Responsible Business Conduct Due Diligence Practices in Ukraine's Energy Sector

OECD

Foreword

Promoting and enabling responsible business conduct (RBC) is of central interest to policy-makers wishing to attract and keep quality investments, and ensure that business activities in their economies contribute to broader value creation and sustainable development. RBC expectations are prevalent throughout global value chains, and increasingly in international trade and investment agreements, as well as national development strategies, laws, and regulations. They are also affirmed in the main international instruments on RBC – notably the OECD Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights, and the ILO Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy – which align and complement each other.

RBC centres around an expectation that all businesses – regardless of their legal status, size, ownership structure or sector – avoid and address negative consequences of their operations, while contributing to sustainable development where they operate. This means integrating and considering environmental and social issues within core business activities, including throughout the supply chain and business relationships. A key element of RBC is risk-based due diligence – a process through which businesses identify, prevent and mitigate their actual and potential negative impacts, and account for how those impacts are addressed. Many businesses also find that responsible business is good business, beyond ensuring respect for human rights and compliance with relevant laws and regulations. Understanding, addressing, and avoiding risks material to business operations in a more comprehensive way – that is, beyond financial risks – can often lead to a competitive advantage.

This report provides a baseline understanding of RBC due diligence practices in Ukraine's energy companies. It focuses on what is happening in practice among key energy companies engaged in hydrocarbons, electricity and utilities, among other sub-sectors, and further outlines key elements related to environmental protection and energy efficiency measures, industrial and community relations, and compliance. It also provides considerations that companies can take into account when improving due diligence practices in aligning with OECD RBC instruments and standards.

The report has been prepared by Nina Chitaia from the OECD Centre for Responsible Business Conduct, with significant contributions and inputs from DiXi Group, and under the supervision of Tihana Bule and Barbara Bijelic. It has benefitted from bilateral meetings and consultations with Ukrainian energy companies, government officials and the civil society, and it is based on the information collected through questionnaires, company publications, and primary research. In particular, the report would not have been possible without valuable contributions from the representatives of energy companies, including Naftogaz, Ukrenergo, Energoatom, Ukrhydroenergo, DTEK, Ocean Group, GTSOU, RGC, Smart Energy, and UGV, among others. Thanks are also due to the Ministry of Finance, the Ministry of Environmental Protection and Natural Resources, State Agency on Energy Efficiency and Energy Saving, and the National Energy and Utilities Regulatory Commission for their insights. Significant inputs were provided by the Centre for Economic Strategy, Razumkov Centre, Energy Transparency Association and Institute for Economic Research and Policy Consulting. Moreover, the report has benefited from ongoing OECD policy reviews,

notably *OECD Review of the Corporate Governance of State-Owned Enterprises in Ukraine* and *OECD Energy Investment Policy Review of Ukraine*.

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Acronyms and abbreviations

BHRRC	Business & Human Rights Resource Centre
CMU	Cabinet of Ministers of Ukraine
CNBM	China National Building Material Company
CSR	Corporate social responsibility
DSO	Distribution System Operator
EBRD	European Bank for Reconstruction and Development
EIA	Environmental impact assessment
ENTSO-E	European Network of Transmission System Operators for Electricity
ESCO	Energy Service Company
EU	European Union
EUR	Euro
FSB	Financial Stability Board
GDP	Gross Domestic Product
GTSOU	Gas Transmission System Operator of Ukraine
IAEA	International Atomic Energy Agency
IEA	International Energy Agency
IFI	International financial institution
ILO	International Labour Organization
IMF	International Monetary Fund
IMS	Integrated management system
ISO	International Organization for Standardization
NABU	National Anti-Corruption Bureau of Ukraine
NAPC	National Agency for the Prevention of Corruption
NEURC	National Energy and Utilities Regulatory Commission
OECD	Organisation for Economic Co-operation and Development
OHS	Occupational health and safety
OHSAS	Occupational Health and Safety Assessment Series
PPP	Purchasing Power Parity
PSO	Public Service Obligation
RBC	Responsible business conduct
RTE	Réseau de Transport d'Électricité
SAEE	State Agency on Energy Efficiency and Energy Saving of Ukraine
SOE	State-owned enterprise
SSSU	State Statistics Service of Ukraine
TCFD	Task Force on Climate-related Financial Disclosures
TSO	Transmission System Operator
UAH	Ukrainian Hryvnia
UN	United Nations
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
USD	US Dollar

WHO	World Health Organization

Units of measurement

bcm	billion cubic metres
mtoe	million tonnes of oil equivalent
toe	tonnes of oil equivalent
Mt	Million tonnes

Executive Summary

Responsible business conduct (RBC) is a core component for promoting sustainable development and a healthy business environment. Responsible business practices help attract quality investments, minimise social and environmental risks, protect stakeholders' rights, and contribute to value creation. A lack of responsible business conduct may undermine business environment and quality investments, and result in significant challenges in operations and losses due to environmental degradation, poor working conditions, and human rights' violations, among other elements.

When it comes to the energy sector, risks related to environmental degradation, human and labour rights violation, and corruption are often cited. A core component for promoting RBC and mitigating risks is RBC due diligence, which allows companies to identify and prevent adverse impacts, account for how they were addressed, and remediate, as needed. RBC and due diligence practices should be applicable not only to company operations, but also throughout their supply chains and business relationships.

In recent years, Ukraine has been working towards reforming its energy sector and promoting sustainable practices. Along with legal and regulatory changes, encouraging RBC in energy companies has been a key component of accelerating this process. Despite introducing relevant laws and regulations, and Ukraine's adherence to international instruments, including the *OECD Guidelines for Multinational Enterprises*, RBC remains relatively nascent in Ukraine's energy sector. However, key energy practitioners have started taking steps towards promoting RBC and due diligence practices, which have partly been incentivised by certain requirements under the country's legal framework and international agreements, as well as interactions with stakeholders, including civil society organisations, international partners and local communities.

To understand RBC risks and due diligence practices in Ukraine's energy companies, the OECD conducted research related to RBC risks throughout the sector and surveyed ten key practitioners (including both state-owned and private companies), as well as government and civil society representatives on practices and efforts through which these risks are being identified, addressed and mitigated. The main findings are framed according to the six-step RBC due diligence process outlined under the *OECD Due Diligence Guidance for Responsible Business Conduct*, notably:

Step 1. Embed RBC into policies and management systems. Most energy companies that were surveyed were aware of RBC-related standards (including OECD instruments). They have either fully or partially integrated relevant policies and programmes, which are more formalised in larger companies. However, only a few practitioners have a dedicated unit to manage adverse impacts linked with RBC, while in most companies risk management processes are often decentralised or applied on an *ad hoc* basis. In addition, companies often focus on managing RBC risks in their operations, rather than throughout supply chains or business relationships. On a broader scale, there are information gaps regarding the existence of RBC and due diligence practices, and, at times, they can be conflated with CSR activities.

Step 2. Identify and assess adverse impacts in operations, supply chains and business relationships. Companies with risk management units usually have matrices and performance indicators in place that help identify and prioritise risks. However, on a broader scale, this practice seems to be less common. To

understand potential risks, companies often evaluate their operations (frequently on an *ad hoc* basis) and engage with relevant stakeholders, including local communities and civil society organisations. As part of meeting legal requirements, companies also carry out environmental impact assessments to monitor potential adverse environmental impacts before launching their activities. However, conducting EIA alone as a substitute for broader RBC due diligence efforts may contribute to overlooking other potential or actual adverse impacts, including those throughout the supply chain.

Step 3. Cease, prevent or mitigate adverse impacts. Most energy companies that were surveyed usually adopt emergency prevention and recovery plans to mitigate risks, and they also engage in systematic efforts to avoid adverse impacts in the long term. However, certain risks remain strongly prevalent in the current operating context, including environmental (high levels of pollution and emissions) and social (risks related to labour rights violations, especially in the coal sector). Moreover, considering a number of challenges related to energy sector regulation and the presence of vested interests, efforts to mitigate RBC risks in this context are further complicated.

Step 4. Track implementation and results. Companies that were surveyed usually track implementation and results of their efforts in mitigating risks, while engaging in voluntary energy audits and external assessments. However, there are often difficulties in information gathering, including a lack of sufficient mechanisms and resources, which can cloud the effectiveness of companies in mitigating risks and challenges that remain to be addressed.

Step 5. Communicate how impacts are addressed. In recent years, large energy companies have significantly improved their practices in disclosing and reporting on their non-financial activities, often surpassing requirements under national regulations. In addition, most companies that were surveyed have improved efforts towards disseminating information among key stakeholders. These practices, however, remain to be adopted among energy companies on a broader scale.

Step 6. Provide for or cooperate in remediation when appropriate. Nearly all energy companies surveyed stated that they engage in remediation, although availability of grievance mechanisms and their effectiveness can vary. In addition, non-judicial grievance mechanisms through the National Contact Point are not widely known.

While identifying RBC and due diligence practices in energy companies, this report also provides conclusions and considerations for the way forward, as summarised in Table 1.

Table 1. RBC due diligence in energy companies: the way forward

Steps in due diligence process	Considerations and the way forward
Embed RBC into policies and management systems	• Continue introducing RBC policies, ensure alignment with the OECD MNE Guidelines and engage with NCP. • Strengthen due diligence frameworks and ensure the availability of adequate resources for their operation. • Ensure monitoring RBC risks throughout company operations, supply chains and business relationships.
Identify and assess adverse impacts in operations, supply chains and business relationships	• Adopt comprehensive mechanisms for RBC risk identification, assessment and prioritisation applicable for company operations, supply chains and relationships. • Along with environmental impacts, assess other RBC impacts (including social and governance risks) before launching projects and monitor them during implementation.
Cease, prevent or mitigate adverse impacts	• Ensure that activities causing or contributing to adverse RBC impacts are ceased and adopt relevant plans and mechanisms for mitigation. Mechanisms for risk mitigation should be in place, sufficiently resourced and effective (including environmental management systems and internal controls). • Continue active engagement with key stakeholders, including employees, local communities, government agencies and civil society organisations in mitigating adverse impacts.
Track implementation and results	• Continue improving efforts to track implementation and effectiveness of due diligence activities. • Ensure the use of "lessons learned" from tracking to improve due diligence processes in the future.
Communicate how impacts are addressed	• Improve communication and outreach by standardising the publication of non-financial reports. • Ensure the availability of information regarding due diligence processes, including risk identification, prioritisation criteria, actions taken to mitigate risks, and measures to track implementation and results.
Provide for or cooperate in remediation when appropriate	• Grievance mechanisms should be formalised and companies should engage in remediation as appropriate, while assessing the level of satisfaction of those who have raised complaints. • Companies should consider engaging with the NCP as a non-judicial grievance mechanism and ensure collaboration with key stakeholders (including civil society organisations) in improving remediation processes.

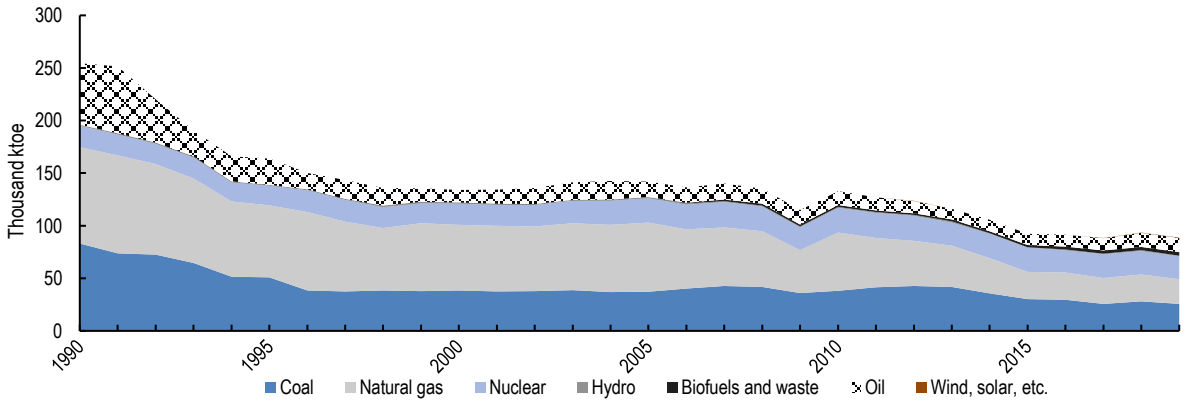
1 Overview of Ukraine's energy sector

1.1. Overview of Ukraine's energy sector development

Ukraine represents one of the largest energy markets in Europe. With a population of 42 million, it has considerable coal, oil and natural gas resources, a significant hydro and biomass potential, and well-developed infrastructure and networks to support operations across its energy supply chain (Box 1). The country is also placed at the crossroads of the European Union (EU) and Russia, and has remained a key transit partner for delivering Russian gas to the European markets (IEA, 2020[1]). However, since its independence in 1991, energy sector development in Ukraine has been impacted by political and economic volatility. Limited infrastructure upgrades, over-regulation and mismanagement of the sector, along with the presence of vested interests, have resulted in low energy efficiency levels (OECD, 2019[2]). Although Ukraine's energy intensity per unit of GDP has gradually declined,[1] it remains second highest among the EU4Energy countries (after Turkmenistan) and double the global average (OECD, 2019[2]; IEA, 2020[1]).[2]

The pace of Ukraine's energy sector development has been influenced by the country's political and economic volatility (Figure 1). While energy supply levels significantly declined during the 1990s, they briefly stabilised in the early 2000s with modest economic growth, and were negatively impacted by the 2007-2008 global financial crisis. The 2013-2014 Euromaidan protests, followed by temporary occupation of Crimea and the Donbass, introduced further challenges. Along with currency depreciation, budget deficit and reduction in industrial output, Ukraine's energy supply chain became disrupted (OECD, 2019[2]; IEA, 2020[1]). As a large number of coal mines were located in the conflict areas, the country's domestic coal production halved during 2013-2015, and, to avoid supply shortages, it increased coal imports.[3] Ukraine also stopped importing gas directly from Russia and began engaging in "reverse flow" deliveries through European countries, while its self-sufficiency of natural gas increased from 43% to 69% (OECD, 2019[2]; IEA, 2020[1]).[4]

Figure 1. Ukraine's total energy supply by source (1990-2019)



Source: Author's compilation is based on the data provided by IEA (IEA, 2020[3]) and State Statistics Service of Ukraine (SSSU, 2019[4]).

Box 1. Ukraine's energy supply and infrastructure

In 2019, Ukraine's total energy supply amounted to 89.1 million tonnes of oil equivalent (mtoe), with no fuel representing over 30% of supply. Despite its resources, the country's domestic production covers approximately 67% of total demand. It imports more than 85% of oil products, as well as 40% natural gas and half of coal supplies. Ukraine is one of the largest nuclear energy producers (representing 24.4% of total supply), which is primarily used in electricity generation. Ukraine has also increased its share of renewables, amounting to 4.9% of total supply in 2019 and surpassing 8% in electricity generation. Despite significant investments in solar and wind technologies, the country is underutilising its biomass and biofuel capacities, producing only 14% of its total estimated potential.

Ukraine uses 39.7 mtoe of primary supply in energy transformation alone to produce outputs, including heat and electricity, which is more intensive as a share of total energy supply compared to global average.* In 2019, its total final consumption amounted to 49.4 mtoe, of which industry was the largest overall final consumer (16.1 mtoe in 2019), while households consumed the largest amount of natural gas.

When it comes to its energy infrastructure, Ukraine's dense network includes:

- Electricity transmission grids (over 21,000 km) and distribution networks (over 1 million km)
- Heat network, including transmission, distribution and industrial pipelines (33,300 km)
- Natural gas (33,200 km) and oil (4,767 km) pipelines, along with large storage capacities**

Most of these networks and facilities, however, are not always adequately maintained, contributing to high levels of intensity. Electricity networks have witnessed significant losses, reaching 20% in some years. Similarly, heat distribution networks experience frequent breakdowns and lose up to 17% of heat (reaching up to 40% in some regions), which is higher compared to modern networks where less than 10% of heat is lost. Additionally, certain energy infrastructure (particularly in the hydrocarbons sector) is located in ecologically sensitive areas. Renewables sector is furthermore adding to Ukraine's energy infrastructure, with overall renewable capacity (excluding large hydro) increasing from less than 500 MW to over 8,700 MW (mainly solar and wind) between 2010-2020.

Note : *Ukraine's energy transformation processes amount to approximately 45% of total energy supply, which is more intensive compared to global average (30%), as well as the average in OECD (29.5%), EU (28.2%), non-OECD EU and Eurasia, (34.0%), and Eurasia (33.3%); ** Ukraine's storage facilities are the largest in Europe, making up a third of total EU(28) capacity.
Source: (SSSU, 2019[4]) (SSSU, 2019[5]) (OECD, 2019[2]; IEA, 2020[1]; IEA, 2020[3]) (NEURC, 2019[6]) (OECD, 2019[7]) (USAID/DiXi Group, n.d.[8]) (Ministry of Energy, 2021[9]).

1.2. Reforms in Ukraine's energy sector

In recent years, the pace of energy sector reforms accelerated…

Although Ukraine has been a contracting party of the Energy Community[5] since 2011, energy reforms became more rigorous once it signed the Association Agreement with the EU in 2014 and increased collaboration with international partners.[6] Notably, it started adopting and implementing the EU energy *acquis* to improve legislative framework across energy sub-sectors, including gas and electricity (OECD, 2019[2]; IEA, 2020[1]). In 2015, Ukraine partially deregulated pricing in the natural gas market, while raising gas tariffs for regulated consumers (such as households). It also launched an electricity market in 2019, transitioning from a single-buyer towards a more deregulated model to help liberalise electricity prices, and began taking steps towards reducing cross-subsidies. In addition, the government introduced a generous feed-in tariff to promote the development of renewables, and adopted new policies and strategies, such as the *Energy Strategy of Ukraine until 2035,* to help reduce energy intensity of GDP, improve energy security and sustainability, and promote EU integration (OECD, 2019[2]; IEA, 2020[1]). Further measures have

included corporate governance reforms in key energy companies, as well as the establishment of anti-corruption institutions and investigations in the energy sector (OECD, 2019[2]). Some of these policy changes and developments contributed to attracting investments (with private sector participation) in Ukraine's energy sector, which increased from USD 88.9 million to USD 1.4 billion between 2010 and 2019 (World Bank, 2020[10]).

Key institutional actors that have been involved in framing energy policy and driving the reform processes in Ukraine include the following:

- Verkhovna Rada: Ukraine's unicameral parliament responsible for adopting or amending laws. The Rada has established a Committee on Energy, Housing and Utilities Services, focusing on legislative developments across energy sub-sectors.
- Cabinet of Ministers of Ukraine (CMU): responsible for collective decision-making, including supervising state policy in the energy sector. The CMU may issue secondary legislation (Resolutions) that can influence the operations of energy companies (such as setting public service obligations to supply gas and electricity at below cost recovery levels).
- Ministry of Energy: forms and implements state policy within the energy sector, and reports to the CMU, the parliament, and the president's administration. The Ministry has gone through multiple reorganisations – in 2019, it was transformed from the Ministry of Energy and Coal Industry into the Ministry of Energy and Environment. In 2020, it was split into the Ministry of Energy and the Ministry of Environment and Natural Resources.
- Ministry of Social Policy: responsible for overseeing social and labour relations, and for monitoring energy policies and programmes for socially vulnerable groups.
- Ministry of Communities and Territories Development: engaged in oversight of the utilities sector, particularly heat distribution.
- National Energy and Utilities Regulatory Commission (NEURC): responsible for monitoring and regulating activities of energy companies, and tariff-setting and licensing, among other elements.

In addition, the State Nuclear Regulatory Inspectorate implements policy in nuclear security, while the State Inspectorate on Energy Supervision implements policy in the electricity and heat sectors. Other actors include the State Agency on Energy Efficiency and Energy Saving; State Service for Geology and Mineral Resources; State Ecological Inspection; and State Labour Service, among others.

…however, there have been challenges with implementation.

For one, despite taking steps to liberalise natural gas and electricity markets, the energy sector in Ukraine is primarily split between state-owned enterprises and private businesses with beneficial ownership linked with influential business interests. Considering the market structure across sub-sectors, as well as heavy subsidies and regulations, inefficiencies in market operation and consumption have remained. For another, on-going challenges related to their efficiency and profitability in energy SOEs have continued to impact activities, including energy production, transmission and distribution due to public policy objectives, below-market tariffs for certain market segments (particularly in gas and electricity sectors), and outstanding debts owed by actors in the energy sector value chain. Despite launching corporate governance reforms, potential opportunities for conflicts of interests (see Box 2), as well as the presence and influence of vested interests, have often stalled measures to improve SOE management, transparency and efficiency in the sector (OECD, 2021[11]). Moreover, Russia's construction of pipelines, including Nord Stream 2 and TurkStream, are likely to impact Ukraine's traditional role as a transit route (OECD, 2019[2]).

More recently, due to the Covid-19 pandemic, Ukraine's GDP declined by approximately 7% in 2020, and a fall in oil and natural gas prices has led to significant losses for its energy companies, including the state-owned oil and gas monopoly Naftogaz (IMF, 2020[12]) (Naftogaz, 2021[13]).[7] Other issues have included

growing debts in Ukraine's electricity sector and difficulties in compensating renewable energy producers through feed-in tariffs, which have introduced challenges in ensuring sustainable development of the electricity market and promoting energy security, while representing a source of concern for international investors (Mylenka and Novyk, 2020[14]).

Box 2. SOE ownership in Ukraine's energy sector

Along with performing policymaking functions in the energy sector, the CMU, line ministries and agencies are responsible for exercising ownership rights over state-owned enterprises (SOEs). Notably, the government owns approximately 3,500 SOEs at central level and 14,500 municipally-owned enterprises at a local level, with some of the key entities operating throughout the energy supply chain. Their current ownership arrangements, however, provide opportunities for conflicts of interest. For example, while the CMU is responsible for policy oversight in the energy sector and issuing resolutions that may impact company operations, it also performs ownership functions over some of the key energy SOEs, including Naftogaz, Energoatom and Ukrhydroenergo. In addition, based on a recent decision, gas and electricity transmission system operators transferred from the ownership of the Ministry of Finance under the ownership of the Ministry of Energy in 2021, which may contribute to further complicating policymaking and ownership functions.* Some of these challenges have been examined in more detail in OECD studies, including the *State-Owned Enterprise Reform in the Hydrocarbons Sector in Ukraine (2019), State-Owned Enterprise Reform in the Electricity Sector in Ukraine (2020),* and *the OECD Review of Corporate Governance of State-Owned Enterprises in Ukraine (2021).*

Note: *According to the OECD SOE Guidelines, policymaking and ownership functions in SOEs should be separate.
Source: (CMU, 2021[15]) (OECD, 2019[2]; OECD, 2021[16]; OECD, 2020[17]; OECD, 2019[7])

Despite these challenges, energy sector reform continues to remain a priority for Ukraine. As part of natural gas and electricity sector reforms, the country has worked towards unbundling supply and distribution functions in companies to promote competition across sub-sectors. It has also adopted laws on increasing transparency within the extractives sector and conducting environmental impact assessments. Along with regulatory changes, some of the key energy companies in Ukraine have started taking steps towards promoting and monitoring the sustainability of their activities, and improving responsible business conduct, though practices remain to be adopted on a broader scale. An in-depth review of RBC policies are outlined in the *OECD Energy Investment Policy Review of Ukraine (2021)*.

1.3. Profile of energy companies in Ukraine

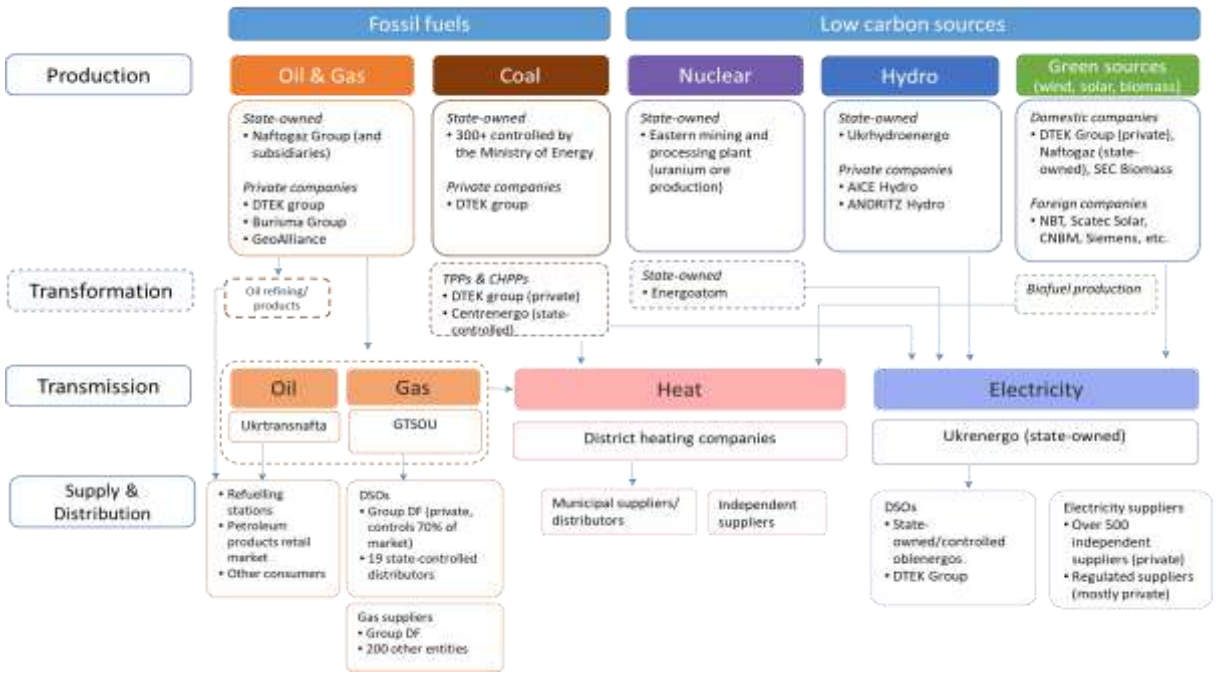
While Ukraine's energy mix is diversified, a significant share of activities throughout the supply chain (particularly upstream and midstream) are controlled by a limited number of players, including state-owned and private companies (as further outlined in Figure 2 and Annex A). Some of the key state-owned companies include:

- Naftogaz, engaged in various stages of the hydrocarbon supply chain. Its subsidiaries include Ukrgasvydobuvannya, which is responsible for the exploration and production of approximately three-fourths of natural gas in Ukraine, with others engaged mainly in processing and refining hydrocarbons. Naftogaz was also responsible for gas transmission through its subsidiary Ukrtransgaz, though this function has been unbundled and it is currently performed by GTSOU (see below).
- Gas Transmission System Operator of Ukraine (GTSOU) is a natural monopoly that transports natural gas in Ukraine. The company was established in 2019 and was transferred under the ownership of Main Gas Pipelines of Ukraine (MGU) in 2020 to fulfil international obligations and ensure the independence of the gas transmission system.

- Energoatom, a nuclear electricity producer responsible for generating approximately 55% of Ukraine's electricity. The company operates four nuclear plants consisting of fifteen units.
- Ukrhydroenergo, a hydropower company with power plants operating across Dnipro and Dniester rivers. The company generates approximately 8% of electricity in Ukraine.
- Ukrenergo, responsible for electricity transmission and dispatch with a control over 21,300 kilometres of trunk power grids. The company also performs other functions, including operating electricity balancing and ancillary services markets.
- Other companies, including coal mines, thermal plants, and natural gas, heat, and electricity distribution companies, some of which have been partially privatised.

In addition to state-owned enterprises, private companies also play a key role in Ukraine's energy sector. Notably, DTEK group is one of the largest integrated holding companies in the country involved in natural gas, coal, renewables and electricity sectors, and engaged in various stages of production, supply and distribution. While generating nearly a quarter of Ukraine's electricity (mainly through thermal plants), the company also remains one of the largest shareholders and owners of electricity distribution companies. Other major players in oil and gas production include Burisma Group, GeoAlliance, and Smart Energy (part of Smart-Holding represented by Enwell Energy, a British public company) and RGC in natural gas distribution. Moreover, considering its generous feed-in tariff, Ukraine has attracted a number of investors in renewables, including NBT, Scatec Solar, and CNBM.[8] Among domestic companies, renewables have been produced by the existing players (both state-owned and private companies), although other producers have also emerged in recent year (including households and companies such as Clean Energy Group).[9] In addition, a small number of companies operating in other sectors (such as Ocean Group, a mobile operator) have also started engaging in renewables, though such practices are rare (SK-Monolit LLC, n.d.[18])

Figure 2. Overview of Ukraine's energy supply chain



Note: A more comprehensive overview of Ukraine's energy supply chain and interaction between key actors may be found under the OECD report *Snapshot of Ukraine's Energy Sector: Institutions, Governance and Policy Framework (2019).*
Source: (OECD, 2019[2])

Notes

[1] Energy intensity per unit of GDP is often used to outline energy efficiency of the economy and to meet targets, including SDG 7 on ensuring access to affordable, reliable, sustainable and modern energy for all.
[2] EU4Energy is an energy programme funded by the EU with a focus on countries in Eastern Partnership (EaP) and Central Asia: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan, Turkmenistan, Ukraine and Uzbekistan. The programme started on July 1, 2016 and is expected to run until June 30, 2021. It is designed to support their implementation of sustainable energy policies and to foster co-operative energy sector development at regional level (IEA, n.d.[114]).
[3] To meet coal supply shortages, in 2016 Ukraine introduced a new coal pricing methodology to attract coal imports, which increased from 9,089 ktoe in 2013 to 13,806 ktoe in 2018 (over the same period, coal exports fell from 6,200 ktoe to 60 ktoe). Known as Rotterdam-plus pricing methodology, Ukraine began pegging the price of coal to that in Rotterdam and adding import costs. This methodology, however, significantly inflated the price of coal, including for supplies that were domestically produced or imported from nearby countries (including Belarus and Russia), and were of inferior quality, which led to investigations related to corruption.
[4] While acting as a transmitter for Russian gas to Europe, Ukraine used to import natural gas directly from Russia. However, since 2015, Ukraine began importing Russian gas through EU member states (including Germany, Poland, Hungary and Slovakia) which re-export Russian gas in the reverse direction.
[5] Energy Community is an international organisation that brings together the EU and its neighbours to create a pan-European energy market. The Energy Community's objectives include extending EU internal energy market rules, principles and legal framework to countries in the Southeast Europe and the Black Sea region. It aims to establish a stable regulatory market to attract investments in the sector, promote trade and competition, and enhance energy security, while improving environmental situation and fostering renewables development (Energy Community, n.d.[115]).
[6] Notably, Ukraine concluded a USD 17.5 billion Extended Agreement with the IMF in 2015, while later introducing an Extended Fund Facility and Stand-By Arrangements. Ukraine has also received strong support from the World Bank, the EU and the EBRD, as well as other countries on a bilateral level. However, the Stand-By Arrangement concluded with IMF in June 2020 was put on hold due to limited progress in implementing reforms.
[7] In addition to the impact of the Covid-19 pandemic and price fluctuations, Naftogaz's losses, amounting to UAH 19 billion in 2020, were attributed to public service obligations that have forced it to sell natural gas at 30% below market price and significant debts (up to USD 1.5 billion) owed by regional gas supply companies (Query, 2021[119]) (Naftogaz Group, 2021[120]). These results, however, were used as a key reason by the government to terminate the powers of supervisory board members and the CEO in April 2021. The board members were reappointed on April 30 to continue performing their functions. However, before their reappointment, on April 29 a former acting Minister of Energy was appointed as the CEO of Naftogaz (CMU, 2021[121]). In response to these developments, all board members of Naftogaz submitted two week notices to terminate their powers, though some of their contracts were later extended (Naftogaz Group, 2021[122]). These developments have raised concerns among the members of the international community, including financial institutions and G7 Ambassadors.
[8] Some of the main foreign investors in solar energy of Ukraine include Scatec Solar (Norway), CNBM (China), VR Capital (USA/UK), Acciona Energy (Spain), TIU Canada (Canada), EMSOLT (Turkey), GS Energy (South Korea), Better Energy (Denmark), among others. The main foreign investors in wind energy include (but are not limited to) NBT (Norway), Vindcraft (Sweden), TOTAL Eren (France), Longwing Energy (Luxemburg), Longyuan Power (China), Guris (Turkey), and Greenworx Holding (Belgium).
[9] According to the Ministry of Energy, from 2017 until Q1 2021, installed capacity in households increased from 20.1 MW to 835 MW (Ministry of Energy, 2021[9]).

2 Overview of RBC risks in Ukraine's energy sector

2.1. Understanding responsible business conduct (RBC)

One of the core components for promoting sustainable development and a healthy business environment is ensuring responsible business conduct (RBC). Responsible business practices help attract quality investments, minimise social and environmental risks, protect stakeholders' rights, and contribute to value creation. A lack of responsible business conduct may undermine business environment and quality investments, and result in significant challenges in operations and losses due to environmental degradation, poor working conditions, and human rights' violations, among other elements. The *OECD Guidelines for Multinational Enterprises* (the Guidelines) is one of the three main international instruments on responsible business conduct (as further outlined in Box 3), while *Due Diligence Guidance on Responsible Business Conduct* provides practical support for implementation, as further elaborated in Section 3.

In 2017, Ukraine became an adherent to the OECD Declaration on International Investment and Multinational Enterprises. As an adherent country to the OECD Declaration, Ukraine has committed to implementing the Guidelines and has established a National Contact Point (NCP) under the Ministry of Economy.[1] The mandate of the NCP includes raising awareness regarding the OECD policy instruments on RBC (such as the Guidelines and Due Diligence Guidance), handling inquiries, and resolving issues (specific instances) through a non-judicial grievance mechanism in case the Guidelines are not observed. NCPs are also expected to promote stakeholder engagement and help maintain relations with the business community, worker organisations and other interested parties. In performing their functions, NCPs are expected to ensure visibility, accessibility, transparency and accountability (OECD, 2011[19]; OECD, 2016[20]).

Box 3. Overview of OECD RBC instruments

The *OECD Guidelines for Multinational Enterprises* (the Guidelines) is an international legal instrument. It provides a set of recommendations to businesses across sectors on responsible conduct in areas, such as environment, human rights, industrial and business relations, and consumer protection. To date, 50 countries, including OECD and non-OECD members, have adhered to the Guidelines. It is part of the OECD Declaration on International Investment and Multinational Enterprises.

The *OECD Due Diligence Guidance for Responsible Business Conduct* provides practical support for enterprises in implementing the Guidelines and helps them operationalise international RBC instruments. It introduces a due diligence and risk management mechanism, which includes embedding RBC practices within the core of company operations, identifying, preventing and mitigating adverse impacts, engaging in monitoring and evaluation, communicating results, and remediating, as needed. In addition to a cross-sectoral instrument, the OECD has

developed guidance to provide tailored recommendations across sectors, including agriculture, minerals, extractives, garments and footwear, and finance.

International convergence on RBC principles and standards

The three main instruments that have become key reference points for RBC and which outline how companies can act responsibly are the OECD Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights, and the ILO Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy. They are aligned with and complement each other, and set global expectations with regard to responsible conduct. Some of the key areas on which these instruments converge include:

- *Framework for all companies.* International corporate responsibility standards set the expectation that all companies – regardless of their size, sector, operational context, ownership and structure– avoid and address the adverse impacts with which they are involved, and contribute to the sustainable development of the countries in which they operate.
- *Common understanding of impact.* The instruments set out that impact of business activities is understood beyond the impact on the company itself and refers to the impact business activities may have on human rights – including labour rights – the environment and society, both positive and negative. The instruments establish a common understanding that enterprises can cause, contribute to, or be directly linked to adverse impacts (through operations, products or services by business relationships), and they provide a framework for how enterprises should avoid and address them.
- *Conducting due diligence.* Businesses should undertake due diligence to identify, prevent and mitigate their actual and potential negative impacts and account for how those impacts are addressed. This process should involve meaningful consultation with potentially affected groups and other relevant stakeholders. With respect to labour rights, consultation with workers' organisations is particularly important. By helping companies understand the impacts of their activities and by clarifying the expectations around due diligence, these international instruments guide companies on what they should do in order to know and show that they are behaving responsibly.
- *Responsibility throughout the supply chain.* Responsible business covers not only impacts that a company may cause or contribute to through its own activities but also those impacts directly linked to an enterprise's operations, products or services through its business relationships. This includes: business partners, entities in the value chain such as subsidiaries, suppliers, franchisees, licensees, joint ventures, investors, clients, contractors, customers, consultants, financial, legal and other advisers, and any other non-state or state entities.
- *Access to remedy.* As part of their duty to protect against business-related adverse impacts, states are expected to take appropriate steps to ensure, through judicial, administrative, legislative or other appropriate means, that when such abuses occur within their territory and/or jurisdiction those affected have access to effective remedy. In addition, where companies identify that they have caused or contributed to adverse impacts, they are expected to address them through providing remedy, and they should provide for or cooperate in this remediation through legitimate processes.

Source: (OECD, 2011[19]; OECD, 2016[20]; OECD, 2018[21]; European Commission, n.d.[22]; UN; OECD; EU; ILO; SJDW, 2019[23])

2.2. Overview of RBC risks in Ukraine's energy sector

Companies can identify RBC risks by looking for divergences between the recommendations under the Guidelines and the circumstances associated with their operations, supply chains or business relationships (OECD, 2018[21]). Specific challenges and adverse impacts may vary depending on company activities and sub-sector of operation, as further detailed in Annex C of this report. However, some of the key risks that Ukrainian energy companies face include:

- ***Environmental***. Energy companies often carry significant environmental risks through their operations, business relationships and supply chains. Their operations and activities may contribute to pollution and challenges in waste management, and have a negative impact on land, water and

biodiversity, as well as on human well-being (particularly if industry standards are not met). Notably, companies operating in the hydrocarbons sector may potentially face improper drilling, extraction and resource management, which could lead to environmental degradation. Similarly, nuclear companies may face hazards due to processing and storing radioactive waste, while hydro power plant operations may negatively impact rivers, reservoirs and communities. Moreover, a lack of energy efficiency measures often result not only in wasteful energy consumption, but also in excess emissions of greenhouse gasses. In particular, coal inputs and coal-run power plants, without adequate upgraded infrastructure, can lead to excess emissions and high levels of pollution.[2]

- ***Social***. Some of the key social risks for energy companies relate to employee and industrial relations, and human rights. This is particularly relevant in hydrocarbons exploration, as well as in operating nuclear and electricity facilities, which includes infrastructure development and hazardous working conditions (such as grid operations, exposure to toxic substances, and, potentially, a lack of protective equipment). Certain sectors (particularly in mining) also carry higher risks of human rights violations, e.g. through forced labour in non-government controlled territories. Moreover, activities carried out by energy companies (such as mining, drilling and infrastructure development) may negatively impact local communities and violate stakeholder rights. For example, energy company operations and infrastructure development without stakeholder consultation may result in triggering disputes, which could lead to stalling operations. Further challenges can be associated with loss of jobs resulting from energy transition and decarbonisation, thus highlighting the importance of ensuring just transition.
- ***Governance***. Energy companies often face risks related to transparency and disclosure, and the presence of vested interests, which may result in corruption, bribery and extortion, particularly in hydrocarbons and electricity sectors.[3] Further governance risks, including conflicts of interest, can be affiliated with improper separation of ownership, regulatory and policymaking functions, particularly in the state-owned sector.[4] More broadly, an absence of a risk assessment and mitigation mechanism in corporate governance frameworks may raise challenges in identifying and mitigating aforesaid risks not only in their operations, but throughout their business relationships and supply chains.

The aforementioned energy sector-related risks, however, are not exhaustive, and additional factors may need to be taken into consideration. These include potential or actual adverse impacts associated with low-carbon transition and efforts to promote digitalisation, among others.[5]

Practices related to RBC and due diligence are relatively nascent among energy companies in Ukraine and remain to be adopted on a broader scale. However, in recent years, a number of energy companies have started integrating RBC and due diligence practices within their operations, partly to comply with the existing legal and regulatory requirements. Notably, Ukraine has adopted relevant laws and regulations to promote environmental, human rights and labour protection, and anti-corruption efforts, which have aimed at incentivising companies' action on RBC (Box 4). Certain energy companies have also started promoting RBC-related measures based on Ukraine's international commitments, and following engagement with stakeholders, including international partners, local communities and civil society organisations.

Nevertheless, some energy companies have outlined challenges in promoting RBC due to limitations in Ukraine's legal and regulatory frameworks, and, in particular, policy gaps and a lack of harmonisation between laws, regulations, strategies and directives to further advance responsible conduct.[6] This can particularly impact SOEs, which often depend on government decisions to implement relevant policies and measures. According to some companies, certain regulations have also been overlooked and efforts to promote improvement in the legal and regulatory frameworks have been undermined in order to protect vested interests. Nevertheless, it is important to note that certain instruments (for example, international human rights instruments) recognise the global standards of expected conduct for enterprises independently of states' abilities and/or willingness to fulfil these obligations, which are not diminished.

Box 4. Overview of recent policy developments to promote RBC in Ukraine's energy companies

Ukraine has adopted relevant laws and regulations to promote environmental, human and labour rights protection, and anti-corruption efforts, which have worked on incentivising companies to act on RBC. In 2017, the Law on Environmental Impact Assessment (EIA) was introduced for companies to hold public hearings regarding their projects and operations, and in 2018 the Law on Strategic Environmental Assessment was adopted to ensure that relevant strategic planning documents covered components regarding environmental protection. Ukraine has also taken steps towards promoting transparency in the extractive sector by adopting the Law on Ensuring Transparency in the Extractive Industries, while working to harmonise legislation with the EITI Standard and EU directives. Moreover, in January 2020, Ukraine adopted a Concept for Implementing State Policy to Promote Socially Responsible Business until 2030 and subsequently introduced an action plan for implementation, and, in March 2021, introduced a new National Human Rights Strategy with a section on business and human rights.

While ensuring compliance with the existing regulations, relevant policies and mechanism have also been introduced to comply with agreements established with international partners. According to the EU-Ukraine Association Agreement, corporate social responsibility and responsible business practices should be promoted, particularly those outlined in the OECD Guidelines, the UN Global Compact and the ILO Tripartite Declaration. The Agreement contains additional provisions with regard to promoting sustainable development and covers areas, such as environmental and social protection (including human and labour rights) and anti-corruption efforts. In addition, Ukraine has been working towards adjusting its legislative framework to promote integration into the EU energy market and networks, particularly in gas and electricity sectors. Notably, Ukrenergo has been taking steps towards joining the European Network of Transmission System Operators in electricity, while the GTSOU became an observer in the European Network of Transmission System Operators in gas in 2020.

Furthermore, engagement with international financial institutions (IFIs) has contributed to promoting RBC standards in energy companies. Some of the key partners supporting energy sector projects have included the IMF, World Bank, EBRD and the EIB, as well as the EU, KfW, NEFCO, UNDP and USAID. Along with broader support measures to improve legal and regulatory frameworks in the energy sector and promote efficiency (such as through Energy Efficiency Fund Project and Warm Loans Programme), international partners have also extended support to individual energy companies. For example, the EBRD has provided financing to help companies (mainly SOEs) implement projects, including infrastructural upgrades and energy efficiency, safety and rehabilitation programmes. Its conditionalities have required compliance with the bank's social and environmental policies, and carrying out due diligence during project implementation. Similar conditionalities have also been observed in agreements with other partners, including the World Bank and NEFCO.

In addition, companies have become aware of RBC practices following their engagement with local communities and stakeholders. Key practitioners, including Naftogaz, DTEK, Ukrhydroenergo and Energoatom, among others, have been increasingly engaged in carrying out social partnership and CSR programmes, as well as projects with international partners to support local communities. Certain energy companies have also been required to contribute to local development based on the oil and gas rent distribution mechanism adopted in 2018. These efforts have enabled energy companies to develop ties with local stakeholders and exchange on their activities, including potential adverse impacts and steps towards their mitigation. An in-depth analysis of policy developments to promote RBC in Ukraine's energy sector is outlined in the *OECD Energy Investment Policy Review of Ukraine*.

Source: (Verkhovna Rada, 2018[24]; Verkhovna Rada, 2017[25]) (Verkhovna Rada, 2018[26]) (CMU, 2020[27]) (European Union, 2014[28])

Notes

[1] Ukraine's NCP is located at Druzhby Narodiv, 28, room 223, The Secretary of the NCP is Marina Kupchuk, and may be reached at +38 (044) 596-68-12 or kupchuk@me.gov.ua.

[2] Risks affiliated with greenhouse gas emissions are further exacerbated by state investments in and ownership of stranded assets, including coal-related energy inputs and coal-fired power generation.

[3] Previous OECD studies have also outlined corruption-related challenges in Ukraine's energy sector, and a forthcoming Typology of Corruption Schemes is expected to outline specific cases of (alleged) corruption (OECD, 2019[7]) (OECD, 2019[2]) (OECD, 2020[17]).

[4] Specific challenges and risks due to the lack of separation of ownership, regulatory and policymaking functions in Ukrainian SOEs have been thoroughly explored in OECD studies, including *State-Owned Enterprise Reform in the Hydrocarbons Sector in Ukraine (2019), State-Owned Enterprise Reform in the Electricity Sector in Ukraine (2020),* and *the OECD Review of Corporate Governance of State-Owned Enterprises in Ukraine (2021).*

[5] For example, while transitioning into a low-carbon economy by introducing technological upgrades and renewables is beneficial, energy companies may risk displacing workers due to a lack of training and upskilling opportunities. Other challenges may be associated with potential human and labour rights violations in obtaining inputs needed for renewable technologies (as outlined in Annex C). Furthermore, digitalisation of the energy sector and the introduction of smart technologies may increase privacy and data security concerns (Global Investment Hub, n.d.[112]; BSR, n.d.[113]).

[6] In particular, the *Energy Strategy of Ukraine until 2035* cited the development of coal extraction a strategic goal for Ukraine, which has contradicted its objectives for ensuring sustainability of fuel and energy complex through the promotion of alternative energy sources (OECD, 2020[110]). The country has also witnessed broader challenges with regard to the effectiveness of judicial system and the rule of law.

3 RBC due diligence practices in Ukraine's energy companies

3.1. Introduction to RBC Due Diligence

The RBC due diligence framework as set out in the *OECD Due Diligence Guidance for Responsible Business Conduct* allows businesses to identify, prevent and mitigate actual and potential adverse impacts, and account for how they are addressed across their activities. For many companies, the term "risk" means primarily risks to the enterprise, such as financial, market, operational and reputational, among others. Enterprises are concerned with their position in the market vis-à-vis their competitors, their image and long-term existence, and as such they often outline risks to themselves. The Guidelines and Due Diligence Guidance, however, refer to the likelihood of adverse impacts on people, the environment and society that companies may cause, contribute to, or to which they are linked (OECD, 2018[21]).

Certain business operations, products or services are inherently risky, as they are likely to cause, contribute to, or be directly linked with RBC-related risks. While some business operations may not directly pose risks, certain circumstances (e.g. rule of law issues, lack of enforcement of standards, behaviour of business relationships) may potentially lead to adverse impacts. As such, due diligence should help enterprises anticipate, prevent or mitigate these impacts, and, in some cases, help companies decide whether to carry on certain operations or business relationships if the risks are too high or if mitigation efforts have been unsuccessful (OECD, 2018[21]).

In addition, effective prevention and mitigation of adverse impacts may help enterprises maximise their positive contributions to society, improve stakeholder relations and protect their reputations. Due diligence can also help enterprises create more value by identifying opportunities to reduce costs, improving the understanding of markets and strategic sources of supply, and strengthening the management of company-specific business and operational risks. Other components include decreasing the probability of incidents related to matters outlined in the Guidelines and reducing exposure to systemic risks. Enterprises may also carry out due diligence to ensure that they meet relevant legal and regulatory requirements pertaining to RBC issues, including local labour, environmental, criminal or anti-bribery laws (OECD, 2018[21]). Based on its key characteristics, due diligence should:

- Be preventative
- Involve multiple processes and objectives
- Be commensurate with risk (risk-based)
- Involve risk-based prioritisation
- Be dynamic (i.e., ongoing, responsive and changing)
- Avoid shifting responsibilities
- Concern internationally recognised RBC standards
- Be appropriate to an enterprise's circumstances

- Be adapted to deal with the limitations of working with business relationships
- Be informed by engagement with stakeholders
- Involve ongoing communication

Considering that due diligence should be commensurate with risk and appropriate to a specific company's circumstances and context, measures to promote due diligence include (i) embedding RBC into the enterprise's policies and management systems, (ii) identifying actual or potential adverse impacts on RBC issues, (iii) ceasing, preventing or mitigating them, (iv) tracking implementation and results, (v) communicating how impacts are addressed, and (vi) enabling remediation when appropriate (Figure 3) (OECD, 2018[21]).

Figure 3. RBC due diligence framework

Source: (OECD, 2018[21])

RBC due diligence mechanism should be central to decision-making and risk management within companies, and relevant policies should be enshrined within company regulations. Embedding RBC involves communicating policy from the top, while building staff capacity and ensuring resource availability. As RBC policy areas are diverse, responsibilities may be dispersed across different departments, while implementation may involve multiple actors and activities. For example, RBC issues are often part of risk management and audit units, and co-ordinated by specific departments engaged in monitoring RBC activities (Table 2) (OECD, 2018[21]).

Table 2. Company departments and their coverage of RBC issues

Department and/or function	RBC issues/risk areas
Sustainability, CSR, Ethical sourcing	Potentially all issues under the OECD MNE Guidelines, as these departments are often co-ordinating on RBC issues
Environment/Social	Environment and climate; health and safety; human rights; other social issues that no other department/function addresses

Human resources	Employment and industrial relations; occupational health and safety; human rights; recruitment
Workers representatives, trade union representatives	Employment and industrial relations; occupational health and safety; human rights
Operations, production	Environment; occupational health and safety; human rights; consumer protection
Legal	Legal compliance; employment and industrial relations; anti-bribery and corruption; human rights; consumer protection; disclosure; contracting with business relationships
Compliance, ethics/integrity	Compliance, anti-bribery and corruption
Procurement, supply chain, business relationships	Full range of OECD MNE Guideline issues in the supply chain and business relationships; screening, contracting and monitoring supply chain/business relationship of these issues
Sales and marketing	Human rights; consumer protection; disclosure
Community development	Stakeholder engagement; environment; community health & safety; human rights; disclosure
External affairs, reporting	Stakeholder engagement and disclosure
Risk management	Potentially all issues
Audit	Potentially all issues
Senior management	Potentially all issues
Board/owners	Potentially all issues

Source: This table has been adapted from the OECD Due Diligence Guidance for Responsible Business Conduct (OECD, 2018[21]).

Moreover, RBC expectations extend not only to core business activities, but also to relationships throughout the entire supply chain linked with company operations, products or services. While businesses should act responsibly, the government also has a duty to protect public interests by enabling RBC through legal framework, standards, and awareness-raising. Moreover, the government may lead by example through implementing RBC and due diligence mechanisms in state-owned enterprises (SOEs), which is particularly relevant in Ukraine's energy sector (OECD, 2016[20]).

3.2. RBC due diligence practices in Ukraine's energy companies

To outline RBC and due diligence practices in Ukraine's energy companies, the OECD has relied on surveys among key practitioners, as well as additional research to identify patterns on a broader scale. The companies were identified based on their size and sub-sector of operation. They were surveyed using the questionnaire outlined in Annex B and their participation was voluntary. Overall, ten companies were surveyed, namely Naftogaz (including Ukrgasvydobuvannya), Ukrenergo, Energoatom, Ukrhydroenergo, GTSOU, DTEK, RGC, Smart Energy, Ocean Group, and a regional oil and gas company (also see Section 1.3 and Annex A for further details). In addition to companies, ministries and government agencies (including the national regulator and the State Agency on Energy Efficiency), as well as civil society organisations, participated in the survey. Despite information gaps regarding precise company practices on a broader scale, supplementary policy research contributed to outlining RBC-related challenges throughout the sector to complement the survey results. The following sections present the findings, segment by segment, based on the six steps of the process outlined under the OECD Due Diligence Guidance.

Step 1: Embed RBC into policies and management systems

Key energy practitioners in Ukraine have started adopting policies related to RBC…

Although the concept of RBC still remains nascent in Ukraine, nearly all companies surveyed have either fully or partially introduced RBC-related policies. These generally include policies regarding environmental protection, labour rights, and anti-corruption, and, in a few cases, more unified RBC-related strategies.[1] Development and adoption of written policies and procedures are more common among larger companies with operations on a national scale, compared to their smaller counterparts. Their adoption has allowed

companies to work towards complying with relevant legal and regulatory requirements (such as environmental and labour laws), while taking steps to meet international standards and practices. Along with ISO standards on environmental and quality management, health and safety, and social responsibility, energy companies have also started working towards meeting UN Sustainable Development Goals (see Table 3).

Despite their awareness of the OECD RBC instruments, most companies do not currently take OECD MNE Guidelines and Due Diligence Guidance into consideration in developing their RBC-related policies. Some entities (particularly SOEs, including Naftogaz and Ukrenergo) have outlined their commitment to the OECD SOE Guidelines, which references RBC standards. Along with OECD instruments, a number of companies also refer to other international benchmarks, including the UN Global Compact and the Guiding Principles. The companies have also held trainings and awareness raising among their staff regarding RBC practices, while conducting staff assessments based on their use of resources and compliance with social responsibility in the framework of personnel management (GTSOU, 2020[29]).

….however, practices of embedding and implementing RBC due diligence vary…

In recent years, only a handful of companies have taken steps towards introducing relevant policies at supervisory and management board levels, and centralising RBC due diligence frameworks through integrated management systems. (From a corporate governance perspective, board of directors should systematically be involved in ensuring adequate risk management.) For example, Naftogaz's supervisory board has established a committee on health, safety, environment and reserves that works towards reducing environmental and social risks (Naftogaz, 2020[30]).[2] The company has created a health, safety and environment (HSE) pyramid,[3] while centralising risk management and dedicating a team at the corporate centre consisting of seven full-time units. While the team monitors policies throughout the company, certain components may be tailored depending on the operations of their subsidiaries (Naftogaz, 2020[31]).

In Ukrenergo, integrated management and due diligence mechanism grew out of its CSR department, where structurally independent units were combined into a single unit with separate subdivisions. The directorates also inform the management board regarding potential adverse impacts, while the risk management department systematises, evaluates and develops action plans (Ukrenergo, 2020[32]). In 2020, Ukrenergo also introduced a more rigorous strategy based on international standards (including OECD instruments and UN Guiding Principles) (Ukrenergo, 2020[33]). According to its management report, the company has also been working towards establishing an integrated health, safety and environment management system (Ukrenergo, 2020[34]). DTEK has also set up relevant committees at board and management levels (including within its subsidiaries), while establishing a Risk Management Department at the corporate centre. DTEK's Chief Executive Officer and Director of Human Resources, Social Development and Environment for Sustainable Development are responsible for developing and implementing a sustainable development policy in the corporate centre, which is translated across subsidiaries. They also identify key individuals responsible for environmental protection, social responsibility and management (DTEK, 2020[35]) (DTEK, 2018[36]).

In some companies, practices are more decentralised. For example, Ukrhydroenergo has introduced relevant policies to promote responsible conduct, and, in 2020 the Department of Strategic Development and Project Implementation Planning established a unit for environmental project implementation, though a separate unit is responsible for monitoring and mitigating environmental issues. However, there is no central unit responsible for due diligence, and risk assessment, monitoring and mitigation are distributed across different departments (Ukrhydroenergo, 2020[37]). Similarly, while Energoatom has established an integrated management system, RBC-related risk management functions are delegated to relevant departments, covering environmental, social and corruption-related aspects (Energoatom, 2021[38]). In others, specialists across other units or departments are usually tasked with co-ordinating as needed to

overcome RBC risks, or relevant committees are set up on an *ad hoc* basis, though in some companies steps are being taken to further centralise RBC policies. For example, GTSOU has established an energy efficiency committee to implement its strategy until 2024, which includes promoting energy saving measures. The company has also introduced regulatory policies with regard to waste management and environmental protection, while improving measures to reduce emissions.

Table 3. Reported alignment by Ukrainian energy companies with international benchmarks

	Naftogaz	Energoatom	Ukrenergo	Ukrhydroenergo	DTEK	Ocean Group	GTSOU
Environmental Management (ISO 14001)	✓	✓	✓	✓	✓	✓	✓
Energy Management (ISO 50001)	✓	✓			✓		✓
Quality management (ISO 9001)		✓	✓		✓	✓	✓
Social Responsibility (ISO 26000)		✓		✓			
Social Accountability Standard (SA8000)	✓						
International stakeholder engagement standard (AA1000)		✓					
Occupational Health and Safety (ISO 45001)			✓		✓		✓
Occupational Health and Safety Assessment Series (OHSAS 18001)	✓	✓			✓	✓	
GRI Reporting	✓	✓	✓	✓	✓		(WIP)
SDG Monitoring	✓	✓	✓	✓	✓		

Note: Information is based on the company non-financial reports (where available) and self-reporting.
Source: (Naftogaz, 2020[30]; Energoatom, 2020[39]; Ukrhydroenergo, 2020[40]; DTEK, 2020[41]; Ukrenergo, 2020[42]; GTSOU, 2020[29]; Ocean Group, 2021[43])

… more should be done in the supply chain and throughout business relationships…

In most cases, due diligence processes (where they exist) in Ukraine's energy companies focus on their own operations, with limited monitoring of RBC risks throughout their supply chains or business relationships (for more information, see Annex C). However, in recent years, a few practitioners that have been surveyed have started taking steps towards managing RBC risks beyond their operations. For example, DTEK has started disseminating company policies regarding responsible conduct among business associates, suppliers and contractors, while requiring that contractors comply with specific provisions (such as meeting certain environmental standards) (DTEK, 2020[35]). Similarly, Ukrenergo has started improving supply chain management and has established a team dedicated to carrying out audits (Ukrenergo, 2020[32]; Ukrenergo, 2020[42]). In some cases, supply chain management has been developed through the existing transactional, or "know your counterparty" (KYC) processes through procurement, the practice of which has been improved since 2015.[4]

…and to address information gaps.

In most energy companies in Ukraine, however, information regarding the existence of RBC policies and due diligence mechanisms is limited. While some companies, including Centrenergo, Burisma Group and GeoAlliance, acknowledge that they monitor social and environmental issues in their operations, specific

policies and practices are unknown. In a number of cases, the concept of RBC has been conflated with CSR activities that focus mainly on philanthropy, rather than on integrating responsible practices and due diligence mechanisms into core business operations.

Step 2: Identify and assess adverse impacts

Some of the key energy practitioners in Ukraine that were surveyed have started developing risk identification, assessment and prioritisation mechanisms…

Most companies that were surveyed usually monitor their activities to identify risks, though processes are often introduced on an *ad hoc* basis. Risks can also be identified as part of the environmental impact assessment (EIA) procedure, which is mandatory before launching operations (Box 5). However, some energy companies that were surveyed have developed specific tools to continuously identify and prioritise adverse impacts throughout their activities. For example, Ukrenergo and Smart Energy have developed key performance indicators (KPIs) related to their projects to identify, prioritise and address RBC-related risks, while tailoring them to each issue. According to survey responses, Smart Energy has also developed an ESG risk matrix that it constantly updates, and Ukrenergo has established a centralised register that ranks these risks related to its projects (Ukrenergo, 2020[32]; Smart Energy, 2021[44]). Similarly, DTEK codifies ESG risks and tailors them depending on activities and operations, which is used for risk prioritisation and management, and for developing action plans (DTEK, 2020[35]). Other companies analyse strengths, weaknesses, threats and opportunities in their projects or carry out annual reviews. In cases where due diligence practices are decentralised, relevant sub-divisions are often tasked with identifying and monitoring risks prior to and during project implementation, though there is a lack of clarity as to whether these processes are cumulative.

… including consulting with stakeholders to identify risks…

Along with monitoring their operations, some companies that were surveyed identify and assess risks based on the feedback they receive from engaging with stakeholders, including employees, communities, government entities and international partners. For example, both Ukrenergo and Ukrhydroenergo have been discussing specific risks and challenges with research institutions, international partners and neighbouring economies to ensure synchronisation in implementing cross-border projects (Ukrenergo, 2020[32]; Ukrhydroenergo, 2020[37]). Specific directorates in energy companies also communicate independently with relevant stakeholders and inform the management regarding potential challenges. In addition, companies engaging in environmental impact assessment by law before implementing projects analyse potential risks, and also participate in public hearings with local communities regarding potential environmental impacts (though these consultations were put on hold due to the pandemic). In addition, certain energy companies that were surveyed stated that they are also able to identify potential risks through communicating with consumers and engaging with local communities through their CSR projects.

Box 5. Environmental impact assessment (EIA) in Ukraine

Ukraine has been working to develop a framework to address concerns of local communities regarding environmental risks and challenges stemming from company operations. The country is a party to the UNECE Convention on Environmental Impact Assessment and the related Protocol on Strategic Environmental Assessment, both of which have been transposed in its national legislation. In 2018, it adopted a Law on Environmental Impact Assessment (EIA) to help prevent environmental damage, promote safety and sustainability of natural resources, and take public and private interests regarding company operations into consideration. The law is mandatory for planned activities that may have significant environmental impacts, including the operation of

oil and gas refineries and thermal plants, mining, drilling and extraction, nuclear fuel production and spent fuel processing, the operation of reservoirs, and the processing of raw materials. In some cases, its applicability may contain certain limitations and depend on the size of the project and specific activities, as further elaborated in the law.

A key component of the law is preparing an EIA report, carrying out public discussions and engaging with government bodies. An EIA report should reflect compliance with relevant laws and regulations, and outline planned activities, environmental risks, forecasts, and prospects for socioeconomic development. Documents submitted for planned activities are made publicly available through a unified register and are used for public hearings and discussions before project implementation. Based on the results, companies and state bodies should take measures to prevent, avoid or mitigate negative environmental impacts. Conclusions of the assessment may be appealed in court and, in case procedures are violated, activities may be stalled. Entities should also carry out post-project monitoring to identify discrepancies.

Among energy companies, a large number of reports have been submitted by Naftogaz and DTEK (including their subsidiaries), mainly focusing on drilling and extraction activities. A fewer number of reports have also been submitted by companies, including Energoatom, Ukrhydroenergo, and Ukrenergo, which focus mainly on construction and operation of their units. However, in practice, assessment procedures continue to witness inefficiencies and there is need to develop capacities for their effective and systematic application. Accordingly, since 2019, one of the main work streams of the EU4Environment programme has been to support reforms and improvements regarding the EIA process in Ukraine. The OECD, UNECE, UNEP, UNIDO and the World Bank have been jointly implementing the programme.

Note: The EIA register is available here: http://eia.menr.gov.ua/
Source: (UA Energy, 2020[45]) (Verkhovna Rada, 2017[25]) (OECD, n.d.[46])

…however, the practice of identifying RBC risks remains to be widely adopted throughout the sector.

On a broader scale, there is limited information regarding the existence of risk identification mechanisms, with some companies also stating they do not practice regular risk monitoring, rather relying on a culture of information exchange and a rapid response mechanism to address unforeseen issues. While such mechanisms can be useful for addressing immediate impacts, the absence of internal RBC policies and risk identification mechanisms can contribute to shortfalls in mitigating broader and long-term impacts, particularly throughout business relationships and supply chains. Moreover, while the EIA helps identify environmental risks, additional RBC-related challenges, such as those related to human and labour rights, and corruption, may be overlooked.

Step 3: Cease, prevent or mitigate adverse impacts

Energy companies that were surveyed take corrective actions to eliminate, prevent and mitigate RBC-related risks…

Although precise steps may vary depending on specific circumstances, companies mostly cited the use of emergency, prevention and recovery plans, and stakeholder consultation. While practices are usually more formalised and strictly applied based on the established procedure in some companies (such as Energoatom, which deals with high risks in operating nuclear power plants), in others an informal meeting between company officials and relevant authorities may be held to decide on the plan of action.

To manage short-term adverse impacts, some companies follow internal incident management policies and use emergency networks that have been developed as part of their standard operating procedures. For example, GTSOU had developed an internal plan for “localisation and elimination of consequences of

accidents at high-risk facilities", which involves notifying relevant stakeholders. Similar plans and policies can be identified in other companies operating in the gas sector, including Naftogaz and RGC (Naftogaz, 2020[31]; RGC, 2020[47]; GTSOU, 2020[29]). In holding companies, subsidiaries try to manage risks independently of their parent (usually on issues that are local), though challenges may be redirected to the parent company if response is required on a broader scale (UGV, 2021[48]). As needed, the companies also prepare project documentation, carry out field research, and ensure that measures are taken to eliminate adverse impacts and report incidents to authorities.

…and work systematically on mitigating adverse impacts…

In mitigating negative environmental impacts and protecting land, water and biodiversity, energy companies have started engaging in projects and investing in upgrades. For example, Ukrhydroenergo, which operates hydro power plants, has launched projects to protect biodiversity and improve water resource management. These include the adoption of water aeriation technologies and efforts to promote sustainable development of fisheries (Ukrhydroenergo, 2018[49]).[5] It also engages in cross-border co-operation with Moldova to ensure sustainable development of the reservoirs and minimise flooding (Ukrhydroenergo, 2019[50]) (Ukrhydroenergo, 2020[51]). Companies operating in other sub-sectors have also introduced mechanisms and upgrades to ensure environmental protection, especially through safe discard of hazardous material. In particular, Energoatom has sought to adopt appropriate measures in dealing with high levels of hazardous and radioactive waste, while developing a centralised spent fuel storage facility in the Chernobyl Exclusion Zone (OECD, 2019[2]; Energoatom, 2019[52]).

In addition, energy companies operating in the extractives sector have sought to improve their operational efficiency and reduce emissions (SAEE, 2020[53]). For example, both Naftogaz and DTEK have installed purification flows, frequency controls and insulation, while investing in upgrades and reparations (Naftogaz, 2020[30]; DTEK, 2020[41]). Moreover, GTSOU has recently procured new equipment for detection and elimination of methane leaks. While emission levels are significantly lower in other sub-sectors, companies, including Energoatom, Ukrenergo and Ukrhydroenergo, have worked towards reconstructing units and developing energy storage capacities to promote efficiency.[6] The existing players have also started investing in renewables. Notably, DTEK is one of the largest investors in green energy in Ukraine, with both solar and wind capacities increasing from 210 MW to 1 GW between 2018-2020. Similarly, companies, including Naftogaz and Energoatom, have started investing in renewables, though their capacities are more limited (Fitch Ratings, 2020[54]) (DTEK, n.d.[55]).

Along with environmental challenges, energy companies have sought to develop mechanisms to mitigate labour-related risks. These include efforts to promote health and safety measures through upgrades and supply of protective equipment, as well as upskilling through trainings and seminars. Key energy practitioners also enter into collective bargaining with their employees.[7] For example, in 2019 Naftogaz provided UAH 685.5 million in financial assistance as stipulated by collective agreements and included elements, such as healthcare coverage and disability benefits. Companies including DTEK, Energoatom, Ukrenergo and Ukrhydroenergo also engage in collective bargaining, while providing additional benefits, including social and healthcare costs, health and safety measures, and support for retirees, among other contributions. Key practitioners also engage in programmes and awareness-raising to help promote responsible practices. These particularly include holding specialised trainings and sessions on environmental, occupational safety and health risks to comply with national and international standards, and sessions to promote anti-corruption measures.

In addition, during the Covid-19 pandemic, key energy practitioners introduced specific measures to mitigate adverse impacts. While employees in the sector were exempt from isolation, a number of companies made efforts to introduce preventive measures and minimise the risk of spreading the virus. In particular, Naftogaz introduced a special algorithm of temperature screening for its staff, while limiting the number of individuals present during meetings, disinfecting office spaces, and enforcing the usage of

masks. Similarly, Smart Energy established "crisis headquarters" to manage Covid-related impacts, while DTEK developed specific guidelines on operating during the pandemic, and managing and monitoring risks (DTEK, 2020[35]) (KAS, 2020[56]).

Energy companies that were surveyed also outlined their collaboration with local communities, among other stakeholders, to mitigate adverse social and environmental impacts of their operations.[8] Along with meeting requirements under the EIA, companies have continued to initiate exchanges and discussions regarding their activities. For example, in 2019, Energoatom held public hearings to review information regarding the safety of extending the lifecycle of its power plants, during which legal requirements, terms, and scope of awareness-raising about proposed activities were outlined (Energoatom, 2020[39]). Similarly, Ukrhydroenergo has engaged with local community representatives in implementing programmes for clean-ups around reservoirs and areas where it operates (Ukrhydroenergo, 2020[40]). Throughout the survey responses, other companies have also reported on their engagement with local communities in mitigating adverse impacts of their operations (such as gas leaks and emissions), including Smart Energy, Ukrgasvydobuvannya and the GTSOU (UGV, 2021[48]) (GTSOU, 2020[29]) (Smart Energy, 2021[44]).

In addition, key practitioners have also sought to implement CSR projects and establish social partnership programmes with local communities and authorities in regions where they operate. While Naftogaz provides royalties to local budgets, it also engages in initiatives for local community development, including infrastructure projects and repairs. Similarly, companies, including Energoatom and Ukrhydroenergo, have continued to build links with local communities through hosting cultural and educational events, and corporate volunteering. Moreover, some companies have also engaged with international partners to mitigate certain risks through joint projects.[9]

…however, there are challenges in mitigating some RBC risks…

In particular, these relate to labour and environmental impacts, and corruption. For example, 66% of greenhouse gas emissions in Ukraine are energy-related (including fuel combustion from transport), and energy industries are directly responsible for 45% of energy emissions (OECD, 2021[57]). Significant RBC risks are present in coal mines, which are often under-resourced and mismanaged. Over the years, there have also been moratoriums imposed on state inspection of activities in coal mines, which have prevented the assessment of environmental and labour conditions (ILO, 2018[58]). Along with carrying environmental risks (including those related pollution and waste management), coal miners often lack protective equipment, operate in hazardous conditions, and, at times, do not receive wages (details regarding social and environmental risks are elaborated in Annex C).[10] Further environmental risks, as well as human and labour rights challenges, are observed in the Donbass, as outlined in Box 6.

Box 6. Social and environmental challenges in coal mines in the Donbass

Active combat in the Donbass has contributed to social risks, including human and labour rights violations of the coal miners. The loss of electricity and damages to mines and plants have posed significant safety risks. Shelling has led to mine collapses, emergency power outages and shutdowns of ventilator systems, and difficulties in evacuating miners working underground. The miners often lack protective gear, face negligence from their superiors and moratoriums on inspections, and have limited opportunities to defend their rights due to severe restrictions on freedom of expression and assembly, while forced labour remains prevalent. While trade union activities have been halted, a number of protests have taken place, though information remains limited. Furthermore, according to estimates, illegally obtained coal supplies from the region to government-controlled territories amounted to 600,000 tonnes per month. Though coal supplies from the Donbass to government-controlled territories have formally stopped since 2017, they have been redirected towards other jurisdictions.

In addition, the occupation of Ukrainian territories has contributed to unsustainable activities in this sector which have carried environmental repercussions. For example, in 2017, 36 mines in the Donbass region were flooded, rendering the coal mines non-operational and resulting in large scale flooding which polluted the surface and groundwater with iron, sulphates and chlorides, and disrupted water supplies and wastewater treatment facilities in both government-controlled and non-controlled areas.

Source: (OSCE, 2017[59]) (Kazansky et al., 2017[60]; OHCHR, 2020[61]; Industriall Global Union, 2020[62]) (Forro, Potocki and Buckeye Pohorzhelska, 2019[63])

…especially risks linked with market-related challenges in the energy sector…

Over-regulation of the energy sector has contributed to high debt levels among market participants and has translated into underinvestment or limited resources to advance certain RBC practices. In particular, maintaining natural gas, electricity and heating tariffs at below cost-recovery levels, and, in some cases, imposing price caps have contributed to reducing incentives and resources to introduce energy efficiency upgrades, while encouraging over-consumption of fossil fuels. In addition, challenges faced by the state to compensate green energy producers at feed-in tariff rates may contribute to undermining the development of renewables, and *inter alia*, result in difficulties in increasing energy efficiency and reducing emission levels in the long term, as further outlined in Annex C (OECD, 2019[2]).

…as well as corruption and the presence of vested interests.

According to the National Anti-Corruption Bureau of Ukraine (NABU), the country's fuel and energy complex has witnessed one of the highest corruption rates, with losses exceeding UAH 3 billion based on the cases that were being investigated and heard in court as of 2020 (NABU, 2020[64]). NABU has continued investigating energy practitioners over the years and has uncovered schemes related to bid-rigging, bribery and tender purchases at unsolicited or superfluous prices.[11] To mitigate these risks and to comply with relevant legal and regulatory requirements (including provisions under the Law on Prevention of Corruption), energy companies have started introducing anti-corruption policies and programmes.[12] These programmes have focused mainly on assessing corruption risks, minimising or avoiding conflicts of interest, protecting whistle-blowers, conducting trainings and ensuring due diligence in procurement. However, the effectiveness of these programmes often varies and, on a broader scale, needs to be improved (OECD, 2021[11]).[13]

Step 4: Track implementation and results

Most energy practitioners that were surveyed monitor their efforts and steps towards addressing RBC risks...

Companies that have developed centralised risk assessment mechanisms and matrices (such as Smart Energy) often use these as benchmarks, while additional methods are also used in monitoring results. In particular, in carrying out environmental impact assessments, companies must engage with the government and local communities not only during project planning, but they should also continue monitoring impacts, and outline potential discrepancies and efforts in mitigating risks throughout the project and following its completion. While the main focus is often on monitoring environmental risks and mitigation mechanisms, certain companies also reported their involvement in monitoring efforts to mitigate social risks while carrying out their projects (Ukrenergo, 2020[32]). In addition, a number of companies (including Naftogaz, Energoatom, DTEK and Ukrenergo), have started carry out energy audits voluntarily (and mainly on an *ad hoc* basis).[14]

…which also includes systematic monitoring of risks…

Although specific environmental impacts vary, energy companies do monitor and report on their impact on land, water and biodiversity, and emission levels. Inspections are carried out as standard operating procedures and to meet relevant regulatory requirements. In particular, information is usually reported to government bodies (such as the State Statistics Service, State Labour Service, NEURC and the Ministry of Energy), particularly regarding environmental impacts and labour-related data, which are used in aggregate reporting and assessment. Similarly, the EIA reports are submitted on a portal managed by the Ministry of Environmental Protection and Natural Resources, and are used to monitor projects implemented by energy companies. In addition, certain information may also need to be disclosed to bodies, such as the National Agency for the Prevention of Corruption.

Specific mechanisms that are used in systematic monitoring, however, vary depending on the company's operations and impacts. For example, in monitoring the mitigation of environmental impacts, Energoatom tracks its efforts and controls waste build up, while carrying out hydro-biological monitoring of water facilities and using chemical labs to assess non-radioactive footprint on water, cooling reservoirs and soil conditions (Energoatom, 2019[52]). Companies operating in the hydrocarbons sector (including Naftogaz and DTEK) monitor their impacts on soil conditions, as well as air and water emissions, and pollution (Naftogaz, 2020[30]; DTEK, 2020[41]). Those engaged in energy transmission (such as RGC), also carry out inspections and monitor leaks throughout their networks (RGC, 2020[47]). Further to introducing upgrades, GTSOU has also improved monitoring and evaluation of adverse impacts based on OGMP 2.0 standards.[15] Moreover, Ukrhydroenergo systematically monitors water quality, electricity production volumes and outputs, operational capacities and the use of hydropower resources (Ukrhydroenergo, 2020[65]).

Along with environmental impacts, most of the key practitioners monitor their efforts towards reducing the rate of accidents, injuries and mortalities. For example, Naftogaz has introduced policies to monitor activities and work towards achieving zero mortality rates, injuries and loss of time as a result of accidents, with similar policies introduced at DTEK (Naftogaz, 2020[30]). Considering its operation in the nuclear sector, Energoatom continues to regularly monitor health and safety of employees across its facilities, as they face high risk levels due to possible radiation exposure and handling of nuclear waste, which has a long half-life and remains volatile. It also reports on health and safety inspections on a weekly and monthly basis, while following international practices (including IAEA guidelines and standards), along with other regulations and directives (IAEA, 2018[66]; European Commission, 2014[67]) (Energoatom, 2020[39]).[16] Further to environmental and social risks, key practitioners that have established anti-corruption programmes have also started taking steps towards monitoring their effectiveness. These include examining electronic databases and automated procurement systems, while carrying out surveys to assess the level of understanding of anti-corruption practices among employees (Energoatom, 2020[39]) (Ukrenergo, 2020[42]).

…however, challenges with tracking implementation as well as results of mitigating measures exist.

For example, moratoriums and postponement of inspections, particularly due to COVID-19 and in certain energy sub-sectors (particularly coal), have contributed to impeded information collection. In some cases, information can be challenging to gather and present difficulties in understanding company efforts to mitigate RBC-related risks. For example, considering that the quality of internal controls and anti-corruption programmes significantly differ between energy companies, their ability to monitor efforts in mitigating risks can vary. In particular, corporate governance remains an emerging area of development, and more advanced practices tend to be reflected in companies that have boards of directors (with independent board members) and if RBC risks are considered at board and management levels. More broadly, as the scope of RBC policies are often limited to company operations, there may be challenges in their ability to

mitigate RBC risks and monitor their implementation throughout the supply chain and business relationships.

Step 5: Communicate how impacts are addressed

Energy companies have been improving their communication on addressing RBC impacts...

Most of those surveyed participate in outreach through websites, social media platforms and press releases. Large energy companies have also started issuing non-financial reports and performance snapshots, while communicating their RBC practices and risk mitigation efforts based on the GRI framework, often surpassing the existing disclosure requirements (Box 7).[17] According to a 2019 transparency index conducted by the Corporate Governance Professional Association and CSR Ukraine, key energy practitioners, including Naftogaz, DTEK, Ukrenergo, Energoatom and Ukrhydroenergo, were in top-10 of the index based on their disclosure level regarding corporate governance, environmental protection, CSR integration, employee and community relations, and human rights. Similarly, a 2018 transparency index conducted by CSR Ukraine analysed the level of disclosure of information related to CSR on their websites, placing most of these companies in the top-10 of the index (CGPA, CSR Ukraine & CIPE, 2020[68]) (CSR Ukraine, 2018[69]).[18] As energy companies often carry significant environmental impacts, other tools can also be considered to promote climate-related disclosure, though standards and metrics to be used are still subject to consideration (see Box 8). More broadly, energy companies also disclose EIA reports and submit information regarding their activities to government agencies for aggregate reporting. Additional disclosure requirements under the EITI framework are applicable for those operating in the extractives sector.

Box 7. Non-financial reporting requirements in Ukraine

According to the Law on Accounting and Financial Reporting, companies that are required to submit consolidated financial statements are also expected to disclose non-financial information in their annual reports. These requirements usually apply to enterprises of public interest (such as public joint-stock companies, along with other financial and large enterprises) and businesses operating in the extractives sector (with additional disclosure requirements introduced under the EITI law), though small and medium-sized companies are typically exempt. Based on the Law on Accounting and Financial Reporting and recommendations issued by the Ministry of Finance, non-financial reports are recommended to include the following information:

- Organisational structure and description of the enterprise
- Results of enterprise's activities
- Liquidity and liabilities
- Environmental issues
- Social issues and personnel policy
- Risks
- Research and innovation
- Financial investments
- Developmental prospects
- Corporate governance structure

Moreover, large enterprises (with 500 or more employees) are recommended to include non-financial key performance indicators (KPIs) to monitor the impact of their operations, including social (such as human and labour rights, and community relations), environmental and anti-corruption aspects. KPIs for environmental issues may

depend on the sector of operation. However, some KPIs may cover water use, waste management, greenhouse gas emissions, pollution and energy consumption. Social indicators may cover areas, such as the total number of employees, equal employment opportunities, diversity, and staff training and education.

Source: (Verkhovna Rada, 2018[26]) (OECD, 2021[11]) (Verkhovna Rada, 1999[70])

In addition, key practitioners have developed communication and stakeholder interaction policies. Some of these stakeholders include consumers, market participants, civil society organisations, and representatives of local and central governments, and the international community (see Annex C for further details). Companies that collaborate closely with international partners have also been communicating information on a regular basis. For example, Ukrenergo's management provides IFIs with regular updates regarding the situation in the electricity market, including possible risks and steps with regard to project development. Its management also works closely with USAID on implementing a project on energy security, during which anti-crisis measures and risk prevention scenarios are discussed (Ukrenergo, 2020[32]).

Box 8. Climate-related disclosure standards & TCFD

Over the years, governments have recognised the importance of engaging with the private sector to ensure successful design, financing and implementation of measures to address climate change. As a result, there have been increasing expectations for companies to provide information regarding their climate-related risks, mitigation mechanisms and opportunities. In 2015, the G20 asked Financial Stability Board (FSB) to convene both private and public actors and to review how climate risks could be taken into account in the financial sector. The FSB established an industry-led Task Force on Climate-related Financial Disclosures (TCFD) including 29 members from various organisations, such as banks, insurance companies and non-financial organisations. The aim of the Task Force was to align the existing disclosure regimes and improve climate-related financial reporting as part of providing investors and other stakeholders with clear, comparable and consistent information with regard to risks and opportunities presented by climate change.

In 2017, the *Financial Report: Recommendations on Task-Force on Climate-related Financial Disclosures* was adopted, which outlined how companies should identify climate-related financial risks, evaluate their impact, and assess and manage these risks. These recommendations were structured around four main pillars, namely governance, strategy, risk management and metrics/targets, as outlined below.

Recommendations and Supporting Recommended Disclosures

Governance	Strategy	Risk Management	Metrics and Targets
Disclose the organization's governance around climate-related risks and opportunities.	Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.	Disclose how the organization identifies, assesses, and manages climate-related risks.	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.
a) Describe the board's oversight of climate-related risks and opportunities.	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	a) Describe the organization's processes for identifying and assessing climate-related risks.	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.
b) Describe management's role in assessing and managing climate-related risks and opportunities.	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	b) Describe the organization's processes for managing climate-related risks.	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

In developing the recommendations, TCFD drew from various existing voluntary and mandatory climate-related reporting frameworks, including those developed by the Carbon Disclosure Project, Global Reporting Initiative, Principles for Responsible Investment, International Integrated Reporting Council, Sustainability Accounting Standards Board and Climate Disclosure Standards Board, among others. Along with the financial sector, TCFD recommendations have been used extensively by energy companies across OECD countries, including Spain, Italy, France and the UK.

Source: (TCFD, 2019[71]) (OECD, 2017[72]) (OECD, 2018[73]) (Nelson, 2020[74])

…however, the practice of disclosing non-financial information in most energy companies remains limited.

Despite growing popularity in producing non-financial reports, they remain to be adopted on a broader scale in Ukraine. According to the CSR Ukraine, in 2018 only 13% of the companies in Ukraine issued them, and reports were often prepared by accounting departments with limited inputs from top managers, employees and stakeholders (Saprykina, 2019[75]). Where the reports have been introduced, at times there are delays in their publication. In addition, although Ukraine has introduced an EITI law to improve information gathering and disclosure in the extractives sector, often there are information gaps, particularly with regard to state-owned coal mine operations. More broadly, there is limited information regarding company practices and efforts in mitigating RBC risks throughout the supply chain and business relationships.

Step 6: Provide for or co-operate in remediation when appropriate

Most companies that were surveyed have sought to remediate impacts, though practices vary…

Large energy companies have established grievance mechanisms, including hotlines, call centres, and commissions to resolve conflicts, and engage intermediaries (including trade unions) as needed. Some,

such as Ukrgasvydobuvannya, have established detailed procedures (including communication and the set-up of conflict committees) in their company policies that are publicly available (UGV, 2020[76]; UGV, 2021[48]). Others, such as Ukrenergo, have reported that they are developing an appeals management system that will review and process complaints (Ukrenergo, 2020[32]). Smaller energy companies usually have no formal grievance mechanisms in place, though they offer alternate mechanisms. Notably, some rely on state bodies and processes (including the EIA) to handle grievances, while others may engage with stakeholders informally. Other means have included pre-trial and conflict settlements, and, in some cases, litigation. For example, in 2020, one of the mining companies paid a fine (UAH 10 million) in a pre-trial procedure, as the company had violated legislation regarding industrial waste management (Economic Truth, 2020[77]). More recently, a thermal plant was fined over UAH 2 million for damages caused by unauthorised water use (Ukrainian Energy, 2021[78]).

On a broader scale, however, remediation of adverse RBC impacts has varied or remained limited, while challenges continue to persist. For example, wage arrears and poor working conditions have forced miners to resort to protest. According to a trade union of coal miners, workers in state-owned coal mining enterprises were owed over UAH 1.5 billion, though UAH 237 million was repaid in May 2021 (Ukrinform, 2021[79]). In the meantime, investigators opened a criminal case for non-payment of salaries in some regions of Ukraine (Ukrinform, 2021[80]). Further challenges have been related to corruption, including allegations of the involvement of energy generating companies in developing a formula that inflated coal prices, and hindrances in carrying out anti-corruption inspections on-site (Radio Svoboda, 2020[81]) (Oil Point, 2020[82]) (OECD, 2019[2]).

Notes

[1] For example, DTEK has introduced an ESG development strategy up to 2030 focusing on climate protection targets and promoting renewable development, boosting recovery of industrial wastes, sustaining biodiversity, promoting high social standards and achieving a status of "good corporate citizen", ensuring safe working conditions and promoting corporate governance, risk management and compliance practices (DTEK, 2020[35]).

[2] However, following the dismissal of Naftogaz's CEO by the government in April 2021, supervisory board members resigned submitted their resignations though some of their contracts were later extended. These developments, however, may contribute to changes in company policies.

[3] The Naftogaz HSE Pyramid covers multiple elements, such as efforts to achieve zero mortality rate and loss of time as a result of accidents and injuries, and zero damage to the environment.

[4] In 2015, Ukraine introduced a new law on public procurement which came into force a year later, and created ProZorro, an electronic procurement platform. The platform is mandatory for purchases by entities, including government bodies and certain SOEs (Verkhovna Rada, 2015[117]). Along with minimising opportunities for bid-rigging and corruption, and achieving savings, the platform has enabled energy companies to improve their practices in identifying entities with which they engage and types of goods and services they procure.

[5] Dnieper river basin occupies the largest area among other rivers and makes up 80% of Ukraine's water resources. Reservoirs contribute to limiting the reach of oxygen at lower levels, thus producing undesirable environmental impacts, including decomposition and anthropogenic discharges that absorb oxygen and deteriorate biodiversity. Ukrhydroenergo's water aeriation has sought to improve life under water and to increase self-healing capacity of the Dnieper river (Ukrhydroenergo, 2019[109]).

[6] In 2019, DTEK's emission of pollutants in the atmosphere amounted to 723.1 thousand tonnes and Naftogaz's amounted to 50.8 thousand tonnes, compared to Energoatom's 136.74 tonnes.

[7] Information regarding collective bargaining agreements and contributions, as well as efforts in promoting trainings and awareness-raising among employees are detailed in annual reports: (Naftogaz, 2020[30]) (DTEK, 2020[41]) (Energoatom, 2020[39]) (Ukrhydroenergo, 2020[65]) (Ukrenergo, 2020[42]).

[8] However, some companies have pointed out that government officials are often not appointed in certain communities, which hinders communication.

[9] For example, in 2019, Naftogaz launched an Affordable Heat Project in the Kharkiv region, and installed individual heating systems in 500 sites (Naftogaz, 2020[30]). In 2017, DTEK collaborated with USAID on Municipal Energy Reform Project on efficiency projects across Zaporizhia, Vinnytsia and Lviv regions (DTEK, 2018[36]). In addition, some energy companies have worked jointly with international partners (including the World Bank) to reduce greenhouse gas emissions. Other efforts have included collaboration with the international community to mitigate impacts, including corruption-related challenges.

[10] Wage arrears in the coal sector have continued to pose significant challenges over the years, amounting to UAH 1.3 billion in 2019 and UAH 930 million in 2018. In July 2020, coal miners organised protests through the Independent Trade Union of Miners. Preliminary agreements were established to ensure timely payment for the miners' wages, though challenges have remained. Notably, since the beginning of 2021, wage arrears in the coal sector further increased, with certain categories of miners in some state-owned entities not receiving payment (OHCHR, 2020[61]; Industriall Global Union, 2020[62]). According to the Trade Union of Coal Workers, to date, employees in state-owned coal mines are owed over UAH 1.5 billion (Ukrinform, 2021[118]).

[11] An OECD Typology of Corruption Schemes in the Energy Sector of Ukraine looks to document cases of (alleged) corruption in the sector in a review, which is expected to be issued by the end of 2021 (OECD, 2020[17]).

[12] According to the Law on Prevention of Corruption, anti-corruption programmes must be established in majority-owned SOEs, where average number of employees exceeds 50 individuals, and the amount of gross income for works and services exceeds UAH 70 million. The programme should also be established in legal entities that participate in procurement, if the cost of purchasing goods, services and works is equal to or exceeds UAH 20 million (Verkhovna Rada, 2014[116]).

[13] Certain shortfalls are linked with a lack of streamlining between anti-corruption laws and regulations, which can lead to difficulties in mitigating risks. For example, in state-owned companies, the CEO is

responsible for appointing and dismissing (latter with approval of the National Agency on Prevention of Corruption) an anti-corruption officer, which can create potential conflicts of interests (OECD, 2021[11]).

[14] While there is no record of how many audits were conducted, SAEE has pointed out that overall 60 energy audits have been carried out and 350 energy efficiency measures have been adopted. Moreover, audits are often conducted as part of loan conditionalities, or to achieve certification of energy management systems (SAEE, 2020[53]).

[15] The Oil and Gas Methane Partnership (OGMP), launched at the 2014 United Nations (UN) Secretary General's Climate Summit, was created by the Climate and Clean Air Coalition (CCAC) and the United Nations Environmental Programme (UNEP) as a voluntary initiative to help companies reduce methane emissions in the oil and gas sector. Governments, international organizations, non-government organizations, and the oil and gas industry collaborate through the OGMP to raise awareness and responsibly address methane emissions. The OGMP provides a protocol to help companies systematically manage their methane emissions from upstream oil and gas operations, as well as offers a credible platform to help member companies demonstrate actual reductions to industry stakeholders. OGMP 2.0 is the new gold standard reporting framework that will improve the reporting accuracy and transparency of anthropogenic methane emissions in the oil and gas sector (Global Methane, n.d.[123]) (OGM Partnership, n.d.[124]).

[16] According to their annual reports, it is worth noting that 2019, DTEK witnessed 286 non-lethal injuries (Lost Time Accident Frequency Rate amounted to 0.516) and 6 fatalities (Fatal Accident Frequency Rate amounted to 0.011). In Naftogaz, there were 36 accidents and 1 fatality the same year, caused mainly by moving objects, fall of an injured person and traffic accidents, with higher rates in its subsidiary Ukrgasvydobuvannya (involved in extractive activities). Comparably, Energoatom witnessed 5 injuries and 0 fatalities.

[17] Global Reporting Initiative (GRI) is an international standards organisation that allows businesses and governments understand and communicate their impacts on issues, including environment and climate change, social issues (including human rights), and bribery and corruption. This enables companies to identify, report on and monitor RBC-related challenges.

[18] It is worth noting that practices are mainly compared among Ukrainian companies, and the levels of disclosure and risk awareness may differ from those in the OECD economies. Moreover, sensitivity to risks may be reduced due to challenges in the rule of law or impartial judgement by courts.

4 Conclusions and considerations

Despite limited awareness regarding responsible conduct on a broader scale, in recent years a number of companies in Ukraine's energy sector have started working towards identifying, addressing and mitigating RBC risks. Along with introducing relevant policies and standards, they have been developing internal mechanisms and practices to address environmental, social and governance challenges. Though improvements in the policy framework are needed, companies should continue promoting responsible conduct and carrying out due diligence to anticipate and mitigate adverse RBC-related impacts, and ensure positive contributions to sustainable development. Considerations for energy companies to improve RBC due diligence practices include (and are not limited to) the following:

Further embed RBC policies into company operations, supply chains and business relationships. While some energy companies have started embedding RBC policies and standards, this should be done more widely at the sector level. International standards like the OECD Guidelines for Multinational Enterprises and the Due Diligence Guidance for Responsible Business Conduct are useful references in this regard. Energy companies may also benefit from engaging with the National Contact Point in Ukraine in achieving this goal.

Improve framework for monitoring risks throughout supply chains and business relationships. Considering that the activities of energy companies are often inter-dependent, companies may be subject to risks of contributing to or being affiliated with adverse impacts occurring at various points across upstream, midstream and downstream activities. Currently, RBC due diligence in the context of the supply chain and business relationships is very limited in Ukraine, which could mean that true costs of impacts on the people and the planet are not being taken into account.

Strengthen and centralise due diligence framework. Ensuring oversight of RBC risk management at board and management levels is critical. In Ukraine, while there has been progress in embedding RBC policies, most companies still consider RBC risks in a decentralised, *ad hoc*, or non-existent basis. To promote their effectiveness, companies may benefit from establishing relevant units and allocating sufficient resources, and ensuring oversight of activities at board or management levels.

Improve mechanisms for identifying and mitigating risks. Some energy companies that have adopted RBC policies and embedded due diligence frameworks have also introduced risk identification and mitigation mechanisms using performance indicators. Certain tools (such as the EIA) and stakeholder engagement have helped them in identifying and mitigating risks. Identification and prioritisation mechanisms, however, are often not in place, and adverse impacts are mitigated through emergency response plans, which poses risks regarding their continuation and re-emergence. In parallel, companies should also develop, or, where they exist, improve internal mechanisms for risk mitigation. This includes strengthening internal controls and management systems, carrying out external audits and inspections, and ensuring engagement with key stakeholders (including impacted communities, civil society organisations and authorities) throughout the process.

Strengthen mechanisms for monitoring and communicating their results regarding how RBC risks are mitigated and addressed. Despite efforts to improve monitoring and evaluation, companies often face challenges in information gathering and data collection on RBC issues, which prevents their ability to outline and mitigate adverse impacts. Energy companies are encouraged to rigorously monitor and evaluate their activities, which is useful for identifying lessons learned, improving due diligence

mechanisms and facilitating remediation when appropriate. While some key practitioners have started communicating information regarding their non-financial activities and responses to adverse impacts, most companies (including both state-owned and private companies) should work more towards improving information disclosure.

Improve grievance mechanisms. Large energy companies have often relied on in-house systems and engagement with relevant counterparts. These practices, however, are less formal in smaller energy companies and should be further strengthened and standardised on a broader scale. Along with remediating, companies should actively seek to assess the level of satisfaction of those who have raised complaints regarding the process and outcomes. Energy companies may also consider referring to the National Contact Point as a non-judicial grievance mechanism, while continuing collaboration with the civil society to improve remediation process.

Annex A. List of key energy companies in Ukraine

Key players	Sector/activity	Description and summary of main functions	Ownership
Naftogaz	Oil & gas	• Engaged in operations, including oil and natural gas exploration, processing and refinement. Some of its key subsidiaries include Ukrgasvydobuvannya (natural gas exploration) and Ukrnafta (oil and gas extraction, Naftogaz owns 50%+1 shares). Other subsidiaries include Ukrtransgaz (former gas transmission system operator, which has been unbundled) and Ukrtransnafta, responsible for transporting oil. • Out of 20.7 bcm natural gas produced in Ukraine, 14.9 bcm is produced by Ukrgasvydobuvannya and 1.2 bcm by Ukrnafta.	100% state-owned under the Cabinet of Ministers
Burisma Group	Oil & gas	• Holding company engaged in a full cycle of hydrocarbons supply chain, including exploration, production, processing, transportation and sale, with a 21% market share among private gas producers. The company produces roughly 1.3 bcm natural gas.	Private
Geo Alliance	Oil & gas	• Engaged in exploration, development and production of oil and natural gas, including 210 million cubic metres of natural gas, 39,000 tonnes of oil and condensate, and 19,600 tonnes of liquefied petroleum gas.	Private
DTEK Group	Gas, coal, electricity, thermal, renewables	• Ukraine's largest vertically integrated company, engaged in hydrocarbons, electricity, heat and renewables supply chains, including production, sale and distribution.	Private company, under the ownership of System Capital Management
Smart Energy	Oil & gas	• Part of Smart Holding's oil and gas business, which is part of Enwell Energy, a British Public Company with assets in Ukraine. • Engaged in hydrocarbons and liquefied gas production, and natural gas supply • In January 2019, it produced 368.8 million cubic meters of natural gas in Ukraine.	Private
Gas transmission system operator (GTSOU)	Gas transmission	• Responsible for transmission of natural gas within Ukraine, as well as in EU and Moldova	100% owned by the Main Gas Pipelines of Ukraine, which is under the Ownership of the Ministry of Finance (to be transferred under the Ministry of Energy in 2021)
Ukrenergo	Electricity Transmission	• Responsible for electricity transmission and dispatch, and for operating balancing and ancillary services markets, it also acts as settlements and commercial metering administrator, and registers bilateral agreements. • Controls over 21,300 kilometres of trunk power grids.	100% state-owned under the Ministry of Finance (to be transferred under the Ministry of Energy in 2021)
Energoatom	Nuclear (electricity production)	• Operates four nuclear power plants consisting of fifteen units, and produces over half of Ukraine's electricity.	100% state-owned under the CMU (transferred

			from the Ministry of Energy in 2021)
Ukrhydroenergo	Hydro (electricity production)	• Hydropower company operating 10 plants across Dniester and Dnipro rivers, generating roughly 8% of electricity in Ukraine.	100% state-owned under the CMU (transferred from the Ministry of Energy in 2021)
Centrenergo	Coal (electricity production)	• Producers thermal energy and generates approx. 4-8% of electricity in Ukraine. Operates 18 coal-fired and 5 oil and gas units. • The company has been earmarked for privatisation.	78% state-owned
Coal companies	Coal	• Ukraine has approximately 41.5 billion tonnes of coal reserves, with largest deposits in Donetsk and Luhansk regions (32% and 35% of total reserves, respectively). Other key regions include Lviv, Kharkiv and Dnipropetrovsk. In 2019, Ukraine produced 31.2 million tonnes of coal, of which SOEs produced 3.5 million tonnes. • Ukraine has 148 coal mines of all forms of ownership, including 102 mines under the Ministry of Energy (67 mines in non-government controlled areas). Only two mines (Nadia and Krasnolymanska) generate profit, nine entities (with 30 mines) are non-profitable and three are being liquidated. State-owned coal mines include Myrnohradvuhillia, Lvivvuhillia and Selydivvuhillia. • DTEK Group is the largest owner of coal mines, including Pavlohradvuhillia PJSC and DTEK Dobropilliavuhillia, among others.	Out of 148 coal mines, 102 are state-owned, mostly under ownership of the Ministry of Energy. Private coal mines are mainly operated by DTEK.
Gas supply and distribution companies (oblgazes)	Utilities (gas distribution)	• Regional distribution companies responsible for delivering natural gas to consumers. Previously owned by Naftogaz, oblgazes were privatised in 2012, and a majority of regional gas supply companies are controlled by a number of players, including RGC.	State and private ownership
Electricity supply and distribution companies (oblenergos)	Utilities (electricity distribution)	• Previously established as oblenergos (supply and distribution companies), though the functions have been unbundled. Currently, there are 32 distribution system operators (DSOs) (one for each of the 24 oblasts and additional ones, as needed) responsible for dispatching electricity to consumers, and over 500 electricity suppliers, responsible for selling electricity to consumers. One of the key electricity suppliers is SK Monolit LLC, which is part of "Ocean Group of Companies", which is a mobile operator.	State and private ownership
District heating companies	Utilities (heat distribution)	• There are over 1,000 heat supply companies in Ukraine, with 3,500 km transmission and 20,800 km distribution, and 12,400 km industrial networks. Natural gas is the main fuel used for heat production, though biomass and coal are also used.	State and municipally-owned

Source: Author's compilation, based on sources, including (OECD, 2019[2]; IEA, 2020[1]; USAID/DiXi Group, n.d.[8])

Annex B. Survey questions

	Policies
1	Does your company have an ESG due diligence policy for its operations and business relationships, and, if so, how far does due diligence go into the supply chain?
2	Does your policy commit to international standards, norms or frameworks? (e.g.: OECD Guidelines for MNEs and Due Diligence Guidance, IFC performance standards)?
	Management systems/resources
3	How is the ESG policy (if available) applied across various work streams, operations and business relationships in which your company is engaged? Is there a mechanism for prioritising risks?
4	Are there different ESG policies applicable for different business functions, operations, branches or subsidiaries?
5	Is ESG policy integration and risk management across work streams (including operations and business relationships) and subsidiaries encouraged by the company leadership? Are there any other incentives to integrate them?
6	How large is your ESG risk management team? Where is it located in the company structure? How is the team organised/structured, and does it include representatives from other departments? Are you planning to grow the team or resources?
	Identification
7	How do you identify ESG issues across various work streams (including subsidiaries, work streams, production processes, etc.) and to what level of detail (corporate governance, specific risk areas, etc.)?
8	How are the stakeholders (including impacted communities, employees, government bodies, etc.) consulted? Specifically, at what point in the project are the stakeholders consulted, the frequency of identifying risks, the team responsible for carrying this out, engagement with external stakeholders?
9	What are the general areas of ESG risks the company and its subsidiaries are exposed to?
	Prevention and mitigation
10	Where ESG impacts/risks are identified, how do you normally respond to them?
11	Does the company work with stakeholders (including government officials, civil society, local communities) to promote ESG practices on a national level (such as lobbying for legislative changes)?
	Tracking
12	Does the company (including subsidiaries, if applicable) engage in ESG performance monitoring?
13	Are energy audits performed? If so, how are these audits conducted?
	Communication
14	What are the current ESG-related reporting requirements?
15	Do you issue sustainability or non-financial reports? If so, how frequently? Are these publicly available? If yes, where can they be accessed?
16	Do you report on due diligence policies, processes, or activities conducted to identify and address actual/potential adverse impacts? Is the information publicly available?
	Remediation
17	When adverse ESG impacts are identified, what are the steps the company takes to address them through remediation?
18	Does the company have its own grievance mechanisms where stakeholders or others can bring complains and concerns? Does it engage in other remediation mechanisms?
	Trends/context
19	Are there any governmental regulations that encourage ESG policy integration and risk management through operations and across business relationships?
20	How has your integration of ESG risk management evolved/changed over the last 10 years (including for work streams, operations, business relationships, etc.)?
21	What are the biggest drivers, challenges and opportunities you see for integrating ESG due diligence in the energy sector?
	Other feedback/remarks
22	Is there anything else you could/wish to share with us that would help us understand how ESG issues are managed in the energy sector in Ukraine?

Annex C. RBC risks in Ukraine's energy sector

The following sections provide supplementary information regarding RBC risks faced by Ukrainian energy companies, including those surveyed and on a broader level. While specific challenges vary depending on their operations and activities, risks are generally affiliated with environmental, social and governance challenges.

C.1. Environmental challenges

Ukraine has a well-developed energy supply chain and companies operate across sectors, including hydrocarbons, nuclear, and renewables.[1] However, their activities can carry adverse impacts on land, water and biodiversity, which vary depending on their operations. One aspect of these risks is related to the use of heavy chemicals, pollutants and hazardous material in their operations. For example, discharges and waste from nuclear plants and cooling ponds may contaminate local water resources and soil conditions. Along with hazardous discharge, the construction and operation of hydro power plants may negatively impact water resources, biodiversity and local communities, while additional efforts are required to ensure the sustainability of reservoirs.

Harms to biodiversity are an additional risk faced by companies operating in the extractives sector. According to an assessment carried out by Naftogaz, 38% of the area where its subsidiary responsible for natural gas extraction operates is occupied by a high number of species, and 61.4% of the area (including arable land) may be vulnerable to potentially negative environmental impacts. Additional challenges may be caused by improper handling of compressor pipes, uncontrolled discharge and pollution of groundwater and rocks. Ukraine has continued to face significant environmental risks through the operation of coal mines, including challenges due to water pollution and wastewater treatment, and high level of emissions due to the burning of waste heaps.

Air pollution is also a significant issue in Ukraine, with almost a third caused by energy generation involving fossil fuels (SSSU, 2019[83]). Ukraine ranks within the top three polluting countries across all types of air pollution in Europe, and the country is responsible for emitting 72% of ash dust, 27% of sulphur dioxide and 16% nitrogen oxide on the continent. Eight coal power generation plants in the country, some of which are affiliated with vested interests, are responsible for majority of PM10 pollution (Economic Truth, 2021[84]) (Alparslan, 2021[85]) (CREA, 2020[86]). According to the WHO, Ukraine witnessed 2,538 disability-adjusted life years lost annually per 100,000 individuals due to ambient air pollution in 2016, which was the highest in Europe (Pehchevski, 2020[87]). In addition to operations and activities in the extractives sector, pollutants may also be released due to a lack of infrastructural upgrades, corrosion of pipelines, damage to equipment and illegal taps. Along with facing difficulties in addressing pollution-related challenges, there have been issues with data collection and reporting, including the accuracy of measuring air quality (Pehchevski, 2020[87]).

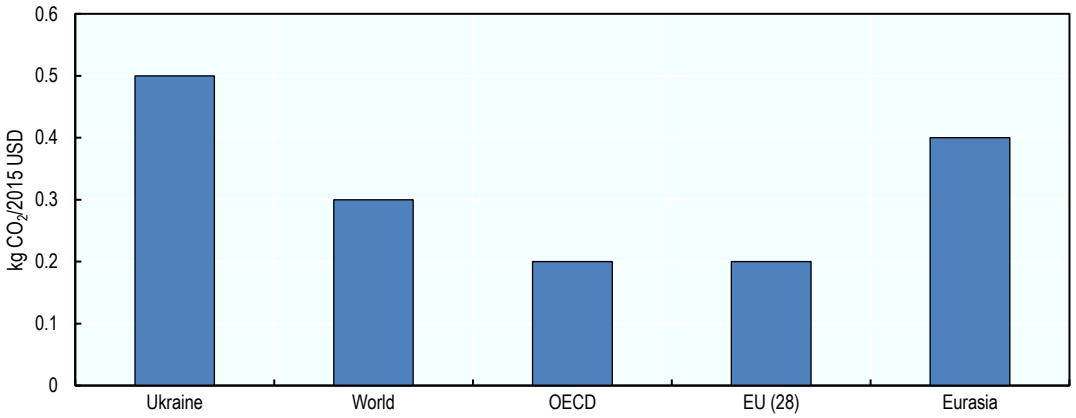
C.2. Emissions and energy intensity levels

Energy companies may experience RBC risks due to inefficiency in resource use and operations (OECD, 2011[19]). While excess emissions have a negative impact on climate change, high levels of energy intensity

may lead to over-consumption of resources and supply chain disruptions. Insecurity of energy supply may contribute to higher energy costs, which are often compensated by subsidies and result in financial losses to the state (OECD, 2007[88]).

While Ukraine's GHG emissions have sharply declined since the 1990s, emission levels have been falling more gradually, reaching 341 $MtCO_2e$ in 2018 (amounting to one-third of the country's GHG emissions in 1990 and 39% lower than in 1995). Its GHG reductions have continued in periods of economic growth and contraction, and the country is currently less GHG intensive than before its independence. While emitting 4.6 $kgCO_2e$ per USD (in constant 2010 dollars) in 1990, it generated only 2.6 $kgCO_2e$ per USD for the same economic output in 2018 (OECD, 2021[57]). However, among Eastern Partnership countries, Ukraine accounts for most of the region's greenhouse gas (GHG) emissions, which are almost double those of other five countries combined. In addition, despite a fall in its total CO_2 emission levels since the 1990s, they remain higher in Ukraine compared to the OECD and EU average per unit of GDP (PPP) (Figure 4).

Figure 4. CO_2 emissions per unit of GDP (PPP) (2018)



Source: Author's compilation, based on IEA data (IEA, 2020[3]).

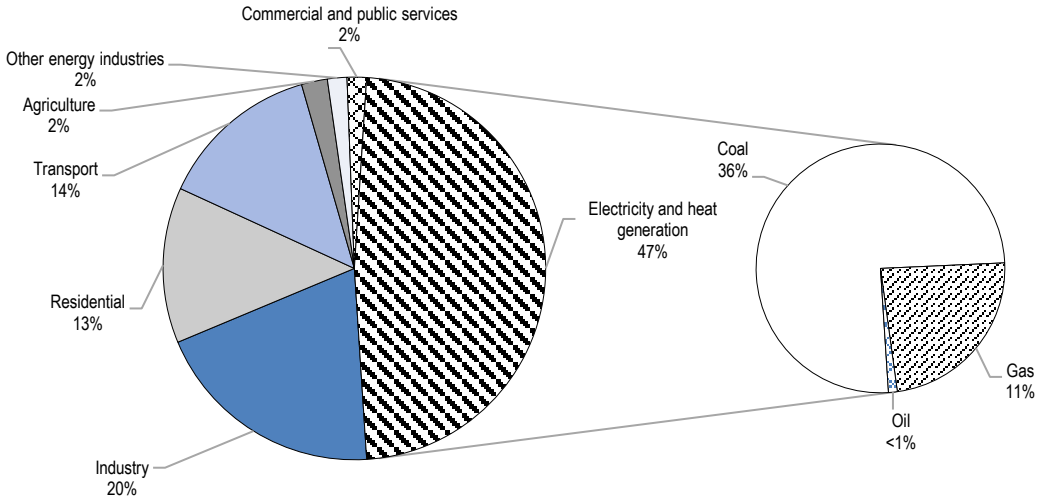
In addition, high levels of emissions and energy intensity have had a negative impact on climate change, which has started to become evident in Ukraine. In particular, average annual temperature in the country has increased by 0.4°C per year between 1970 and 2012, while its average precipitation declined only slightly. Based on the climate models, average annual temperature in the country could increase by a further 1.5-2°C between 2010-2017, with changing patterns in precipitation. This may have broader impacts on the yield of winter wheat (a key crop for export and domestic consumption), which could fall by 6-11% by 2027. Moreover, increasing temperatures, incidence and intensity of drought, and further changes in weather patterns could have negative consequences on Ukraine's economy. These include the risks of overflow from basins and intensity of forest fires, as well as higher mortality from cardiovascular and pulmonary diseases linked to higher temperatures and poor air quality (OECD, 2021[57]).

To address these challenges, a recently adopted National Economic Strategy until 2030 highlights the need to improve public policy in the field of environmental management and protection, adaptation to climate change and the transition to the principles of green economy. In addition, companies have started to invest in energy efficiency measures and de-carbonisation, while adopting efforts to mitigate climate-related risks.

However, efforts to mitigate some of these risks in Ukraine have been difficult, partly because it has continued to experience high levels of energy intensity and inefficiency in fossil fuel use (in part due to heavy energy subsidies) (OECD, 2018[89]) (IEA, 2020[3]). Though decline in GHG emissions since the

1990s in absolute terms has been steepest in the energy sector, energy-related emissions (including from fuel combustion and transport) still account for 66% of the country's total GHG emissions. Energy industries are directly responsible for 45% of energy-related emissions, while fugitive emissions and transport account for most of the remainder (OECD, 2021[57]). In addition, Ukraine's CO_2 emissions are largely driven by coal (54%), followed by natural gas (31%) and oil (15%), which are reflected in companies operating in these sectors (IEA, 2020[3]). In 2019, Naftogaz and DTEK's emissions amounted to 7.4 million tonnes and 35.4 million tonnes in CO_2 equivalent, respectively (Naftogaz, 2020[30]; DTEK, 2018[36]). Electricity and heat generation plants also have high levels of CO_2 emissions, as they mainly use coal and gas during transformation processes (Figure 5) (IEA, 2020[3]). Ukraine also loses on average 14% of produced electricity and heat, which is higher compared to the rates in the OECD countries (IEA, 2020[3]). However, losses may vary depending on the region, with some reporting up to 40% losses in the heat sector.

Figure 5. CO_2 emissions in Ukraine's total final consumption by sector (2018)



Source: Author's compilation, based on IEA data (IEA, 2020[3]).

In addition, most energy companies currently lack the means and resources to introduce relevant upgrades. This is particularly the case for the district heating network, which consists of over 1,000 heat supply companies and centralised units that provide heating to 5.5 million households. According to certain estimates, USD 6-10 billion is needed to modernise the district heating network, which could potentially save 4.1 billion cubic metres of natural gas annually. Roughly 40% of the boilers need to be replaced and EUR 1.9 billion is necessary to upgrade 9,400 kilometres of pipelines (KT-Energy LLC, 2020[90]) (KeepWarm, n.d.[91]). Though the share of buildings with heat meters have increased from 40% to 94% between 2014-2018, most have only one building-level heat metering installed without monitoring for individual households. In recent years, efforts to promote energy efficiency measures in district heating companies have been supported by partners, including NEFCO, IFC, EU, EIB and USAID.

Moreover, there may be limited incentives and opportunities to promote upgrades due to heavy regulation and subsidies within the energy sector (Box 9). In particular, maintaining tariffs at below market levels has rendered it challenging for energy companies to generate sufficient revenues and has contributed to significant debts on the market, amounting to over UAH 30 billion in the electricity sector alone. Further challenges related to over-regulation of the energy and SOE sectors, contradictory legal and regulatory provisions, and the presence of vested interests have often led to financial and operational inefficiencies (particularly in the coal sector), which have been reflected on resource use and consumption (OECD, 2019[2]).

Box 9. Public service obligations (PSOs)

Along with price controls and subsidy schemes, the Ukrainian government may impose public service obligations (PSOs) to lower the cost of utilities for certain segments of the population (mainly households). PSOs have been applied to state-owned companies across highly regulated sectors, including natural gas, heat and electricity, which requires them to sell energy at below market levels. Despite introducing market-based pricing in 2015, Naftogaz continued supplying natural gas to households at below market levels. While the PSO for the households expired in August 2020, regulated pricing remains in place for natural gas sold to heating companies. Similarly, despite the launch of a new electricity market in 2019, Energoatom and Ukrhydroenergo were subject to heavy regulations to maintain electricity prices low for regulated consumers. Notably, the former was selling 90% of its electricity and the latter 35% of electricity at below cost recovery levels, though the rates were later adjusted. Further changes were witnessed in April 2021, based on which Energoatom and Ukrhydroenergo would conclude bilateral agreements directly with suppliers to sell electricity to households at subsidised prices, and the development of a new PSO model is underway. Along with contributing to market inefficiencies and a lack of level playing field between private and state-owned companies, PSOs and other subsidies have often resulted in energy over-consumption, while reducing both financial resources and incentives to promote efficiency measures.

Source: (OECD, 2019[2]) (OECD, 2019[7]) (Interfax, 2020[92]) (OECD, 2020[17]) (CMU, 2019[93]).

One of the key measures for promoting energy efficiency measures in Ukraine has been through investments in renewables, which have increased exponentially since 2010, partly due to the generous feed-in tariff. According to the Ministry of Energy, the country has installed over 8,700 MW renewable power generating facilities (excluding large hydro) as of April 2021, majority of which are solar (79.9%) and wind (16.3%) (Ministry of Energy, 2021[9]). Along with established players that have increased investments in the renewables sector, new companies and international investors from Norway, China, UK, France and Canada, among others, have emerged. However, considering the challenges faced by the government in meeting financial commitments under its feed-in tariff programme, the development of renewable industry in Ukraine faces significant challenges, as further outlined in Box 10.

Box 10. Challenges in Ukraine's renewables sector

As part of promoting energy efficiency and security, and attracting investments, Ukraine has sought to increase the share of renewables in its total energy supply. As such, the country introduced a feed-in ("green") tariff for renewable energy producers, though rates have varied based on the equipment (including premiums for Ukrainian equipment usage) and energy source (see tariffs table below). The green tariff is compensated by the state-owned Guaranteed Buyer and Ukrenergo, as the latter's mandate includes increasing the share of renewables in the electricity grid. In addition, while the PSO mechanism imposed on companies, including Energoatom and Ukrhydroenergo, has lowered their wholesale price of electricity, surplus fees paid by end-users have been used to partly cover the costs of the Guaranteed Buyer in compensating the green tariff.

Feed-in Tariffs in Ukraine (tariffs are fixed in euro cent per kWh until 2030)

	Technology	2021	2022	2023-2024	2025-2029
Producer	Wind > 2MW	8.82			7.72
	Solar PV (ground) > 1MW	4.35	4.20	4.05	3.9
	Solar PV (ground) <1MW	10.61	10.24	9.87	9.51
	Biomass & Biogas	12.39			
	Geothermal	13.52			12.01

	Small Hydro, 0.2-1MW	12.55			11.15
Prosumer	Solar PV	16.27			14.48
	Wind	10.45			9.32
	Combined Solar PV & Wind	12.28			10.67

Considering the high feed-in tariff rates, Ukraine has generated EUR 49 billion in foreign direct investments since 1991 and has witnessed an increase in renewable generation, surpassing 8% of total electricity production in recent years. However, high tariffs have also led to difficulties in settling payments, with the Guaranteed Buyer owing over USD 780 million to the green energy producers. Moreover, due to Covid-19-induced economic and budgetary challenges, the government temporarily stopped paying renewable energy producers and proposed tariff cuts (15% reduction for solar and 7.5% reduction for wind facilities), which was finalised through a Memorandum of Understanding with renewable producers in mid-2020.

Within the framework of the Memorandum, the Ukrainian government sought to avoid introducing further reductions in feed-in tariffs or other measures that would stall renewable projects. Authorities have tried restructuring the existing debts through state-owned banks and have sought to ensure timely and full payments by the Guaranteed Buyer, while organising green auctions for renewable energy projects. The Memorandum set clear deadlines for repayment, 40% of which would be payable by the end of 2020 and the remaining in 2021. These terms were also formalised through the parliament in July 2020. Despite these steps, the authorities faced challenges in meeting the requirements under the Memorandum. By end-2020, payments of the Guaranteed Buyer to renewable energy producers had fallen behind schedule and the anticipated repayment target was not met.

Considering these setbacks, optimism among investors following the signing of the Memorandum and passing of the legislation has subsided, and investors have sought settlement through arbitration. Notably, a number of lawsuits have been filed against the Guaranteed Buyer, with total volume of claims reaching UAH 1.1 billion. Authorities have sought to offset some of these challenges by increasing electricity tariffs for consumers and providing state guarantees for Ukrenergo to attract loans from state-owned banks, but the measures have done little to resolve the existing challenges. The Ministry of Energy also announced the possibility of issuing state bonds to generate funding for the Guaranteed Buyer and plans to finance renewable energy through increasing CO_2 emission tax. However, these policy options have remained ambiguous and chances for their implementation have remained low, while the country faces the risk of multi-million dollar settlements if potential arbitration proceedings materialise. More broadly, in order to ensure sustainable growth of renewables, Ukraine will need to continue implementing broader changes, including efforts to create a level playing field for their development and reforming fossil fuel subsidies.

Source: (OECD, 2019[2]) (Datskevych, 2020[94]) (Guaranteed Buyer, 2020[95]) (Bondarchuk, 2021[96]) (OECD, 2020[17]) (OECD, 2018[89])

C.3. Human and labour rights, and industrial relations

Ukraine has broadly defined human and labour rights in its constitution, which has been used in developing relevant laws and regulations, and has ratified major instruments on human rights and ILO standards. Its main basis for employer-employee relationship is the 1971 Labour Code (as amended), along with decrees and orders from the state labour service. It has also adopted laws on labour protection, compulsory social insurance and healthcare, and trade unions, as well as operating in high-risk facilities and promoting sanitary well-being (OECD, 2016[20]; ILO, 2018[97]). Some of the main companies in the energy sector have already started taking steps towards implementing these regulations in their operations. However, health and occupational safety continues to be an issue in certain energy sub-sectors, while broader human rights challenges in Ukraine pose additional risks throughout the operations and supply chains of energy practitioners (Box 11).

Box 11. Overview of human rights in Ukraine

Over the years, Ukraine has ratified major international instruments on human rights, consisting of the Universal Declaration of Human Rights and ILO standards. It has also created an office for Ukrainian Parliament Commissioner for Human Rights to ensure the observance of human rights and freedoms, while providing citizens with an opportunity to appeal in case of infringements. In 2015, the country adopted its first national strategy on human rights, calling upon stakeholders (including parliamentary representatives, civil society and international organisations) to ensure implementation. The strategy set goals across twenty-four areas, focusing on preventing ill-treatment and torture, ensuring equal rights for women, combatting violence and trafficking, raising awareness, and safeguarding rights of internally displaced persons. In March 2021, Ukraine introduced a new National Human Rights Strategy with a section on business and human rights.

While these developments have presented positive steps, Ukraine has continued to experience human rights challenges. Although the constitution guarantees freedom of speech and expression, journalists and civil society activists continue facing threats, intimidation and violence. In addition, women, LGBT+ and minorities are often victims of discrimination and violence, and protections are inconsistently enforced. Events, including rallies and marches have been cancelled due to threats, while law enforcement has avoided intervention in a number of occasions to protect women, LGBT+ and minorities, and has faced impunity. Moreover, human rights conditions have continued to deteriorate due to the situation in Crimea and the Donbass, as the regions have remained beyond the reach of civil society and humanitarian actors. Numerous rights, including freedom of expression, assembly and association remain restricted in the non-government controlled areas. Outspoken critics and minorities (including members of the Crimean Tatar community) have been subject to intimidation, harassment and politically-motivated arrests, and the fate of those disappeared in the region often remains unknown. Further challenges are faced by internally displaced persons, who are vulnerable forced labour and exploitation.

Source: (OECD, 2016[20]; UNDP, 2020[98]; Freedom House, 2020[99]; Human Rights Watch, 2019[100]; Schlein, 2020[101]; Amnesty International, 2019[102])

Some of the key challenges facing Ukrainian energy companies include those affiliated with health and safety. Employees working in facilities, including power plants, waste processing, storage sites and fabrication facilities often engaged in hazardous processes, as they work with harsh chemicals, pressurized fluids and hot steam. Workers may face dangers due to possible exposure to toxic chemicals and other industrial accidents, including slips, falls, and mechanical hazards. In addition, certain sectors remain more prone to health and safety risks compared to others. Notably, companies operating in the extractives in Ukraine have witness higher accident rates compared to other energy sub-sectors. In mitigating some of these risks, energy companies have continued assessments to ensure operational safety and have adopted relevant standards, while carrying out health checks and holding drills, briefings and awareness raising campaigns. In some cases, particularly in the nuclear sector, further efforts are needed to minimise risks, including following the guidelines and standards under the IAEA.

However, significant occupational safety and health challenges remain in Ukraine's coal sector (particularly within state-controlled mines). The country's mining facilities are aging, as 40% of the mines had been operational for 70 years and 96% had not been reconstructed in more than 20 years. A large number of mines also operate under difficult geological conditions. Out of 7,000 units of equipment, two-thirds have been depreciated. In 2017, 18.1% of work accidents and 6.3% of fatalities in Ukraine occurred in coal mining. The miners have witnessed high levels of accidents and injuries, including high levels of work accidents and fatalities resulting from gas explosions, electric shocks and flame discharge. A number of coal companies also fail to meet relevant sanitary and hygienic standards, while experiencing excessive dust, noise, vibration, and exposure to harmful chemicals. Paired with high level of injuries and accidents, occupational hazards have often led to health-related challenges, including respiratory, pulmonary and musculoskeletal diseases (ILO, 2018[58]). Moreover, the mining sector has also witnessed underfunding

and moratoriums on inspections, which have further undermined efforts to mitigate risks in mining companies (ILO, 2018[103]). Further challenges have involved non-payment of wages, as well as human and labour rights violations in non-government controlled areas, as elaborated in previous sections (Kazansky et al., 2017[60]; OHCHR, 2020[61]; Industriall Global Union, 2020[62]).

C.4. Community and stakeholder relations

Enterprises involved in the exploration and extraction of oil, gas and minerals have the potential to sustain livelihoods, foster local development and generate significant revenues in the areas in which they operate. Such enterprises often operate in remote areas and can be the first contact local communities have with the extractive sector, paving the way for future relations. However, energy company operations can have a significant social and environmental footprint and thus are often at risk of causing or contributing to adverse impacts, such as human rights infringements, economic set-backs and environmental degradation (OECD, 2017[104]).

The activities of enterprises involved in exploration and extraction of natural resources are carried out in the context of laws and regulations that give rights to and place obligations on the enterprises and other stakeholders. These regulations may prescribe that certain types of engagement are to take place, either by enterprises or by the government. Regardless of the requirements in law, meaningful stakeholder engagement is critical to avoiding some of the potential adverse impacts of extractive operations as well as optimising potential contributions. Engaging with stakeholders also makes good business sense in that it can contribute to:

- attaining and retaining a “social licence to operate” facilitating current and potential future operations and expansions
- early identification of risks of adverse impacts either at the site of extractive operations or along in-country supply chains
- avoiding reputational risks for the enterprise and costs through identifying emerging community issues at an early stage and dealing with them proactively rather than reactively
- reducing time in obtaining approvals and negotiating agreements
- avoiding the costs of conflict arising from lost productivity due to temporary shutdowns and senior personnel time being diverted to manage grievances
- improving corporate risk profile used by investors and, potentially, the ability to secure access to capital on more favourable terms
- attracting and retaining employees, particularly in the context of recurring skills shortages.

Companies can engage in meaningful stakeholder engagement that is two-way, conducted in good faith, responsive and on-going. Stakeholder engagement is also an expectation of responsible business conduct, and an effective way for identifying and avoiding potential adverse impacts of company operations in the energy sector. Stakeholders include any persons or groups that can be directly or indirectly affected by a project or activity, including local communities, workers, farmers, host governments, and the civil society. Additional interested parties may involve NGOs, peers, business partners, and the media (OECD, 2017[104]).

In recent years, Ukraine’s energy companies have taken steps to improve relations with stakeholders and communities to mitigate adverse impacts and to engage in joint projects. Key stakeholders identified by some of the main Ukrainian energy companies are outlined in Table 4.

Table 4. Overview of stakeholders with which key energy companies engage

	Naftogaz	Ukrenergo	Energoatom	Ukrhydroenergo	DTEK
Shareholders and investors	✓	✓	✓	✓	✓
Employees	✓	✓	✓	✓	✓
Trade unions	✓	(✓)	(✓)	(✓)	✓
Central state authorities	✓	✓	✓	✓	✓
Regulatory bodies	✓	✓	✓	✓	✓
Local governments	✓	✓	✓	✓	✓
Local communities	✓	✓	✓	✓	✓
Local businesses		✓			✓
Suppliers	✓	✓	(✓)	✓	✓
Consumers	✓	✓			✓
Contractors	✓	✓	✓	✓	✓
Market participants		✓			(✓)
Media	✓	✓	✓	✓	✓
Credit and financial institutions	✓	(✓)		(✓)	✓
International financial institutions	(✓)	✓	(✓)	✓	✓
International organisations and associations	(✓)	(✓)	✓	✓	✓
NGOs, CSR, and charity organisations	✓	✓	✓	✓	✓
Experts, scientific institutions and academia	✓	(✓)	✓	✓	✓
Other organisational partners	✓	✓		✓	✓
Other		Embassies, TSOs	General public	General public	General public

Note: (✓) – assumes engagement, if indicated in sources other than stakeholder interaction policies and non-financial reports. It is worth noting that the current table is not exhaustive, as other energy companies (including GTSOU) have also indicated their engagement with the aforementioned stakeholders. However, at the time of finalisation, their policies and non-financial reports (including based on GRI standards) were being developed.
Source: Author's compilation is based on the final non-financial reports and stakeholder interaction policies made publicly available for these companies (Naftogaz, 2020[30]; Energoatom, 2020[39]; Ukrhydroenergo, 2020[40]; DTEK, 2020[41]; Ukrenergo, 2020[42]; Naftogaz, n.d.[105])

C.5. Corruption

Ukrainian energy companies have continued witnessing significant challenges due to corruption, with billions of hryvnia in losses. National Anti-Corruption Bureau has investigated many practitioners and has uncovered schemes that negatively impact market players throughout the supply chain.[2] Frequent cases have included a system of kickbacks where prices of goods and services were inflated to bribe officials and politically connected individuals, bid-rigging and tender purchases of unsolicited or superfluous goods and services (OECD, 2020[17]). Certain policies have also been investigated, including the introduction of a coal-pricing formula that contributed to artificially inflating coal prices in Ukraine that benefitted vested interests (NABU, 2020[106]) (OECD, 2019[2]).

To mitigate corruption-related challenges, Ukraine has established anti-corruption institutions, [3] and has started to introduce relevant legal and regulatory requirements in both state-owned and private companies. Other laws outline expectations to develop codes of ethics to regulate issues, including conflicts of interest and ensure fair business conduct. Steps are also taken to improve transparency and disclosure in the energy sector. Notably, companies operating in the extractives sector are required to provide information to the Ministry of Energy within the EITI framework, focusing on company activities, audited reports, list of special permits regarding subsoil use, and products that are extracted, which are made publicly available. To comply with relevant requirements, key energy companies have started introducing relevant anti-corruption programmes and international standards, including the ISO standards on anti-bribery management systems, while conducting trainings, issuing certificates and carrying out surveys to assess

the level of corruption. However, as outlined in previous sections, their effectiveness is often unclear. In addition, state anti-corruption institutions often lack necessary resources, capacities and mandates to carry out their functions.[4]

C.6. Supply chain

In mitigating some of the aforesaid RBC-related risks, Ukrainian energy companies have often focused mainly on their operations. This, in part, may be attributed to the fact that certain activities have remained concentrated among individual players. For example, Naftogaz and its subsidiaries have been involved throughout the natural gas supply chain, though gas transmission has been recently unbundled. However, the energy supply chain in Ukraine is interdependent and involves multiple actors and processes throughout extraction, transportation, and handling, processing, trading and selling the end product for final consumption. In addition, the conversion of primary energy into outputs, such as heat and electricity, engages multiple entities (including thermal plants, conversion units and boilers), along with transmission and distribution networks. Moreover, considering the advancement of energy sector reforms, partial deregulation of gas and electricity markets, and the introduction of new players in certain sectors (particularly renewables), opportunities to further engage with multiple actors across sub-sectors have increased. Regardless of fragmented production processes in the supply chains, companies may not be insulated from risks of contributing to or being associated with adverse impacts occurring at various points of the supply chain, as outlined in Box 12.

Box 12. Supply chain risks in the mining sector

While energy companies have the potential to generate income and foster local development, they may also face risks throughout the supply chain. In particular, mining and extraction, trade, or handling, by their nature, have higher risks of adverse impacts, and, in conflict and high risk-areas, they may contribute to financing conflicts or exacerbating conditions of conflicts. Some of the key risks may be affiliated with the following:

- Serious abuses associated with extraction, transport or trade of minerals
- Direct or indirect support to non-state armed groups
- Public or private security forces
- Bribery and fraudulent misrepresentation of the origin of the minerals
- Money laundering
- Payment of taxes, fees and royalties due to governments

Companies are expected to take reasonable steps and carry out due diligence to identify, prevent, or mitigate any risks or adverse impacts associated with extraction and the relationships of suppliers operating in high-risk areas. In addition to the minerals sector, similar risks may be potentially translated throughout other sub-sectors of the energy supply chain.

Note: For more information, see OECD Annex II Risks: http://www.responsibleminerals initiative.org/minerals-due-diligence/issues/oecd-annex-ii-risks
Source: (OECD, 2016[107])

In addition, companies should also consider potential adverse impacts affiliated with energy transition. In particular, Business & Human Rights Resource Centre (BHRRC) has been monitoring human rights policies and RBC-related practices in companies that mine commodities, including cobalt, copper, lithium, manganese, nickel and zinc. These minerals are used for developing core components for renewables (such as solar panels) and their use is expected to increase dramatically in the comping years. Although nearly half of the 103 companies monitored have adopted human rights policies, 51 of these companies witnessed allegations of human rights abuses. The companies also faced additional challenges related to

negative environmental and community impacts, along with issues regarding labour rights, governance and transparency (BHRRC, 2021[108]).

Notes

[1] Some of the environmental risks outlined in this chapter are also referenced across annual reports of energy companies. For example, see: (Energoatom, 2019[52]) (Ukrhydroenergo, 2020[65]) (Naftogaz, 2020[30]) (DTEK, 2018[36]).

[2] For example, Centrenergo, a state-controlled thermal electricity producer, was accused of participating in a scheme that allowed it to artificially reduce market price of electricity by 20-50% and to purchase it from state-owned enterprises (including Energoatom). Afterwards, the company either re-sold the electricity on the market at a higher rate or supplied low-cost electricity to companies affiliated with vested interests. (Kossov, 2020[111]).

[3] Ukraine has established special entities that deal with corruption and public prosecution. In 2015, the country formed the National Anti-Corruption Bureau of Ukraine (NABU), which is responsible for investigating corruption-related crimes committed by Ukrainian officials. The same year, a Specialised Anti-Corruption Prosecutor's Office (SAPO) was established as an independent structural sub-division of public prosecution, which supervises NABU. Ukraine also created a High Anti-Corruption Court that is responsible for handling corruption-related cases. Other entities include the State Bureau of Investigation to combat and investigate crimes carried out by high-ranking officials, and a National Agency for the Prevention of Corruption to implement anti-corruption policy in the country (OECD, 2021[11]).

[4] For example, in October 2020, the Constitutional Court declared the powers of the National Agency for the Prevention of Corruption with regard to submitting e-declarations was unconstitutional. Due to the court's decision, the existing penalties were cancelled and over 100 corruption cases were closed, including those involving government officials that were being investigated by NABU. Although the law was reinstated, it was weaker compared to the previous legislation in place, while cases that were closed could not be re-opened based on the evidence that had already been gathered (OECD, 2021[11]).

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