77	8.69	9.29	8.47	9.64	..
Jordan	0.24	0.55	0.91	1.20	1.61	1.75	2.77	3.05	..
Kuwait	0.75	1.79	0.97	2.06	2.78	4.22	4.79	4.43	..
Lebanon	0.55	0.64	0.64	1.38	1.39	1.74	3.00	3.15	..
Oman	0.04	0.22	0.58	0.90	1.25	2.76	4.17	4.13	..
Qatar	0.11	0.35	0.50	0.81	1.57	2.94	4.37	4.46	..
Saudi Arabia	1.45	6.59	16.40	20.37	25.32	35.23	45.68	41.79	..
Syrian Arab Republic	0.58	1.21	2.42	2.79	4.48	4.33	1.77	1.71	..
United Arab Emirates	0.26	2.30	3.72	4.92	7.56	10.05	11.69	13.78	..
Yemen	0.41	0.76	1.35	1.49	1.90	2.42	0.93	0.89	..
Middle East	8.88	24.99	48.10	70.71	92.66	115.83	133.06	133.99	..

Includes non-energy use in transport.

1. Please refer to section 'Geographical coverage'.

GDP using exchange rates (billion 2010 USD)

<i>billion 2010 USD</i>	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	22 839.0	28 434.8	37 951.2	50 021.6	58 160.3	66 114.4	77 678.1	80 078.9	..
Non-OECD Total	5 006.1	6 867.1	8 628.9	11 748.5	15 530.1	21 257.3	27 759.9	28 946.3	..
OECD Total	17 832.9	21 567.7	29 322.4	38 273.1	42 630.2	44 857.1	49 918.2	51 132.5	52 258.9
Canada	620.6	782.4	1 014.7	1 344.8	1 527.3	1 617.3	1 819.2	1 873.4	1 908.6
Chile	40.4	52.1	75.5	144.5	181.7	218.5	269.0	272.4	283.4
Mexico	347.7	537.8	643.2	915.2	982.7	1 057.8	1 258.9	1 284.9	1 310.5
United States	5 466.0	6 496.3	9 001.2	12 620.3	14 332.5	14 992.1	16 972.3	17 348.6	17 844.3
OECD Americas	6 474.7	7 868.5	10 734.6	15 024.8	17 024.2	17 885.7	20 319.4	20 779.3	21 346.7
Australia	417.3	502.4	675.5	957.7	1 132.4	1 299.5	1 530.7	1 574.1	1 616.3
Israel ¹	52.3	66.5	96.2	170.9	188.9	233.7	290.4	300.5	310.4
Japan	2 392.7	3 019.3	4 703.6	5 348.9	5 672.3	5 700.1	6 025.1	6 141.4	6 189.7
Korea	79.5	141.1	362.9	710.0	894.7	1 094.5	1 305.9	1 345.9	1 381.9
New Zealand	66.8	70.0	82.6	111.7	135.9	146.6	176.1	180.6	185.7
OECD Asia Oceania	3 008.7	3 799.3	5 920.8	7 299.4	8 024.2	8 474.4	9 328.3	9 542.5	9 684.0
Austria	171.2	208.3	260.2	336.5	367.3	391.9	422.0	432.8	444.6
Belgium	225.0	270.4	330.0	411.8	450.5	483.5	516.7	525.7	533.2
Czech Republic	107.3	127.2	144.6	151.8	183.9	207.5	231.0	241.1	248.0
Denmark	167.7	186.4	229.1	298.2	318.6	322.0	351.5	359.5	364.6
Estonia	..	..	15.0	14.1	19.9	19.5	24.2	25.4	26.4
Finland	99.8	122.6	167.1	209.4	237.9	247.8	255.2	262.0	268.1
France	1 215.4	1 482.6	1 894.1	2 333.5	2 536.8	2 642.6	2 811.8	2 875.3	2 924.9
Germany	1 729.0	2 040.5	2 568.6	3 123.9	3 213.8	3 417.1	3 801.9	3 883.9	3 939.2
Greece	151.2	184.6	197.7	251.5	304.3	299.4	244.3	247.9	252.7
Hungary	72.7	93.1	104.3	107.2	132.4	130.9	147.5	153.6	161.2
Iceland	4.3	6.1	8.0	10.5	12.9	13.7	16.8	17.5	18.3
Ireland	43.4	59.7	85.2	167.8	217.0	222.1	334.3	358.4	382.3
Italy	1 074.6	1 379.8	1 749.2	2 060.2	2 158.7	2 125.1	2 085.4	2 120.6	2 138.8
Latvia	..	..	..	16.4	24.4	23.8	28.8	30.2	31.6
Lithuania	..	..	..	24.3	35.0	37.1	45.7	47.6	49.3
Luxembourg	13.7	14.9	24.1	40.8	47.2	53.2	62.6	63.5	65.2
Netherlands	356.3	428.2	533.8	739.5	790.5	846.6	898.0	923.7	948.4
Norway	145.5	198.3	255.6	367.0	409.1	429.1	473.2	482.6	489.6
Poland	197.2	228.2	226.7	326.2	379.8	479.3	573.4	601.0	632.0
Portugal	97.5	121.0	166.6	221.4	231.1	238.3	232.4	238.9	244.1
Slovak Republic	37.2	44.1	51.1	55.5	71.0	89.5	104.8	108.1	112.6
Slovenia	..	..	30.9	36.9	44.1	48.0	50.5	52.9	55.3
Spain	558.7	653.9	873.1	1 149.5	1 358.1	1 431.6	1 466.1	1 509.7	1 548.7
Sweden	228.8	258.8	321.5	397.0	451.9	488.9	557.6	569.4	582.8
Switzerland	339.2	346.9	432.1	487.1	524.1	583.8	644.2	654.6	671.2
Turkey	172.2	219.0	364.0	520.9	658.1	771.9	1 122.5	1 206.0	1 237.0
United Kingdom	1 141.8	1 225.1	1 634.6	2 089.9	2 403.4	2 452.9	2 768.2	2 818.7	2 858.1
OECD Europe	8 349.6	9 899.8	12 667.1	15 948.9	17 581.8	18 497.1	20 270.6	20 810.7	21 228.2
IEA	17 735.9	21 442.9	29 111.8	37 869.5	42 143.2	44 282.3	49 217.0	50 411.3	51 510.5
IEA/Accession/Association	19 190.2	23 618.0	32 461.5	43 722.9	50 201.8	56 268.1	65 994.2	68 124.2	..
European Union - 28	..	..	11 831.8	14 778.0	16 254.1	17 009.6	18 370.5	18 826.9	..
G7	13 640.1	16 426.0	22 566.0	28 921.5	31 844.8	32 947.1	36 284.0	37 061.8	37 803.6
G8	..	..	23 979.9	29 873.1	33 126.1	34 472.0	37 938.4	38 741.8	..
G20	..	..	33 634.2	44 282.5	51 068.7	57 344.6	67 154.6	69 294.2	..
OPEC	-	-	1 382.5	1 819.7	2 316.0	2 860.7	3 382.3	3 365.6	..

1. Please refer to section 'Geographical coverage'.

GDP using exchange rates (billion 2010 USD)

<i>billion 2010 USD</i>	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	5 006.1	6 867.1	8 628.9	11 748.5	15 530.1	21 257.3	27 759.9	28 946.3	..
Albania	4.0	5.4	6.2	6.9	9.2	11.9	13.5	14.0	..
Armenia	..	..	6.4	4.3	7.7	9.3	11.5	12.4	..
Azerbaijan	..	..	22.3	13.1	24.8	52.9	57.2	57.3	..
Belarus	..	..	32.4	28.7	41.3	58.7	60.5	62.0	..
Bosnia and Herzegovina	..	..	3.4	11.3	14.9	17.2	18.9	19.5	..
Bulgaria	18.1	28.6	36.3	32.3	42.6	50.6	56.8	59.0	..
Croatia	..	..	48.1	46.8	58.2	59.8	61.4	63.2	..
Cyprus ¹	3.7	6.5	11.8	18.5	22.6	25.6	24.8	25.8	..
Georgia	..	..	16.9	6.3	9.0	11.6	15.2	15.9	..
Gibraltar	0.5	0.5	0.7	0.9	1.0	1.1	1.3	1.4	..
Kazakhstan	..	..	96.3	66.9	109.5	148.0	188.3	196.0	..
Kosovo	..	..	..	3.3	4.7	5.8	7.1	7.4	..
Kyrgyzstan	..	..	4.8	3.2	3.9	4.8	6.3	6.6	..
Malta	1.3	2.9	4.3	7.1	7.9	8.7	11.9	12.6	..
Republic of Moldova	..	..	10.0	3.5	5.0	5.8	7.4	7.7	..
Montenegro	..	..	..	..	3.4	4.1	4.7	4.9	..
North Macedonia, Republic of	..	..	7.7	7.0	7.7	9.4	10.9	10.9	..
Romania	65.1	116.3	124.0	109.9	145.4	166.2	201.7	216.3	..
Russian Federation	..	..	1 413.9	951.6	1 281.3	1 524.9	1 654.4	1 680.0	..
Serbia	..	..	24.6	25.6	34.6	39.5	41.3	42.1	..
Tajikistan	..	..	6.8	2.6	4.1	5.6	8.5	9.1	..
Turkmenistan	..	..	13.7	10.8	13.8	22.6	39.6	42.1	..
Ukraine	..	..	205.8	89.4	129.9	136.0	124.2	127.3	..
Uzbekistan	..	..	20.5	20.0	26.1	39.3	62.5	65.8	..
Former Soviet Union	1 285.1	1 721.5	x	x	x	x	x	x	x
Former Yugoslavia	83.2	129.4	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	1 461.0	2 011.1	2 116.6	1 470.1	2 008.6	2 419.6	2 689.7	2 759.4	..
Algeria	45.9	70.0	92.0	110.4	142.3	161.2	196.0	199.2	..
Angola	28.4	26.5	31.8	36.0	56.0	83.8	101.8	101.7	..
Benin	1.8	2.2	3.0	4.8	5.8	7.0	9.1	9.6	..
Botswana	..	..	5.3	8.6	10.2	12.8	16.8	17.2	..
Cameroon	6.8	11.4	15.8	17.8	22.0	26.1	35.1	36.4	..
Congo	2.8	4.1	6.6	7.6	9.3	12.0	14.2	13.8	..
Côte d'Ivoire	12.0	16.5	17.8	22.3	22.3	24.9	36.7	39.5	..
Dem. Rep. of the Congo	24.5	22.3	24.3	13.7	16.5	21.6	32.1	33.3	..
Egypt	28.0	47.7	87.4	136.4	162.2	218.9	260.8	271.7	..
Eritrea	..	..	..	1.9	2.2	2.1	2.8	2.9	..
Ethiopia	8.1	8.2	10.0	13.1	17.9	29.9	52.3	57.7	..
Gabon	5.7	8.9	10.6	12.5	13.4	14.4	18.9	19.0	..
Ghana	9.9	9.7	12.0	18.4	23.5	32.2	46.8	50.6	..
Kenya	10.2	14.6	21.8	26.2	31.3	40.0	55.4	58.1	..
Libya	50.1	72.7	46.9	48.0	61.7	74.8	36.8	46.6	..
Mauritius	1.6	2.2	3.9	6.6	7.7	10.0	12.4	12.9	..
Morocco	18.4	27.2	43.2	57.5	73.0	93.2	114.7	119.3	..
Mozambique	2.8	2.3	2.3	4.6	7.1	10.2	14.8	15.4	..
Namibia	..	..	..	7.2	9.2	11.3	14.9	14.8	..
Niger	..	..	..	3.7	4.4	5.7	8.1	8.5	..
Nigeria	118.5	151.3	144.2	169.2	258.0	363.4	456.8	460.5	..
Senegal	5.3	6.2	8.1	10.9	13.7	16.2	21.4	23.0	..
South Africa	152.8	192.0	223.0	267.0	322.2	375.3	421.3	426.8	..
South Sudan	..	..	..	..	..	..	0.4	0.1	..
Sudan	10.7	15.5	19.8	34.1	46.4	65.6	76.1	79.4	..
United Rep. of Tanzania	6.7	8.3	12.2	16.5	23.4	31.4	46.8	50.1	..
Togo	1.4	1.9	2.1	2.6	2.8	3.4	4.9	5.1	..
Tunisia	8.2	12.9	18.3	29.1	35.3	44.1	48.7	49.6	..
Zambia	7.1	7.6	8.4	9.9	13.4	20.3	27.0	28.0	..
Zimbabwe	8.4	9.4	14.5	17.2	11.7	12.0	17.2	18.0	..
Other Africa	40.7	48.4	55.0	66.8	94.9	124.9	156.0	161.3	..
Africa	616.7	800.1	940.5	1 180.5	1 519.8	1 948.6	2 357.2	2 430.1	..

1. Please refer to section 'Geographical coverage'.

GDP using exchange rates (billion 2010 USD)

<i>billion 2010 USD</i>	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	22.2	28.6	42.4	67.0	85.9	115.3	167.8	180.0	..
Brunei Darussalam	6.8	11.5	9.6	12.0	13.3	13.7	13.3	13.5	..
Cambodia	..	..	..	5.2	8.1	11.2	17.0	18.2	..
DPR of Korea	10.5	22.4	42.7	29.8	28.9	26.8	27.1	27.4	..
India	211.0	271.7	466.5	802.8	1 111.2	1 656.6	2 466.2	2 630.9	..
Indonesia	109.8	181.5	309.8	453.4	571.2	755.1	1 037.9	1 090.5	..
Malaysia	27.8	45.8	81.8	162.5	204.9	255.0	344.3	364.6	..
Mongolia	..	..	3.8	3.8	5.3	7.2	11.8	12.4	..
Myanmar	4.7	7.1	8.0	16.0	29.3	49.5	74.5	79.5	..
Nepal	3.5	4.2	6.7	10.9	12.9	16.0	19.9	21.5	..
Pakistan	29.8	43.4	79.9	117.6	150.0	177.4	227.9	240.9	..
Philippines	54.5	80.0	94.5	125.3	156.9	199.6	284.3	303.4	..
Singapore	19.1	32.1	67.6	134.5	170.7	236.4	299.2	310.0	..
Sri Lanka	9.6	13.7	20.6	34.3	41.6	56.7	79.9	82.5	..
Chinese Taipei	35.4	70.4	155.1	296.7	361.6	446.1	513.7	528.0	..
Thailand	41.3	66.5	141.6	217.7	283.8	341.1	407.0	422.9	..
Viet Nam	14.5	16.9	29.5	61.1	85.4	115.9	164.1	175.3	..
Other non-OECD Asia	25.6	31.7	39.0	47.4	63.5	91.3	111.9	117.1	..
Non-OECD Asia excl. China	626.0	927.6	1 599.1	2 598.1	3 384.3	4 571.1	6 267.7	6 618.6	..
People's Rep. of China	223.8	341.4	829.6	2 237.1	3 569.9	6 100.6	9 505.2	10 161.0	..
Hong Kong, China	30.6	54.3	104.1	153.4	188.6	228.6	270.1	280.3	..
China	254.3	395.7	933.7	2 390.5	3 758.5	6 329.3	9 775.3	10 441.4	..
Argentina	186.8	220.6	203.7	303.2	333.6	423.6	447.5	460.3	..
Bolivia	7.5	9.2	9.3	13.5	15.7	19.7	26.8	27.9	..
Brazil	637.8	1 010.5	1 192.9	1 538.9	1 774.9	2 208.9	2 256.9	2 278.9	..
Colombia	75.2	105.6	147.7	192.5	230.0	286.1	366.9	373.5	..
Costa Rica	8.6	12.0	15.2	24.5	29.5	37.3	46.6	48.1	..
Cuba	23.1	30.0	44.7	38.7	49.5	64.3	74.2	75.6	..
Curaçao ¹	1.1	1.4	1.7	2.3	2.5	2.7	1.8	1.8	..
Dominican Republic	10.6	15.3	19.3	34.4	40.8	54.0	73.7	77.0	..
Ecuador	19.2	29.4	38.0	46.5	58.9	69.6	85.4	87.4	..
El Salvador	10.9	11.8	11.3	15.8	17.0	18.4	21.6	22.1	..
Guatemala	12.7	18.2	19.9	29.8	34.6	41.3	51.4	52.8	..
Haiti	4.8	7.1	6.6	6.6	6.4	6.6	7.9	8.0	..
Honduras	4.2	5.8	7.7	10.6	13.3	15.8	19.5	20.5	..
Jamaica	9.8	8.0	10.3	12.3	13.5	13.2	13.8	14.0	..
Nicaragua	5.8	5.4	4.7	6.6	7.7	8.8	12.0	12.5	..
Panama	6.3	8.8	10.0	16.6	20.6	29.4	44.8	47.2	..
Paraguay	5.2	10.0	15.0	19.0	20.9	27.2	34.5	36.3	..
Peru	51.9	64.7	58.5	85.8	105.8	147.5	193.7	198.5	..
Suriname	..	..	..	2.7	3.5	4.4	4.5	4.5	..
Trinidad and Tobago	7.4	10.2	8.0	12.4	18.3	22.2	21.5	21.0	..
Uruguay	15.7	21.4	21.4	29.9	30.2	40.3	48.4	49.6	..
Venezuela	182.8	216.6	235.0	289.0	327.8	393.2	330.1	283.9	..
Other non-OECD Americas	49.2	66.8	85.3	120.2	136.4	130.1	128.7	127.1	..
Non-OECD Americas	1 336.7	1 888.9	2 166.4	2 851.7	3 291.1	4 064.6	4 312.3	4 328.7	..
Bahrain	2.5	7.6	8.9	15.3	19.6	25.7	31.8	33.0	..
Islamic Republic of Iran	284.3	185.2	233.2	316.2	400.3	487.1	540.6	560.9	..
Iraq	16.6	45.7	71.3	101.6	104.2	138.5	213.0	208.6	..
Jordan	3.5	7.1	8.7	14.3	19.5	26.4	30.8	31.4	..
Kuwait	60.5	53.3	40.7	73.4	108.9	115.4	142.9	138.8	..
Lebanon	14.9	10.6	8.4	22.0	26.6	38.4	42.6	43.2	..
Oman	6.4	11.4	27.0	42.4	44.3	58.6	75.1	74.9	..
Qatar	25.8	22.8	18.9	36.0	53.4	125.1	170.7	173.4	..
Saudi Arabia	237.6	355.7	293.9	379.2	461.6	528.2	690.1	684.2	..
Syrian Arab Republic	9.2	18.9	24.2	38.6	47.2	59.9	15.3	13.2	..
United Arab Emirates	46.7	118.5	125.8	198.2	257.4	289.8	384.2	387.3	..
Yemen	3.4	7.0	11.7	20.3	25.0	30.9	20.8	19.6	..
Middle East	711.3	843.8	872.6	1 257.7	1 568.0	1 924.1	2 357.8	2 368.3	..

1. Please refer to section 'Geographical coverage'.

GDP using purchasing power parities (billion 2010 USD)

<i>billion 2010 USD</i>	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	26 995.9	34 210.3	46 097.5	61 778.6	74 409.7	89 251.2	109 507.3	113 555.3	..
Non-OECD Total	9 930.4	13 475.6	17 943.9	24 699.0	32 927.3	45 386.2	60 348.8	63 145.1	..
OECD Total	17 065.5	20 734.7	28 153.6	37 079.6	41 482.4	43 865.1	49 158.6	50 410.2	51 565.9
Canada	523.3	659.8	855.7	1 134.1	1 287.9	1 363.8	1 534.1	1 579.8	1 609.5
Chile	57.3	73.9	107.0	204.9	257.6	309.9	381.4	386.3	401.8
Mexico	572.3	885.1	1 058.7	1 506.4	1 617.6	1 741.1	2 072.1	2 114.9	2 157.1
United States	5 466.0	6 496.3	9 001.2	12 620.3	14 332.5	14 992.1	16 972.3	17 348.6	17 844.3
OECD Americas	6 619.0	8 115.1	11 022.6	15 465.7	17 495.6	18 406.9	20 959.9	21 429.6	22 012.7
Australia	302.9	364.7	490.3	695.2	822.0	943.2	1 111.1	1 142.6	1 173.2
Israel ¹	49.2	62.5	90.4	160.7	177.6	219.8	273.1	282.5	291.9
Japan	1 880.9	2 373.5	3 697.5	4 204.7	4 458.9	4 480.8	4 736.3	4 827.7	4 865.7
Korea	109.3	193.9	498.9	976.2	1 230.1	1 504.7	1 795.4	1 850.4	1 899.8
New Zealand	61.9	65.0	76.7	103.7	126.1	136.0	163.3	167.5	172.2
OECD Asia Oceania	2 404.3	3 059.5	4 853.7	6 140.5	6 814.7	7 284.5	8 079.2	8 270.7	8 402.8
Austria	153.4	186.8	233.3	301.7	329.2	351.3	378.3	387.9	398.5
Belgium	203.0	244.1	297.8	371.6	406.6	436.4	466.3	474.4	481.2
Czech Republic	149.8	177.7	201.9	212.1	256.9	289.8	322.7	336.7	346.5
Denmark	124.3	138.1	169.7	220.9	236.1	238.5	260.4	266.3	270.1
Estonia	..	..	22.0	20.8	29.3	28.7	35.7	37.4	38.8
Finland	83.7	102.8	140.1	175.6	199.5	207.8	214.0	219.6	224.8
France	1 073.7	1 309.7	1 673.2	2 061.4	2 241.0	2 334.5	2 483.9	2 540.1	2 583.9
Germany	1 621.5	1 913.7	2 408.9	2 929.7	3 014.0	3 204.6	3 565.5	3 642.4	3 694.3
Greece	158.1	193.0	206.7	263.0	318.2	313.0	255.4	259.3	264.3
Hungary	119.6	153.1	171.5	176.3	217.8	215.3	242.7	252.7	265.2
Iceland	3.9	5.6	7.4	9.7	11.9	12.6	15.4	16.1	16.9
Ireland	38.5	53.1	75.7	149.1	192.9	197.4	297.1	318.6	339.8
Italy	1 049.4	1 347.4	1 708.1	2 011.9	2 108.1	2 075.2	2 036.5	2 070.8	2 088.6
Latvia	..	..	35.0	25.5	37.7	36.8	44.7	46.8	49.0
Lithuania	..	..	..	40.7	58.7	62.2	76.7	79.8	82.6
Luxembourg	11.1	12.1	19.7	33.3	38.5	43.4	51.0	51.8	53.2
Netherlands	315.0	378.5	471.9	653.7	698.8	748.4	793.8	816.6	838.4
Norway	96.1	131.0	168.8	242.3	270.2	283.4	312.5	318.7	323.3
Poland	329.5	381.3	378.7	544.9	634.4	800.7	957.9	1 004.0	1 055.7
Portugal	118.1	146.6	201.8	268.2	280.0	288.7	281.6	289.5	295.7
Slovak Republic	55.9	66.4	76.8	83.4	106.7	134.6	157.6	162.6	169.3
Slovenia	..	..	36.5	43.7	52.2	56.8	59.7	62.7	65.5
Spain	580.2	679.1	906.8	1 193.9	1 410.5	1 486.9	1 522.7	1 568.0	1 608.5
Sweden	182.7	206.6	256.8	317.1	360.9	390.4	445.3	454.7	465.4
Switzerland	241.3	246.7	307.4	346.5	372.8	415.3	458.2	465.6	477.5
Turkey	281.2	357.6	594.3	850.6	1 074.6	1 260.4	1 832.8	1 969.2	2 019.8
United Kingdom	1 052.2	1 128.9	1 506.3	1 925.9	2 214.7	2 260.4	2 551.0	2 597.5	2 633.8
OECD Europe	8 042.3	9 560.0	12 277.3	15 473.4	17 172.2	18 173.7	20 119.4	20 709.9	21 150.4
IEA	16 955.1	20 592.6	27 877.2	36 594.4	40 886.7	43 166.9	48 307.5	49 536.0	50 658.2
IEA/Accession/Association	19 669.6	24 590.3	34 438.4	48 434.3	57 457.9	68 136.4	84 111.5	87 460.2	..
European Union - 28	..	..	11 621.4	14 417.7	15 953.4	16 780.1	18 170.7	18 650.1	..
G7	12 667.0	15 229.3	20 850.9	26 887.9	29 657.1	30 711.3	33 879.6	34 606.8	35 320.0
G8	..	..	23 565.8	28 715.1	32 117.5	33 639.5	37 056.4	37 832.7	..
G20	..	..	37 613.0	50 607.7	60 325.5	71 506.9	87 839.3	91 217.9	..
OPEC	-	-	2 931.7	3 851.6	4 908.1	6 051.0	7 261.1	7 279.1	..

1. Please refer to section 'Geographical coverage'.

GDP using purchasing power parities (billion 2010 USD)

<i>billion 2010 USD</i>	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	9 930.4	13 475.6	17 943.9	24 699.0	32 927.3	45 386.2	60 348.8	63 145.1	..
Albania	9.4	12.8	14.5	16.3	21.7	28.0	31.7	32.9	..
Armenia	..	..	13.0	8.8	15.6	18.9	23.5	25.2	..
Azerbaijan	..	..	59.7	35.2	66.2	141.5	153.0	153.1	..
Belarus	..	..	83.5	74.1	106.3	151.2	156.1	159.8	..
Bosnia and Herzegovina	..	..	6.8	22.8	30.1	34.6	38.2	39.4	..
Bulgaria	39.5	62.3	79.2	70.5	93.0	110.4	123.9	128.6	..
Croatia	..	..	68.3	66.4	82.6	85.0	87.2	89.8	..
Cyprus ¹	4.0	7.0	12.8	20.0	24.3	27.6	26.7	27.8	..
Georgia	..	..	37.6	14.1	20.1	25.9	33.8	35.4	..
Gibraltar	0.4	0.4	0.6	0.8	0.9	0.9	1.1	1.2	..
Kazakhstan	..	..	209.0	145.1	237.7	321.4	408.8	425.5	..
Kosovo	..	..	..	7.7	11.2	13.8	16.8	17.5	..
Kyrgyzstan	..	..	14.9	10.0	12.0	14.9	19.7	20.6	..
Malta	1.7	3.8	5.6	9.4	10.4	11.5	15.7	16.7	..
Republic of Moldova	..	..	23.4	8.3	11.7	13.6	17.3	18.1	..
Montenegro	..	..	..	..	7.0	8.4	9.5	10.0	..
North Macedonia, Republic of	..	..	19.1	17.4	19.2	23.3	27.1	27.2	..
Romania	134.5	240.3	256.2	227.1	300.5	343.5	416.8	447.1	..
Russian Federation	..	..	2 714.9	1 827.2	2 460.4	2 928.1	3 176.8	3 225.9	..
Serbia	..	..	54.8	57.1	77.2	88.0	92.2	93.9	..
Tajikistan	..	..	19.0	7.2	11.4	15.8	23.6	25.4	..
Turkmenistan	..	..	30.0	23.6	30.3	49.6	86.8	92.5	..
Ukraine	..	..	532.0	231.1	336.0	351.7	321.0	329.1	..
Uzbekistan	..	..	61.7	60.5	78.7	118.6	188.4	198.4	..
Former Soviet Union	2 317.4	3 104.4	x	x	x	x	x	x	x
Former Yugoslavia	133.9	208.3	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	2 640.9	3 639.4	4 316.7	2 960.6	4 064.3	4 926.4	5 495.6	5 641.1	..
Algeria	129.8	197.8	259.9	312.0	401.9	455.5	553.8	562.7	..
Angola	49.4	46.1	55.3	62.5	97.3	145.6	176.9	176.6	..
Benin	4.3	5.2	7.1	11.2	13.6	16.4	21.4	22.7	..
Botswana	..	..	10.7	17.3	20.6	25.8	33.9	34.7	..
Cameroon	14.9	25.0	34.7	39.0	48.3	57.3	77.0	79.7	..
Congo	5.2	7.7	12.3	14.2	17.3	22.3	26.4	25.6	..
Côte d'Ivoire	25.8	35.8	38.4	48.2	48.2	53.8	79.2	85.3	..
Dem. Rep. of the Congo	47.4	43.1	47.0	26.4	31.9	41.7	62.1	64.4	..
Egypt	103.8	177.2	324.4	506.1	602.1	812.4	968.0	1 008.5	..
Eritrea	..	..	..	5.6	6.3	6.1	8.0	8.4	..
Ethiopia	25.0	25.4	30.7	40.3	55.1	92.3	161.4	177.9	..
Gabon	9.9	15.2	18.2	21.5	23.1	24.7	32.5	32.7	..
Ghana	22.7	22.2	27.5	41.9	53.6	73.5	106.9	115.6	..
Kenya	25.7	36.6	54.6	65.7	78.5	100.3	139.0	145.7	..
Libya	120.0	174.1	112.4	115.0	147.8	179.1	88.2	111.7	..
Mauritius	3.1	4.3	7.7	12.9	15.0	19.5	24.3	25.2	..
Morocco	40.9	60.6	96.2	128.1	162.6	207.6	255.4	265.8	..
Mozambique	6.1	4.8	4.9	9.9	15.2	21.8	31.8	33.0	..
Namibia	..	..	..	11.5	14.6	18.0	23.9	23.6	..
Niger	..	..	..	8.4	10.2	13.1	18.6	19.5	..
Nigeria	257.5	328.7	313.5	367.8	560.8	789.7	992.8	1 000.8	..
Senegal	11.2	13.3	17.1	23.2	29.1	34.5	45.5	48.8	..
South Africa	244.5	307.3	357.0	427.4	515.8	600.8	674.3	683.2	..
South Sudan	..	..	..	..	..	..	3.8	3.8	..
Sudan	23.9	34.6	44.3	76.1	103.7	146.6	170.1	177.4	..
United Rep. of Tanzania	19.4	24.4	35.7	48.2	68.3	91.7	136.6	146.3	..
Togo	3.2	4.3	4.8	6.0	6.3	7.8	11.1	11.6	..
Tunisia	20.3	31.9	45.3	72.0	87.1	108.8	120.2	122.6	..
Zambia	15.7	16.6	18.4	21.7	29.3	44.5	59.4	61.4	..
Zimbabwe	16.6	18.7	28.8	34.3	23.4	24.0	34.2	35.8	..
Other Africa	102.0	120.3	133.5	165.0	229.2	301.7	382.2	396.9	..
Africa	1 348.3	1 781.2	2 140.4	2 739.2	3 516.2	4 536.9	5 518.7	5 707.8	..

1. Please refer to section 'Geographical coverage'.

GDP using purchasing power parities (billion 2010 USD)

<i>billion 2010 USD</i>	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	70.1	90.4	134.0	211.7	271.2	364.1	530.0	568.6	..
Brunei Darussalam	15.1	25.8	21.5	26.8	29.7	30.7	29.8	30.2	..
Cambodia	..	..	..	16.5	25.6	35.4	53.5	57.3	..
DPR of Korea	39.5	84.0	160.2	111.7	108.4	100.6	101.9	102.9	..
India	676.6	871.3	1 496.1	2 574.3	3 563.4	5 312.4	7 908.5	8 436.9	..
Indonesia	291.3	481.8	822.2	1 203.3	1 515.9	2 004.0	2 754.4	2 894.0	..
Malaysia	63.4	104.3	186.5	370.5	467.0	581.4	784.9	831.1	..
Mongolia	..	..	11.0	10.9	15.0	20.5	33.7	35.5	..
Myanmar	17.5	26.0	29.6	59.0	108.1	182.9	274.9	293.4	..
Nepal	11.4	13.9	22.0	35.8	42.3	52.6	65.4	70.5	..
Pakistan	120.2	175.2	322.3	474.3	605.2	715.8	919.4	971.9	..
Philippines	140.3	205.9	243.4	322.8	404.0	514.0	732.2	781.2	..
Singapore	29.0	48.7	102.5	204.1	259.0	358.7	453.9	470.3	..
Sri Lanka	28.6	40.7	61.3	102.0	123.9	168.8	237.8	245.6	..
Chinese Taipei	69.0	137.4	302.4	578.6	705.1	870.0	1 001.7	1 029.7	..
Thailand	107.6	173.2	368.7	566.8	738.8	888.1	1 059.7	1 101.1	..
Viet Nam	47.8	55.8	97.1	201.5	281.3	382.1	540.9	577.7	..
Other non-OECD Asia	51.8	64.5	76.4	87.8	123.5	186.1	234.2	245.3	..
Non-OECD Asia excl. China	1 779.2	2 599.0	4 457.2	7 158.4	9 387.4	12 768.0	17 716.5	18 743.1	..
People's Rep. of China	457.9	698.6	1 697.7	4 578.2	7 305.7	12 485.0	19 452.4	20 794.6	..
Hong Kong, China	44.3	78.6	150.8	222.1	273.2	331.1	391.1	406.0	..
China	502.2	777.2	1 848.5	4 800.3	7 578.9	12 816.1	19 843.5	21 200.6	..
Argentina	333.2	393.6	363.5	541.0	595.2	755.8	798.4	821.2	..
Bolivia	20.1	24.6	24.9	36.1	42.0	52.5	71.6	74.6	..
Brazil	809.3	1 282.3	1 513.8	1 952.9	2 252.3	2 803.1	2 864.0	2 892.0	..
Colombia	127.6	179.3	250.7	326.7	390.2	485.5	622.6	633.7	..
Costa Rica	13.4	18.7	23.7	38.0	45.9	57.9	72.4	74.8	..
Cuba	71.7	93.1	138.9	120.3	153.7	199.8	230.6	234.7	..
Curaçao ¹	1.0	1.2	1.5	2.1	2.2	2.4	1.7	1.7	..
Dominican Republic	21.2	30.5	38.5	68.8	81.6	108.0	147.3	154.0	..
Ecuador	37.8	57.9	74.8	91.4	115.8	136.8	167.9	171.9	..
El Salvador	22.5	24.3	23.4	32.5	35.1	38.1	44.5	45.6	..
Guatemala	29.6	42.4	46.3	69.3	80.4	96.2	119.7	123.0	..
Haiti	10.7	15.7	14.6	14.6	14.2	14.7	17.6	17.8	..
Honduras	8.5	11.8	15.6	21.3	26.7	31.9	39.3	41.2	..
Jamaica	16.4	13.3	17.3	20.7	22.6	22.1	23.1	23.3	..
Nicaragua	15.1	13.9	12.2	17.0	19.8	22.6	30.9	32.4	..
Panama	11.9	16.6	19.0	31.5	39.0	55.8	85.0	89.5	..
Paraguay	11.3	22.0	32.8	41.6	45.8	59.6	75.6	79.5	..
Peru	100.8	125.7	113.6	166.6	205.5	286.5	376.1	385.6	..
Suriname	..	..	..	4.5	5.8	7.3	7.5	7.6	..
Trinidad and Tobago	13.6	18.7	14.7	22.8	33.6	40.7	39.5	38.6	..
Uruguay	22.0	30.1	30.0	41.9	42.3	56.5	67.8	69.6	..
Venezuela	218.8	259.3	281.2	345.8	392.3	470.6	395.1	339.8	..
Other non-OECD Americas	60.6	82.3	105.0	147.5	167.5	159.9	158.6	156.6	..
Non-OECD Americas	1 977.2	2 757.4	3 155.9	4 154.8	4 809.5	5 964.4	6 456.9	6 508.8	..
Bahrain	4.8	14.6	17.1	29.3	37.6	49.3	60.9	63.3	..
Islamic Republic of Iran	765.1	498.5	627.6	851.1	1 077.5	1 310.9	1 454.9	1 509.5	..
Iraq	45.9	126.4	197.2	281.1	288.3	383.3	589.5	577.2	..
Jordan	8.7	18.0	21.9	36.2	49.3	66.7	77.7	79.3	..
Kuwait	115.8	102.0	77.8	140.5	208.5	220.9	273.4	265.6	..
Lebanon	27.2	19.2	15.3	40.0	48.4	69.9	77.4	78.6	..
Oman	14.6	26.3	62.2	97.7	102.0	135.1	172.9	172.4	..
Qatar	44.9	39.7	33.0	62.9	93.0	218.2	297.7	302.4	..
Saudi Arabia	549.1	821.9	679.2	876.3	1 066.6	1 220.5	1 594.5	1 580.9	..
Syrian Arab Republic	20.4	41.8	53.4	85.3	104.1	132.3	33.9	29.2	..
United Arab Emirates	74.7	189.6	201.3	317.3	411.9	463.8	614.9	619.8	..
Yemen	11.3	23.3	39.3	68.2	83.8	103.6	69.7	65.6	..
Middle East	1 682.6	1 921.5	2 025.3	2 885.7	3 571.1	4 374.5	5 317.5	5 343.7	..

1. Please refer to section 'Geographical coverage'.

Population (millions)

<i>millions</i>	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	3 915.5	4 438.7	5 285.8	6 117.0	6 514.3	6 925.4	7 433.4	7 518.8	..
Non-OECD Total	2 995.7	3 453.8	4 209.2	4 957.0	5 314.1	5 682.2	6 145.4	6 223.4	..
OECD Total	919.8	984.9	1 076.7	1 160.0	1 200.3	1 243.2	1 288.0	1 295.4	1 302.6
Canada	22.5	24.5	27.7	30.7	32.2	34.0	36.1	36.5	37.1
Chile	10.1	11.2	13.2	15.4	16.3	17.1	18.3	18.5	18.8
Mexico	57.1	70.4	87.1	100.9	107.0	114.1	122.1	123.4	124.6
United States	211.9	227.7	250.2	282.4	296.0	309.8	323.7	326.0	328.0
OECD Americas	301.6	333.8	378.1	429.4	451.5	475.0	500.2	504.4	508.4
Australia	13.6	14.8	17.3	19.3	20.5	22.0	24.2	24.6	25.0
Israel ¹	3.3	3.9	4.7	6.3	7.0	7.6	8.5	8.7	8.9
Japan	108.9	117.1	123.6	126.8	127.8	128.0	126.9	126.7	126.4
Korea	34.1	38.1	42.9	47.0	48.2	49.6	51.2	51.4	51.7
New Zealand	3.0	3.1	3.4	3.9	4.1	4.4	4.7	4.8	4.9
OECD Asia Oceania	162.9	177.0	191.8	203.3	207.5	211.6	215.6	216.3	216.9
Austria	7.6	7.5	7.7	8.0	8.2	8.4	8.7	8.8	8.8
Belgium	9.7	9.9	10.0	10.3	10.5	10.9	11.3	11.3	11.4
Czech Republic	9.9	10.3	10.4	10.3	10.2	10.5	10.6	10.6	10.6
Denmark	5.0	5.1	5.1	5.3	5.4	5.5	5.7	5.8	5.8
Estonia	..	..	1.6	1.4	1.4	1.3	1.3	1.3	1.3
Finland	4.7	4.8	5.0	5.2	5.2	5.4	5.5	5.5	5.5
France	53.3	55.2	58.3	60.9	63.2	65.0	66.8	67.1	67.3
Germany	79.0	78.3	79.4	81.5	81.3	80.3	82.3	82.7	82.9
Greece	9.0	9.7	10.3	10.8	11.0	11.1	10.8	10.8	10.7
Hungary	10.4	10.7	10.4	10.2	10.1	10.0	9.8	9.8	9.8
Iceland	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4
Ireland	3.1	3.4	3.5	3.8	4.2	4.6	4.7	4.8	4.9
Italy	54.8	56.4	56.7	56.9	58.2	59.8	60.6	60.5	60.4
Latvia	..	..	2.7	2.4	2.2	2.1	2.0	1.9	1.9
Lithuania	..	..	3.7	3.5	3.3	3.1	2.9	2.8	2.8
Luxembourg	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.6
Netherlands	13.4	14.1	14.9	15.9	16.3	16.6	17.0	17.1	17.2
Norway	4.0	4.1	4.2	4.5	4.6	4.9	5.2	5.3	5.3
Poland	33.4	35.6	38.0	38.3	38.2	38.5	38.4	38.4	38.4
Portugal	8.7	9.9	10.0	10.3	10.5	10.6	10.3	10.3	10.3
Slovak Republic	4.6	5.0	5.3	5.4	5.4	5.4	5.4	5.4	5.4
Slovenia	..	..	2.0	2.0	2.0	2.0	2.1	2.1	2.1
Spain	35.3	38.0	39.3	40.6	43.7	46.6	46.5	46.5	46.7
Sweden	8.1	8.3	8.6	8.9	9.0	9.4	9.9	10.1	10.2
Switzerland	6.4	6.4	6.8	7.2	7.5	7.9	8.4	8.5	8.5
Turkey	38.1	44.4	55.1	64.3	68.4	73.1	79.3	80.3	81.4
United Kingdom	56.2	56.3	57.2	58.9	60.4	62.8	65.6	66.0	66.5
OECD Europe	455.3	474.1	506.8	527.3	541.2	556.6	572.2	574.7	577.2
IEA	906.2	969.6	1 050.2	1 130.2	1 169.1	1 211.0	1 254.0	1 261.0	1 267.8
IEA/Accession/Association	2 702.3	3 027.0	3 521.6	3 989.7	4 195.9	4 392.3	4 609.6	4 645.4	..
European Union - 28	..	..	478.0	487.2	495.0	503.7	511.3	512.4	..
G7	586.6	615.5	653.1	698.1	719.1	739.7	762.2	765.5	768.6
G8	..	..	801.4	844.7	862.6	882.6	906.5	910.0	..
G20	..	..	3 658.5	4 117.9	4 318.7	4 512.5	4 730.3	4 766.0	..
OPEC	-	-	263.7	330.6	369.3	416.6	478.5	488.8	..

1. Please refer to section 'Geographical coverage'.

Population (millions)

millions	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	2 995.7	3 453.8	4 209.2	4 957.0	5 314.1	5 682.2	6 145.4	6 223.4	..
Albania	2.3	2.7	3.3	3.1	3.0	2.9	2.9	2.9	..
Armenia	..	..	3.5	3.1	3.0	2.9	2.9	2.9	..
Azerbaijan	..	..	7.2	8.0	8.4	9.1	9.8	9.9	..
Belarus	..	..	10.2	10.0	9.7	9.5	9.5	9.5	..
Bosnia and Herzegovina	..	..	4.5	3.8	3.8	3.7	3.5	3.5	..
Bulgaria	8.6	8.9	8.7	8.2	7.7	7.4	7.1	7.1	..
Croatia	..	..	4.8	4.4	4.4	4.4	4.2	4.1	..
Cyprus ¹	0.6	0.5	0.6	0.7	0.7	0.8	0.8	0.9	..
Georgia	..	..	4.8	4.4	4.2	3.9	3.7	3.7	..
Gibraltar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	..
Kazakhstan	..	..	16.3	14.9	15.1	16.3	17.8	18.0	..
Kosovo	..	..	..	1.7	1.7	1.8	1.8	1.8	..
Kyrgyzstan	..	..	4.4	4.9	5.2	5.4	6.1	6.2	..
Malta	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5	..
Republic of Moldova	..	..	3.7	3.6	3.6	3.6	3.6	3.6	..
Montenegro	..	..	..	..	0.6	0.6	0.6	0.6	..
North Macedonia, Republic of	..	..	2.0	2.0	2.1	2.1	2.1	2.1	..
Romania	20.8	22.2	23.2	22.4	21.3	20.2	19.7	19.6	..
Russian Federation	..	..	148.3	146.6	143.5	142.8	144.3	144.5	..
Serbia	..	..	10.1	8.1	7.4	7.3	7.1	7.0	..
Tajikistan	..	..	5.3	6.2	6.9	7.6	8.7	8.9	..
Turkmenistan	..	..	3.7	4.5	4.8	5.1	5.7	5.8	..
Ukraine	..	..	51.9	49.2	47.1	45.9	45.0	44.8	..
Uzbekistan	..	..	20.5	24.7	26.2	28.6	31.8	32.4	..
Former Soviet Union	248.0	264.0	x	x	x	x	x	x	x
Former Yugoslavia	20.4	21.8	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	301.1	320.4	337.2	335.0	330.7	332.4	339.2	340.3	..
Algeria	15.8	19.3	25.9	31.2	33.3	36.1	40.6	41.3	..
Angola	7.3	8.9	12.2	16.4	19.6	23.4	28.8	29.8	..
Benin	3.1	3.7	5.0	6.9	8.0	9.2	10.9	11.2	..
Botswana	..	..	1.4	1.7	1.9	2.0	2.3	2.3	..
Cameroon	7.1	8.6	11.7	15.3	17.4	20.0	23.4	24.1	..
Congo	1.5	1.8	2.4	3.2	3.7	4.4	5.1	5.3	..
Côte d'Ivoire	6.0	8.3	12.3	16.7	18.3	20.4	23.7	24.3	..
Dem. Rep. of the Congo	21.7	26.4	34.6	47.1	54.8	64.5	78.7	81.3	..
Egypt	37.5	44.1	57.4	69.9	76.8	84.1	95.7	97.6	..
Eritrea	..	..	..	3.4	4.0	4.4	5.0	5.1	..
Ethiopia	31.0	35.3	48.1	66.5	76.7	87.7	102.4	105.0	..
Gabon	0.6	0.7	1.0	1.2	1.4	1.6	2.0	2.0	..
Ghana	9.4	10.8	14.6	18.9	21.5	24.5	28.2	28.8	..
Kenya	12.5	16.3	23.4	31.5	36.0	41.4	48.5	49.7	..
Libya	2.4	3.2	4.4	5.4	5.8	6.2	6.3	6.4	..
Mauritius	0.9	1.0	1.1	1.2	1.2	1.3	1.3	1.3	..
Morocco	17.0	20.0	24.9	28.9	30.5	32.4	35.3	35.7	..
Mozambique	9.8	11.8	13.2	18.1	20.9	24.2	28.8	29.7	..
Namibia	..	..	..	1.9	2.0	2.2	2.5	2.5	..
Niger	..	..	..	11.4	13.6	16.4	20.7	21.5	..
Nigeria	60.1	73.5	95.3	122.4	138.9	158.6	186.0	190.9	..
Senegal	4.7	5.6	7.6	9.9	11.3	12.9	15.4	15.9	..
South Africa	24.8	29.8	37.6	45.7	48.8	51.6	56.0	56.7	..
South Sudan	..	..	..	..	..	..	12.2	12.6	..
Sudan	15.3	19.2	25.9	34.0	39.0	44.5	39.6	40.5	..
United Rep. of Tanzania	15.0	18.7	25.5	34.2	39.4	46.1	55.6	57.3	..
Togo	2.3	2.7	3.8	5.0	5.7	6.5	7.6	7.8	..
Tunisia	5.4	6.4	8.2	9.7	10.1	10.6	11.4	11.5	..
Zambia	4.6	5.9	8.0	10.5	12.1	13.9	16.6	17.1	..
Zimbabwe	5.7	7.2	10.2	12.2	12.9	14.1	16.2	16.5	..
Other Africa	72.1	87.7	115.0	136.2	157.6	182.9	216.8	223.0	..
Africa	393.6	476.9	630.5	816.4	923.3	1 047.9	1 223.4	1 254.6	..

1. Please refer to section 'Geographical coverage'.

Population (millions)

millions	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	68.7	81.5	106.2	131.6	143.4	152.1	163.0	164.7	..
Brunei Darussalam	0.1	0.2	0.3	0.3	0.4	0.4	0.4	0.4	..
Cambodia	..	..	..	12.2	13.3	14.3	15.8	16.0	..
DPR of Korea	15.6	17.5	20.3	22.9	23.9	24.6	25.4	25.5	..
India	593.1	696.8	870.1	1 053.1	1 144.1	1 231.0	1 324.2	1 339.2	..
Indonesia	124.2	147.5	181.4	211.5	226.7	242.5	261.1	264.0	..
Malaysia	11.6	13.8	18.0	23.2	25.7	28.1	31.2	31.6	..
Mongolia	..	..	2.2	2.4	2.5	2.7	3.0	3.1	..
Myanmar	28.3	33.4	40.6	46.1	48.5	50.2	52.9	53.4	..
Nepal	12.8	14.9	18.7	23.7	25.6	27.0	29.0	29.3	..
Pakistan	63.1	78.1	107.7	138.5	153.9	170.6	193.2	197.0	..
Philippines	39.0	47.4	61.9	78.0	86.3	93.7	103.3	104.9	..
Singapore	2.2	2.4	3.0	4.0	4.3	5.1	5.6	5.6	..
Sri Lanka	13.3	15.0	17.3	18.8	19.5	20.2	21.2	21.4	..
Chinese Taipei	15.7	17.7	20.3	21.8	22.6	23.1	23.6	23.6	..
Thailand	40.2	47.4	56.6	63.0	65.4	67.2	68.9	69.0	..
Viet Nam	46.6	54.4	68.2	80.3	84.3	88.5	94.6	95.5	..
Other non-OECD Asia	29.2	31.2	33.5	35.4	42.0	47.5	55.4	56.6	..
Non-OECD Asia excl. China	1 103.6	1 299.0	1 626.6	1 966.8	2 132.4	2 288.7	2 471.6	2 500.9	..
People's Rep. of China	881.9	981.2	1 135.2	1 262.6	1 303.7	1 337.7	1 378.7	1 386.4	..
Hong Kong, China	4.2	5.1	5.7	6.7	6.8	7.0	7.3	7.4	..
China	886.2	986.3	1 140.9	1 269.3	1 310.5	1 344.7	1 386.0	1 393.8	..
Argentina	25.2	28.1	32.7	37.1	39.1	41.2	43.8	44.3	..
Bolivia	4.8	5.6	6.9	8.3	9.1	9.9	10.9	11.1	..
Brazil	102.6	121.2	149.4	175.3	186.9	196.8	207.7	209.3	..
Colombia	23.7	27.7	34.3	40.4	43.3	45.9	48.7	49.1	..
Costa Rica	2.0	2.4	3.1	3.9	4.2	4.5	4.9	4.9	..
Cuba	9.2	9.8	10.6	11.2	11.3	11.3	11.5	11.5	..
Curaçao ¹	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	..
Dominican Republic	4.9	5.8	7.2	8.6	9.2	9.9	10.6	10.8	..
Ecuador	6.6	8.0	10.2	12.6	13.7	14.9	16.4	16.6	..
El Salvador	4.0	4.6	5.3	5.9	6.0	6.2	6.3	6.4	..
Guatemala	6.1	7.3	9.3	11.7	13.1	14.6	16.6	16.9	..
Haiti	5.0	5.7	7.1	8.5	9.3	10.0	10.8	11.0	..
Honduras	3.0	3.7	5.0	6.5	7.4	8.2	9.1	9.3	..
Jamaica	2.0	2.2	2.4	2.7	2.7	2.8	2.9	2.9	..
Nicaragua	2.6	3.3	4.1	5.0	5.4	5.7	6.2	6.2	..
Panama	1.7	2.0	2.5	3.0	3.3	3.6	4.0	4.1	..
Paraguay	2.7	3.2	4.2	5.3	5.8	6.2	6.7	6.8	..
Peru	14.4	17.4	21.8	25.9	27.6	29.4	31.8	32.2	..
Suriname	..	..	..	0.5	0.5	0.5	0.6	0.6	..
Trinidad and Tobago	1.0	1.1	1.2	1.3	1.3	1.3	1.4	1.4	..
Uruguay	2.8	2.9	3.1	3.3	3.3	3.4	3.4	3.5	..
Venezuela	12.6	15.3	19.9	24.5	26.8	29.0	31.6	32.0	..
Other non-OECD Americas	5.2	5.6	6.1	6.2	6.3	6.3	6.2	6.2	..
Non-OECD Americas	242.1	282.9	346.4	407.8	436.0	462.1	492.2	496.9	..
Bahrain	0.2	0.4	0.5	0.7	0.9	1.2	1.4	1.5	..
Islamic Republic of Iran	30.9	38.7	56.2	66.1	70.4	74.6	80.3	81.2	..
Iraq	11.0	13.7	17.5	23.6	27.0	30.8	37.2	38.3	..
Jordan	1.9	2.4	3.6	5.1	5.7	7.2	9.5	9.7	..
Kuwait	0.9	1.4	2.1	2.1	2.3	3.0	4.1	4.1	..
Lebanon	2.5	2.6	2.7	3.2	4.0	4.3	6.0	6.1	..
Oman	0.8	1.2	1.8	2.3	2.5	3.0	4.4	4.6	..
Qatar	0.1	0.2	0.5	0.6	0.9	1.8	2.6	2.6	..
Saudi Arabia	6.7	9.7	16.3	20.8	23.9	27.4	32.3	32.9	..
Syrian Arab Republic	7.0	8.9	12.4	16.4	18.3	21.0	18.4	18.3	..
United Arab Emirates	0.4	1.0	1.9	3.2	4.6	8.3	9.3	9.4	..
Yemen	6.5	8.1	12.1	17.9	20.6	23.6	27.6	28.3	..
Middle East	69.1	88.2	127.5	161.8	181.0	206.2	233.0	237.0	..

1. Please refer to section 'Geographical coverage'.

Energy production/TPES (self-sufficiency)

	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	1.019	1.013	1.004	0.999	1.006	0.995	1.001	1.004	..
Non-OECD Total	1.727	1.482	1.333	1.390	1.369	1.260	1.203	1.194	..
OECD Total	0.657	0.716	0.759	0.724	0.696	0.717	0.770	0.788	0.815
Canada	1.244	1.079	1.308	1.478	1.470	1.532	1.706	1.763	1.758
Chile	0.598	0.612	0.566	0.341	0.329	0.299	0.332	0.338	0.342
Mexico	0.899	1.546	1.581	1.520	1.459	1.246	0.976	0.915	0.867
United States	0.842	0.861	0.863	0.733	0.703	0.778	0.885	0.925	0.977
OECD Americas	0.875	0.911	0.942	0.843	0.823	0.877	0.970	1.007	1.045
Australia	1.192	1.227	1.829	2.160	2.337	2.540	3.035	3.189	3.200
Israel ¹	0.792	0.020	0.037	0.035	0.113	0.166	0.361	0.389	0.399
Japan	0.092	0.126	0.170	0.202	0.196	0.203	0.082	0.096	0.116
Korea	0.313	0.225	0.243	0.183	0.204	0.180	0.182	0.174	0.160
New Zealand	0.496	0.609	0.898	0.837	0.760	0.919	0.788	0.774	0.759
OECD Asia Oceania	0.276	0.304	0.415	0.456	0.482	0.533	0.567	0.588	0.598
Austria	0.369	0.330	0.327	0.342	0.289	0.344	0.368	0.362	0.355
Belgium	0.142	0.173	0.274	0.237	0.239	0.260	0.276	0.273	0.223
Czech Republic	0.853	0.878	0.827	0.748	0.734	0.711	0.660	0.640	0.640
Denmark	0.022	0.050	0.581	1.488	1.658	1.198	0.911	0.920	0.814
Estonia	..	..	0.545	0.675	0.742	0.876	0.867	1.015	1.040
Finland	0.232	0.281	0.426	0.461	0.486	0.478	0.526	0.546	0.566
France	0.245	0.274	0.500	0.519	0.503	0.516	0.532	0.525	0.551
Germany	0.513	0.520	0.530	0.402	0.406	0.395	0.374	0.369	0.374
Greece	0.198	0.247	0.429	0.369	0.341	0.342	0.299	0.309	0.326
Hungary	0.597	0.511	0.510	0.465	0.387	0.448	0.449	0.425	0.424
Iceland	0.484	0.604	0.714	0.774	0.763	0.885	0.869	0.876	0.884
Ireland	0.162	0.230	0.350	0.156	0.116	0.130	0.302	0.356	0.362
Italy	0.171	0.152	0.173	0.164	0.162	0.190	0.222	0.222	0.234
Latvia	..	..	0.147	0.368	0.411	0.439	0.575	0.588	0.613
Lithuania	..	..	0.307	0.475	0.458	0.216	0.256	0.270	0.246
Luxembourg	0.001	0.008	0.009	0.019	0.025	0.030	0.044	0.051	0.053
Netherlands	0.916	1.116	0.910	0.782	0.782	0.861	0.626	0.563	0.509
Norway	0.564	3.002	5.672	8.715	8.365	6.904	7.645	7.172	7.003
Poland	1.156	1.000	1.007	0.892	0.850	0.667	0.671	0.619	0.586
Portugal	0.203	0.148	0.202	0.156	0.137	0.247	0.275	0.231	0.268
Slovak Republic	0.166	0.175	0.248	0.356	0.351	0.348	0.391	0.378	0.364
Slovenia	..	..	0.537	0.483	0.481	0.518	0.528	0.531	0.520
Spain	0.220	0.233	0.384	0.259	0.212	0.270	0.285	0.267	0.274
Sweden	0.238	0.398	0.629	0.642	0.670	0.645	0.706	0.731	0.733
Switzerland	0.226	0.351	0.421	0.479	0.421	0.477	0.477	0.466	0.522
Turkey	0.637	0.545	0.483	0.346	0.282	0.299	0.264	0.251	0.283
United Kingdom	0.498	0.997	1.010	1.222	0.921	0.729	0.670	0.683	0.704
OECD Europe	0.463	0.573	0.640	0.669	0.605	0.575	0.565	0.557	0.561
<i>IEA</i>	<i>0.657</i>	<i>0.718</i>	<i>0.764</i>	<i>0.729</i>	<i>0.701</i>	<i>0.723</i>	<i>0.776</i>	<i>0.794</i>	<i>0.822</i>
<i>IEA/Accession/Association</i>	<i>0.714</i>	<i>0.777</i>	<i>0.826</i>	<i>0.795</i>	<i>0.782</i>	<i>0.796</i>	<i>0.800</i>	<i>0.808</i>	<i>..</i>
<i>European Union - 28</i>	<i>..</i>	<i>..</i>	<i>0.578</i>	<i>0.561</i>	<i>0.507</i>	<i>0.488</i>	<i>0.475</i>	<i>0.466</i>	<i>..</i>
<i>G7</i>	<i>0.663</i>	<i>0.702</i>	<i>0.726</i>	<i>0.674</i>	<i>0.640</i>	<i>0.677</i>	<i>0.753</i>	<i>0.782</i>	<i>0.826</i>
<i>G8</i>	<i>..</i>	<i>..</i>	<i>0.876</i>	<i>0.794</i>	<i>0.804</i>	<i>0.852</i>	<i>0.940</i>	<i>0.972</i>	<i>..</i>
<i>G20</i>	<i>..</i>	<i>..</i>	<i>0.936</i>	<i>0.886</i>	<i>0.895</i>	<i>0.894</i>	<i>0.912</i>	<i>0.919</i>	<i>..</i>
<i>OPEC</i>	<i>..</i>	<i>..</i>	<i>4.101</i>	<i>3.773</i>	<i>3.498</i>	<i>2.807</i>	<i>2.750</i>	<i>2.708</i>	<i>..</i>

1. Please refer to section 'Geographical coverage'.

Energy production/TPES (self-sufficiency)

	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	1.727	1.482	1.333	1.390	1.369	1.260	1.203	1.194	..
Albania	1.725	1.123	0.920	0.550	0.522	0.763	0.870	0.694	..
Armenia	..	..	0.019	0.319	0.346	0.353	0.315	0.316	..
Azerbaijan	..	..	0.917	1.665	2.030	5.654	4.027	3.796	..
Belarus	..	..	0.074	0.143	0.142	0.146	0.146	0.155	..
Bosnia and Herzegovina	..	..	0.656	0.708	0.723	0.674	0.702	0.687	..
Bulgaria	0.267	0.273	0.333	0.532	0.535	0.592	0.624	0.628	..
Croatia	..	..	0.602	0.508	0.488	0.549	0.522	0.481	..
Cyprus ¹	0.012	0.007	0.004	0.021	0.023	0.036	0.060	0.060	..
Georgia	..	..	0.162	0.462	0.345	0.420	0.287	0.277	..
Gibraltar	-	-	-	-	-	-	-	-	..
Kazakhstan	..	..	1.239	2.202	2.332	2.269	1.993	2.118	..
Kosovo	..	..	..	0.710	0.718	0.746	0.748	0.698	..
Kyrgyzstan	..	..	0.334	0.590	0.514	0.461	0.474	0.545	..
Malta	-	-	-	-	0.001	0.005	0.031	0.031	..
Republic of Moldova	..	..	0.009	0.032	0.031	0.148	0.190	0.205	..
Montenegro	..	..	..	..	0.580	0.732	0.681	0.619	..
North Macedonia, Republic of	..	..	0.507	0.575	0.560	0.560	0.416	0.427	..
Romania	0.967	0.806	0.653	0.781	0.723	0.784	0.783	0.765	..
Russian Federation	..	..	1.471	1.579	1.846	1.857	1.923	1.952	..
Serbia	..	..	0.696	0.863	0.639	0.676	0.700	0.673	..
Tajikistan	..	..	0.382	0.588	0.661	0.709	0.732	0.783	..
Turkmenistan	..	..	4.168	3.089	3.213	2.083	2.792	2.785	..
Ukraine	..	..	0.539	0.571	0.561	0.596	0.694	0.658	..
Uzbekistan	..	..	0.833	1.086	1.204	1.292	1.488	1.498	..
Former Soviet Union	1.168	1.225	x	x	x	x	x	x	x
Former Yugoslavia	0.632	0.558	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	1.125	1.161	1.150	1.332	1.519	1.589	1.690	1.715	..
Algeria	11.713	5.866	4.512	5.268	5.140	3.755	2.852	2.753	..
Angola	2.827	2.476	4.870	6.322	9.283	8.633	6.451	6.262	..
Benin	0.882	0.896	1.068	0.729	0.669	0.567	0.542	0.535	..
Botswana	..	..	0.713	0.600	0.542	0.490	0.618	0.653	..
Cameroon	0.906	1.835	2.203	1.766	1.483	1.206	1.276	1.219	..
Congo	4.580	6.161	11.108	20.384	12.545	10.448	4.920	5.591	..
Côte d'Ivoire	0.653	0.677	0.778	0.886	1.105	1.121	0.972	0.993	..
Dem. Rep. of the Congo	0.886	1.014	1.019	1.072	1.060	1.030	1.013	1.014	..
Egypt	1.228	2.218	1.701	1.324	1.267	1.157	0.818	0.844	..
Eritrea	..	..	..	0.717	0.654	0.784	0.772	0.766	..
Ethiopia	0.959	0.961	0.954	0.956	0.948	0.943	0.913	0.908	..
Gabon	5.983	6.938	12.207	9.950	5.341	3.349	3.059	2.849	..
Ghana	0.780	0.821	0.830	0.704	0.625	0.529	1.020	1.456	..
Kenya	0.784	0.791	0.818	0.816	0.849	0.810	0.796	0.802	..
Libya	43.320	13.696	6.552	4.802	5.479	5.190	2.152	4.042	..
Mauritius	0.719	0.571	0.445	0.261	0.226	0.184	0.163	0.156	..
Morocco	0.350	0.262	0.190	0.123	0.155	0.112	0.096	0.091	..
Mozambique	0.902	0.906	0.947	1.019	1.195	1.327	1.568	1.852	..
Namibia	..	..	..	0.360	0.309	0.257	0.239	0.249	..
Niger	..	..	..	0.874	0.873	0.802	1.048	1.023	..
Nigeria	3.816	2.966	2.202	2.273	2.219	1.994	1.611	1.587	..
Senegal	0.636	0.567	0.571	0.497	0.454	0.527	0.373	0.382	..
South Africa	0.821	1.075	1.277	1.317	1.301	1.183	1.209	1.195	..
South Sudan	..	..	..	..	..	..	7.972	8.549	..
Sudan	0.803	0.847	0.826	1.501	1.775	2.245	0.926	0.930	..
United Rep. of Tanzania	0.898	0.910	0.931	0.943	0.909	0.908	0.878	0.883	..
Togo	0.861	0.846	0.835	0.836	0.844	0.760	0.791	0.788	..
Tunisia	2.407	2.042	1.158	0.908	0.804	0.810	0.549	0.488	..
Zambia	0.789	0.897	0.911	0.949	0.916	0.933	0.893	0.882	..
Zimbabwe	0.900	0.892	0.920	0.875	0.913	0.935	0.815	0.902	..
Other Africa	0.875	0.847	0.890	0.988	1.331	1.225	1.145	1.130	..
Africa	2.281	1.997	1.772	1.787	1.843	1.695	1.379	1.398	..

1. Please refer to section 'Geographical coverage'.

Energy production/TPES (self-sufficiency)

	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	0.843	0.803	0.844	0.819	0.833	0.868	0.848	0.832	..
Brunei Darussalam	38.190	15.658	9.057	8.254	9.495	5.731	5.055	4.320	..
Cambodia	..	..	..	0.797	0.727	0.679	0.602	0.584	..
DPR of Korea	0.925	0.896	0.870	0.953	1.033	1.131	2.413	1.013	..
India	0.902	0.905	0.917	0.796	0.778	0.719	0.646	0.629	..
Indonesia	2.487	2.245	1.709	1.526	1.564	1.834	1.891	1.837	..
Malaysia	1.004	1.502	2.251	1.593	1.459	1.220	1.100	1.130	..
Mongolia	..	..	0.804	0.813	1.285	3.973	4.191	4.906	..
Myanmar	0.987	1.010	0.998	1.201	1.500	1.615	1.444	1.264	..
Nepal	0.970	0.965	0.950	0.880	0.893	0.869	0.782	0.756	..
Pakistan	0.849	0.845	0.794	0.738	0.805	0.769	0.679	0.626	..
Philippines	0.468	0.543	0.600	0.489	0.551	0.583	0.519	0.489	..
Singapore	-	-	0.006	0.011	0.019	0.025	0.020	0.018	..
Sri Lanka	0.689	0.708	0.760	0.570	0.547	0.568	0.428	0.416	..
Chinese Taipei	0.286	0.208	0.223	0.139	0.122	0.117	0.099	0.077	..
Thailand	0.523	0.508	0.634	0.608	0.557	0.599	0.572	0.548	..
Viet Nam	0.743	0.916	1.023	1.389	1.471	1.124	0.872	0.849	..
Other non-OECD Asia	0.935	0.884	1.237	1.037	1.721	1.655	1.959	1.924	..
Non-OECD Asia excl. China	1.040	1.035	0.992	0.889	0.898	0.887	0.836	0.810	..
People's Rep. of China	1.011	1.029	1.008	0.994	0.938	0.881	0.794	0.800	..
Hong Kong, China	0.010	0.008	0.005	0.004	0.004	0.007	0.007	0.007	..
China	1.004	1.021	0.998	0.983	0.932	0.877	0.790	0.796	..
Argentina	0.858	0.928	1.051	1.346	1.265	1.011	0.878	0.870	..
Bolivia	3.827	1.786	1.886	1.367	2.695	2.511	2.510	2.355	..
Brazil	0.625	0.565	0.743	0.788	0.903	0.927	0.995	1.008	1.031
Colombia	1.232	1.001	1.989	2.802	2.902	3.395	3.043	3.219	..
Costa Rica	0.390	0.395	0.407	0.424	0.530	0.516	0.504	0.480	..
Cuba	0.357	0.330	0.434	0.551	0.532	0.464	0.465	0.475	..
Curaçao ¹	-	-	-	0.000	0.003	0.003	0.011	0.018	..
Dominican Republic	0.421	0.386	0.235	0.126	0.141	0.126	0.115	0.133	..
Ecuador	5.039	2.344	2.591	2.543	2.949	2.211	2.161	2.068	..
El Salvador	0.673	0.759	0.686	0.421	0.469	0.538	0.468	0.499	..
Guatemala	0.693	0.681	0.767	0.749	0.692	0.757	0.682	0.687	..
Haiti	0.923	0.901	0.803	0.767	0.805	0.822	0.758	0.759	..
Honduras	0.718	0.703	0.712	0.511	0.452	0.483	0.496	0.499	..
Jamaica	0.086	0.098	0.122	0.077	0.077	0.115	0.112	0.130	..
Nicaragua	0.565	0.592	0.704	0.536	0.524	0.532	0.560	0.563	..
Panama	0.168	0.373	0.406	0.239	0.229	0.188	0.210	0.215	..
Paraguay	0.838	0.770	1.490	1.775	1.662	1.467	1.292	1.179	..
Peru	0.828	1.285	1.089	0.766	0.800	1.090	1.040	1.008	..
Suriname	..	..	..	1.212	1.135	1.327	1.932	2.698	..
Trinidad and Tobago	3.782	3.437	2.109	1.908	2.172	2.150	1.943	1.949	..
Uruguay	0.225	0.290	0.510	0.332	0.345	0.508	0.588	0.621	..
Venezuela	10.571	4.213	3.663	4.218	4.086	2.733	3.020	3.022	..
Other non-OECD Americas	0.092	0.105	0.186	0.108	0.127	0.120	0.082	0.089	..
Non-OECD Americas	1.658	1.155	1.274	1.432	1.479	1.334	1.306	1.295	..
Bahrain	5.323	4.273	2.738	2.100	1.770	1.599	1.592	1.600	..
Islamic Republic of Iran	15.026	2.124	2.710	2.062	1.799	1.675	1.598	1.616	..
Iraq	22.107	13.934	5.505	5.196	3.702	3.386	4.203	3.883	..
Jordan	0.002	0.000	0.049	0.059	0.038	0.038	0.040	0.043	..
Kuwait	22.472	8.953	5.529	6.102	5.583	4.193	4.788	4.767	..
Lebanon	0.060	0.072	0.073	0.035	0.051	0.032	0.023	0.023	..
Oman	157.393	13.108	9.077	7.969	6.015	3.591	3.251	2.946	..
Qatar	20.611	7.993	4.242	5.445	5.359	6.450	5.399	5.219	..
Saudi Arabia	53.716	17.157	6.351	4.862	4.658	2.865	3.191	3.061	..
Syrian Arab Republic	2.706	2.128	2.133	2.117	1.270	1.277	0.453	0.462	..
United Arab Emirates	58.332	12.472	5.395	4.881	3.941	2.914	3.013	3.391	..
Yemen	0.052	0.047	3.733	4.641	3.104	2.455	0.492	0.538	..
Middle East	21.750	8.781	4.451	3.746	3.236	2.612	2.775	2.709	..

1. Please refer to section 'Geographical coverage'.

TPES/GDP (toe per thousand 2010 USD)

<i>toe per thousand 2010 USD</i>	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	0.267	0.253	0.231	0.200	0.197	0.194	0.177	0.174	..
Non-OECD Total	0.434	0.431	0.465	0.378	0.362	0.332	0.290	0.285	..
OECD Total	0.210	0.189	0.155	0.139	0.130	0.121	0.106	0.104	0.103
Canada	0.257	0.245	0.208	0.189	0.179	0.161	0.155	0.154	0.157
Chile	0.210	0.182	0.186	0.174	0.156	0.141	0.141	0.141	0.139
Mexico	0.151	0.177	0.192	0.165	0.184	0.169	0.147	0.140	0.140
United States	0.317	0.278	0.213	0.180	0.162	0.148	0.127	0.124	0.125
OECD Americas	0.301	0.267	0.211	0.180	0.165	0.150	0.131	0.128	0.129
Australia	0.137	0.139	0.128	0.113	0.100	0.098	0.084	0.081	0.079
Israel ¹	0.148	0.118	0.119	0.107	0.098	0.099	0.079	0.077	0.074
Japan	0.134	0.114	0.093	0.097	0.092	0.088	0.071	0.070	0.069
Korea	0.271	0.292	0.256	0.265	0.235	0.228	0.216	0.210	0.209
New Zealand	0.118	0.128	0.156	0.153	0.125	0.126	0.117	0.115	0.108
OECD Asia Oceania	0.138	0.124	0.108	0.116	0.110	0.109	0.094	0.093	0.092
Austria	0.125	0.111	0.096	0.085	0.091	0.086	0.078	0.077	0.074
Belgium	0.204	0.173	0.145	0.141	0.129	0.124	0.108	0.105	0.098
Czech Republic	0.421	0.369	0.345	0.272	0.246	0.218	0.180	0.180	0.174
Denmark	0.113	0.103	0.076	0.063	0.059	0.061	0.047	0.047	0.046
Estonia	..	..	0.641	0.334	0.262	0.289	0.247	0.225	0.214
Finland	0.211	0.201	0.170	0.155	0.145	0.148	0.132	0.127	0.127
France	0.148	0.129	0.118	0.108	0.107	0.099	0.088	0.086	0.084
Germany	0.194	0.175	0.137	0.108	0.105	0.096	0.082	0.080	0.076
Greece	0.078	0.081	0.108	0.108	0.099	0.092	0.092	0.094	0.090
Hungary	0.293	0.304	0.276	0.233	0.212	0.203	0.173	0.173	0.164
Iceland	0.263	0.244	0.282	0.296	0.241	0.396	0.315	0.312	0.313
Ireland	0.159	0.138	0.116	0.082	0.067	0.065	0.042	0.038	0.036
Italy	0.111	0.095	0.084	0.083	0.086	0.082	0.072	0.072	0.071
Latvia	..	..	..	0.233	0.186	0.190	0.148	0.146	0.147
Lithuania	..	..	..	0.294	0.253	0.190	0.158	0.158	0.159
Luxembourg	0.325	0.239	0.140	0.082	0.093	0.080	0.059	0.059	0.060
Netherlands	0.174	0.150	0.125	0.101	0.101	0.098	0.082	0.080	0.076
Norway	0.098	0.093	0.082	0.071	0.066	0.069	0.058	0.062	0.060
Poland	0.471	0.555	0.455	0.272	0.243	0.210	0.173	0.173	0.167
Portugal	0.071	0.083	0.101	0.111	0.114	0.099	0.094	0.095	0.089
Slovak Republic	0.417	0.450	0.417	0.320	0.265	0.199	0.157	0.161	0.154
Slovenia	..	..	0.185	0.174	0.166	0.153	0.135	0.130	0.124
Spain	0.092	0.104	0.103	0.106	0.105	0.089	0.082	0.083	0.080
Sweden	0.170	0.156	0.147	0.120	0.114	0.104	0.088	0.086	0.082
Switzerland	0.056	0.058	0.056	0.051	0.049	0.044	0.037	0.036	0.035
Turkey	0.141	0.144	0.141	0.146	0.128	0.137	0.122	0.122	0.118
United Kingdom	0.191	0.162	0.126	0.107	0.093	0.083	0.065	0.062	0.062
OECD Europe	0.165	0.151	0.130	0.110	0.106	0.099	0.085	0.085	0.082
IEA	0.210	0.189	0.154	0.139	0.130	0.121	0.106	0.104	0.103
IEA/Accession/Association	0.235	0.217	0.187	0.169	0.168	0.167	0.150	0.148	..
European Union - 28	..	..	0.139	0.115	0.110	0.102	0.087	0.086	..
G7	0.224	0.196	0.155	0.139	0.130	0.120	0.104	0.102	0.101
G8	..	..	0.182	0.156	0.144	0.134	0.118	0.116	..
G20	..	..	0.210	0.182	0.179	0.177	0.159	0.157	..
OPEC	..	..	0.243	0.278	0.277	0.293	0.289	0.294	..

1. Please refer to section 'Geographical coverage'.

TPES/GDP (toe per thousand 2010 USD)

<i>toe per thousand 2010 USD</i>	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	0.434	0.431	0.465	0.378	0.362	0.332	0.290	0.285	..
Albania	0.441	0.564	0.433	0.259	0.235	0.178	0.167	0.168	..
Armenia	..	..	1.212	0.467	0.328	0.268	0.261	0.258	..
Azerbaijan	..	..	1.015	0.859	0.543	0.219	0.249	0.250	..
Belarus	..	..	1.406	0.860	0.652	0.469	0.414	0.411	..
Bosnia and Herzegovina	..	..	2.066	0.384	0.338	0.377	0.357	0.346	..
Bulgaria	1.132	0.994	0.772	0.576	0.467	0.353	0.320	0.318	..
Croatia	..	..	0.197	0.179	0.168	0.157	0.138	0.138	..
Cyprus ¹	0.211	0.134	0.115	0.115	0.098	0.096	0.087	0.086	..
Georgia	..	..	0.736	0.453	0.315	0.268	0.316	0.302	..
Gibraltar	0.056	0.060	0.081	0.140	0.145	0.165	0.185	0.187	..
Kazakhstan	..	..	0.763	0.534	0.465	0.467	0.434	0.434	..
Kosovo	..	..	..	0.473	0.410	0.428	0.378	0.346	..
Kyrgyzstan	..	..	1.556	0.723	0.667	0.574	0.608	0.579	..
Malta	0.200	0.110	0.163	0.095	0.107	0.096	0.050	0.054	..
Republic of Moldova	..	..	0.993	0.818	0.710	0.641	0.517	0.501	..
Montenegro	..	..	..	..	0.297	0.272	0.208	0.209	..
North Macedonia, Republic of	..	..	0.322	0.380	0.377	0.305	0.245	0.249	..
Romania	0.735	0.561	0.500	0.330	0.265	0.211	0.158	0.154	..
Russian Federation	..	..	0.622	0.651	0.509	0.452	0.432	0.436	..
Serbia	..	..	0.796	0.529	0.463	0.396	0.370	0.371	..
Tajikistan	..	..	0.783	0.832	0.571	0.386	0.366	0.357	..
Turkmenistan	..	..	1.281	1.384	1.391	1.005	0.697	0.655	..
Ukraine	..	..	1.225	1.497	1.086	0.974	0.738	0.703	..
Uzbekistan	..	..	2.267	2.521	1.800	1.081	0.542	0.514	..
Former Soviet Union	0.660	0.645	x	x	x	x	x	x	x
Former Yugoslavia	0.279	0.261	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	0.646	0.617	0.715	0.675	0.530	0.457	0.409	0.407	..
Algeria	0.105	0.160	0.241	0.245	0.228	0.249	0.274	0.279	..
Angola	0.145	0.172	0.185	0.189	0.134	0.134	0.145	0.144	..
Benin	0.643	0.613	0.548	0.416	0.433	0.531	0.539	0.529	..
Botswana	..	..	0.229	0.210	0.182	0.168	0.155	0.161	..
Cameroon	0.415	0.321	0.315	0.355	0.330	0.267	0.266	0.255	..
Congo	0.189	0.150	0.119	0.093	0.117	0.140	0.209	0.216	..
Côte d'Ivoire	0.225	0.216	0.245	0.305	0.431	0.334	0.279	0.265	..
Dem. Rep. of the Congo	0.289	0.380	0.486	1.018	1.012	0.921	0.923	0.895	..
Egypt	0.286	0.316	0.369	0.294	0.380	0.334	0.329	0.341	..
Eritrea	..	..	..	0.365	0.347	0.350	0.307	0.301	..
Ethiopia	1.406	1.573	1.787	1.883	1.608	1.115	0.782	0.733	..
Gabon	0.252	0.155	0.112	0.118	0.224	0.354	0.274	0.264	..
Ghana	0.339	0.413	0.439	0.345	0.251	0.235	0.193	0.183	..
Kenya	0.549	0.500	0.487	0.534	0.514	0.493	0.471	0.465	..
Libya	0.052	0.097	0.238	0.329	0.289	0.267	0.367	0.286	..
Mauritius	0.243	0.197	0.170	0.153	0.151	0.131	0.114	0.110	..
Morocco	0.192	0.199	0.176	0.192	0.203	0.183	0.171	0.172	..
Mozambique	2.387	2.977	2.585	1.537	1.188	0.695	0.696	0.689	..
Namibia	..	..	..	0.147	0.149	0.140	0.133	0.137	..
Niger	..	..	..	0.402	0.390	0.390	0.365	0.371	..
Nigeria	0.303	0.323	0.461	0.515	0.408	0.351	0.328	0.341	..
Senegal	0.249	0.250	0.209	0.220	0.204	0.244	0.202	0.188	..
South Africa	0.322	0.354	0.402	0.408	0.361	0.351	0.309	0.310	..
South Sudan	..	..	..	..	..	..	2.169	4.519	..
Sudan	0.689	0.540	0.536	0.391	0.328	0.238	0.251	0.236	..
United Rep. of Tanzania	1.155	0.961	0.796	0.815	0.660	0.550	0.429	0.408	..
Togo	0.534	0.468	0.600	0.808	0.859	0.909	0.725	0.715	..
Tunisia	0.230	0.253	0.270	0.251	0.236	0.233	0.226	0.228	..
Zambia	0.558	0.602	0.646	0.636	0.564	0.430	0.413	0.431	..
Zimbabwe	0.702	0.691	0.643	0.581	0.820	0.804	0.650	0.629	..
Other Africa	0.560	0.581	0.743	0.729	0.629	0.557	0.509	0.505	..
Africa	0.329	0.340	0.410	0.415	0.383	0.349	0.334	0.334	..

1. Please refer to section 'Geographical coverage'.

TPES/GDP (toe per thousand 2010 USD)

<i>toe per thousand 2010 USD</i>	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	0.286	0.294	0.301	0.276	0.271	0.261	0.236	0.225	..
Brunei Darussalam	0.051	0.117	0.180	0.199	0.167	0.236	0.225	0.268	..
Cambodia	..	..	..	0.651	0.422	0.474	0.446	0.444	..
DPR of Korea	1.957	1.356	0.778	0.663	0.739	0.552	0.325	0.556	..
India	0.757	0.736	0.655	0.549	0.463	0.423	0.346	0.335	..
Indonesia	0.348	0.307	0.318	0.343	0.313	0.273	0.221	0.224	..
Malaysia	0.208	0.251	0.259	0.297	0.317	0.284	0.255	0.233	..
Mongolia	..	..	0.886	0.625	0.570	0.549	0.420	0.412	..
Myanmar	1.675	1.336	1.333	0.803	0.504	0.281	0.265	0.287	..
Nepal	1.112	1.082	0.865	0.744	0.709	0.638	0.642	0.628	..
Pakistan	0.616	0.570	0.539	0.541	0.506	0.477	0.431	0.434	..
Philippines	0.315	0.280	0.304	0.319	0.248	0.202	0.193	0.192	..
Singapore	0.197	0.160	0.171	0.139	0.123	0.098	0.113	0.118	..
Sri Lanka	0.431	0.332	0.268	0.243	0.216	0.172	0.148	0.146	..
Chinese Taipei	0.371	0.396	0.308	0.286	0.283	0.248	0.213	0.208	..
Thailand	0.378	0.331	0.296	0.332	0.349	0.346	0.341	0.327	..
Viet Nam	0.963	0.851	0.607	0.470	0.484	0.510	0.472	0.446	..
Other non-OECD Asia	0.237	0.244	0.177	0.174	0.150	0.134	0.181	0.172	..
Non-OECD Asia excl. China	0.535	0.485	0.436	0.399	0.364	0.332	0.289	0.284	..
People's Rep. of China	1.907	1.752	1.053	0.505	0.499	0.416	0.313	0.301	..
Hong Kong, China	0.104	0.085	0.083	0.089	0.067	0.060	0.057	0.050	..
China	1.690	1.523	0.945	0.478	0.477	0.403	0.306	0.295	..
Argentina	0.191	0.190	0.226	0.203	0.201	0.186	0.193	0.185	..
Bolivia	0.159	0.266	0.280	0.365	0.330	0.319	0.326	0.320	..
Brazil	0.129	0.113	0.118	0.122	0.122	0.121	0.126	0.127	..
Colombia	0.185	0.168	0.164	0.134	0.118	0.109	0.111	0.103	..
Costa Rica	0.109	0.105	0.110	0.117	0.131	0.122	0.109	0.104	..
Cuba	0.467	0.488	0.389	0.329	0.216	0.176	0.146	0.141	..
Curaçao ¹	5.223	2.855	0.850	0.899	0.836	0.763	0.953	0.914	..
Dominican Republic	0.271	0.225	0.208	0.213	0.174	0.140	0.120	0.113	..
Ecuador	0.122	0.170	0.166	0.190	0.159	0.170	0.166	0.166	..
El Salvador	0.182	0.214	0.218	0.202	0.224	0.232	0.192	0.187	..
Guatemala	0.231	0.208	0.222	0.237	0.226	0.266	0.274	0.259	..
Haiti	0.331	0.294	0.238	0.307	0.534	0.573	0.560	0.561	..
Honduras	0.349	0.320	0.308	0.284	0.311	0.291	0.296	0.294	..
Jamaica	0.297	0.287	0.253	0.283	0.264	0.189	0.217	0.195	..
Nicaragua	0.231	0.285	0.429	0.383	0.376	0.338	0.332	0.316	..
Panama	0.323	0.161	0.147	0.143	0.135	0.121	0.100	0.098	..
Paraguay	0.294	0.208	0.205	0.203	0.190	0.178	0.194	0.194	..
Peru	0.183	0.174	0.166	0.142	0.129	0.132	0.126	0.124	..
Suriname	..	..	..	0.226	0.176	0.161	0.111	0.078	..
Trinidad and Tobago	0.357	0.375	0.749	0.805	0.879	0.893	0.781	0.796	..
Uruguay	0.152	0.123	0.105	0.103	0.098	0.101	0.108	0.103	..
Venezuela	0.104	0.151	0.168	0.177	0.167	0.184	0.168	0.176	..
Other non-OECD Americas	0.117	0.086	0.060	0.043	0.038	0.049	0.044	0.039	..
Non-OECD Americas	0.158	0.147	0.151	0.149	0.144	0.143	0.143	0.141	..
Bahrain	0.816	0.368	0.588	0.522	0.525	0.492	0.449	0.425	..
Islamic Republic of Iran	0.073	0.205	0.297	0.389	0.431	0.419	0.453	0.466	..
Iraq	0.280	0.213	0.281	0.256	0.254	0.266	0.261	0.295	..
Jordan	0.178	0.213	0.377	0.339	0.342	0.269	0.289	0.295	..
Kuwait	0.118	0.196	0.224	0.255	0.241	0.278	0.255	0.245	..
Lebanon	0.159	0.234	0.232	0.224	0.190	0.167	0.201	0.209	..
Oman	0.015	0.101	0.156	0.179	0.224	0.319	0.326	0.353	..
Qatar	0.056	0.145	0.345	0.303	0.312	0.221	0.248	0.249	..
Saudi Arabia	0.030	0.087	0.197	0.258	0.266	0.351	0.305	0.309	..
Syrian Arab Republic	0.223	0.236	0.433	0.400	0.441	0.362	0.600	0.673	..
United Arab Emirates	0.028	0.061	0.162	0.159	0.173	0.211	0.204	0.175	..
Yemen	0.288	0.183	0.214	0.233	0.263	0.253	0.155	0.166	..
Middle East	0.071	0.135	0.242	0.281	0.299	0.323	0.312	0.317	..

1. Please refer to section 'Geographical coverage'.

TPES/GDP PPP (toe per thousand 2010 USD)

<i>toe per thousand 2010 USD</i>	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	0.226	0.211	0.190	0.162	0.154	0.144	0.125	0.123	..
Non-OECD Total	0.219	0.219	0.224	0.180	0.171	0.155	0.133	0.131	..
OECD Total	0.219	0.196	0.162	0.143	0.134	0.124	0.107	0.105	0.104
Canada	0.304	0.291	0.247	0.224	0.212	0.191	0.183	0.183	0.186
Chile	0.148	0.128	0.131	0.123	0.110	0.100	0.099	0.099	0.098
Mexico	0.092	0.107	0.117	0.100	0.112	0.103	0.089	0.085	0.085
United States	0.317	0.278	0.213	0.180	0.162	0.148	0.127	0.124	0.125
OECD Americas	0.295	0.259	0.205	0.175	0.160	0.146	0.127	0.124	0.125
Australia	0.188	0.191	0.176	0.156	0.138	0.135	0.115	0.111	0.109
Israel ¹	0.158	0.125	0.127	0.113	0.104	0.106	0.084	0.081	0.078
Japan	0.170	0.145	0.119	0.123	0.117	0.112	0.090	0.089	0.088
Korea	0.197	0.213	0.186	0.193	0.171	0.166	0.157	0.153	0.152
New Zealand	0.127	0.138	0.168	0.165	0.134	0.135	0.126	0.124	0.117
OECD Asia Oceania	0.172	0.154	0.132	0.138	0.129	0.126	0.109	0.107	0.106
Austria	0.140	0.124	0.107	0.095	0.102	0.096	0.087	0.086	0.083
Belgium	0.227	0.192	0.161	0.156	0.143	0.137	0.119	0.116	0.109
Czech Republic	0.301	0.264	0.247	0.194	0.176	0.156	0.129	0.129	0.125
Denmark	0.153	0.139	0.102	0.084	0.080	0.082	0.064	0.064	0.063
Estonia	..	..	0.435	0.226	0.178	0.196	0.168	0.153	0.145
Finland	0.251	0.239	0.203	0.184	0.172	0.176	0.158	0.152	0.152
France	0.168	0.146	0.134	0.122	0.122	0.113	0.100	0.097	0.095
Germany	0.206	0.187	0.146	0.115	0.112	0.102	0.087	0.085	0.081
Greece	0.075	0.078	0.104	0.103	0.095	0.088	0.088	0.090	0.086
Hungary	0.178	0.185	0.168	0.142	0.129	0.123	0.105	0.105	0.099
Iceland	0.286	0.265	0.307	0.322	0.262	0.430	0.343	0.339	0.340
Ireland	0.179	0.155	0.131	0.093	0.076	0.073	0.047	0.043	0.040
Italy	0.114	0.097	0.086	0.085	0.088	0.084	0.074	0.074	0.072
Latvia	..	..	0.225	0.151	0.120	0.122	0.095	0.094	0.095
Lithuania	..	..	..	0.176	0.151	0.113	0.094	0.095	0.095
Luxembourg	0.398	0.293	0.172	0.101	0.114	0.098	0.072	0.073	0.074
Netherlands	0.197	0.170	0.141	0.114	0.114	0.111	0.093	0.091	0.086
Norway	0.149	0.140	0.125	0.108	0.099	0.104	0.087	0.094	0.091
Poland	0.282	0.332	0.272	0.163	0.145	0.126	0.104	0.103	0.100
Portugal	0.058	0.068	0.083	0.092	0.094	0.081	0.077	0.079	0.074
Slovak Republic	0.277	0.299	0.278	0.213	0.176	0.132	0.105	0.107	0.102
Slovenia	..	..	0.156	0.147	0.140	0.129	0.114	0.110	0.105
Spain	0.089	0.100	0.099	0.102	0.101	0.086	0.079	0.080	0.077
Sweden	0.213	0.196	0.184	0.150	0.143	0.130	0.110	0.108	0.103
Switzerland	0.078	0.081	0.079	0.072	0.069	0.062	0.051	0.051	0.050
Turkey	0.087	0.088	0.087	0.090	0.078	0.084	0.075	0.075	0.072
United Kingdom	0.207	0.176	0.137	0.116	0.101	0.090	0.070	0.068	0.067
OECD Europe	0.171	0.156	0.134	0.114	0.109	0.101	0.086	0.085	0.082
IEA	0.220	0.197	0.161	0.143	0.134	0.124	0.108	0.105	0.104
IEA/Accession/Association	0.229	0.208	0.176	0.153	0.147	0.138	0.118	0.115	..
European Union - 28	..	..	0.142	0.118	0.113	0.103	0.088	0.087	..
G7	0.242	0.211	0.168	0.150	0.139	0.128	0.111	0.109	0.108
G8	..	..	0.186	0.162	0.149	0.138	0.121	0.119	..
G20	..	..	0.188	0.160	0.152	0.142	0.122	0.119	..
OPEC	..	..	0.115	0.131	0.131	0.139	0.134	0.136	..

1. Please refer to section 'Geographical coverage'.

TPES/GDP PPP (toe per thousand 2010 USD)

<i>toe per thousand 2010 USD</i>	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	0.219	0.219	0.224	0.180	0.171	0.155	0.133	0.131	..
Albania	0.187	0.240	0.184	0.110	0.100	0.076	0.071	0.072	..
Armenia	..	..	0.594	0.229	0.161	0.131	0.128	0.126	..
Azerbaijan	..	..	0.380	0.321	0.203	0.082	0.093	0.094	..
Belarus	..	..	0.545	0.334	0.253	0.182	0.160	0.160	..
Bosnia and Herzegovina	..	..	1.025	0.191	0.167	0.187	0.177	0.172	..
Bulgaria	0.519	0.455	0.354	0.264	0.214	0.162	0.147	0.146	..
Croatia	..	..	0.139	0.126	0.118	0.110	0.097	0.097	..
Cyprus ¹	0.196	0.124	0.107	0.107	0.091	0.089	0.081	0.080	..
Georgia	..	..	0.331	0.204	0.142	0.121	0.142	0.136	..
Gibraltar	0.069	0.073	0.099	0.165	0.168	0.189	0.215	0.216	..
Kazakhstan	..	..	0.351	0.246	0.214	0.215	0.200	0.200	..
Kosovo	..	..	..	0.200	0.174	0.181	0.160	0.146	..
Kyrgyzstan	..	..	0.501	0.233	0.215	0.185	0.196	0.186	..
Malta	0.151	0.083	0.124	0.072	0.081	0.073	0.038	0.041	..
Republic of Moldova	..	..	0.423	0.348	0.302	0.273	0.220	0.213	..
Montenegro	..	..	..	..	0.145	0.134	0.102	0.102	..
North Macedonia, Republic of	..	..	0.130	0.153	0.152	0.123	0.099	0.100	..
Romania	0.356	0.271	0.242	0.160	0.128	0.102	0.076	0.075	..
Russian Federation	..	..	0.324	0.339	0.265	0.235	0.225	0.227	..
Serbia	..	..	0.357	0.237	0.207	0.177	0.166	0.166	..
Tajikistan	..	..	0.280	0.298	0.204	0.138	0.131	0.128	..
Turkmenistan	..	..	0.584	0.631	0.634	0.458	0.318	0.299	..
Ukraine	..	..	0.474	0.579	0.420	0.377	0.286	0.272	..
Uzbekistan	..	..	0.752	0.836	0.597	0.358	0.180	0.170	..
Former Soviet Union	0.366	0.357	x	x	x	x	x	x	x
Former Yugoslavia	0.173	0.162	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	0.357	0.341	0.351	0.335	0.262	0.224	0.200	0.199	..
Algeria	0.037	0.057	0.085	0.087	0.081	0.088	0.097	0.099	..
Angola	0.084	0.099	0.106	0.109	0.077	0.077	0.083	0.083	..
Benin	0.273	0.261	0.233	0.177	0.184	0.226	0.229	0.225	..
Botswana	..	..	0.114	0.104	0.091	0.083	0.077	0.080	..
Cameroon	0.189	0.146	0.144	0.162	0.151	0.122	0.121	0.116	..
Congo	0.102	0.081	0.064	0.050	0.063	0.075	0.113	0.116	..
Côte d'Ivoire	0.104	0.100	0.113	0.141	0.200	0.155	0.129	0.122	..
Dem. Rep. of the Congo	0.150	0.197	0.251	0.526	0.523	0.476	0.477	0.462	..
Egypt	0.077	0.085	0.099	0.079	0.102	0.090	0.089	0.092	..
Eritrea	..	..	..	0.127	0.121	0.122	0.107	0.105	..
Ethiopia	0.456	0.510	0.580	0.611	0.522	0.362	0.254	0.238	..
Gabon	0.146	0.090	0.065	0.069	0.130	0.206	0.160	0.154	..
Ghana	0.148	0.181	0.192	0.151	0.110	0.103	0.085	0.080	..
Kenya	0.219	0.199	0.194	0.213	0.205	0.196	0.188	0.186	..
Libya	0.022	0.040	0.099	0.138	0.121	0.112	0.153	0.120	..
Mauritius	0.124	0.101	0.087	0.078	0.078	0.067	0.058	0.056	..
Morocco	0.086	0.089	0.079	0.086	0.091	0.082	0.077	0.077	..
Mozambique	1.113	1.388	1.205	0.717	0.554	0.324	0.325	0.321	..
Namibia	..	..	..	0.092	0.093	0.088	0.083	0.086	..
Niger	..	..	..	0.176	0.170	0.170	0.159	0.162	..
Nigeria	0.139	0.149	0.212	0.237	0.188	0.161	0.151	0.157	..
Senegal	0.117	0.118	0.098	0.103	0.096	0.115	0.095	0.088	..
South Africa	0.201	0.221	0.251	0.255	0.225	0.219	0.193	0.193	..
South Sudan	..	..	..	..	..	..	0.206	0.175	..
Sudan	0.308	0.242	0.240	0.175	0.147	0.107	0.112	0.106	..
United Rep. of Tanzania	0.396	0.329	0.273	0.279	0.226	0.188	0.147	0.140	..
Togo	0.234	0.205	0.263	0.354	0.377	0.399	0.318	0.314	..
Tunisia	0.093	0.102	0.109	0.102	0.095	0.095	0.092	0.092	..
Zambia	0.254	0.274	0.294	0.290	0.257	0.196	0.188	0.196	..
Zimbabwe	0.353	0.347	0.323	0.292	0.412	0.404	0.326	0.316	..
Other Africa	0.223	0.234	0.306	0.295	0.260	0.231	0.208	0.205	..
Africa	0.151	0.153	0.180	0.179	0.166	0.150	0.142	0.142	..

1. Please refer to section 'Geographical coverage'.

TPES/GDP PPP (toe per thousand 2010 USD)

<i>toe per thousand 2010 USD</i>	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	0.090	0.093	0.095	0.087	0.086	0.083	0.075	0.071	..
Brunei Darussalam	0.023	0.052	0.080	0.089	0.075	0.106	0.101	0.120	..
Cambodia	..	..	..	0.207	0.134	0.151	0.142	0.141	..
DPR of Korea	0.521	0.361	0.207	0.177	0.197	0.147	0.087	0.148	..
India	0.236	0.230	0.204	0.171	0.144	0.132	0.108	0.105	..
Indonesia	0.131	0.116	0.120	0.129	0.118	0.103	0.083	0.084	..
Malaysia	0.091	0.110	0.114	0.130	0.139	0.125	0.112	0.102	..
Mongolia	..	..	0.311	0.219	0.200	0.193	0.148	0.145	..
Myanmar	0.454	0.362	0.361	0.218	0.137	0.076	0.072	0.078	..
Nepal	0.339	0.329	0.263	0.226	0.216	0.194	0.196	0.191	..
Pakistan	0.153	0.141	0.134	0.134	0.125	0.118	0.107	0.107	..
Philippines	0.122	0.109	0.118	0.124	0.096	0.079	0.075	0.074	..
Singapore	0.130	0.105	0.112	0.091	0.081	0.065	0.075	0.078	..
Sri Lanka	0.145	0.111	0.090	0.082	0.073	0.058	0.050	0.049	..
Chinese Taipei	0.190	0.203	0.158	0.147	0.145	0.127	0.109	0.107	..
Thailand	0.145	0.127	0.114	0.128	0.134	0.133	0.131	0.125	..
Viet Nam	0.292	0.258	0.184	0.143	0.147	0.155	0.143	0.135	..
Other non-OECD Asia	0.117	0.120	0.090	0.094	0.077	0.066	0.086	0.082	..
Non-OECD Asia excl. China	0.188	0.173	0.156	0.145	0.131	0.119	0.102	0.100	..
People's Rep. of China	0.932	0.856	0.515	0.247	0.244	0.203	0.153	0.147	..
Hong Kong, China	0.072	0.059	0.057	0.061	0.046	0.041	0.040	0.035	..
China	0.856	0.775	0.477	0.238	0.237	0.199	0.151	0.145	..
Argentina	0.107	0.106	0.127	0.114	0.112	0.104	0.108	0.104	..
Bolivia	0.059	0.099	0.105	0.136	0.123	0.119	0.122	0.120	..
Brazil	0.101	0.089	0.093	0.096	0.096	0.095	0.100	0.100	..
Colombia	0.109	0.099	0.097	0.079	0.069	0.064	0.066	0.061	..
Costa Rica	0.070	0.067	0.071	0.076	0.084	0.079	0.070	0.067	..
Cuba	0.150	0.157	0.125	0.106	0.069	0.057	0.047	0.045	..
Curaçao ¹	5.824	3.181	0.948	1.003	0.931	0.850	1.062	1.018	..
Dominican Republic	0.135	0.113	0.104	0.107	0.087	0.070	0.060	0.057	..
Ecuador	0.062	0.086	0.085	0.096	0.081	0.086	0.084	0.084	..
El Salvador	0.088	0.104	0.106	0.098	0.108	0.113	0.093	0.090	..
Guatemala	0.099	0.089	0.095	0.102	0.097	0.114	0.118	0.111	..
Haiti	0.149	0.132	0.107	0.138	0.240	0.258	0.252	0.252	..
Honduras	0.174	0.159	0.153	0.141	0.154	0.145	0.147	0.146	..
Jamaica	0.178	0.171	0.151	0.169	0.158	0.113	0.130	0.116	..
Nicaragua	0.089	0.110	0.166	0.148	0.146	0.131	0.128	0.122	..
Panama	0.170	0.085	0.078	0.076	0.071	0.064	0.053	0.052	..
Paraguay	0.134	0.095	0.094	0.092	0.087	0.081	0.088	0.089	..
Peru	0.094	0.090	0.086	0.073	0.066	0.068	0.065	0.064	..
Suriname	..	..	..	0.135	0.105	0.096	0.066	0.046	..
Trinidad and Tobago	0.194	0.204	0.408	0.438	0.479	0.487	0.426	0.434	..
Uruguay	0.108	0.088	0.075	0.074	0.070	0.072	0.077	0.074	..
Venezuela	0.087	0.126	0.141	0.148	0.139	0.154	0.141	0.147	..
Other non-OECD Americas	0.095	0.070	0.049	0.035	0.031	0.040	0.036	0.032	..
Non-OECD Americas	0.107	0.101	0.104	0.102	0.098	0.097	0.096	0.094	..
Bahrain	0.425	0.192	0.306	0.272	0.274	0.256	0.234	0.222	..
Islamic Republic of Iran	0.027	0.076	0.110	0.145	0.160	0.156	0.168	0.173	..
Iraq	0.101	0.077	0.102	0.092	0.092	0.096	0.094	0.107	..
Jordan	0.070	0.085	0.149	0.135	0.136	0.107	0.114	0.117	..
Kuwait	0.062	0.103	0.117	0.133	0.126	0.145	0.133	0.128	..
Lebanon	0.088	0.129	0.127	0.123	0.105	0.092	0.111	0.115	..
Oman	0.007	0.044	0.068	0.077	0.097	0.138	0.141	0.153	..
Qatar	0.032	0.083	0.198	0.174	0.179	0.127	0.142	0.143	..
Saudi Arabia	0.013	0.038	0.085	0.112	0.115	0.152	0.132	0.134	..
Syrian Arab Republic	0.101	0.107	0.196	0.181	0.200	0.164	0.272	0.305	..
United Arab Emirates	0.017	0.038	0.101	0.099	0.108	0.132	0.128	0.109	..
Yemen	0.086	0.055	0.064	0.070	0.079	0.075	0.046	0.050	..
Middle East	0.030	0.059	0.104	0.123	0.131	0.142	0.138	0.140	..

1. Please refer to section 'Geographical coverage'.

TPES/population (toe per capita)

<i>toe per capita</i>	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	1.557	1.623	1.658	1.639	1.762	1.856	1.845	1.858	..
Non-OECD Total	0.725	0.856	0.954	0.896	1.057	1.242	1.308	1.326	..
OECD Total	4.067	4.130	4.225	4.579	4.621	4.371	4.099	4.098	4.125
Canada	7.085	7.830	7.630	8.263	8.482	7.647	7.788	7.911	8.085
Chile	0.844	0.848	1.063	1.635	1.742	1.805	2.069	2.070	2.102
Mexico	0.921	1.351	1.421	1.495	1.688	1.565	1.514	1.460	1.470
United States	8.163	7.925	7.655	8.052	7.834	7.156	6.684	6.611	6.793
OECD Americas	6.467	6.295	5.988	6.296	6.204	5.655	5.333	5.279	5.410
Australia	4.191	4.701	4.984	5.609	5.549	5.778	5.296	5.164	5.137
Israel ¹	2.368	2.017	2.460	2.892	2.650	3.045	2.687	2.644	2.569
Japan	2.942	2.943	3.549	4.086	4.088	3.916	3.365	3.410	3.376
Korea	0.632	1.082	2.167	4.003	4.364	5.046	5.511	5.486	5.595
New Zealand	2.653	2.858	3.815	4.433	4.089	4.218	4.343	4.284	4.089
OECD Asia Oceania	2.546	2.668	3.348	4.180	4.248	4.349	4.086	4.092	4.090
Austria	2.831	3.067	3.240	3.571	4.067	4.013	3.755	3.807	3.732
Belgium	4.729	4.744	4.804	5.663	5.542	5.490	4.923	4.868	4.590
Czech Republic	4.551	4.547	4.806	4.015	4.422	4.291	3.928	4.091	4.067
Denmark	3.782	3.734	3.378	3.493	3.486	3.513	2.911	2.949	2.926
Estonia	..	..	6.044	3.366	3.836	4.224	4.547	4.337	4.278
Finland	4.508	5.146	5.692	6.257	6.556	6.824	6.143	6.042	6.192
France	3.378	3.477	3.842	4.133	4.316	4.043	3.701	3.684	3.646
Germany	4.239	4.562	4.426	4.132	4.150	4.065	3.766	3.766	3.598
Greece	1.309	1.538	2.089	2.507	2.753	2.482	2.082	2.165	2.110
Hungary	2.041	2.648	2.777	2.448	2.781	2.651	2.606	2.723	2.700
Iceland	5.277	6.565	8.902	11.101	10.552	17.027	15.777	15.949	16.245
Ireland	2.248	2.422	2.827	3.628	3.512	3.161	2.933	2.840	2.830
Italy	2.176	2.319	2.584	3.012	3.203	2.904	2.490	2.535	2.497
Latvia	..	..	2.962	1.618	2.023	2.150	2.173	2.267	2.419
Lithuania	..	..	4.345	2.040	2.668	2.277	2.513	2.674	2.795
Luxembourg	12.629	9.779	8.871	7.670	9.416	8.336	6.331	6.323	6.421
Netherlands	4.615	4.550	4.451	4.696	4.894	4.979	4.325	4.331	4.162
Norway	3.608	4.491	4.967	5.826	5.803	6.015	5.197	5.682	5.547
Poland	2.783	3.559	2.711	2.322	2.415	2.610	2.584	2.703	2.745
Portugal	0.791	1.013	1.679	2.390	2.519	2.223	2.112	2.211	2.122
Slovak Republic	3.344	3.985	4.026	3.285	3.495	3.284	3.037	3.200	3.180
Slovenia	..	..	2.858	3.224	3.645	3.575	3.290	3.343	3.313
Spain	1.463	1.782	2.290	3.005	3.251	2.742	2.581	2.708	2.658
Sweden	4.773	4.872	5.514	5.360	5.714	5.428	4.958	4.889	4.706
Switzerland	2.936	3.138	3.575	3.435	3.448	3.302	2.811	2.801	2.791
Turkey	0.640	0.708	0.933	1.187	1.227	1.445	1.725	1.828	1.792
United Kingdom	3.879	3.523	3.598	3.787	3.689	3.245	2.729	2.663	2.661
OECD Europe	3.021	3.152	3.242	3.336	3.443	3.284	3.025	3.065	3.008
IEA	4.109	4.176	4.277	4.644	4.683	4.423	4.143	4.142	4.170
IEA/Accession/Association	1.669	1.694	1.725	1.854	2.013	2.137	2.147	2.167	..
European Union - 28	..	..	3.442	3.478	3.626	3.429	3.128	3.160	..
G7	5.220	5.231	5.348	5.770	5.749	5.333	4.933	4.917	4.978
G8	..	..	5.456	5.502	5.548	5.250	4.935	4.941	..
G20	..	..	1.931	1.962	2.121	2.255	2.262	2.284	..
OPEC	..	..	1.275	1.532	1.737	2.013	2.040	2.028	..

1. Please refer to section 'Geographical coverage'.

TPES/population (toe per capita)

<i>toe per capita</i>	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	0.725	0.856	0.954	0.896	1.057	1.242	1.308	1.326	..
Albania	0.763	1.150	0.813	0.580	0.720	0.729	0.783	0.819	..
Armenia	..	..	2.179	0.656	0.843	0.863	1.027	1.088	..
Azerbaijan	..	..	3.166	1.404	1.600	1.280	1.458	1.454	..
Belarus	..	..	4.470	2.475	2.783	2.898	2.635	2.683	..
Bosnia and Herzegovina	..	..	1.572	1.154	1.333	1.741	1.920	1.927	..
Bulgaria	2.378	3.204	3.212	2.277	2.598	2.417	2.547	2.649	..
Croatia	..	..	1.980	1.895	2.195	2.125	2.029	2.120	..
Cyprus ¹	1.237	1.709	2.382	3.097	3.028	2.982	2.536	2.594	..
Georgia	..	..	2.586	0.649	0.678	0.795	1.289	1.293	..
Gibraltar	1.092	1.160	2.055	4.409	4.839	5.580	6.820	7.419	..
Kazakhstan	..	..	4.493	2.397	3.359	4.235	4.588	4.712	..
Kosovo	..	..	..	0.909	1.141	1.405	1.483	1.403	..
Kyrgyzstan	..	..	1.705	0.473	0.499	0.505	0.635	0.620	..
Malta	0.845	1.004	1.963	1.732	2.097	2.018	1.306	1.461	..
Republic of Moldova	..	..	2.677	0.792	0.980	1.047	1.070	1.085	..
Montenegro	..	..	..	..	1.664	1.822	1.558	1.637	..
North Macedonia, Republic of	..	..	1.241	1.311	1.416	1.386	1.283	1.307	..
Romania	2.296	2.933	2.671	1.615	1.810	1.730	1.613	1.702	..
Russian Federation	..	..	5.930	4.225	4.541	4.823	4.949	5.067	..
Serbia	..	..	1.944	1.667	2.152	2.141	2.164	2.223	..
Tajikistan	..	..	1.005	0.346	0.341	0.285	0.354	0.364	..
Turkmenistan	..	..	4.756	3.296	4.034	4.460	4.872	4.793	..
Ukraine	..	..	4.857	2.721	2.995	2.887	2.037	1.996	..
Uzbekistan	..	..	2.261	2.050	1.795	1.488	1.064	1.045	..
Former Soviet Union	3.422	4.203	x	x	x	x	x	x	x
Former Yugoslavia	1.139	1.547	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	3.132	3.874	4.487	2.963	3.219	3.326	3.240	3.297	..
Algeria	0.305	0.580	0.856	0.866	0.974	1.110	1.324	1.344	..
Angola	0.568	0.511	0.483	0.414	0.384	0.480	0.511	0.493	..
Benin	0.380	0.364	0.334	0.289	0.313	0.402	0.452	0.456	..
Botswana	..	..	0.884	1.039	1.006	1.066	1.159	1.212	..
Cameroon	0.399	0.424	0.425	0.413	0.417	0.349	0.399	0.385	..
Congo	0.356	0.337	0.323	0.220	0.292	0.382	0.579	0.564	..
Côte d'Ivoire	0.448	0.431	0.354	0.407	0.525	0.407	0.431	0.430	..
Dem. Rep. of the Congo	0.327	0.321	0.341	0.295	0.304	0.308	0.376	0.366	..
Egypt	0.214	0.342	0.562	0.574	0.802	0.868	0.897	0.951	..
Eritrea	..	..	..	0.209	0.193	0.169	0.171	0.173	..
Ethiopia	0.367	0.367	0.370	0.370	0.374	0.380	0.400	0.403	..
Gabon	2.311	1.885	1.241	1.195	2.142	3.101	2.621	2.478	..
Ghana	0.360	0.373	0.362	0.334	0.273	0.309	0.321	0.321	..
Kenya	0.449	0.449	0.453	0.445	0.447	0.477	0.538	0.544	..
Libya	1.069	2.190	2.517	2.953	3.081	3.242	2.147	2.094	..
Mauritius	0.439	0.446	0.629	0.851	0.946	1.050	1.123	1.121	..
Morocco	0.207	0.270	0.306	0.382	0.486	0.527	0.556	0.574	..
Mozambique	0.692	0.567	0.447	0.394	0.403	0.291	0.359	0.358	..
Namibia	..	..	..	0.557	0.672	0.729	0.803	0.797	..
Niger	..	..	..	0.130	0.127	0.136	0.143	0.147	..
Nigeria	0.597	0.665	0.697	0.712	0.757	0.803	0.804	0.823	..
Senegal	0.283	0.279	0.223	0.243	0.248	0.307	0.280	0.272	..
South Africa	1.981	2.286	2.389	2.384	2.381	2.555	2.326	2.331	..
South Sudan	..	..	..	..	..	..	0.063	0.053	..
Sudan	0.483	0.435	0.410	0.392	0.390	0.352	0.482	0.462	..
United Rep. of Tanzania	0.513	0.429	0.382	0.394	0.392	0.374	0.361	0.356	..
Togo	0.324	0.326	0.334	0.425	0.417	0.479	0.463	0.464	..
Tunisia	0.349	0.513	0.601	0.753	0.823	0.966	0.966	0.981	..
Zambia	0.861	0.773	0.675	0.597	0.625	0.629	0.673	0.705	..
Zimbabwe	1.025	0.906	0.913	0.819	0.743	0.687	0.691	0.684	..
Other Africa	0.316	0.320	0.356	0.358	0.378	0.380	0.366	0.365	..
Africa	0.516	0.570	0.611	0.600	0.631	0.649	0.643	0.647	..

1. Please refer to section 'Geographical coverage'.

TPES/population (toe per capita)

<i>toe per capita</i>	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	0.092	0.103	0.120	0.141	0.162	0.198	0.243	0.246	..
Brunei Darussalam	2.312	6.959	6.669	7.162	6.078	8.332	7.084	8.418	..
Cambodia	..	..	..	0.281	0.259	0.373	0.481	0.505	..
DPR of Korea	1.320	1.738	1.637	0.860	0.893	0.602	0.348	0.598	..
India	0.269	0.287	0.351	0.419	0.450	0.569	0.644	0.659	..
Indonesia	0.307	0.378	0.544	0.736	0.789	0.851	0.880	0.925	..
Malaysia	0.499	0.832	1.176	2.083	2.533	2.578	2.811	2.681	..
Mongolia	..	..	1.561	1.000	1.186	1.455	1.641	1.667	..
Myanmar	0.279	0.282	0.263	0.279	0.304	0.277	0.374	0.428	..
Nepal	0.303	0.306	0.309	0.342	0.356	0.378	0.441	0.460	..
Pakistan	0.291	0.317	0.400	0.459	0.493	0.496	0.509	0.530	..
Philippines	0.440	0.473	0.463	0.513	0.450	0.431	0.530	0.554	..
Singapore	1.712	2.126	3.783	4.635	4.925	4.571	6.054	6.532	..
Sri Lanka	0.312	0.302	0.318	0.443	0.461	0.483	0.559	0.561	..
Chinese Taipei	0.838	1.575	2.351	3.885	4.525	4.796	4.656	4.660	..
Thailand	0.389	0.464	0.741	1.148	1.513	1.754	2.018	2.001	..
Viet Nam	0.299	0.265	0.262	0.358	0.490	0.668	0.819	0.818	..
Other non-OECD Asia	0.207	0.249	0.206	0.233	0.226	0.259	0.365	0.355	..
Non-OECD Asia excl. China	0.304	0.347	0.428	0.527	0.578	0.664	0.733	0.751	..
People's Rep. of China	0.484	0.609	0.770	0.895	1.366	1.896	2.155	2.210	..
Hong Kong, China	0.748	0.914	1.511	2.039	1.845	1.947	2.106	1.896	..
China	0.485	0.611	0.773	0.901	1.369	1.896	2.155	2.208	..
Argentina	1.412	1.488	1.408	1.661	1.710	1.909	1.968	1.928	..
Bolivia	0.249	0.437	0.381	0.590	0.568	0.633	0.801	0.807	..
Brazil	0.799	0.940	0.939	1.071	1.155	1.354	1.374	1.387	..
Colombia	0.589	0.638	0.707	0.639	0.626	0.680	0.840	0.782	..
Costa Rica	0.470	0.526	0.542	0.732	0.912	1.001	1.046	1.023	..
Cuba	1.176	1.489	1.645	1.142	0.946	0.998	0.943	0.927	..
Curaçao ¹	36.247	22.692	7.716	10.032	9.499	8.919	10.967	10.458	..
Dominican Republic	0.586	0.591	0.559	0.858	0.768	0.764	0.831	0.808	..
Ecuador	0.356	0.626	0.620	0.698	0.680	0.791	0.865	0.872	..
El Salvador	0.500	0.550	0.470	0.544	0.631	0.695	0.654	0.646	..
Guatemala	0.483	0.521	0.476	0.604	0.596	0.753	0.850	0.810	..
Haiti	0.320	0.366	0.220	0.235	0.368	0.380	0.408	0.409	..
Honduras	0.497	0.509	0.480	0.460	0.559	0.563	0.636	0.650	..
Jamaica	1.483	1.053	1.081	1.315	1.303	0.884	1.039	0.940	..
Nicaragua	0.513	0.472	0.487	0.500	0.536	0.515	0.646	0.637	..
Panama	1.231	0.714	0.598	0.786	0.834	0.976	1.112	1.131	..
Paraguay	0.571	0.655	0.729	0.726	0.683	0.781	0.993	1.036	..
Peru	0.658	0.649	0.446	0.472	0.494	0.665	0.768	0.764	..
Suriname	..	..	..	1.293	1.231	1.334	0.886	0.626	..
Trinidad and Tobago	2.685	3.529	4.901	7.871	12.400	14.903	12.316	12.219	..
Uruguay	0.846	0.907	0.724	0.931	0.889	1.211	1.516	1.481	..
Venezuela	1.506	2.125	1.990	2.089	2.038	2.495	1.762	1.559	..
Other non-OECD Americas	1.116	1.030	0.840	0.835	0.833	1.009	0.920	0.813	..
Non-OECD Americas	0.871	0.982	0.943	1.039	1.086	1.256	1.253	1.231	..
Bahrain	8.480	7.794	10.538	11.987	11.593	10.187	10.018	9.395	..
Islamic Republic of Iran	0.667	0.983	1.233	1.860	2.452	2.740	3.050	3.223	..
Iraq	0.425	0.712	1.147	1.102	0.979	1.196	1.494	1.606	..
Jordan	0.316	0.641	0.919	0.954	1.168	0.989	0.941	0.955	..
Kuwait	7.844	7.621	4.338	9.127	11.544	10.703	8.978	8.225	..
Lebanon	0.959	0.950	0.723	1.521	1.269	1.479	1.427	1.486	..
Oman	0.120	0.997	2.329	3.338	3.946	6.145	5.529	5.702	..
Qatar	10.091	14.788	13.714	18.451	19.270	15.537	16.460	16.351	..
Saudi Arabia	1.077	3.193	3.553	4.713	5.127	6.764	6.510	6.416	..
Syrian Arab Republic	0.292	0.500	0.841	0.941	1.137	1.031	0.499	0.487	..
United Arab Emirates	3.288	6.942	10.983	9.993	9.718	7.375	8.473	7.197	..
Yemen	0.149	0.157	0.208	0.266	0.320	0.331	0.117	0.115	..
Middle East	0.732	1.287	1.655	2.185	2.588	3.015	3.161	3.165	..

1. Please refer to section 'Geographical coverage'.

Electricity consumption/GDP (kWh per 2010 USD)

<i>kWh per 2010 USD</i>	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	0.247	0.268	0.287	0.283	0.288	0.300	0.298	0.296	..
Non-OECD Total	0.301	0.344	0.434	0.423	0.439	0.447	0.460	0.461	..
OECD Total	0.232	0.244	0.244	0.240	0.233	0.230	0.207	0.202	0.201
Canada	0.371	0.401	0.441	0.389	0.357	0.328	0.295	0.278	0.276
Chile	0.192	0.198	0.218	0.265	0.276	0.258	0.284	0.276	0.272
Mexico	0.094	0.112	0.155	0.195	0.215	0.218	0.223	0.217	0.227
United States	0.332	0.345	0.325	0.306	0.283	0.276	0.244	0.236	0.237
OECD Americas	0.322	0.334	0.325	0.306	0.285	0.277	0.248	0.239	0.241
Australia	0.136	0.173	0.215	0.204	0.188	0.182	0.157	0.155	0.153
Israel ¹	0.156	0.176	0.202	0.233	0.241	0.227	0.203	0.198	0.196
Japan	0.185	0.182	0.176	0.191	0.187	0.197	0.169	0.167	0.159
Korea	0.170	0.247	0.280	0.391	0.418	0.440	0.417	0.407	0.406
New Zealand	0.245	0.282	0.361	0.324	0.294	0.285	0.231	0.229	0.223
OECD Asia Oceania	0.178	0.185	0.190	0.215	0.216	0.228	0.204	0.201	0.196
Austria	0.160	0.170	0.180	0.168	0.180	0.179	0.171	0.172	0.167
Belgium	0.171	0.178	0.193	0.205	0.198	0.189	0.171	0.169	0.166
Czech Republic	0.345	0.371	0.400	0.385	0.353	0.320	0.295	0.289	0.281
Denmark	0.103	0.126	0.133	0.116	0.113	0.109	0.096	0.094	0.092
Estonia	..	..	0.604	0.449	0.377	0.444	0.389	0.370	0.365
Finland	0.283	0.323	0.373	0.378	0.355	0.357	0.333	0.325	0.325
France	0.138	0.165	0.184	0.189	0.191	0.190	0.173	0.168	0.164
Germany	0.213	0.222	0.205	0.175	0.183	0.174	0.151	0.148	0.146
Greece	0.091	0.117	0.166	0.197	0.191	0.198	0.243	0.244	0.229
Hungary	0.281	0.310	0.341	0.315	0.287	0.296	0.278	0.275	0.265
Iceland	0.494	0.471	0.512	0.699	0.641	1.196	1.077	1.063	1.049
Ireland	0.153	0.164	0.155	0.131	0.120	0.120	0.083	0.078	0.075
Italy	0.125	0.127	0.134	0.146	0.154	0.153	0.148	0.149	0.148
Latvia	..	..	..	0.300	0.255	0.285	0.242	0.232	0.226
Lithuania	..	..	..	0.363	0.302	0.290	0.254	0.251	0.248
Luxembourg	0.303	0.264	0.216	0.168	0.154	0.160	0.133	0.130	0.126
Netherlands	0.136	0.144	0.145	0.140	0.143	0.138	0.128	0.125	0.122
Norway	0.423	0.386	0.387	0.306	0.283	0.283	0.262	0.259	0.262
Poland	0.383	0.480	0.550	0.382	0.345	0.301	0.278	0.271	0.262
Portugal	0.088	0.126	0.151	0.185	0.213	0.220	0.217	0.216	0.213
Slovak Republic	0.378	0.492	0.575	0.481	0.373	0.313	0.271	0.273	0.247
Slovenia	..	..	0.345	0.311	0.314	0.278	0.286	0.282	0.269
Spain	0.117	0.152	0.157	0.182	0.196	0.186	0.174	0.171	0.166
Sweden	0.311	0.344	0.422	0.350	0.308	0.286	0.245	0.240	0.229
Switzerland	0.093	0.109	0.116	0.116	0.118	0.110	0.097	0.098	0.094
Turkey	0.065	0.099	0.138	0.201	0.208	0.233	0.217	0.217	0.217
United Kingdom	0.230	0.215	0.188	0.172	0.158	0.146	0.119	0.116	0.114
OECD Europe	0.182	0.195	0.201	0.190	0.190	0.186	0.169	0.166	0.163
IEA	0.232	0.244	0.243	0.240	0.232	0.230	0.207	0.202	0.200
IEA/Accession/Association	0.233	0.249	0.258	0.264	0.271	0.285	0.282	0.280	..
European Union - 28	..	..	0.208	0.192	0.192	0.186	0.168	0.165	..
G7	0.251	0.258	0.249	0.244	0.234	0.230	0.204	0.198	0.197
G8	..	..	0.276	0.261	0.250	0.246	0.221	0.215	..
G20	..	..	0.280	0.277	0.282	0.296	0.292	0.290	..
OPEC	..	..	0.192	0.244	0.256	0.284	0.314	0.326	..

1. Please refer to section 'Geographical coverage'.

Electricity consumption/GDP (kWh per 2010 USD)

<i>kWh per 2010 USD</i>	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	0.301	0.344	0.434	0.423	0.439	0.447	0.460	0.461	..
Albania	0.343	0.561	0.294	0.646	0.562	0.475	0.426	0.441	..
Armenia	..	..	1.515	0.924	0.592	0.536	0.492	0.483	..
Azerbaijan	..	..	0.826	1.249	0.810	0.274	0.378	0.365	..
Belarus	..	..	1.377	1.041	0.760	0.577	0.557	0.552	..
Bosnia and Herzegovina	..	..	3.861	0.673	0.603	0.681	0.668	0.678	..
Bulgaria	1.277	1.233	1.143	0.929	0.749	0.666	0.622	0.622	..
Croatia	..	..	0.295	0.270	0.265	0.282	0.269	0.272	..
Cyprus ¹	0.209	0.150	0.157	0.172	0.187	0.200	0.187	0.185	..
Georgia	..	..	0.865	1.014	0.830	0.667	0.705	0.718	..
Gibraltar	0.093	0.096	0.104	0.132	0.136	0.164	0.196	0.197	..
Kazakhstan	..	..	1.003	0.706	0.555	0.521	0.531	0.471	..
Kosovo	..	..	..	0.811	0.780	0.807	0.603	0.668	..
Kyrgyzstan	..	..	2.127	2.592	1.839	1.559	1.692	1.725	..
Malta	0.285	0.181	0.235	0.236	0.251	0.223	0.183	0.189	..
Republic of Moldova	..	..	1.200	1.692	1.484	0.945	0.717	0.719	..
Montenegro	..	..	..	..	1.127	0.811	0.623	0.634	..
North Macedonia, Republic of	..	..	0.692	0.840	0.898	0.787	0.609	0.601	..
Romania	0.610	0.549	0.547	0.406	0.347	0.311	0.263	0.252	..
Russian Federation	..	..	0.700	0.801	0.646	0.600	0.586	0.582	..
Serbia	..	..	1.382	1.168	0.844	0.805	0.789	0.786	..
Tajikistan	..	..	2.617	5.202	3.563	2.526	1.556	1.529	..
Turkmenistan	..	..	0.615	0.711	0.707	0.537	0.415	0.390	..
Ukraine	..	..	1.207	1.528	1.177	1.199	1.161	1.053	..
Uzbekistan	..	..	2.389	2.185	1.508	1.063	0.778	0.780	..
Former Soviet Union	0.648	0.678	x	x	x	x	x	x	x
Former Yugoslavia	0.376	0.414	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	0.636	0.659	0.803	0.833	0.670	0.608	0.579	0.565	..
Algeria	0.054	0.091	0.149	0.192	0.208	0.227	0.306	0.325	..
Angola	0.026	0.019	0.020	0.034	0.038	0.058	0.090	0.094	..
Benin	0.032	0.047	0.057	0.084	0.102	0.127	0.118	0.119	..
Botswana	..	..	0.186	0.222	0.258	0.249	0.225	0.217	..
Cameroon	0.159	0.118	0.148	0.153	0.150	0.203	0.186	0.180	..
Congo	0.032	0.036	0.062	0.039	0.046	0.050	0.150	0.196	..
Côte d'Ivoire	0.056	0.089	0.108	0.128	0.141	0.177	0.184	0.171	..
Dem. Rep. of the Congo	0.148	0.179	0.186	0.333	0.298	0.313	0.234	0.261	..
Egypt	0.260	0.347	0.435	0.493	0.588	0.596	0.629	0.609	..
Eritrea	..	..	..	0.089	0.110	0.128	0.127	0.127	..
Ethiopia	0.068	0.077	0.109	0.115	0.143	0.129	0.167	0.167	..
Gabon	0.028	0.059	0.082	0.087	0.095	0.108	0.114	0.114	..
Ghana	0.370	0.473	0.397	0.343	0.226	0.216	0.151	0.216	..
Kenya	0.104	0.117	0.135	0.128	0.150	0.156	0.145	0.142	..
Libya	0.018	0.050	0.149	0.248	0.322	0.279	0.801	0.637	..
Mauritius	0.100	0.132	0.181	0.245	0.270	0.249	0.231	0.230	..
Morocco	0.141	0.174	0.206	0.245	0.265	0.269	0.276	0.277	..
Mozambique	0.196	0.191	0.239	0.480	1.303	1.051	1.009	0.942	..
Namibia	..	..	..	0.262	0.322	0.298	0.262	0.274	..
Niger	..	..	..	0.101	0.113	0.127	0.135	0.135	..
Nigeria	0.018	0.037	0.075	0.070	0.073	0.061	0.059	0.059	..
Senegal	0.071	0.092	0.097	0.092	0.130	0.159	0.177	0.177	..
South Africa	0.392	0.524	0.699	0.771	0.689	0.620	0.535	0.532	..
South Sudan	..	..	..	..	..	..	1.615	3.503	..
Sudan	0.046	0.045	0.065	0.064	0.066	0.093	0.136	0.142	..
United Rep. of Tanzania	0.076	0.082	0.107	0.120	0.131	0.136	0.145	0.137	..
Togo	0.092	0.090	0.163	0.179	0.222	0.233	0.263	0.262	..
Tunisia	0.126	0.199	0.284	0.325	0.310	0.330	0.343	0.343	..
Zambia	0.725	0.803	0.730	0.630	0.615	0.396	0.414	0.448	..
Zimbabwe	0.594	0.744	0.624	0.620	0.918	0.640	0.427	0.447	..
Other Africa	0.087	0.098	0.102	0.138	0.121	0.120	0.115	0.115	..
Africa	0.168	0.220	0.304	0.344	0.330	0.302	0.297	0.297	..

1. Please refer to section 'Geographical coverage'.

Electricity consumption/GDP (kWh per 2010 USD)

<i>kWh per 2010 USD</i>	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	0.047	0.053	0.121	0.199	0.285	0.317	0.371	0.367	..
Brunei Darussalam	0.035	0.028	0.117	0.210	0.233	0.250	0.303	0.273	..
Cambodia	..	..	..	0.076	0.109	0.184	0.367	0.393	..
DPR of Korea	1.428	0.858	0.588	0.549	0.668	0.681	0.525	0.466	..
India	0.284	0.365	0.509	0.518	0.484	0.478	0.489	0.482	..
Indonesia	0.018	0.038	0.095	0.182	0.198	0.204	0.218	0.215	..
Malaysia	0.156	0.199	0.255	0.392	0.360	0.459	0.422	0.417	..
Mongolia	..	..	0.846	0.658	0.602	0.563	0.530	0.544	..
Myanmar	0.141	0.165	0.228	0.220	0.125	0.127	0.176	0.228	..
Nepal	0.021	0.044	0.099	0.129	0.154	0.173	0.251	0.269	..
Pakistan	0.214	0.245	0.374	0.439	0.475	0.447	0.441	0.460	..
Philippines	0.231	0.221	0.236	0.311	0.317	0.300	0.290	0.284	..
Singapore	0.184	0.204	0.225	0.227	0.217	0.187	0.169	0.167	..
Sri Lanka	0.092	0.104	0.127	0.162	0.188	0.164	0.166	0.185	..
Chinese Taipei	0.535	0.565	0.547	0.596	0.606	0.534	0.498	0.492	..
Thailand	0.157	0.207	0.283	0.419	0.441	0.455	0.485	0.468	..
Viet Nam	0.126	0.173	0.220	0.375	0.560	0.776	1.034	1.058	..
Other non-OECD Asia	0.173	0.201	0.159	0.193	0.188	0.196	0.235	0.255	..
Non-OECD Asia excl. China	0.221	0.255	0.333	0.396	0.399	0.400	0.412	0.410	..
People's Rep. of China	0.693	0.810	0.699	0.560	0.651	0.645	0.621	0.620	..
Hong Kong, China	0.196	0.201	0.229	0.237	0.212	0.184	0.174	0.166	..
China	0.634	0.726	0.646	0.540	0.629	0.629	0.608	0.608	..
Argentina	0.129	0.157	0.209	0.254	0.281	0.277	0.305	0.289	..
Bolivia	0.111	0.154	0.196	0.260	0.280	0.305	0.308	0.315	..
Brazil	0.089	0.121	0.182	0.216	0.211	0.210	0.230	0.232	..
Colombia	0.132	0.162	0.195	0.174	0.169	0.173	0.191	0.197	..
Costa Rica	0.156	0.185	0.219	0.244	0.250	0.232	0.213	0.208	..
Cuba	0.218	0.276	0.287	0.327	0.263	0.227	0.234	0.230	..
Curaçao ¹	0.575	0.525	0.395	0.417	0.419	0.415	0.404	0.406	..
Dominican Republic	0.185	0.168	0.145	0.339	0.287	0.236	0.221	0.215	..
Ecuador	0.056	0.098	0.129	0.173	0.187	0.246	0.275	0.293	..
El Salvador	0.074	0.107	0.164	0.230	0.269	0.287	0.286	0.283	..
Guatemala	0.070	0.101	0.093	0.129	0.182	0.192	0.203	0.198	..
Haiti	0.021	0.033	0.063	0.046	0.054	0.037	0.059	0.054	..
Honduras	0.101	0.133	0.236	0.304	0.326	0.323	0.391	0.404	..
Jamaica	0.200	0.180	0.203	0.489	0.486	0.259	0.231	0.231	..
Nicaragua	0.100	0.157	0.272	0.266	0.293	0.337	0.319	0.307	..
Panama	0.165	0.175	0.205	0.231	0.236	0.216	0.200	0.197	..
Paraguay	0.054	0.077	0.142	0.248	0.240	0.269	0.334	0.332	..
Peru	0.116	0.135	0.204	0.205	0.219	0.218	0.239	0.239	..
Suriname	..	..	..	0.396	0.397	0.361	0.404	0.398	..
Trinidad and Tobago	0.149	0.199	0.410	0.408	0.365	0.371	0.488	0.515	..
Uruguay	0.127	0.137	0.181	0.226	0.221	0.235	0.225	0.211	..
Venezuela	0.079	0.142	0.207	0.223	0.233	0.231	0.222	0.256	..
Other non-OECD Americas	0.309	0.263	0.257	0.245	0.253	0.248	0.223	0.105	..
Non-OECD Americas	0.110	0.139	0.193	0.223	0.225	0.223	0.238	0.237	..
Bahrain	0.200	0.218	0.871	0.872	0.966	0.870	0.875	0.844	..
Islamic Republic of Iran	0.042	0.112	0.227	0.321	0.362	0.403	0.468	0.481	..
Iraq	0.201	0.237	0.320	0.287	0.216	0.266	0.202	0.222	..
Jordan	0.098	0.122	0.383	0.461	0.466	0.507	0.583	0.596	..
Kuwait	0.056	0.156	0.424	0.392	0.356	0.434	0.433	0.467	..
Lebanon	0.108	0.240	0.166	0.441	0.421	0.393	0.411	0.419	..
Oman	0.006	0.063	0.147	0.171	0.223	0.286	0.413	0.438	..
Qatar	0.016	0.095	0.242	0.236	0.251	0.211	0.233	0.247	..
Saudi Arabia	0.012	0.054	0.222	0.309	0.341	0.414	0.462	0.461	..
Syrian Arab Republic	0.139	0.168	0.354	0.453	0.583	0.650	0.991	1.158	..
United Arab Emirates	0.014	0.049	0.124	0.195	0.219	0.313	0.314	0.317	..
Yemen	0.061	0.072	0.125	0.122	0.148	0.191	0.191	0.212	..
Middle East	0.037	0.091	0.235	0.302	0.328	0.380	0.403	0.413	..

1. Please refer to section 'Geographical coverage'.

Electricity consumption/population (kWh per capita)

<i>kWh per capita</i>	1973	1980	1990	2000	2005	2010	2016	2017	2018p
World	1 442	1 718	2 062	2 315	2 570	2 865	3 110	3 152	..
Non-OECD Total	502	685	890	1 002	1 282	1 673	2 077	2 144	..
OECD Total	4 502	5 340	6 646	7 928	8 274	8 310	8 041	7 992	8 058
Canada	10 242	12 804	16 167	17 037	16 919	15 582	14 885	14 273	14 238
Chile	772	923	1 247	2 490	3 077	3 301	4 182	4 060	4 102
Mexico	575	854	1 143	1 765	1 978	2 018	2 300	2 258	2 387
United States	8 572	9 841	11 687	13 660	13 683	13 375	12 814	12 573	12 912
OECD Americas	6 922	7 865	9 223	10 705	10 757	10 442	10 081	9 861	10 104
Australia	4 158	5 869	8 419	10 129	10 430	10 727	9 929	9 922	9 892
Israel ¹	2 498	3 022	4 175	6 308	6 543	6 956	6 893	6 848	6 863
Japan	4 060	4 706	6 714	8 049	8 302	8 776	7 999	8 111	7 792
Korea	397	914	2 373	5 907	7 757	9 716	10 618	10 654	10 862
New Zealand	5 508	6 281	8 852	9 367	9 621	9 563	8 595	8 548	8 427
OECD Asia Oceania	3 296	3 978	5 873	7 722	8 353	9 150	8 807	8 881	8 741
Austria	3 621	4 685	6 111	7 076	8 027	8 398	8 253	8 474	8 390
Belgium	3 948	4 894	6 380	8 248	8 510	8 394	7 801	7 835	7 772
Czech Republic	3 730	4 575	5 584	5 694	6 343	6 322	6 460	6 576	6 555
Denmark	3 428	4 598	5 946	6 484	6 660	6 328	5 886	5 883	5 789
Estonia	..	..	5 691	4 527	5 514	6 499	7 155	7 135	7 297
Finland	6 047	8 295	12 487	15 306	16 118	16 485	15 469	15 465	15 805
France	3 155	4 422	5 967	7 226	7 654	7 740	7 264	7 209	7 124
Germany	4 654	5 796	6 646	6 697	7 238	7 399	6 956	6 947	6 925
Greece	1 532	2 224	3 200	4 586	5 297	5 334	5 501	5 616	5 406
Hungary	1 957	2 699	3 430	3 309	3 771	3 877	4 182	4 321	4 380
Iceland	9 910	12 689	16 137	26 221	28 057	51 447	53 913	54 366	54 501
Ireland	2 152	2 878	3 776	5 798	6 242	5 861	5 825	5 834	5 909
Italy	2 458	3 105	4 145	5 300	5 709	5 443	5 081	5 202	5 226
Latvia	..	..	3 396	2 082	2 777	3 231	3 564	3 603	3 717
Lithuania	..	..	4 024	2 517	3 187	3 471	4 056	4 235	4 368
Luxembourg	11 778	10 788	13 662	15 639	15 606	16 774	14 278	13 831	13 443
Netherlands	3 613	4 365	5 186	6 507	6 912	7 006	6 735	6 734	6 737
Norway	15 544	18 724	23 357	24 994	25 085	24 877	23 692	23 695	24 116
Poland	2 264	3 076	3 279	3 256	3 438	3 750	4 141	4 236	4 310
Portugal	985	1 543	2 522	3 989	4 683	4 959	4 875	5 014	5 064
Slovak Republic	3 027	4 359	5 543	4 945	4 920	5 164	5 226	5 425	5 104
Slovenia	..	..	5 335	5 778	6 916	6 510	6 997	7 220	7 198
Spain	1 860	2 610	3 494	5 169	6 110	5 708	5 505	5 541	5 518
Sweden	8 745	10 704	15 836	15 682	15 430	14 935	13 771	13 588	13 118
Switzerland	4 906	5 931	7 357	7 776	8 256	8 142	7 480	7 582	7 391
Turkey	293	490	909	1 626	1 998	2 464	3 074	3 263	3 296
United Kingdom	4 669	4 683	5 357	6 115	6 270	5 702	5 033	4 951	4 918
OECD Europe	3 330	4 072	5 015	5 746	6 171	6 171	5 970	6 017	5 998
IEA	4 549	5 399	6 742	8 039	8 379	8 402	8 111	8 061	8 128
IEA/Accession/Association	1 656	1 941	2 380	2 895	3 241	3 651	4 036	4 108	..
European Union - 28	..	..	5 156	5 833	6 306	6 277	6 023	6 056	..
G7	5 834	6 893	8 603	10 097	10 345	10 244	9 705	9 598	9 685
G8	..	..	8 246	9 247	9 584	9 623	9 229	9 149	..
G20	..	..	2 571	2 982	3 335	3 759	4 151	4 221	..
OPEC	..	..	1 005	1 342	1 605	1 953	2 222	2 242	..

1. Please refer to section 'Geographical coverage'.

Electricity consumption/population (kWh per capita)

<i>kWh per capita</i>	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Non-OECD Total	502	685	890	1 002	1 282	1 673	2 077	2 144	..
Albania	593	1 143	552	1 450	1 722	1 943	1 994	2 146	..
Armenia	..	..	2 723	1 297	1 522	1 726	1 933	2 040	..
Azerbaijan	..	..	2 576	2 040	2 388	1 603	2 216	2 119	..
Belarus	..	..	4 381	2 996	3 245	3 563	3 548	3 600	..
Bosnia and Herzegovina	..	..	2 938	2 022	2 379	3 142	3 597	3 778	..
Bulgaria	2 683	3 973	4 759	3 674	4 165	4 560	4 956	5 180	..
Croatia	..	..	2 965	2 856	3 476	3 813	3 964	4 162	..
Cyprus ¹	1 225	1 917	3 251	4 612	5 748	6 230	5 454	5 586	..
Georgia	..	..	3 039	1 453	1 785	1 977	2 880	3 078	..
Gibraltar	1 808	1 857	2 643	4 172	4 548	5 548	7 235	7 823	..
Kazakhstan	..	..	5 905	3 169	4 012	4 728	5 621	5 120	..
Kosovo	..	..	..	1 557	2 169	2 649	2 368	2 711	..
Kyrgyzstan	..	..	2 331	1 696	1 374	1 372	1 766	1 847	..
Malta	1 209	1 662	2 825	4 313	4 911	4 687	4 763	5 122	..
Republic of Moldova	..	..	3 235	1 638	2 048	1 541	1 486	1 557	..
Montenegro	..	..	..	..	6 318	5 423	4 669	4 969	..
North Macedonia, Republic of	..	..	2 668	2 895	3 373	3 574	3 197	3 158	..
Romania	1 907	2 872	2 925	1 988	2 365	2 551	2 688	2 778	..
Russian Federation	..	..	6 673	5 198	5 770	6 410	6 715	6 771	..
Serbia	..	..	3 374	3 681	3 922	4 359	4 621	4 709	..
Tajikistan	..	..	3 358	2 162	2 129	1 865	1 507	1 560	..
Turkmenistan	..	..	2 283	1 692	2 052	2 382	2 903	2 855	..
Ukraine	..	..	4 787	2 778	3 246	3 555	3 204	2 991	..
Uzbekistan	..	..	2 383	1 777	1 503	1 464	1 525	1 585	..
Former Soviet Union	3 356	4 424	x	x	x	x	x	x	x
Former Yugoslavia	1 533	2 461	x	x	x	x	x	x	x
Non-OECD Europe and Eurasia	3 085	4 136	5 040	3 656	4 068	4 429	4 587	4 581	..
Algeria	158	328	528	680	887	1 013	1 479	1 568	..
Angola	101	57	52	75	109	206	319	319	..
Benin	19	28	35	58	74	96	99	102	..
Botswana	..	..	718	1 099	1 420	1 580	1 688	1 629	..
Cameroon	153	156	200	178	190	266	278	271	..
Congo	61	80	168	93	114	137	416	513	..
Côte d'Ivoire	111	177	156	172	172	216	285	279	..
Dem. Rep. of the Congo	167	151	131	97	90	105	95	107	..
Egypt	194	375	663	962	1 241	1 551	1 713	1 697	..
Eritrea	..	..	..	51	61	62	71	73	..
Ethiopia	18	18	23	23	33	44	85	92	..
Gabon	259	722	917	878	908	949	1 092	1 073	..
Ghana	392	426	327	332	246	283	250	379	..
Kenya	85	105	125	106	131	151	166	166	..
Libya	370	1 120	1 577	2 223	3 431	3 377	4 685	4 661	..
Mauritius	180	299	670	1 363	1 684	1 996	2 272	2 348	..
Morocco	152	237	358	489	633	774	897	924	..
Mozambique	57	36	41	123	442	440	520	489	..
Namibia	..	..	..	994	1 451	1 547	1 577	1 601	..
Niger	..	..	..	33	37	44	53	54	..
Nigeria	35	77	113	96	136	140	145	143	..
Senegal	80	103	103	102	158	199	246	256	..
South Africa	2 411	3 377	4 153	4 504	4 548	4 510	4 023	4 004	..
South Sudan	..	..	..	..	..	..	47	41	..
Sudan	32	37	49	64	79	138	262	278	..
United Rep. of Tanzania	34	37	51	58	78	93	122	120	..
Togo	56	63	91	94	108	123	168	170	..
Tunisia	192	403	632	977	1 084	1 364	1 463	1 478	..
Zambia	1 118	1 031	763	591	681	580	674	733	..
Zimbabwe	866	976	887	873	832	547	454	486	..
Other Africa	49	54	49	68	73	82	83	83	..
Africa	264	368	454	497	542	562	572	574	..

1. Please refer to section 'Geographical coverage'.

Electricity consumption/population (kWh per capita)

<i>kWh per capita</i>	1973	1980	1990	2000	2005	2010	2016	2017	2018p
Bangladesh	15	19	48	101	171	240	382	402	..
Brunei Darussalam	1 577	1 691	4 320	7 550	8 466	8 802	9 520	8 569	..
Cambodia	..	..	..	33	67	145	396	446	..
DPR of Korea	963	1 099	1 237	712	807	742	562	501	..
India	101	142	273	395	470	644	912	947	..
Indonesia	16	46	163	390	500	634	865	888	..
Malaysia	375	659	1 157	2 748	2 877	4 160	4 656	4 808	..
Mongolia	..	..	1 489	1 054	1 252	1 492	2 068	2 199	..
Myanmar	23	35	45	76	76	125	248	340	..
Nepal	6	12	35	59	77	103	172	197	..
Pakistan	101	136	277	372	463	465	520	562	..
Philippines	322	374	361	499	577	640	799	821	..
Singapore	1 599	2 718	4 983	7 575	8 678	8 688	9 041	9 219	..
Sri Lanka	66	95	151	295	401	461	627	712	..
Chinese Taipei	1 208	2 248	4 177	8 095	9 701	10 304	10 867	10 987	..
Thailand	161	291	709	1 448	1 915	2 307	2 864	2 868	..
Viet Nam	39	54	95	285	567	1 017	1 794	1 941	..
Other non-OECD Asia	151	205	185	258	285	378	475	528	..
Non-OECD Asia excl. China	125	182	328	523	634	800	1 046	1 085	..
People's Rep. of China	176	282	511	993	1 782	2 944	4 279	4 546	..
Hong Kong, China	1 416	2 157	4 178	5 447	5 879	5 974	6 392	6 293	..
China	182	291	529	1 016	1 804	2 959	4 290	4 555	..
Argentina	956	1 234	1 300	2 078	2 393	2 847	3 109	3 007	..
Bolivia	173	253	266	420	482	604	757	794	..
Brazil	553	1 013	1 457	1 892	2 007	2 361	2 504	2 521	..
Colombia	421	618	842	829	896	1 078	1 442	1 498	..
Costa Rica	675	932	1 080	1 521	1 736	1 901	2 039	2 043	..
Cuba	547	841	1 214	1 136	1 153	1 291	1 511	1 513	..
Curaçao ¹	3 988	4 173	3 587	4 648	4 764	4 852	4 644	4 651	..
Dominican Republic	400	441	389	1 361	1 268	1 288	1 529	1 538	..
Ecuador	163	360	481	638	800	1 144	1 434	1 541	..
El Salvador	204	274	353	617	758	860	974	978	..
Guatemala	145	252	200	330	481	542	629	619	..
Haiti	20	41	58	35	37	24	43	39	..
Honduras	143	211	368	493	586	624	839	892	..
Jamaica	1 001	661	866	2 274	2 393	1 213	1 109	1 117	..
Nicaragua	222	260	308	348	417	514	620	620	..
Panama	630	773	833	1 267	1 455	1 745	2 229	2 267	..
Paraguay	105	242	505	887	864	1 179	1 715	1 769	..
Peru	417	503	546	680	837	1 094	1 455	1 474	..
Suriname	..	..	..	2 261	2 768	2 998	3 235	3 210	..
Trinidad and Tobago	1 124	1 876	2 682	3 991	5 142	6 190	7 697	7 904	..
Uruguay	705	1 004	1 244	2 030	1 999	2 803	3 158	3 032	..
Venezuela	1 145	1 998	2 449	2 635	2 849	3 131	2 323	2 272	..
Other non-OECD Americas	2 951	3 138	3 600	4 771	5 481	5 138	4 635	2 174	..
Non-OECD Americas	606	930	1 208	1 561	1 695	1 958	2 085	2 060	..
Bahrain	2 083	4 611	15 619	20 003	21 330	18 036	19 514	18 653	..
Islamic Republic of Iran	384	538	943	1 535	2 060	2 631	3 153	3 326	..
Iraq	305	792	1 305	1 237	834	1 196	1 157	1 212	..
Jordan	174	366	935	1 295	1 593	1 866	1 898	1 930	..
Kuwait	3 695	6 050	8 205	14 026	17 025	16 723	15 279	15 680	..
Lebanon	650	974	518	2 992	2 811	3 479	2 914	2 980	..
Oman	51	624	2 187	3 202	3 924	5 522	7 001	7 076	..
Qatar	2 958	9 701	9 597	14 360	15 465	14 819	15 477	16 241	..
Saudi Arabia	415	1 961	3 995	5 638	6 590	7 973	9 872	9 576	..
Syrian Arab Republic	182	357	689	1 065	1 503	1 853	825	838	..
United Arab Emirates	1 690	5 629	8 356	12 232	12 302	10 968	13 003	13 057	..
Yemen	32	62	122	139	179	250	144	147	..
Middle East	382	867	1 607	2 351	2 839	3 547	4 080	4 132	..

1. Please refer to section 'Geographical coverage'.

ANNEX

ADDITIONAL BALANCES

In this 2019 edition, the IEA Secretariat received sufficient data for Equatorial Guinea, Lao PDR, the Palestinian Authority and Uganda, to be able to publish the data in this annex. The IEA Secretariat also continued the successful communication with Greenland and Mali.

The IEA Secretariat is very grateful to statisticians in these countries for their support to broaden the scope of country coverage.

Note that Equatorial Guinea, Mali and Uganda energy data are included in the Africa region, as well as in “Other Africa”. Lao PDR energy data is included in the Asia region, as well as “Other non-OECD Asia”. Greenland energy data are not included in any regional aggregate after 1990. Prior to 1990, Greenland data are included in Denmark data.

Equatorial Guinea

Sources

Sources 1980 to 2017:

- *Energy Statistics Yearbook 2016*, United Nations, New York, 2019.
- AFREC Energy questionnaire, African Energy Commission, 2000 to 2017.
- *Energy Statistics Yearbook 2016*, United Nations, New York, 2019.
- *Annual Statistical Bulletin*, Organization of Petroleum Exporting Countries (OPEC), Vienna, various editions up to 2017.
- IEA Secretariat estimates.

Greenland

General notes

New information on final consumption of oil products and electricity became available for the years 2013-2017 in the 2019 edition. This might lead to break in time series between 2012 and 2013.

For 2015 and 2016, the statistical difference reported in oil products reflects the use of waste oil for energy production purposes.

Sources

Sources 2004 to 2017:

- Direct communication with the Ministry of Industry, Energy and Research, Nuuk, Greenland.
- Direct communication with Statistics Greenland, Nuuk for data until 2016.
- Statbank Greenland, accessed April 2018, <http://bank.stat.gl>
- IEA Secretariat estimates.

Sources for biofuels and waste:

- Direct communication with the Ministry of Industry, Energy and Research, Nuuk, Greenland.
- Statbank Greenland, accessed April 2018, <http://bank.stat.gl>
- IEA Secretariat estimates.

Lao People's Democratic Republic

General notes

At the time of publication of Lao People's Democratic Republic (hereafter, Lao PDR) data, no official data was available for 2017. Data for 2017 have been estimated by the IEA Secretariat based on secondary sources.

Breaks in coal time series in 2014-2015 reflect the start in operations of the lignite mine-mouth Hongsa Power Plant. While operation started in 2015, the last unit started operation in the first quarter of 2016.

Sources

Sources 2016 to 2017:

- *Electricity Statistics 2016*, Ministry of Energy and Mines, Lao PDR
- The UN Energy Statistics Database
- *Renewable energy statistics 2019*, International Renewable Energy Agency (IRENA).
- Forestry Statistics, FAO, Rome
- IEA Secretariat estimates.

Sources 2000 to 2015:

- *Lao PDR Energy Statistics 2018*, prepared by Ministry of Energy and Mines, Lao PDR and supported by the Economic Research Institute for ASEAN and East Asia

Mali

General notes

The IEA Secretariat could not obtain data from 2016 to 2017 from Mali in time. As a consequence, data for these years have been estimated based on population growth for biomass and household consumption, and GDP growth for other products than hydro and solar, which were obtained from "Energie du Mali".

Sources

Sources 2000 to 2017:

- Direct communication with the Ministère de l'Énergie et de l'Eau, Bamako.

- *Système d'Information Énergétique du Mali 2014 and 2015*, Ministère de l'Énergie et de l'Eau, Bamako, 2015 and 2017.
- *Rapport Annuel 2011 to 2015*, Énergie du Mali, Bamako, 2012 to 2016.
- AFREC Energy questionnaire, African Energy Commission, 2000 to 2015.
- Énergie du Mali website <https://www.edm-sa.com.ml/index.php/2014-06-27-10-06-12> accessed 30/04/2019
- IEA Secretariat estimates.

Sources for biofuels and waste:

- AFREC Energy questionnaire, African Energy Commission, 2000 to 2015.
- IEA Secretariat estimates.

Palestinian Authority

General note

Fuelwood data for the Palestinian Authority include charcoal.

Sources

Sources 2001 to 2017:

- Direct communication with the Palestinian Central Bureau of Statistics (PCBS).
- *Annual Energy Tables and Energy Balance*, PCBS, various editions up to 2017.
- IEA Secretariat estimates.

Uganda

General notes

The IEA Secretariat could not obtain data for 2017 from Uganda in time. As a consequence, data for 2017 have been estimated based on population growth for biomass and household consumption, and GDP growth for other products than hydro and solar, which were obtained from the *Energy Statistics Yearbook 2016* of the United Nations.

Historical data (before 2007) are based on the United Nation data and IEA Secretariat estimates.

Sources

Sources 1971 to 2017:

- Direct communication with the Ministry of Energy and Mineral development, Kampala.
- AFREC Energy questionnaire, African Energy Commission, 2000 to 2017.
- *Energy Statistics Yearbook 2016*, United Nations, New York, 2019.
- IEA Secretariat estimates.

Equatorial Guinea

Figure 1. Energy production

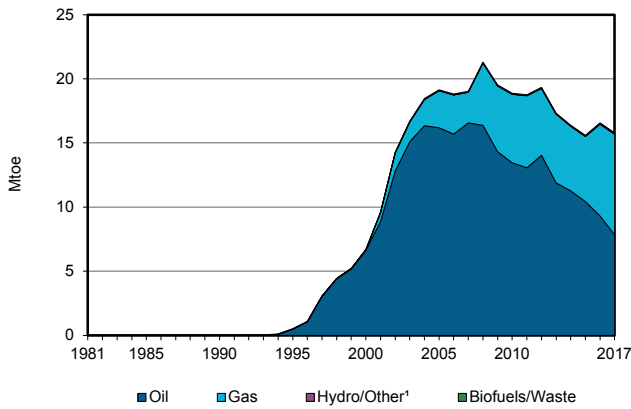


Figure 2. Total primary energy supply²

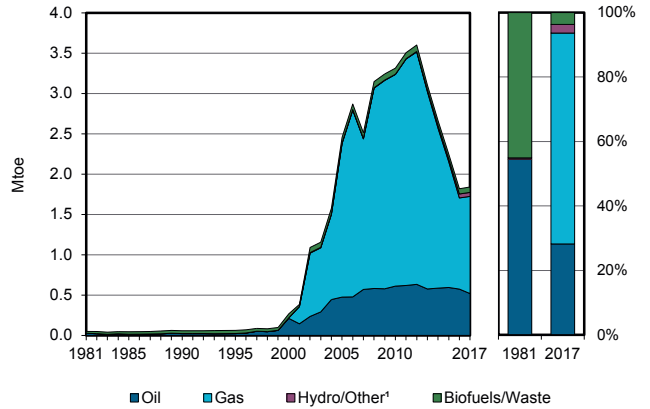


Figure 3. Energy self-sufficiency³

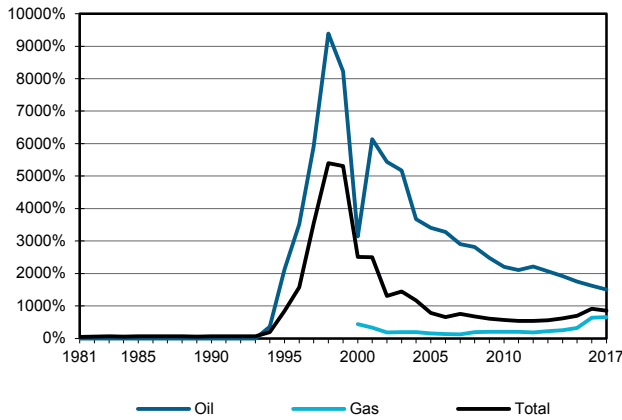


Figure 4. Oil products demand⁴

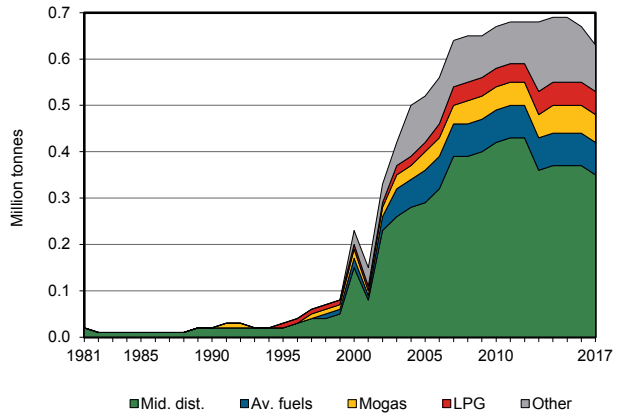


Figure 5. Electricity generation by source

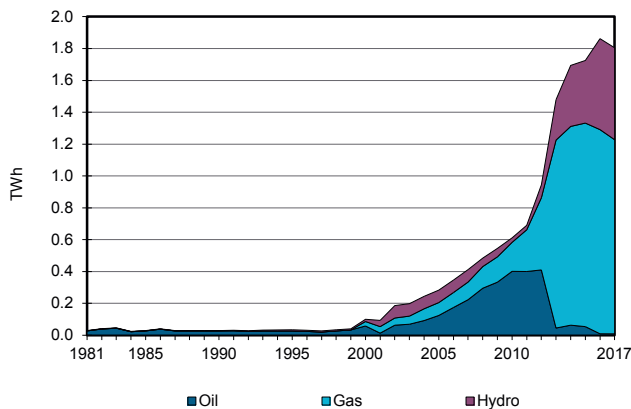
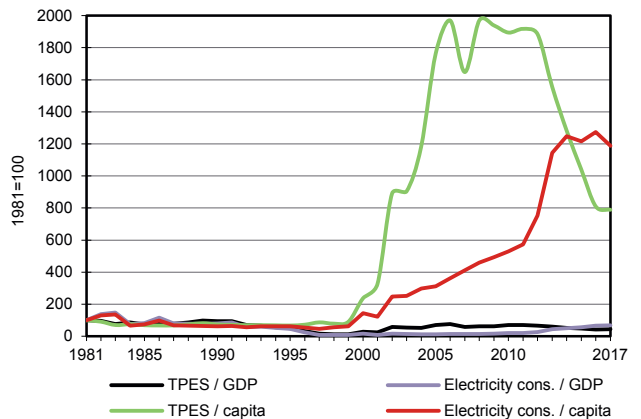


Figure 6. Selected indicators⁵



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. GDP in 2010 USD.

Equatorial Guinea

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	7831	-	7842	-	50	-	67	-	-	15789
Imports	-	-	503	-	-	-	-	-	-	-	503
Exports	-	-7116	-636	-6637	-	-	-	-	-	-	-14388
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-63	-	-	-	-	-	-	-	-63
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	-	715	-196	1205	-	50	-	67	-	-	1841
Transfers	-	-626	694	-	-	-	-	-	-	-	67
Statistical differences	-	-	2	-	-	-	-	-	-8	-	-6
Electricity plants	-	-	-2	-242	-	-50	-	-	155	-	-138
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-31	-	-	-31
Energy industry own use	-	-89	-	-19	-	-	-	-	-12	-	-119
Losses	-	-	-	-	-	-	-	-	-16	-	-16
TFC	-	-	498	944	-	-	-	36	120	-	1598
INDUSTRY	-	-	61	944	-	-	-	-	38	-	1044
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	61	944	-	-	-	-	38	-	1044
TRANSPORT	-	-	320	-	-	-	-	-	-	-	320
Domestic aviation	-	-	12	-	-	-	-	-	-	-	12
Road	-	-	309	-	-	-	-	-	-	-	309
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	107	-	-	-	-	36	81	-	225
Residential	-	-	56	-	-	-	-	36	42	-	134
Comm. and public services	-	-	24	-	-	-	-	-	35	-	59
Agriculture/forestry	-	-	-	-	-	-	-	-	-	-	-
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	28	-	-	-	-	-	5	-	32
NON-ENERGY USE	-	-	9	-	-	-	-	-	-	-	9
in industry/transf./energy	-	-	9	-	-	-	-	-	-	-	9
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	9	1219	-	577	-	-	-	-	1805
Electricity plants	-	-	9	1219	-	577	-	-	-	-	1805
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Greenland

Figure 1. Energy production

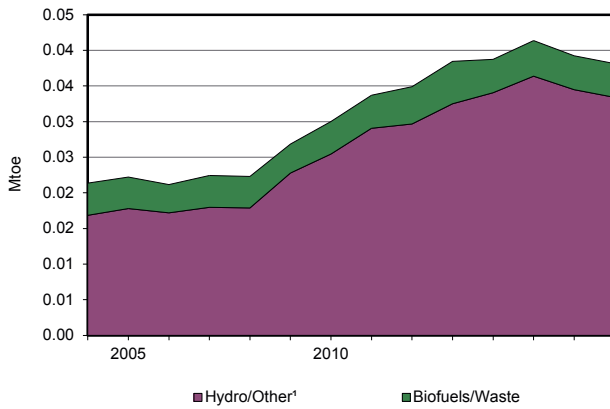


Figure 2. Total primary energy supply²

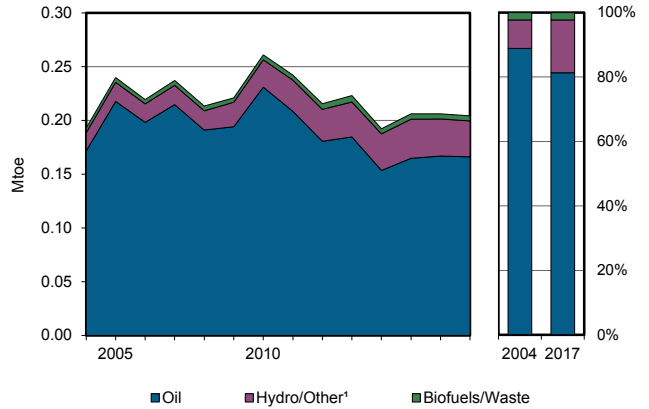


Figure 3. Energy self-sufficiency³

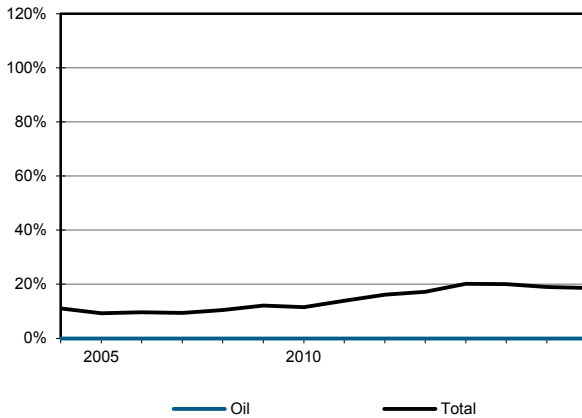


Figure 4. Oil products demand⁴

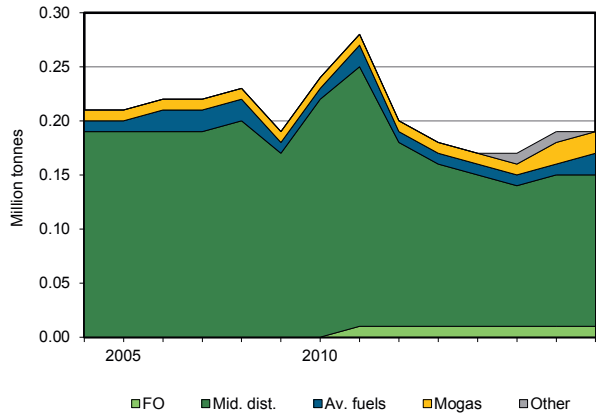


Figure 5. Electricity generation by source

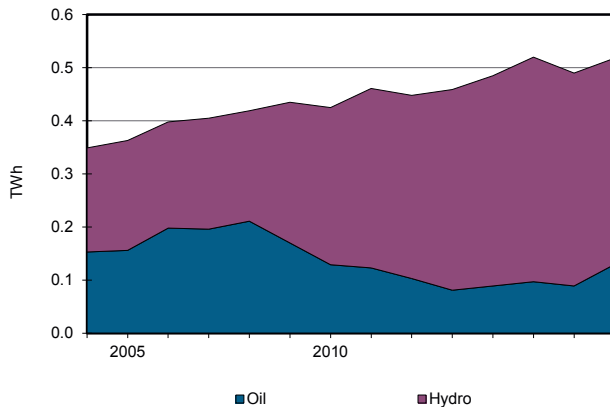
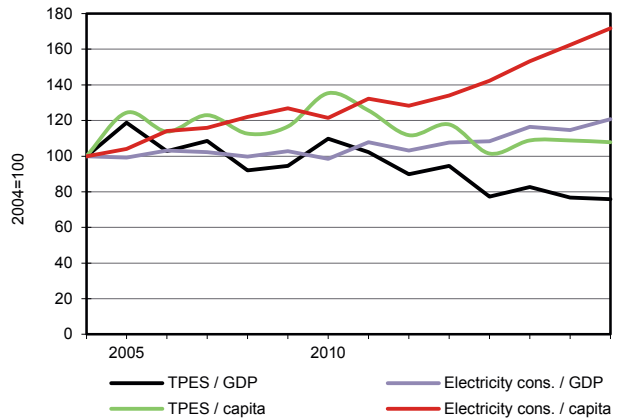


Figure 6. Selected indicators⁵



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. GDP in 2010 USD.

Greenland

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	33	-	5	-	-	38
Imports	-	-	201	-	-	-	-	-	-	-	201
Exports	-	-	-	-	-	-	-	-	-	-	-
Intl. marine bunkers	-	-	-20	-	-	-	-	-	-	-	-20
Intl. aviation bunkers	-	-	-8	-	-	-	-	-	-	-	-8
Stock changes	-	-	-7	-	-	-	-	-	-	-	-7
TPES	-	-	166	-	-	33	-	5	-	-	204
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	3	-	-	-	-	-	-1	2	4
Electricity plants	-	-	-	-	-	-33	-	-	33	-	-
CHP plants	-	-	-26	-	-	-	-	-5	11	14	-6
Heat plants	-	-	-	-	-	-	-	-	-12	11	-1
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-	-	-0	-	-	-	-	-	-1	-0	-2
Losses	-	-	-2	-	-	-	-	-	-1	-9	-12
TFC	-	-	141	-	-	-	-	-	28	18	187
INDUSTRY	-	-	8	-	-	-	-	-	4	0	13
Iron and steel	-	-	0	-	-	-	-	-	0	-	0
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	0	-	-	-	-	-	0	-	0
Food and tobacco	-	-	4	-	-	-	-	-	3	0	8
Paper pulp and printing	-	-	0	-	-	-	-	-	-	-	0
Wood and wood products	-	-	-	-	-	-	-	-	0	-	0
Construction	-	-	3	-	-	-	-	-	1	0	4
Textile and leather	-	-	0	-	-	-	-	-	0	-	0
Non-specified	-	-	0	-	-	-	-	-	0	-	0
TRANSPORT	-	-	34	-	-	-	-	-	-	-	34
Domestic aviation	-	-	8	-	-	-	-	-	-	-	8
Road	-	-	13	-	-	-	-	-	-	-	13
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	12	-	-	-	-	-	-	-	12
Non-specified	-	-	1	-	-	-	-	-	-	-	1
OTHER	-	-	95	-	-	-	-	-	24	18	137
Residential	-	-	33	-	-	-	-	-	9	11	52
Comm. and public services	-	-	15	-	-	-	-	-	13	7	35
Agriculture/forestry	-	-	1	-	-	-	-	-	0	-	1
Fishing	-	-	47	-	-	-	-	-	0	-	47
Non-specified	-	-	-	-	-	-	-	-	1	0	2
NON-ENERGY USE	-	-	3	-	-	-	-	-	-	-	3
in industry/transf./energy	-	-	3	-	-	-	-	-	-	-	3
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	130	-	-	388	-	-	-	-	518
Electricity plants	-	-	-	-	-	388	-	-	-	-	388
CHP plants	-	-	130	-	-	-	-	-	-	-	130
Heat generated - TJ	-	-	498	-	-	-	-	94	463	-	1055
CHP plants	-	-	498	-	-	-	-	94	-	-	592
Heat plants	-	-	-	-	-	-	-	463	-	-	463

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Lao People's Democratic Republic

Figure 1. Energy production

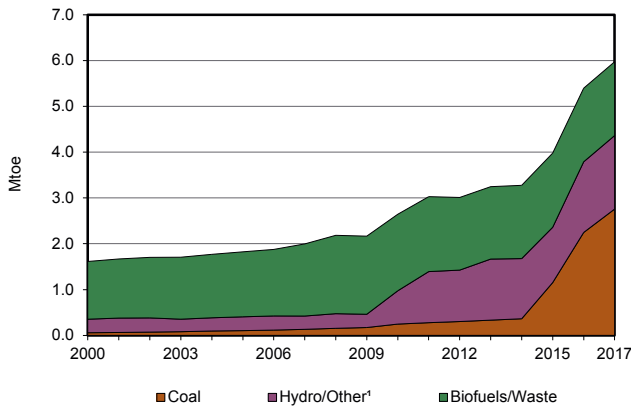


Figure 2. Total primary energy supply²

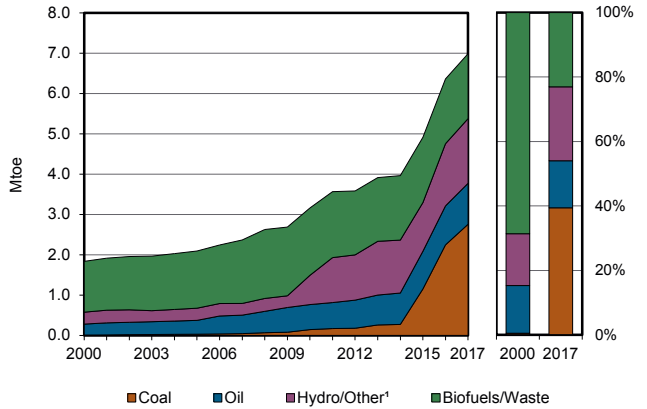


Figure 3. Energy self-sufficiency³

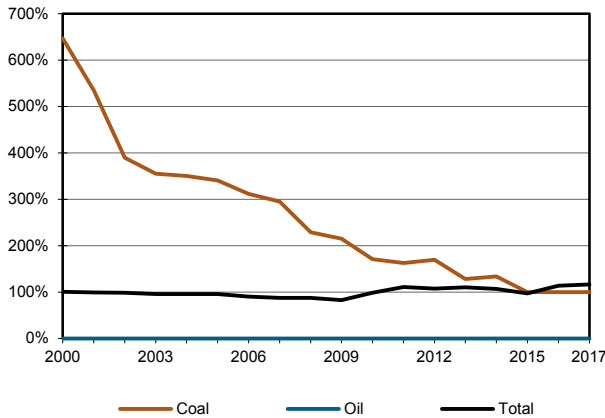


Figure 4. Oil products demand⁴

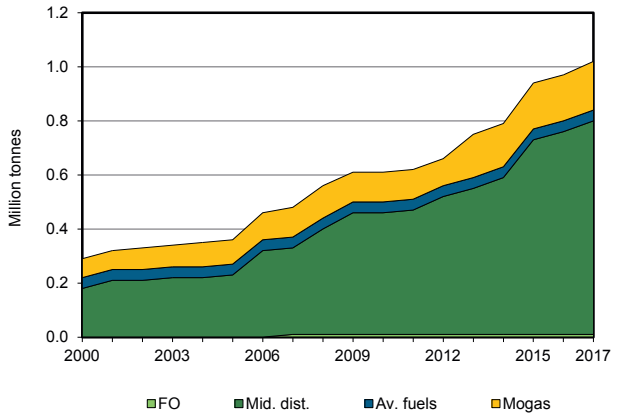


Figure 5. Electricity generation by source

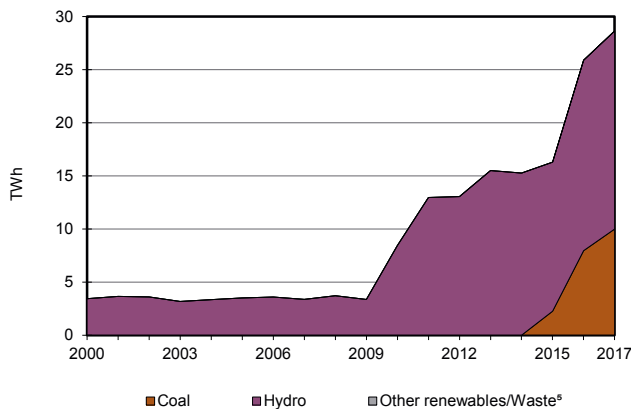
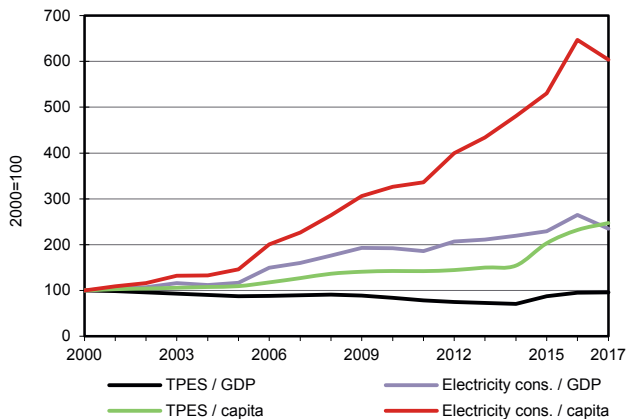


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Lao People's Democratic Republic

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	2758	-	-	-	-	1604	0	1611	-	-	5973
Imports	-	-	1058	-	-	-	-	-	-	-	1058
Exports	-	-	-	-	-	-	-	-	-1859	-	-1859
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-43	-	-	-	-	-	-	-	-43
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	2758	-	1016	-	-	1604	0	1611	-1859	-	5129
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	-	-	-	-	-	-	-	-	-
Electricity plants	-2457	-	-	-	-	-1604	-0	-2	2464	-	-1598
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-172	-	-	-172
Energy industry own use	-	-	-	-	-	-	-	-	-	-	-
Losses	-	-	-	-	-	-	-	-	-178	-	-178
TFC	301	-	1016	-	-	-	-	1437	427	-	3181
INDUSTRY	301	-	65	-	-	-	-	55	179	-	601
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	301	-	65	-	-	-	-	55	179	-	601
TRANSPORT	-	-	948	-	-	-	-	-	-	-	948
Domestic aviation	-	-	5	-	-	-	-	-	-	-	5
Road	-	-	940	-	-	-	-	-	-	-	940
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	3	-	-	-	-	-	-	-	3
OTHER	-	-	3	-	-	-	-	1381	248	-	1632
Residential	-	-	1	-	-	-	-	1108	156	-	1266
Comm. and public services	-	-	1	-	-	-	-	273	66	-	341
Agriculture/forestry	-	-	-	-	-	-	-	-	-	-	-
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	25	-	25
NON-ENERGY USE	-	-	-	-	-	-	-	-	-	-	-
in industry/transf./energy	-	-	-	-	-	-	-	-	-	-	-
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	10000	-	-	-	-	18654	3	5	-	-	28661
Electricity plants	10000	-	-	-	-	18654	3	5	-	-	28661
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Mali

Figure 1. Energy production

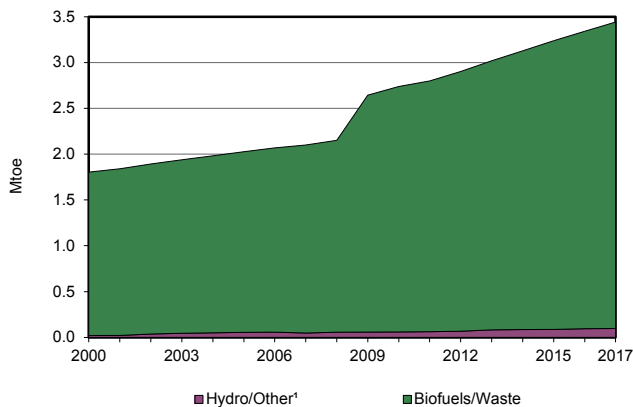


Figure 2. Total primary energy supply²

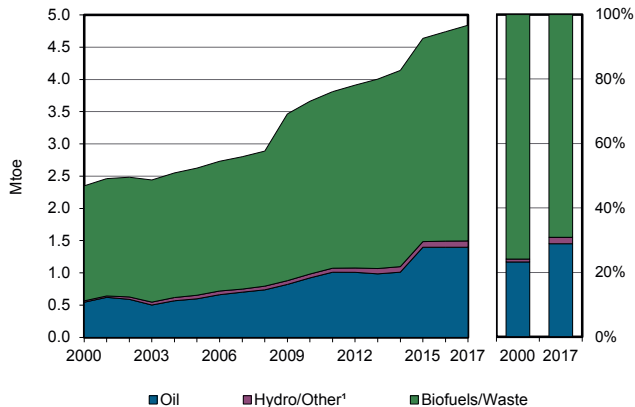


Figure 3. Energy self-sufficiency³

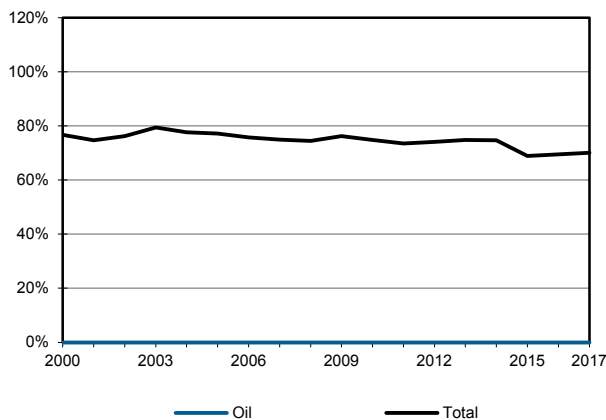


Figure 4. Oil products demand⁴

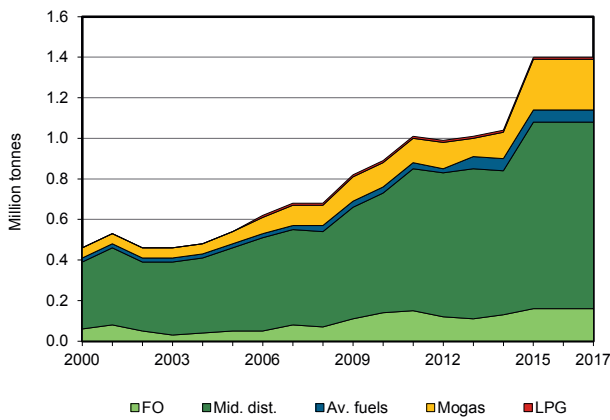


Figure 5. Electricity generation by source

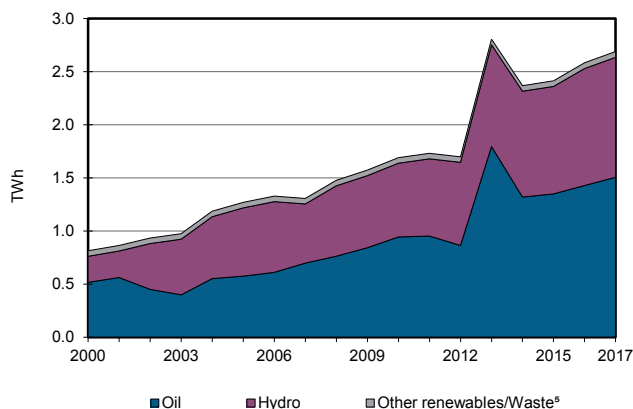
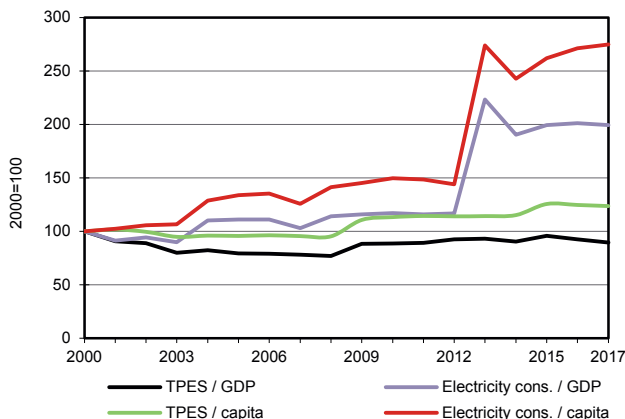


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
4. Includes international bunkers. LPG: LPG, NGL, ethane and naphtha. Other also includes direct use of crude oil and other hydrocarbons.
5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Mali

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	97	0	3344	-	-	3442
Imports	-	-	1466	-	-	-	-	-	73	-	1538
Exports	-	-	-	-	-	-	-	-	-	-	-
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-67	-	-	-	-	-	-	-	-67
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	-	-	1398	-	-	97	0	3344	73	-	4913
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	-1	-	-	-	-	-0	-	-	-1
Electricity plants	-	-	-622	-	-	-97	-0	-71	231	-	-558
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-874	-	-	-874
Energy industry own use	-	-	-	-	-	-	-	-	-1	-	-1
Losses	-	-	-	-	-	-	-	-	-28	-	-28
TFC	-	-	775	-	-	-	-	2400	276	-	3451
INDUSTRY	-	-	37	-	-	-	-	-	106	-	142
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	37	-	-	-	-	-	106	-	142
TRANSPORT	-	-	646	-	-	-	-	-	-	-	646
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	-	-	-	-	-	-	-	-	-
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	646	-	-	-	-	-	-	-	646
OTHER	-	-	93	-	-	-	-	2400	170	-	2662
Residential	-	-	51	-	-	-	-	2166	79	-	2296
Comm. and public services	-	-	-	-	-	-	-	234	38	-	272
Agriculture/forestry	-	-	41	-	-	-	-	-	-	-	41
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	53	-	53
NON-ENERGY USE	-	-	-	-	-	-	-	-	-	-	-
in industry/transf./energy	-	-	-	-	-	-	-	-	-	-	-
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	1506	-	-	1130	3	52	-	-	2691
Electricity plants	-	-	1506	-	-	1130	3	52	-	-	2691
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Palestinian Authority

Figure 1. Energy production

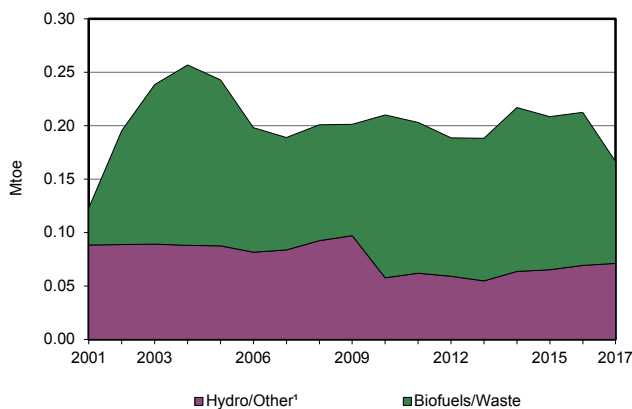


Figure 2. Total primary energy supply²

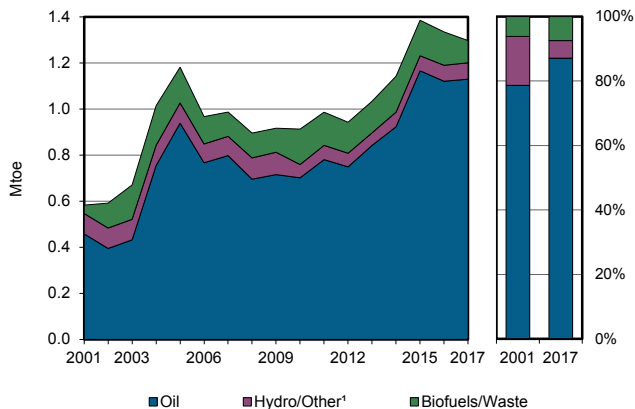


Figure 3. Energy self-sufficiency³

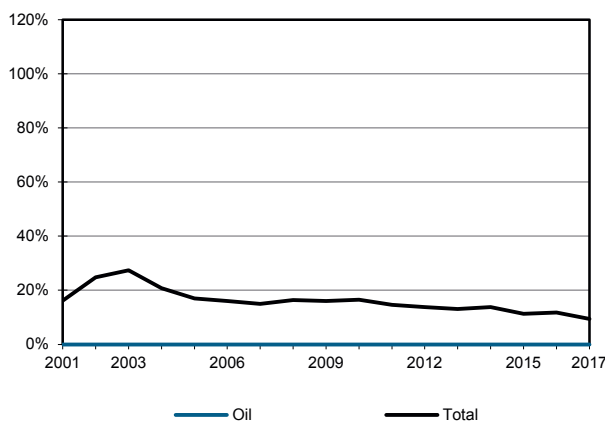


Figure 4. Oil products demand⁴

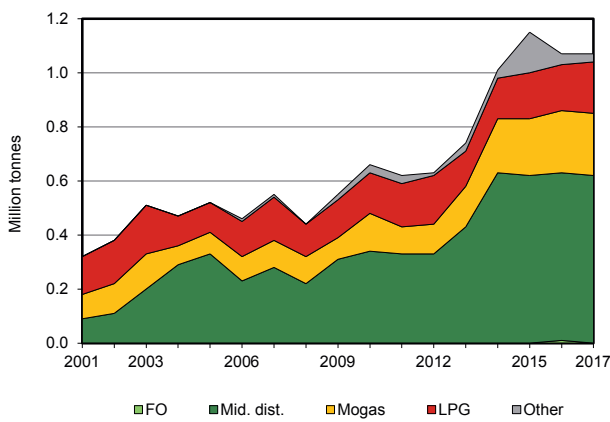


Figure 5. Electricity generation by source

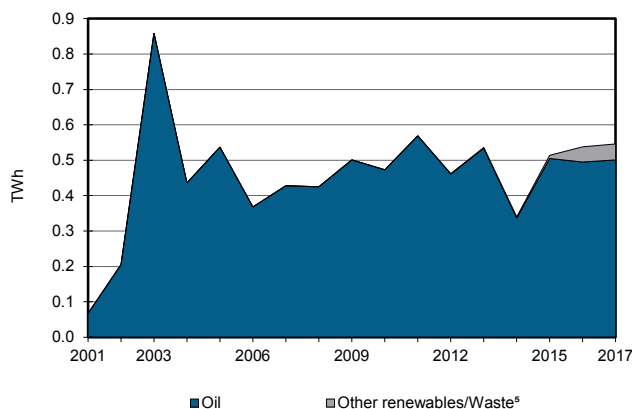
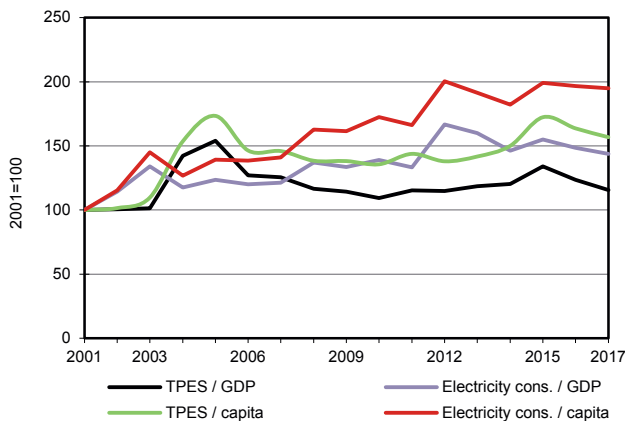


Figure 6. Selected indicators⁶



In these graphs, peat and oil shale are aggregated with coal, where applicable.

1. Includes geothermal, solar, wind, tide/wave/ocean, heat and other.
2. Excluding electricity trade.
3. Production divided by TPES. 100% represents full self-sufficiency.
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5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Palestinian Authority

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	-	71	95	-	-	166
Imports	-	-	1130	-	-	-	-	1	480	-	1611
Exports	-	-	-0	-	-	-	-	-0	-	-	-0
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-	-	-	-	-	-	-	-	-
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	-	-	1130	-	-	-	71	96	480	-	1777
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	-1	-	-	-	-	-	-0	-	-1
Electricity plants	-	-	-116	-	-	-	-4	-	47	-	-73
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	-	-	-	-	-	-	-	-	-	-	-
Losses	-	-	-4	-	-	-	-	-	-63	-	-67
TFC	-	-	1009	-	-	-	67	96	463	-	1635
INDUSTRY	-	-	24	-	-	-	-	6	56	-	86
Iron and steel	-	-	-	-	-	-	-	-	-	-	-
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	24	-	-	-	-	6	56	-	86
TRANSPORT	-	-	746	-	-	-	-	-	-	-	746
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	746	-	-	-	-	-	-	-	746
Rail	-	-	-	-	-	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	216	-	-	-	67	90	408	-	781
Residential	-	-	182	-	-	-	67	89	286	-	624
Comm. and public services	-	-	23	-	-	-	-	2	119	-	143
Agriculture/forestry	-	-	11	-	-	-	-	-	3	-	14
Fishing	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-	-	-	-	-	-
NON-ENERGY USE	-	-	23	-	-	-	-	-	-	-	23
in industry/transf./energy	-	-	23	-	-	-	-	-	-	-	23
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	501	-	-	-	45	-	-	-	546
Electricity plants	-	-	501	-	-	-	45	-	-	-	546
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Uganda

Figure 1. Energy production

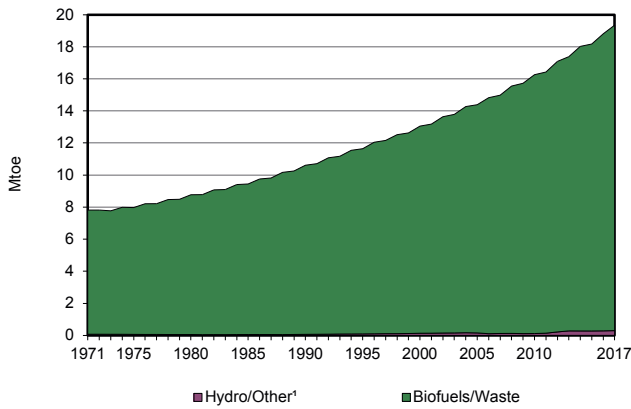


Figure 2. Total primary energy supply²

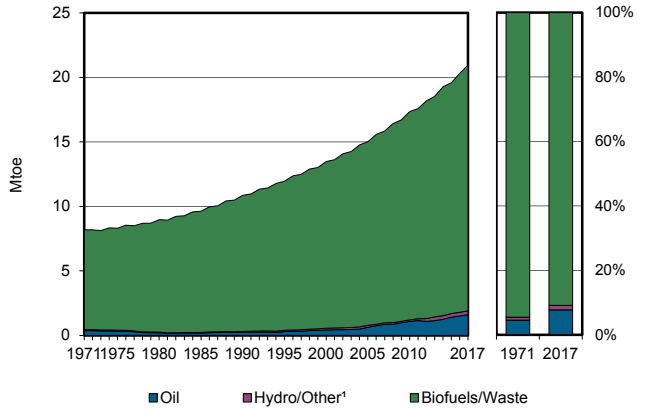


Figure 3. Energy self-sufficiency³

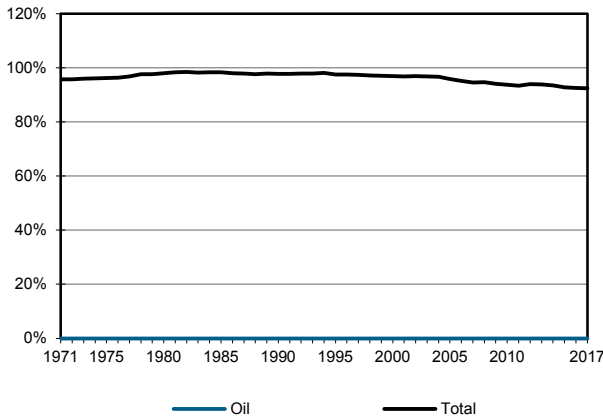


Figure 4. Oil products demand⁴

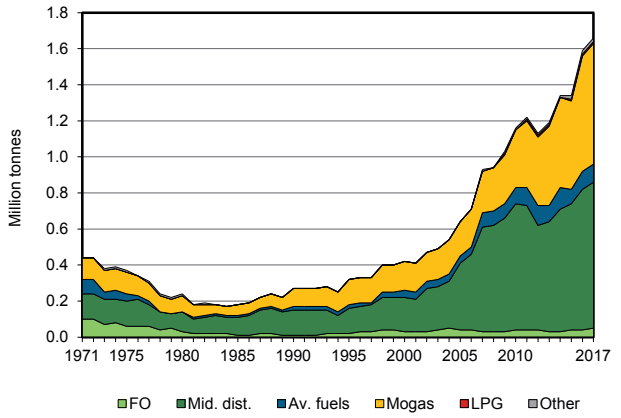


Figure 5. Electricity generation by source

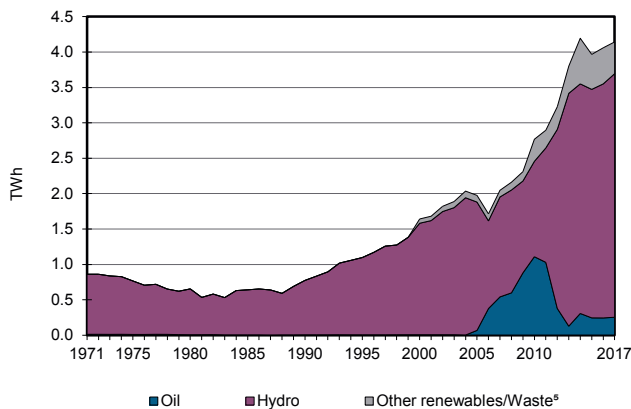
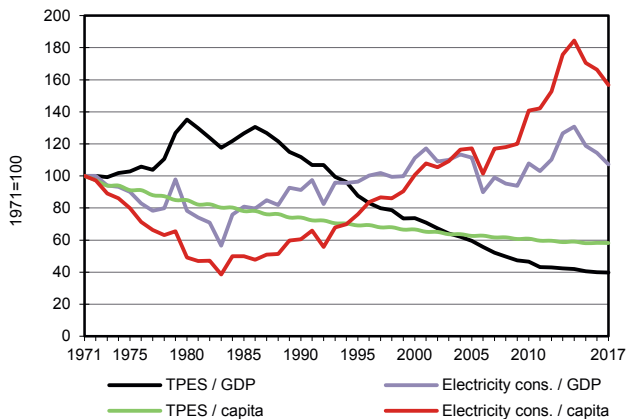


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5. Includes geothermal, solar, wind, tide/wave/ocean, biofuels, waste, heat and other.
6. GDP in 2010 USD.

Uganda

2017

Thousand tonnes of oil equivalent											
SUPPLY AND CONSUMPTION	Coal	Crude oil ¹	Oil products	Natural gas	Nuclear	Hydro	Geotherm./Solar/etc.	Biofuels/Waste	Electricity	Heat	Total
Production	-	-	-	-	-	296	2	19049	-	-	19347
Imports	-	-	1727	-	-	-	-	-	1	-	1728
Exports	-	-	-	-	-	-	-	-	-27	-	-27
Intl. marine bunkers	-	-	-	-	-	-	-	-	-	-	-
Intl. aviation bunkers	-	-	-108	-	-	-	-	-	-	-	-108
Stock changes	-	-	-	-	-	-	-	-	-	-	-
TPES	-	-	1618	-	-	296	2	19049	-26	-	20939
Transfers	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-	-	-	-	-	-	-	-0	-	-	-0
Electricity plants	-	-	-62	-	-	-296	-2	-74	356	-	-78
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-
Coke/pat.fuel/BKB/PB plants	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-
Liquefaction plants	-	-	-	-	-	-	-	-	-	-	-
Other transformation	-	-	-	-	-	-	-	-11790	-	-	-11790
Energy industry own use	-	-	-	-	-	-	-	-	-18	-	-18
Losses	-	-	-	-	-	-	-	-	-14	-	-14
TFC	-	-	1556	-	-	-	-	7185	298	-	9040
INDUSTRY	-	-	312	-	-	-	-	329	199	-	840
Iron and steel	-	-	-	-	-	-	-	-	117	-	117
Chemical and petrochemical	-	-	-	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	-	-	-	-	-	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-	-	-	-	-	-
Machinery	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	-	-	-	-	-	-	-	-	-	-	-
Food and tobacco	-	-	-	-	-	-	-	-	-	-	-
Paper pulp and printing	-	-	-	-	-	-	-	-	-	-	-
Wood and wood products	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-
Textile and leather	-	-	-	-	-	-	-	-	-	-	-
Non-specified	-	-	312	-	-	-	-	329	82	-	723
TRANSPORT	-	-	1111	-	-	-	-	-	-	-	1111
Domestic aviation	-	-	-	-	-	-	-	-	-	-	-
Road	-	-	1051	-	-	-	-	-	-	-	1051
Rail	-	-	31	-	-	-	-	-	-	-	31
Pipeline transport	-	-	-	-	-	-	-	-	-	-	-
Domestic navigation	-	-	29	-	-	-	-	-	-	-	29
Non-specified	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	116	-	-	-	-	6857	99	-	7072
Residential	-	-	31	-	-	-	-	6502	54	-	6588
Comm. and public services	-	-	27	-	-	-	-	354	29	-	411
Agriculture/forestry	-	-	29	-	-	-	-	-	-	-	29
Fishing	-	-	29	-	-	-	-	-	-	-	29
Non-specified	-	-	-	-	-	-	-	-	16	-	16
NON-ENERGY USE	-	-	17	-	-	-	-	-	-	-	17
in industry/transf./energy	-	-	17	-	-	-	-	-	-	-	17
of which: chem./petrochem.	-	-	-	-	-	-	-	-	-	-	-
in transport	-	-	-	-	-	-	-	-	-	-	-
in other	-	-	-	-	-	-	-	-	-	-	-
Electricity and Heat Output											
Electr. generated - GWh	-	-	253	-	-	3441	23	425	-	-	4143
Electricity plants	-	-	253	-	-	3441	23	425	-	-	4143
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat generated - TJ	-	-	-	-	-	-	-	-	-	-	-
CHP plants	-	-	-	-	-	-	-	-	-	-	-
Heat plants	-	-	-	-	-	-	-	-	-	-	-

1. Includes crude oil, NGL, refinery feedstocks, additives and other hydrocarbons.

Energy Data Officer/Statistician

Possible staff vacancies

International Energy Agency, Paris, France

The IEA

The International Energy Agency, based in Paris, acts as energy policy advisor to 30 member countries in their effort to ensure reliable, affordable and clean energy for their citizens. Founded during the oil crisis of 1973-74, the initial role of the IEA was to co-ordinate measures in times of oil supply emergencies. As energy markets have changed, so has the IEA. Its mandate has broadened to incorporate the “Three E’s” of balanced energy policy making: energy security, economic development and environmental protection. Current work focuses on climate change policies, market reform, energy technology collaboration and outreach to the rest of the world, especially major consumers and producers of energy like China, India, Russia and the OPEC countries.

The Energy Data Centre, with a staff of around 30 people, provides a dynamic environment for young people just finishing their studies or with one to two years of work experience.

Job description

The data officers/statisticians compile, verify and disseminate information on all aspects of energy including production, transformation and consumption of all fuels, energy efficiency indicators, CO₂ emissions, and energy prices and taxes. The data officers are responsible for the production of data sets through receiving, reviewing and inputting data submissions from member countries and other sources. They check for completeness, correct calculations, internal consistency, accuracy and consistency with definitions. Often this entails proactively investigating and helping to resolve anomalies in collaboration with national administrations. The data officers/statisticians also design and implement computer macros used in the preparation of their energy statistics publication(s) alongside analysis of the data.

Principal qualifications

- University degree in a topic relevant to energy, or statistics. We currently have staff with degrees in mathematics, statistics, information technology, economics, engineering, physics, environmental studies, etc.
- Experience in the basic use of databases and computer software. Experience in Visual Basic is an advantage.
- Ability to work accurately, pay attention to detail and work to deadlines; ability to deal simultaneously with a wide variety of tasks and to organise work efficiently.
- Good communication skills; ability to work well in a team and in a multicultural environment, particularly in liaising with contacts in national administrations and industry; ability to understand, and communicate data.
- An excellent written and oral command of English; knowledge of other languages would be an asset.
- Some knowledge of energy industry operations and terminology would also be an advantage, but is not required.

Nationals of any IEA member country are eligible for appointment. Basic salaries start at 3 400 euros per month. The possibilities for advancement are good for candidates with appropriate qualifications and experience. Tentative enquiries about future vacancies are welcomed from men and women with relevant qualifications and experience. Applications in English, accompanied by a curriculum vitae, should be sent to:

Office of Management and Administration
International Energy Agency
9 rue de la Fédération
75739 Paris Cedex 15, France

Online data services

Users can instantly access not only all the data published in this book, but also all the time series used for preparing this publication and all the other statistics publications of the IEA. The data are available online, either through annual subscription or pay-per-view access. More information on this service can be found on our website at <http://data.iea.org>.

Nine annual publications

■ World Energy Statistics 2019

World Energy Statistics provides comprehensive world energy statistics on all energy sources – coal, gas, oil, electricity, renewables and waste. It covers energy supply and consumption for over 160 countries and regions, including all OECD countries, and more than 100 other key energy producing and consuming countries, as well as world totals and various regional aggregates. The book includes detailed tables by country in original units, and summary time series on production, trade, and final consumption by sector.

Published August 2019 - Price: Print €120; PDF €96

■ World Energy Balances 2019

World Energy Balances provides comprehensive energy balances for all the world's largest energy producing and consuming countries. It contains detailed data on the supply and consumption of energy for over 160 countries and regions, including all OECD countries, and more than 100 other key energy producing and consuming countries, as well as world totals and various regional aggregates. The book includes graphs and detailed data by country for all energy sources – coal, gas, oil, electricity, renewables and waste - expressed in balance format. Alongside this, there are summary time series on production, trade, final consumption by sector, as well as key energy and economic indicators and an overview of trends in global energy production and use.

Published August 2019 - Price: Print €120; PDF €96

■ Coal Information 2019

Coal Information provides a comprehensive review of historical and current market trends in the world coal sector. It provides an overview of world coal developments covering coal production and coal reserves, coal demand by type, coal trade and coal prices. A detailed and comprehensive statistical picture of historical and current coal developments in the OECD member countries, by region and individually is presented in tables and charts. Complete coal balances and coal trade data for selected years are presented on major non-OECD coal-producing and -consuming countries, with summary statistics on coal supply and end-use statistics for many other countries and regions worldwide.

Published August 2019 - Price: Print €165; PDF €132

■ Electricity Information 2019

Electricity Information provides a comprehensive review of historical and current market trends in the OECD electricity sector. It provides an overview of the world electricity developments covering world electricity and heat production, input fuel mix, supply and consumption, and electricity imports and exports. More detail is provided for the OECD countries with information covering production, installed capacity, input energy mix to electricity and heat production, consumption, electricity trades, input fuel prices and end-user electricity prices. It provides comprehensive statistical details on overall energy consumption, economic indicators, electricity and heat production by energy form and plant type, electricity imports and exports, sectoral energy and electricity consumption, as well as prices for electricity and electricity input fuels for each country and regional aggregate.

Published August 2019 - Price: Print €150; PDF €120

■ Natural Gas Information 2019

Natural Gas Information is a detailed reference work on gas supply and demand covering OECD countries and the rest of the world. The publication contains essential information on LNG and pipeline trade, gas reserves, storage capacity and prices. The main part of the book concentrates on OECD countries, showing a detailed supply and demand balance for each country and for the three OECD regions: Americas, Asia-Oceania and Europe, as well as a breakdown of gas consumption by end user. Import and export data are reported by source and destination.

Published August 2019 - Price: Print €165; PDF €132

■ Oil Information 2019

Oil Information is a comprehensive reference book on current developments in oil supply and demand. This publication contains key data on world production, trade, prices and consumption of major oil product groups, with time series back to the early 1970s. Its core consists of a detailed and comprehensive picture of oil supply, demand, trade, production and consumption by end-user for each OECD country individually and for the OECD regions. Trade data are reported extensively by origin and destination.

Published August 2019 - Price: Print €165; PDF €132

■ Renewables Information 2019

Renewables Information provides a comprehensive review of historical and current market trends in OECD countries. It provides an overview of the development of renewables and waste in the world since 1990. A greater focus is given to the OECD countries with a review of electricity generation and capacity from renewable and waste energy sources, including detailed tables. However, an overview of developments in the world and OECD renewable and waste market is also presented. The publication encompasses energy indicators, generating capacity, electricity and heat production from renewable and waste sources, as well as production and consumption of renewables and waste.

Published August 2019 - Price: Print €110; PDF €88

■ CO₂ Emissions from Fuel Combustion 2019

CO₂ Emissions from Fuel Combustion provides a full analysis of emissions stemming from energy use. The data in this book cover the emissions of CO₂ for over 160 countries and regions by sector and by fuel. The publication contains estimates of CO₂ emissions, selected indicators such as CO₂/GDP, CO₂/capita and CO₂/TPES and a decomposition of CO₂ emissions into driving factors for all countries and regions. Emissions are calculated using IEA energy databases and the default methods and emission factors from the *2006 IPCC Guidelines for National Greenhouse Gas Inventories*. The IEA CO₂ emissions estimates are complemented by the EDGAR greenhouse gas data.

Published November 2019 - Price: Print €165; PDF €132

■ Energy Efficiency Indicators Highlights 2019

This statistical report is designed to help understand what drives final energy use in IEA member countries in order to improve and track national energy efficiency policies. This publication contains a comprehensive selection of data that the IEA has been collecting each year, after its members recognised in 2009 the need to better monitor energy efficiency policies. This report also expands its scope to countries beyond IEA. The report includes country-specific analysis of end uses across the largest four sectors – residential, services, industry and transport. It answers questions such as:

- What are the largest drivers for energy-use trends in each country?
- Was energy saved because of efficiency progress over time?
- How much energy is used for space heating, appliances or cooking?
- What are the most energy-intensive industries?

This publication is complemented by the Energy Efficiency Indicators database which contains annual data from 2000 to 2017 covering end-use energy consumption by energy product, end-use energy efficiency indicators and carbon intensity indicators for the four sectors.

Published December 2019 - Free pdf

Quarterly report

■ Energy Prices and Taxes

Energy Prices and Taxes provides up-to-date information on prices and taxes in national and international energy markets. It contains crude oil import prices by crude stream, industry prices and consumer prices. The end-user prices for OECD member countries cover main oil products, gas, coal and electricity. Every issue includes full notes on sources and methods and a description of price and tax components in each country.

Published Quarterly - Price €120, annual subscription: Print €380; PDF €304

Electronic editions

The Energy Data Centre produces online data services containing the complete databases which are used for preparing the statistics publications. Built-in software allows you to access and manipulate all these data in a very user-friendly manner and includes graphic facilities.

Annual Databases

- World Energy Statistics 2019 Price: €800 (single user)
- World Energy Balances 2019 Price: €800 (single user)
- **World Energy Statistics and Balances 2019**
(Combined subscription of the above two series) Price: €1 400 (single user)
- Coal Information 2019 Price: €550 (single user)
- Electricity Information 2019 Price: €550 (single user)
- Natural Gas Information 2019 Price: €550 (single user)
- Oil Information 2019 Price: €550 (single user)
- Renewables Information 2019 Price: €400 (single user)
- CO₂ Emissions from Fuel Combustion 2019 Price: €400 (single user)
- Energy Efficiency Indicators 2019 Price: €400 (single user)

Quarterly Databases

- Energy Prices and Taxes Price: (four quarters) €900 (single user)

Other services

■ Emissions Factors 2019

The *Emissions Factors* database includes a series of indicators related to emissions from electricity and heat generation for over 160 countries and regions, based on the IEA *World Energy Balances* and *CO₂ Emissions from Fuel Combustion* data. The main factors included are: CO₂, CH₄ and N₂O emissions per kWh of electricity and heat; adjustments due to trade (for OECD) and to losses; emission factors by fuel for sectors other than electricity. The database is available in Excel format.

Price: €550 (single user)

■ World Energy Prices 2019

The *World Energy Prices* data service contains annual end-use energy prices for selected products and sectors for over one hundred countries in the world. Complementing the quarterly OECD *Energy Prices and Taxes*, the world database focuses on prices for gasoline and diesel for transport; as well as electricity for households and industry.

Price: €400 (single user)

■ Energy Prices & Taxes and World Energy Prices package

This service is a package containing both the *Energy Prices and Taxes* and *World Energy Prices* online data services offered at a reduced rate.

Price: €1 100 (single user)

Detailed descriptions of all these data services are available on our website at <http://data.iea.org>.

■ The Monthly Oil Data Service

The *Monthly Oil Data Service* provides the detailed databases of historical and projected information which is used in preparing the IEA's monthly *Oil Market Report* (OMR). The *Monthly Oil Data Service* is available as an annual subscription and includes twelve monthly updates. The service comprises three packages available separately or combined. The data are released on the same day as the official release of the *Oil Market Report*.

The packages include:

- | | |
|---------------------------------------|------------------------------------|
| ■ Supply, Demand, Balances and Stocks | Price: €6 150 (single user) |
| ■ Trade | Price: €2 050 (single user) |
| ■ Field-by-Field Supply | Price: €3 080 (single user) |
| ■ Complete Service | Price: €9 200 (single user) |

A description of this service is available on our website at www.iea.org/statistics/mods.

■ The Monthly Gas Data Service

The *Monthly Gas Data Service* provides the following monthly natural gas data for OECD countries:

- Supply balances in terajoules and cubic metres;
- Production, trade, stock changes and levels where available, gross inland deliveries, own use and losses;
- Highly detailed trade data with about 50 import origins and export destinations;
- LNG trade detail available from January 2002,
- From 2011 onwards, transit volumes are included and trade data corresponds to entries/exits.

The databases cover the time period January 1984 to current month with a time lag of two months for the most recent data.

Price: €800 (single user)

For more information consult <http://data.iea.org/payment/products/112-monthly-gas-data-service.aspx>

Moreover, the IEA statistics website contains a wealth of free statistics covering oil, natural gas, coal, electricity, renewables, energy-related CO₂ emissions, prices, energy technology RD&D budgets, energy efficiency and more. It also contains Sankey flows to enable users to explore visually how a country's energy balance shifts over up to 40 years, starting with production and continuing through transformation to see important changes in supply mix or share of consumption. The IEA Energy Atlas offers panoramas on every aspect of energy on a global basis and for 150 individual countries, with interactive maps and customisable charts that detail and compare a host of data based on the Agency's authoritative statistics. The website also includes free headline energy data in excel format for all OECD countries and global regions from 1971 onwards as well as for Association countries from 1990 onwards.

The IEA statistics website can be accessed at www.iea.org/statistics/

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IEA Publications

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More detailed data in original units are published in the companion publication *World Energy Statistics*.

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