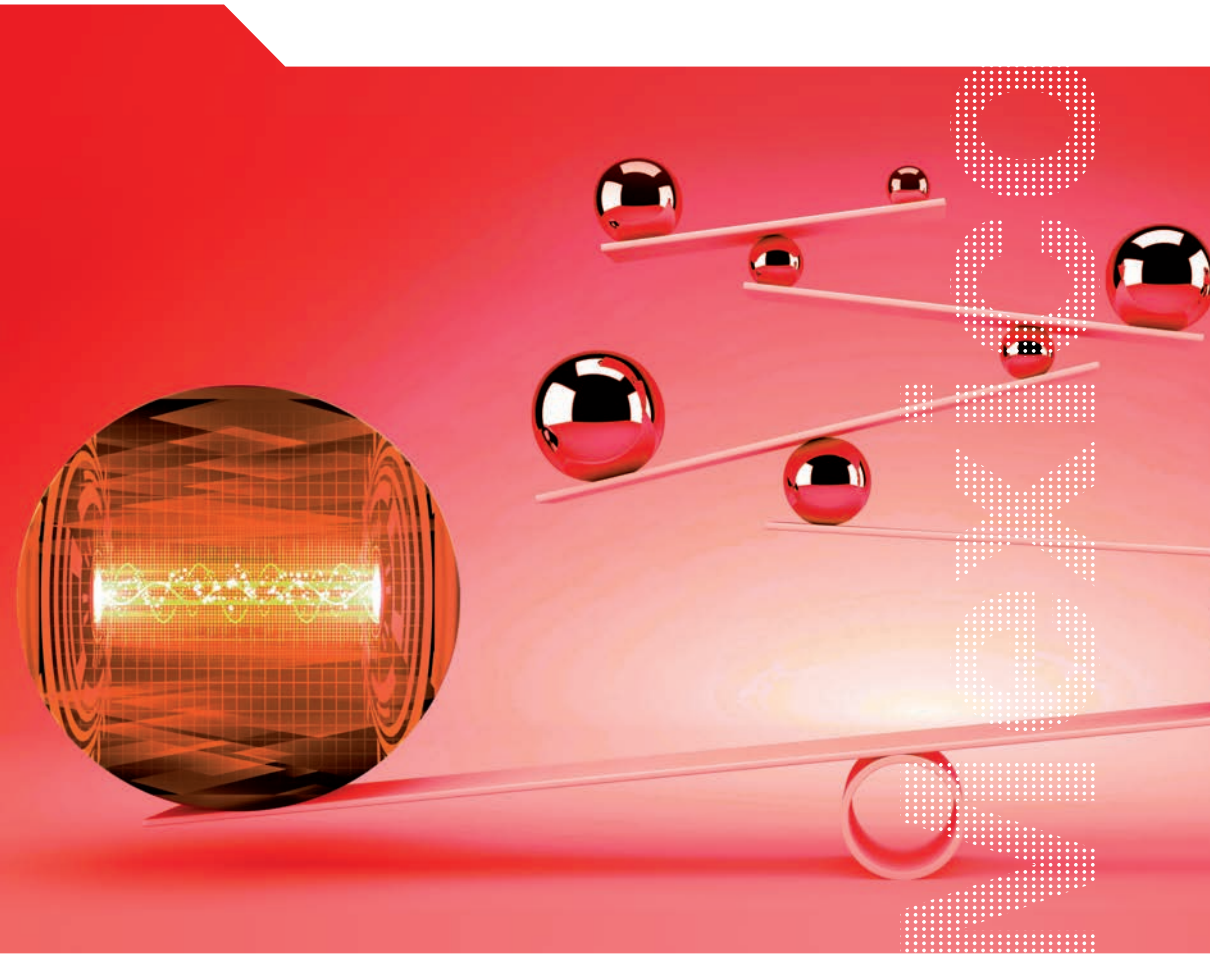




The Governance of Regulators

Driving Performance of Mexico's Energy Regulators



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Foreword

As “market referees”, regulators contribute to the delivery of essential public utilities. To be successful, regulators need to be constantly alert, informed by live data, checking sectoral trends and assessing the impact of their decisions. The performance of regulators is also largely determined by their internal governance – their organisational structures, behaviour, accountability, business processes, reporting and performance management – and external governance – roles, relationships and distribution of powers and responsibilities with other government and non-government stakeholders. To help regulators in their quest for better performance assessment, the OECD has developed an innovative framework that looks at the internal and external institutions, processes and practices that can enhance regulators’ performance.

This review is the first of a series that applies the OECD Performance Assessment Framework for Economic Regulators (PAFER) to the three key regulatory institutions overseeing Mexico’s energy sector: the Agency for Safety, Energy and Environment (ASEA), the National Hydrocarbons Commissions (CNH) and the Energy Regulatory Commission (CRE).

The review comes at a critical moment in Mexico’s implementation of a structural reform launched in 2013 that has opened up the energy sector and overhauled the role and functions of its regulatory institutions. This review looks at the overall regulatory governance of Mexico’s energy sector, assessing how the three regulators work with each other and with other stakeholders (external governance). It is complemented by reviews of the internal governance arrangements of the three regulators; together, these reviews present a comprehensive picture of the regulatory governance of Mexico’s energy sector.

The review offers insights into the progress and challenges of reform implementation. The reform has strengthened the regulatory framework of the energy sector, granting greater responsibility and autonomy to regulators. This is essential for the effective functioning of markets that are being opened to competition. Greater responsibilities and autonomy have also created new governance challenges. The review underlines the need for

transparency and clarity with regard to roles and responsibilities of regulators whose functions have been modified as a result of the reform. These new roles and responsibilities should be communicated to all stakeholders and implemented through working plans complete with targets, with the aim of minimising overlaps. The review also recommends more structured co-ordination mechanisms among the growing number of federal entities in the energy sector. Effective co-ordination will also need to be complemented by active accountability mechanisms between the regulators and their constituents, in particular with Congress.

The review stresses the need for additional flexibility in resource management, both financial and human, to allow the regulators to effectively fulfil their functions and carry out the reform. It recommends a greater alignment of regulatory quality processes employed by the agencies, and highlights the importance of developing performance assessment matrices that report on outputs and outcomes and include stakeholders.

This report is part of the OECD work programme on the governance of regulators and regulatory policy led by the OECD Network of Economic Regulators and the OECD Regulatory Policy Committee with the support of the Regulatory Policy Division of the OECD Public Governance and Territorial Development Directorate. The Directorate's mission is to help government at all levels design and implement strategic, evidence-based and innovative policies. The goal is to support countries in building better government systems and implementing policies at both national and regional level that lead to sustainable economic and social development.

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Table of contents

Acronyms and abbreviations	9
Executive summary	11
Assessment and recommendations	15
Chapter 1. Methodology and approach	37
Analytical framework	38
Performance indicators	41
Approach	42
References	44
Chapter 2. Sector context	45
Institutions	46
Institutional and regulatory reform of the energy sector	50
References	57
Chapter 3. External governance of the energy sector	59
Role and objectives	60
Input	69
Process	72
Output and outcome	79
Notes	83
References	84

Tables

1. Overview of ASEA, CNH and CRE status and functions following the 2013 reform	19
2. Overview of ASEA, CNH and CRE accountability and transparency measures	30
1.1. Criteria for assessing regulators' own performance framework	40
3.1. ASEA, CNH and CRE budget and funding sources, 2013-16	70

Figures

1. Overview of institutional arrangements in Mexico's energy sector: Pre- and post-reform	17
1.1. The OECD Best Practice Principles on the Governance of Regulators ..	40
1.2. Input-process-output-outcome framework for performance indicators...	41
2.1. Timeline of the implementation of the energy reform, 2013-19	54
2.2. Areas of influence and legal status of energy sector institutional actors, post-2013	56
3.1. Functions of the Agency for Safety, Energy and Environment (ASEA).	62
3.2. Functions of the National Hydrocarbons Commission (CNH)	63
3.3. Jurisdiction of the Energy Regulatory Commission (CRE) in the hydrocarbons and electricity sectors	65
3.4. Overview of institutional arrangements in Mexico's energy sector: Pre-and post reform.....	66
3.5. ASEA steps for developing new regulations including stakeholder engagement: one year.....	78

Acronyms and abbreviations

ASEA	Agency for Safety, Energy and Environment (<i>Agencia de Seguridad, Energía y Ambiente</i>)
CCSE	Co-ordination Council for the Energy Sector (<i>Consejo de coordinación del Sector Energético, CCSE</i>)
CENACE	National Center for the Control of Energy (<i>Centro Nacional de Control de Energía</i>)
CENAGAS	National Center for Energy Control (<i>Centro Nacional de Control de Energía</i>)
CFE	Federal Electricity Commission (<i>Comisión federal de Electricidad</i>)
CNH	National Hydrocarbons Commission (<i>Comisión Nacional de Hidrocarburos</i>)
CNIH	National Center for Hydrocarbon Information (<i>Centro Nacional de Información de Hidrocarburos</i>)
COFEMER	Federal Commission for Regulatory Improvement (<i>Comisión Federal de Mejora Regulatoria</i>)
CRE	Energy Regulatory Commission (<i>Comisión Reguladora de Energía</i>)
DFO	Official Gazette (<i>Diario Oficial de la Federación</i>)
FMP	Petroleum Fund for Stabilisation and Development of Mexico (<i>Fondo Mexicano del Petróleo para la Estabilización y Desarrollo</i>)
LFPA	Federal Law of Administrative Procedure (<i>Ley Federal de Procedimiento Administrativo</i>)
LORCME	Law of the Co-ordinated Energy Regulators (<i>Ley de los órganos reguladores coordinados en materia energética</i>)
OIC	Internal Audit Office (<i>Órgano Interno de Control</i>)
PEMEX	Petróleos Mexicanos

PROFECO	Federal Consumer Protection Agency (<i>Procuraduría Federal del Consumidor</i>)
RIA	Regulatory Impact Assessment
SE	Ministry of Economy (<i>Secretaría de Economía</i>)
SEMARNAT	Ministry of the Environment and Natural resources (<i>Secretaría de Medio Ambiente y Recursos Naturales</i>)
SEMS	Safety and Environmental Management Systems
SENER	Ministry of Energy (<i>Secretaría de Energía</i>)
SFP	Ministry of Public Administration (<i>Secretaría de Funcion Pública</i>)
SHCP	Ministry of Finance and Public Credit (<i>Secretaría de Hacienda y Crédito Público</i>)
STPS	Ministry of Labour and Social Affairs (<i>Secretaría de Trabajo y Previsión Social</i>)

Executive summary

The government of Mexico has undertaken a significant modernisation of the country's regulatory framework, including in the energy sector. The government's 2013 structural reform package opened the oil, gas and electricity sectors to competition and introduced modifications to the energy sector's institutional setup.

Sector regulators have successfully navigated the challenges linked to absorbing new functions and powers and interacting with a growing number of public and private sector stakeholders in the early phases of reform implementation. These ambitious changes call for co-ordination among the various agencies. As the implementation of the reform progresses, there is a clear and urgent need to make the new governance infrastructure more effective.

Role and objectives

The reform assigned new functions and powers to the two existing sector regulators, the National Hydrocarbons Commission (*Comisión Nacional de Hidrocarburos*, CNH) and the Energy Regulatory Commission (*Comisión Reguladora de Energía*, CRE) and created a new regulatory body, the Agency for Safety, Energy and Environment (*Agencia de Seguridad, Energía y Medio Ambiente*, ASEA).

The changes to the sector institutional framework have created an urgent and permanent need for enhanced co-ordination and role clarity. CRE and CNH are governed by two streamlined federal laws whereas ASEA operates in a more complex setting, referring to eleven federal laws. With the attachment of ASEA to the Ministry of Environment and Natural Resources (SEMARNAT), SEMARNAT holds more ample responsibilities linked to hydrocarbons than ever before, creating a need for new linkages with the Ministry of Energy that sets policy in the energy sector.

The Coordinated Regulatory Bodies Law (LORCME) of August 2014 addresses these needs by mandating the creation of a Co-ordinated Council for Energy Sector (*Consejo de coordinación del Sector Energético*, CCSE).

The Council was only established in September 2016, and will complement existing collaboration mechanisms, in particular the informal co-operation that has ensured effective implementation of the reform in its early stages.

Key recommendations

- Minimise overlaps by clarifying regulators' goals and priorities and disseminating them.
- Advocate for the operationalisation of the Co-ordinated Council for Energy Sector (CCSE) as the high-level co-ordination body for reform implementation, with transparent working plans and sub-committees, as well as powers to resolve disputes.
- Streamline ASEA's regulatory context by consolidating the different laws that govern its functions, and consider the alignment of its status with CRE and CNH.

Input

ASEA, CNH and CRE are currently funded by resources from the federal budget as well as their own income and are expected to reach financial autonomy by 2019. As a de-concentrated entity of SEMARNAT, ASEA is dependent of the Ministry for financial and administrative management. While CNH and CRE have relative autonomy over the implementation of their budgets, management of financial resources can be cumbersome and slow down operations for all three agencies. For example, access to resources from industry fees is not automatic and requires approval by other federal entities.

Acquiring and retaining qualified staff is a challenge for regulators competing for talent with private sector organisations. The headcount and job descriptions of the regulators are subject to approval by the Ministry of Public Administration (*Secretaría de la Función Pública*, SFP) and the Ministry of Finance and Public Credit (*Secretaría de Hacienda y Crédito Público*, SHCP) on a yearly basis and cannot be modified without a formal and lengthy amendment process. Wages are bound by the federal salary scale (*tabulador de sueldos*). The regulators have been implementing measures to overcome some of these challenges, such as finding flexibility within the *tabulador* or offering non-financial incentives to staff.

Key recommendations

- Consider a multi-annual budget settlement for the regulators.
- Set up contingency funds that can smooth volatility of industry income and fees perceived.
- Advocate for more autonomy for resource management, from re-allocating funds across activities to developing job profiles and introducing incentives to attract and retain staff.

Process

Several accountability, transparency or oversight mechanisms are in place to enhance the regulators' performance, governed either by federal provisions or agency-specific instruments. The regulators prepare annual reports and are accountable to Congress. These tools should be supported by more systematic engagement with the Energy Committees of the two chambers of Congress.

Regulatory oversight is also exercised by COFEMER who manages formal stakeholder consultations and to whom Regulatory Impact Assessments (RIA) must be submitted. The regulators also have in place their own early stage stakeholder consultation systems. Decisions can be appealed by industry, although following different mechanisms for the three regulators. Streamlining some of these practices and procedures could harmonise the regulatory governance of the sector.

Agency heads or the governing council are appointed by the President based on a selection proposed by SEMARNAT (ASEA) or the Senate based on a selection proposed by the President (CNH and CRE).

The ASEA Act and LORCME require that the regulators establish institutional Codes of Conduct to avoid conflict of interest with the regulated industry. The agencies are also governed by federal laws that include restrictions on post-employment activities (such as the Federal Law on the Liabilities of Public Officers).

Key recommendations

- Align regulatory processes of the regulators and enhance co-ordination with COFEMER to improve regulatory quality.
- Stimulate more regular and formal exchanges with Congress on sector and regulator performance as an integral part of the regulators' activities.

- Assess the effectiveness of the current appeal processes, as well as of the post-employment provisions included in federal law.
- Encourage the establishment of search committees or advertise senior management and board positions.

Output and outcome

Performance indicators help assess the performance of the regulator and help define priorities. The three regulators are in the process of developing systems for result-based monitoring including strategic objectives and measurable indicators. This effort should be supported through appropriate institutional incentives.

Key recommendations

- Conduct *ex post* evaluations of the agencies' regulatory activities.
- Align regulatory quality monitoring between ASEA, CNH and CRE and include stakeholders in assessing performance.
- Focus performance measurement efforts on output-outcome based goals without losing sight of the intermediate goals.
- Measure inspection outcomes with a view to developing a risk strategy.

Assessment and recommendations

The current government led by President Enrique Peña Nieto has undertaken a significant modernisation of the Mexican regulatory framework, including in the energy sector. Launched in 2013, the reform restructured the oil and gas industry and opened access to the country’s hydrocarbon resources to national and foreign, public and private entities, thus ending the monopoly of the state-owned oil company *Petróleos Mexicanos* (PEMEX), in order not only to increase investment and government revenue for the benefit of all Mexicans but also to lead on environmental issues by embedding clean energy targets in legislation. Equally important, the national energy system was further opened up to private competition in order to reduce electricity costs, facilitate the transition to renewable sources of energy and extend electricity coverage.

Corresponding significant modifications were made to the institutional framework with regard to sector regulation, namely to strengthen the role of the National Hydrocarbons Commission (*Comisión Nacional de Hidrocarburos*, CNH) as the “upstream regulator” and of the Energy Regulatory Commission (*Comisión Reguladora de Energía*, CRE) as the “midstream and downstream regulator” in the hydrocarbon and electric power sectors. The reform also created a new regulatory body: the Agency for Safety, Energy and Environment (*Agencia de Seguridad, Energía y Ambiente*, ASEA), responsible for ensuring safety and environmental protection throughout the hydrocarbons value-chain, as well as other de-concentrated entities to operate the market: the National Energy Control Centre (*Centro Nacional de Control de Energía*, CENACE) and the National Centre for Control of Natural Gas (*Centro Nacional de Control del Gas Natural*, CENAGAS).

The new regulatory framework in the energy sector has revolutionised the need for co-ordination among the various agencies in order to effectively regulate an important sector. Prior to the reforms undertaken in 2013, the Ministry of Energy (*Secretaría de Energía*, SENER) set sector policy and regulated activities principally with CRE and CNH. With the creation of ASEA, attached to the Ministry of Environment (*Secretaría de Medio Ambiente y Recursos Naturales*, SEMARNAT),

SEMARNAT now holds more ample responsibilities linked to hydrocarbons than before. Regulatory governance has also been strengthened with the transformation of CRE and CNH into ministry-level bodies, whereas previously they reported to SENER (see Figure 1).

ASEA, CRE, and CNH operate in a complex institutional landscape, but most co-operation takes place informally, with no operating overarching mechanisms to align their roles and initiatives. Creating synergies across these entities is essential to avoid duplications or overlaps to ensure quality and efficiency in regulatory management and timely implementation of measures. In addition, to align themselves, the regulators need to co-ordinate and stay abreast of activities and initiatives of other actors involved in the energy sector as a result of the reform. For example, given its multi-disciplinary functions and powers, ASEA also needs to reach out and collaborate with a variety of entities outside the energy sector, such as the Ministry of Labour and Social Affairs (*Secretaría de Trabajo y Previsión Social*, STPS), or, in the case of incidents at sea or on land, the Mexican Navy or the General Co-ordination of Civil Protection.

As the implementation of the 2013 reform progresses, there is a clear and urgent need to make the new governance infrastructure more effective. This will require an integrated effort to enhance institutions and processes that, *upstream*, strengthen role clarity, co-ordination and planning in a complex and entirely refashioned institutional context, and, *downstream*, instate accountability for the objectives and results that have been agreed. The creation of a more operational and effective co-ordination mechanism should build on well-defined work plans that chart actions, milestones and objectives over the medium-term, including a baseline of information. Accountability for results should be enhanced through greater engagement with institutions (Congress and Ministries) on accessible and assessable information. Finally, the effectiveness of the regulators in this complex set-up could be increased by granting them more flexibility in managing financial and human resources.

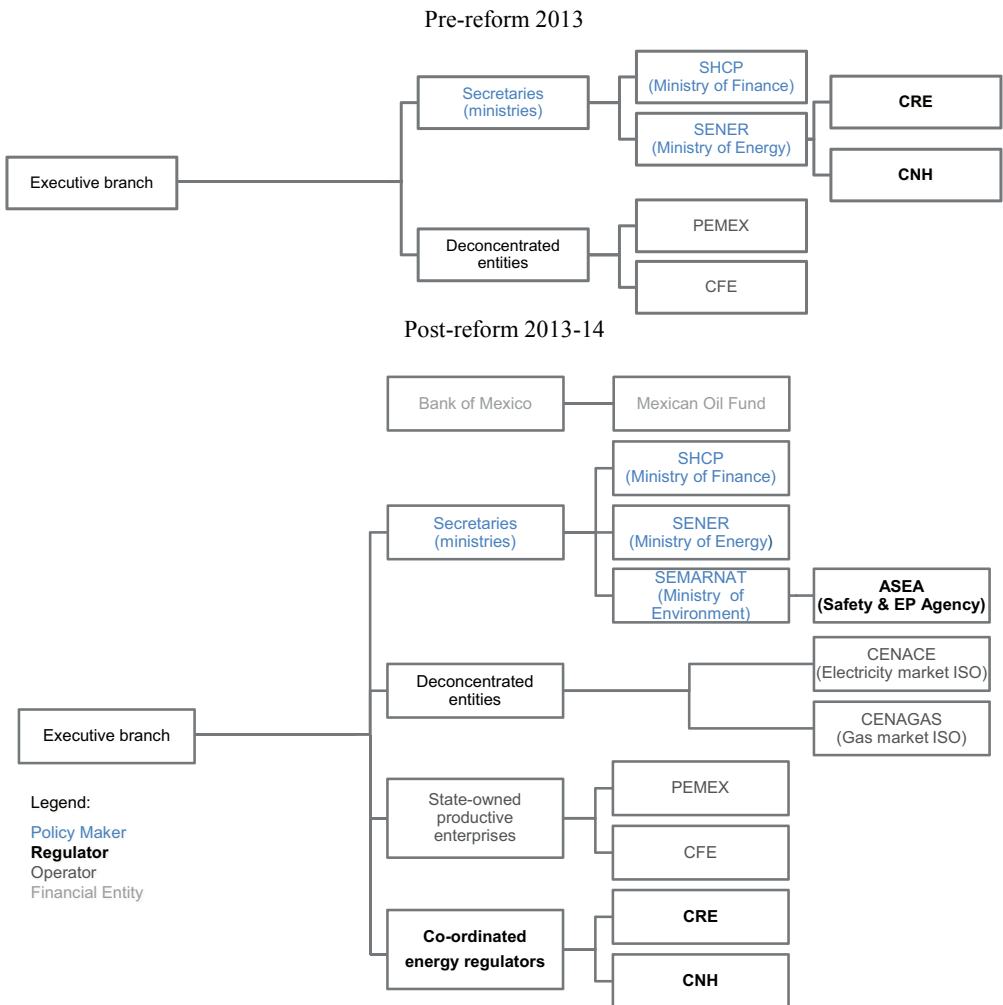
An initial assessment and proposed recommendations are included below for the external governance of:

- the roles and objectives of the three regulatory agencies
- their inputs
- processes
- outputs and outcomes.

Role and objectives

The reform of the energy sector’s institutional framework has created an urgent and permanent need for enhanced co-ordination and role clarity. The reform has substantially increased the number of federal institutions intervening in the energy sector, by reforming functions of existing entities and creating new ones, and has transformed relationships between them (see Figure 1).

Figure 1. Overview of institutional arrangements in Mexico’s energy sector: Pre- and post-reform



Source: Adapted from CRE.

CRE and CNH are governed by a streamlined series of federal laws.

The reinforced status of CNH and CRE as co-ordinated energy regulators is embodied in the constitutional reform of 2013, and reiterated in the Hydrocarbons Act (August 2014). This legislation stipulates that CRE and CNH are entitled to financial and managerial autonomy. In August 2014, the functions and operational set-ups of CRE and CNH were defined in the Law of the Co-ordinated Energy Regulators (*Ley de los órganos reguladores coordinados en materia energética*, LORCME). As per this legislation, the status of CRE and CNH is similar to that of a Ministry.

ASEA operates in a more complex legal setting. Its creation was put forth in a transitory article of the Hydrocarbons Act and its functions and operational set-up are governed by the ASEA Act of 2014. ASEA is endowed with technical and managerial autonomy but depends administratively of SEMARNAT. Due to the absorption by ASEA of functions from several federal institutions, overall, its functions are currently governed by 11 federal laws and 12 subordinate regulations (*reglamentos*). This results in a fragmented legal landscape with 52 different licensing or administrative procedures. As an effort to streamline this context, ASEA aims to consolidate these *reglamentos* into one, with a draft text to be finalised in 2018.

The 2013 reform has given more responsibilities to CRE and CNH.

CRE was first established in 1993 as a de-concentrated body¹ (*organismo desconcentrado*) of SENER. CRE's role and responsibility under SENER gradually grew from 1993 to 2013, from focusing on regulating the transportation, distribution, and storage of natural gas, as well as some aspects of the electricity sector, to including functions linked to hydrocarbons and petroleum products, the electricity market as well as the regulation of clean energy. Conversely, CNH was established in 2008 as a technical regulator responsible for regulating and supervising the exploration and extraction of hydrocarbons by PEMEX. Following the reform, it continues to focus on the upstream sector of the value chain and is responsible for administering the auctioning of access to hydrocarbon reserves, administering contracts and allocations, regulating and supervising activities undertaken by operators and assisting SENER in energy policy.

1. De-concentrated entities have technical independence but with differing degrees of administrative or financial autonomy from line ministries. They have generally been created either through laws or decrees with a sector-specific mandates. As specialised entities of the federal government their jurisdiction applies at federal, regional and state levels. Currently in the energy sector, ASEA, CENACE and CENAGAS are deconcentrated entities with technical and managerial independence.

The areas that are auctioned are selected by SENER with the technical assistance of CNH and the tenders are open to all actors, national and foreign.

Table 1. Overview of ASEA, CNH and CRE status and functions following the 2013 reform

Effect of reform	Institution	Date of creation	Legislation	Status	Functions
New	ASEA	2015	Hydrocarbons Act ASEA Act Further 9 federal laws	De-concentrated entity of SEMARNAT with technical and managerial independence	Ensuring industrial safety and environmental protection throughout the hydrocarbons sector
	CNH	2008			"Upstream regulator" in the hydrocarbons sector
Strengthened in status and functions and powers	CRE	1993	Hydrocarbons Act Law of the Co-ordinated Energy Regulators	Ministry-level entity with technical, operational and managerial autonomy	Electric power regulator and "mid- and downstream regulator" hydrocarbons regulator

Following the reform, for the first time, both industrial safety and environmental protection are concurrently managed and enforced by one institution, ASEA. Prior to the creation of the ASEA in 2015, many of its regulatory and licensing powers were held by SEMARNAT and its bodies, as well as the CNH and CRE; the state-owned Mexican Petroleum company (Petróleos Mexicanos or PEMEX) that self-regulated industrial and operational safety as the sole petroleum operator; and state-level authorities which maintained regulatory and supervisory functions in the retail sector (i.e. petrol stations). ASEA has both the authority to provide and suspend licenses and authorisations, conduct inspection and quality control, and emit recommendations for corrective action in the area of industrial safety and environmental protection. Many of ASEA's licensing activities form part of permits or contracts issued by CNH or CRE.

All three entities have the power to issue secondary legislations (in the form of regulation), which undergo public consultations carried out by the Federal Commission for Regulatory Improvement (COFEMER).

This new governance architecture has enhanced specialisation and potentially delinked policy development (within the ministries) from technical and economic regulation and inspection (within the new and reformed agencies). At the same time, it has created significant co-ordination challenges that need to be addressed to make the system fully functional. For example, ASEA intervenes in the different stages of the value chain and is responsible for creating a nexus between hydrocarbons and the environment under SEMARNAT. However, the energy sector is not SEMARNAT's primary focus, as it is only involved in issues related to renewable and clean energy as well as emission regulation. In contrast, SENER is the central authority to design policy for the energy sector; it also grants permits for various activities in the hydrocarbon sector including processing, refining, imports, and exports. CNH and CRE are subject to the general policies set by SENER. In this context, for example, co-ordination on the roles and responsibilities in relation to clean energy, or fuel standards, remains unclear. Linking both ministries and their respective responsibilities remains a challenge.

Demands on the agencies have also been particularly intense in the early phases of implementation of the energy reform. In addition to performing their new functions, ASEA, CNH and CRE have also had to develop and issue a number of new regulations. This activity peak might progressively decrease, but it makes even more urgent to align the work of the agencies so that the workflow can be better managed.

To facilitate co-ordination among actors in the sector, the creation of a Co-ordinated Council for Energy Sector (*Consejo de coordinación del Sector Energético, CCSE*) is mandated in the LORCME of August 2014. However, the Council only convened for the first time in September 2016. Its objective is to promote and enhance information sharing and institutional co-operation. The council is chaired by SENER, and includes CRE, CNH, CENAGAS (Natural Gas ISO) and CENACE (Electric Power ISO). ASEA may be invited to participate in meetings that are to be held quarterly. The CCSE also has the authority to issue recommendations on energy policy that must be integrated in the annual working plans of the CRE and CNH. Furthermore, the mandate of the CCSE also includes analysis of the various risks faced in the implementation of Mexico's energy policy, as well as the proposal of measures to address these issues.

Some other more specific co-ordination and collaboration mechanisms for the energy sector exist, but they do not perform the functions of overall co-ordination which is required to ensure the timely completion of the reform. CRE chairs two Committees used to consult relevant actors, the industry being one of them, when developing official standards, one linked to the electricity sector and another to hydrocarbons.

Moreover, the Ministry of Economy (*Secretaría de Economía*, SE) chairs two Advisory Councils (electric power and hydrocarbons) that focus on the development of national supply chains within the energy industry. CRE also has two own Advisory Councils, one in electricity and one in hydrocarbons, which allows CRE to systematically communicate and to engage with stakeholders of the industry and academia. Some formal bilateral agreements have been entered into by the regulators, such as a 2015 agreement between Mexico’s Federal Consumer Protection Agency (*Procuraduría Federal del Consumidor*, PROFECO) and CRE to better address user complaints on electric power supply services; others are still pending, like the foreseen co-ordination mechanisms between ASEA and the Ministry of Labour and Social Affairs (*Secretaría del Trabajo y Previsión Social*, STPS).

In practice, co-ordination has taken place mostly through regular informal contacts among the three agencies and between the three agencies and other government institutions. This informal co-ordination may not be sufficient as the implementation of the reform advances and complex and interlinked decisions need to be taken. These informal contacts are partly the result of good personal relationships and have been essential to steer and pilot the early phases of the reform. However, relying mostly on the personal factor is risky – people change, and policy and politics evolve. It is important to ground co-ordination in institutions and structured processes that facilitate planning, monitoring and steering, with inputs not only from agency heads but also from agency staff involved in designing and implementing actions. Formal rather than informal co-ordination would set clear responsibility lines and would enhance accountability.

Recommendations

- **Advocate for the operationalisation of the Co-ordinated Council for the Energy Sector (CCSE) as the high-level co-ordination body for steering the implementation of the reform. The CCSE should be supported by sub-committees bringing together staff working on implementing the decisions taken by the CCSE.** The Council should also include ASEA and SEMARNAT, as well as SHCP, at least in those meetings with direct relevance to their mandates, meet regularly (once a month or bimonthly for example) and serve as the forum to support co-ordination and alignment of the regulatory agencies’ activities and intervention. In addition to the current high-level representation (secretaries/undersecretaries of state and agency heads/commissioners), the Council should be supported by technical sub-committees or working groups composed of technical staff to steer the implementation of the

decisions of the Council and regularly report to the Council on progress. Other countries have established co-ordination bodies to steer the implementation of major horizontal initiatives (Box 1).

Box 1. Canada's Major Project Management Office

Mandate

The Major Project Management Office (MPMO)'s mandate is two-fold:

- To provide overarching project co-ordination, management and accountability for major resource projects within the context of the existing federal regulatory review process; and,
- To undertake research and identify options that drive further performance improvements to the federal regulatory system for major resource projects.

The rationale for the creation of MPMO was to set up an instance to discuss and co-ordinate the management of active reviews of proposed projects.

MPMO approach

1. Improved process clarity

The MPMO works with federal departments and agencies to develop guidelines, procedures and service standards that promote early engagement between project proponents and regulators, and to ensure a clear, consistent and co-ordinated federal approach to the review of major resource projects.

2. Effective project management

The MPMO co-ordinates Project Agreements between federal departments and agencies. These Agreements serve as an important co-ordination and management tool for MPMO projects. They also include target timelines which are publicly tracked and monitored to ensure that the review process for each MPMO project is timely, predictable and effective.

3. Policy leadership

The MPMO, in collaboration with key stakeholders and federal departments and agencies, leads policy research and provides analysis and advice aimed at improving the federal regulatory and legislative framework for major resource projects, and at promoting regulatory excellence and innovation.

Box 1. Canada's Major Project Management Office (*cont.*)

Working arrangements

Meetings of Deputy Ministers and their equivalents are held on a monthly basis. These meetings are structured around a recurring agenda which provides for an update of ongoing projects, information sharing and substantive discussions on key policy and implementation topics. Prior to the Deputy Minister -level meeting, a preparatory meeting is held at the Assistant Deputy Minister-level, thus ensuring Deputy Ministers are appropriately briefed in advance of their meeting. Deputy Ministers can therefore make key policy and implementation decisions or recommendations for Ministers to consider, as the case may be.

Source: Information provided by the National Energy Board of Canada (October 2016).

- **Ground co-ordination in working plans of the different actors of the energy reform, with timelines, milestones and indicators to monitor and adjust implementation.** Steering to be effective needs to be backed by a plan/clear direction with regular signals on the miles travelled and the way to go. Existing plans should be shared with all industry stakeholders, including industry and investors. They should be discussed regularly in the CCSE and its proposed working groups, including for suggestions from other federal entities. Plans should include a clear baseline of information as well as an estimation of needed resources. They could feed into an overall working plan that provides senior officials a dashboard of progress and assign clear roles and responsibilities for who does what.
- **Establish a constituency that can work on a co-ordinated approach to supporting administrative simplification as well as enforcement and inspection in the sector, to create synergies between regulators and minimise cost for the regulated industry.** ASEA's move to help simplify the licensing procedure by the development of a one-stop shop (*ventanilla única*) can be strengthened by greater co-ordination with CNH and CRE and the establishment of a constituency that can push forward the agenda in a co-ordinated manner, especially since these changes would require the support and involvement of various stakeholders both at the political and technical level. When simplifying the licencing procedure, it can be useful to identify also potential areas for simplification around enforcement and inspection, in line with the *OECD Best Practice Principles on Regulatory Enforcement and Inspections*.

- **Ensure that overlaps are kept to the bare minimum among agencies by clarifying and aligning their goals and priorities and publicly communicate on these priorities.** Core regulatory functions of the three agencies would require some re-evaluation. There is need to clearly delineate priorities of each agency and help better align these priorities with its intended goals. It is also important to make these priorities clear to government and external stakeholders to facilitate engagement in the development and implementation of regulation. Improved formal and transparent co-ordination mechanisms between the agencies would contribute to these goals and help set clear responsibility lines and enhance accountability.
- **Establish clear conflict resolution mechanisms that can be resorted to in order to clarify mandates or powers.** Overlaps will inevitably occur in particular in the first stages of the implementation of the reform, following transfers of powers and reformed functions. Designating a go-to authority or instance, possibly within the CCSE, with powers to resolve disputes in these cases will contribute to efficiently smoothing out discords and separating roles and responsibilities.
- **Streamline ASEA’s regulatory context by a thorough consolidation of the different *reglamentos* that currently govern its functions into one single coherent *reglamento*.** ASEA currently refers to 11 federal laws and 12 *reglamentos* in its operations, resulting in a fragmented legal landscape and hindering effective processing of permits and requests.
- **Consider the alignment of the status of ASEA with the status of CRE and CNH.** ASEA is a de-concentrated ministerial agency within the Ministry of Environment (SEMARNAT) whereas the CRE and CNH are co-ordinated regulatory agencies with the status of a ministry. While this set-up may have worked in the early phases, ASEA has suffered from a lack of resources. Consequently, its limited capacity has delayed decisions and interventions affecting other agencies, by creating governance bottlenecks. This situation appears to have been resolved but the risk is that these shortcomings would reappear. The alignment of the status of ASEA with those of CNH and CRE should be seriously considered. In the short term, such an alignment could bring more efficiency in areas such as contracting and acquisitions of goods and services, or co-operation with international regulatory agencies and counterparts.

Input

ASEA, CNH and CRE are currently funded by resources from the federal budget as well as their own income, and follow federal process for the preparation of their budgets. As a de-concentrated agency of SEMARNAT, ASEA submits its proposal for the following year's budget to SEMARNAT in June or July. SEMARNAT includes this in its overall budget which is submitted to the Ministry of Finance (*Secretaría de Hacienda y Crédito Público*, SHCP) in August. As ministry-level entities, CRE and CNH submit their budget proposals directly to SHCP. The consolidated federal budget is presented by the SHCP to Congress in September, and following a two month period of discussion and amendments, is approved in November.

It is intended that by 2019, all three agencies no longer rely on federal resources but fund their operations solely with their own income (proceeds from fees and duties). However, in the case of CRE, while an established methodology for the definition of fees exists, the Ministry of Finance makes the final decision based on estimates provided by CRE. In the case of ASEA, fees are set by SHCP and COFEMER, whereas the agency itself sets the amounts of fines. It remains to be seen whether the self-sufficiency of the three agencies will be reached by the planned date.

Management of both financial and human resources can be cumbersome and slow down operations. While CRE and CNH enjoy a certain level of autonomy as Ministry level federal entities, in practice this autonomy can be limited for example by the earmarking of federal resources for specific activities (*partidas presupuestales*) that cannot be re-allocated without approval. ASEA is bound by similar processes. In addition, as a de-concentrated entity, ASEA is subject to SEMARNAT procurement board oversight and approval for its contracting, which is perceived to hinder nimble and reactive operations. Moreover, while all three agencies receive funds from fees and fines, paid into trust funds, access to these funds is not automatic and transfers require approval of the SHCP. ASEA has yet to set up the committee that would design and oversee the fund and its functioning and thus, as of November 2016, does not have access to its own resources. These processes can represent a high transaction cost and are seen to undermine effective and autonomous operations.

Acquiring and retaining qualified staff is a challenge for regulators competing for talent with private sector organisations. To address this difficulty, it is important that regulators have autonomy and flexibility not only to determine who they need but also how to attract and retain talent. For the three agencies, as all federal entities, the number and level of employees hired as well as job descriptions are approved by the SHCP and

the Ministry of Public Administration (*Secretaría de la Función Pública*, SFP) respectively. These cannot be modified without a formal approval by the SFP, slowing down effective management decisions in particular in a time of transition to new functions and powers.

An attractive remuneration package is used to boost employment in the sector, but it should not be solely focused on financial incentives. The energy reform propelled a significant demand for qualified personnel across job families in the area of energy regulation, following an increase in staff of both CRE and CNH, the creation of ASEA, and similar pressure from a newly growing private sector. Regulators are bound by the federal salary scale (*tabulador de sueldos*) which offers little flexibility. ASEA has been able to offer more attractive wages by granting salaries at the highest “band” within a grade; CRE has put in place other non-financial benefits. Moreover, active on-the-job training can enhance staff competences and provide incentives. As such, ASEA has established a training programmes that allow its staff to carry out activities as federal inspectors, providing better skills to its staff.

Recommendations

- **Consider a multi-annual budget settlement for the three agencies that can provide stability and facilitate long-term planning, in line with the overall working plan drawn up by the CCSE, while preserving the agencies from any undue influence and pressure.** While the formal appropriation of the budget could be annual, in line with Mexican budgetary policy, the three agencies could receive a multi-annual commitment to guarantee resources over the long-term. In the case of CNH and CRE, this process could be in place for the money allocated through the national budget for as long as the two agencies are not fully financed through regulatory fees and duties. This would not be a novelty. Congress approved budgetary appropriations for the period 2015-18 for the CNH and CRE, in order to guarantee that regulators would have enough resources to implement the reform and perform their new duties. Other countries have put in place multi-annual budgets for regulators (see Box 2).

Box 2. Multi-annual appropriations in France and the United Kingdom

Ofgem and the French energy regulator (CRE) negotiate their appropriations over a 3 to 4 year period. Budget appropriations for the French regulator are negotiated on a three-year basis, although some flexibility on certain areas remains on an annual basis. Multi-annual negotiations also concern staff ceilings which have to be respected by the regulator.

Source: OECD (2016), *Being an Independent Regulator, The Governance of Regulators*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264255401-en>.

- **Assess the effectiveness and transparency of the process for setting up regulatory fees and allow for a contingency fund to smooth volatility in industry revenues.** Fees should be set in a transparent fashion, leaving autonomy to regulators in setting the level of fees, minimising any intervention from other ministries in setting fees, with nevertheless obligations for evidence and justification for the fee setting. This is particularly important if the regulatory agencies are to become fully autonomous financially while remaining Ministry level federal entities of the Executive branch. Other countries have set up transparent and accountable processes for fee-setting (see Box 3).

Box 3. Fee setting at the National Energy Board of Canada

Pursuant to the regulatory scheme in place, the Canadian NEB's cost recovery mechanism is premised on commodity charging costs which are allocated to specific entities within those sectors (oil – oil pipelines, gas – gas pipelines, etc.). Companies pay their share of recoverable costs to the Consolidated Revenue Fund of Canada, through greenfield levies, fixed levies (small, intermediate companies and other commodities) or proportional levies (large companies). The allocation of costs to commodity categories is based on time spent on each commodity. The NEB also has an advisory committee, which is composed of the staff from the regulator and representatives of the regulated companies, that reviews planned expenditures and discusses cost recovery issues. The NEB does not receive this funding directly from companies; rather, it receives its appropriations through Parliament, on an annual basis.

Source: OECD (2016), *Being an Independent Regulator, The Governance of Regulators*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264255401-en>.

- **Advocate for more financial autonomy for ASEA, CRE and CNH, particularly with regard to budget re-allocations or trust fund management.** The regulators have little flexibility when re-allocating funds between activities, for example constraining the possibility of using funds for activities that may need additional resources. Further financial autonomy could also include an enhanced functioning of the trust funds and the dexterity with which the agencies, including ASEA, can access resources in these funds.
- **Encourage more autonomy among agencies when developing job profiles and setting compensation rates within the agencies.** Given the competition in terms of acquiring and retaining staff, agencies are constrained by salary grades when offering more competitive compensation rates. More autonomy by approving a suggested salary range based on the industry’s performance instead of fixed federal rates may provide agencies with the flexibility to offer better compensation rates vis-à-vis its private counterparts.
- **Allow agencies to develop other incentives to attract and retain staff.** The agencies would need to re-think their hiring strategy towards a more “total awards approach”. Beyond financial compensation, developing non-financial incentives (health insurance, recognition, flexibility, trainings, enabling environment, promotion, etc.) can help attract and retain staff, especially when the agency is faced with limited financial resources.

Process

Appointment and nomination of agency head or board members

Agency heads and the governing council are appointed by either the President of the Republic (ASEA) or the Senate (CNH and CRE). The Executive Director of ASEA is directly appointed by the President of Mexico, upon proposal of the Minister of Environment (SEMARNAT), based on criteria set forth in the ASEA Act. S/he then holds the authority of appointing or terminating Senior Management Team personnel (or Heads of Units). The Executive Director presents the agency’s work programme for approval to the Technical Council, which is presided by SEMARNAT. The hiring process for CRE and CNH’s President Commissioner and Commissioners is conducted through a short-list of three candidates proposed by the President of the Republic to the Senate, which chooses one of them following hearings and a vote. The short-list is based on specific requirements stipulated in LORCME and it is established by the Executive through informal internal consultations. The Commissioners are appointed

for a period of 7 years and can serve an additional 7-year mandate. The governing council then appoints an Executive Secretariat, upon proposal of the President Commissioner. By law, senior management is selected according to the candidate's profile and the technical requirements for the position. The President Commissioner likewise has the authority to dismiss any staff of CRE and CNH under specific circumstances.

Accountability and transparency

As federal entities, ASEA, CNH and CRE are accountable to Congress but there are no formal channels or systematic mechanisms for this. ASEA, CRE and CNH are required to prepare annual reports on their activities and results. In the case of ASEA, the report is presented to the Technical Council, presided by SEMARNAT, for approval. CRE and CNH are accountable to Congress, but there is no formal mechanism for the discussion their reports in this setting. Agency heads can be called to appear in Congress to report on their activities and results, but this does not happen systematically. Both Chambers of Congress include Ordinary Committees for Energy; a Special Committee for Monitoring the Co-ordinated Energy Regulators was created in May 2016 but seems to not yet be operational.

As federal entities, the three agencies are subject to oversight from other federal bodies. The activities of ASEA, CRE and CNH are audited by entities from both the legislative and executive branches: the Superior Audit Office that directly informs the Congress and the Ministry of Public Administration that conveys the information to the President's Office. These audits principally focus on administrative and financial issues, and to a lesser extent their relationship with the functions and legal powers of the institution. For the latter, CNH and CRE incorporate within their internal structure Internal Audit Offices (*Órgano Interno de Control*, OIC) that are part of and report to the Ministry of Public Administration. ASEA is included in the jurisdiction of the OIC hosted by SEMARNAT. The purpose of these Internal Audit Offices is to support the performance of the entity, to prevent non-compliance by staff and handle complaints against public servants.

All three agencies are governed by dispositions that aim to avoid and minimise conflict of interest with the regulated industry. The three agencies have codes of conduct that assert principles of transparency and integrity; all three codes of conduct strictly regulate contact with industry representatives (it defines different categories of meetings, with specific requirements for participation and recording of information). Federal law requires all staff to provide a statement of assets upon taking up employment in a federal entity, and to update this information on a yearly basis. Regarding senior management employment, the ASEA Act states that in the

year prior to his nomination, the Executive Director cannot have held a high-level political position in the Mexican administration or owned shares in or been employed by the regulated industry.² Similar dispositions are included in the Coordinated Energy Regulatory Bodies Act for CRE and CNH. In addition to dispositions included in the Code of Conduct, CNH board members and senior management sign a declaration of interest that discloses any relevant professional or personal history that are published on the CNH website. The ASEA Act or LORCME do not include any specific restrictions on employment (cooling-off period) upon leaving the regulator; these considerations are included in Article 9 of the Federal Law on the Administrative Liabilities of Public Officers (*Ley Federal de Responsabilidades Administrativas de los Servidores Públicos*) which stipulates that public officers shall not accept any benefit or employment in the regulated industry for themselves or their families for up to a year after they have concluded their duties.

Table 2. Overview of ASEA, CNH and CRE accountability and transparency measures

Institution	Accountable to	Accountable via	Oversight	Code of conduct	Post-employment restrictions
ASEA	ASEA Technical Council Congress	Annual report approved by Technical Council	Ministry of Public Administration - SEMARNAT Internal audit office (Executive)	Approved in June 2016	Article 47 of the Federal Law on the Liabilities of Public Officers
CNH			Superior Audit Office (Congress)	Approved in March 2016	
CRE	Congress	Annual report (no formal approval mechanism)	Ministry of Public Administration - Agency-specific Internal audit office (Executive)	Approved in December 2014	

Regulatory quality tools

While other stakeholder engagement mechanisms exist, formal public consultation in the regulatory process is managed by COFEMER. All new regulations or modifications to existing regulations,

2. A transitory article in the ASEA Act over-ruled this requirement for the appointment and nomination of the agency's first Executive Director upon creation of the agency in 2015.

accompanied by their corresponding Regulatory Impact Assessments (RIAs), are submitted to the Federal Commission for Regulatory Improvement (*Comisión Federal de Mejora Regulatoria*, COFEMER) who publishes them for consultation for an average period of 30 days. The quality of decision-making processes of the co-ordinated energy regulators can be enhanced by this collaboration with COFEMER. During this period of 30 days, when the proposed regulation generates costs, any sector stakeholders can engage in providing feedback or requesting further information on the published draft regulation. The process is public and open to all. In addition to the formal requirement of stakeholder engagement through COFEMER, ASEA, CNH and CRE have set up early stage mechanisms to discuss concerns and solicit feedback on draft regulation.

The regulators systematically undertake an impact assessment of new regulation as mandated by COFEMER. This is presented to COFEMER and included in the public consultation. The RIA systematically includes a cost-benefit analysis. If the regulatory instrument is deemed to have a significant impact on a large number of actors, this is quantified. There are no systemic requirements to carry out *ex post* assessments of regulatory instruments.

Appeals

Regulated entities are provided with different options when appealing against decisions made by the agencies. The regulated industry has several options for appealing decisions made by ASEA in federal courts: the *juicio contencioso* that is related to administrative complaints and takes about 6 months to complete, and the *juicio de amparo* that is related to complaints based on constitutional rights. Only the latter process is available for appealing decisions by CNH or CRE. In these cases, a judgment against the regulator in court can have significant consequences as it rules a decision of the regulator to be unconstitutional. Decisions in these instances can be appealed in second instance to the tribunal colegiado de circuito; decisions made in second instance can then be appealed to the Supreme Court (*Supremo Corte de Justicia de la Nación*, SCJN). Overall, it is felt that the complexity and severity of the appeals available to industry may be cumbersome and that, in the case of co-ordinated regulators, there should be an intermediate recourse available for the review of regulator decisions. With regard to exploration and extraction contracts, CNH and operators can resort to International Arbitration to address alleged contract breaches.

Recommendations

- **Seek to align processes employed by the agencies to improve regulatory quality.** The three agencies could seek to harmonise mechanisms that enhance accountability, minimise undue influence or engage with stakeholders. This would streamline co-ordination and communication with other federal entities and other stakeholders, and decrease transaction costs involved in designing and implementing these policies or mechanisms.
- **Stimulate more regular and formal exchanges between Congress and the regulators, as an integral part of the energy regulatory institutions activities.** At present, there is no clause that mandates the formal reporting of the activities and developments undertaken by CRE and CNH, except when they are summoned and held accountable for specific actions based on the annual reports or current events. These exchanges could take place around the release of the agencies' annual reports to discuss not only progress in implementing the energy reform but, equally important, agency's performance, resources and capabilities.
- **Advocate for the establishment of a search committee or advertise senior management positions for a more transparent nomination process.** Establishing a search committee or opening the position through advertisement can broaden the pool of competent candidates that may be included in the list.
- **Improve co-ordination with COFEMER to support regulatory quality.** Regulatory quality has been an important concern of the Mexican government, which has made significant progress in promoting the use of RIA and stakeholder engagement through COFEMER. This is an opportunity that can be further exploited by establishing stronger co-ordination with COFEMER. To avoid any bottlenecks and delays in the development of new regulation, ASEA, CNH and CRE could establish regular co-ordination meetings with COFEMER to discuss forthcoming regulation and identify areas for improvements. Additionally, more direct linkages between ASEA and COFEMER could enhance the agency's effectiveness.

- **Assess the effectiveness of the provision for a one-year cooling-off period included in Article 9 of the Federal Law on the Administrative Liabilities of Public Officers (*Ley Federal de Responsabilidades Administrativas de los Servidores Públicos*).** The clause of a one-year moratorium on employment in the industry applies to all public servants and their families. While cooling-off periods can signal a clear and useful distinction between the regulator and the regulated industry, and increase trust in regulator decisions, the application and enforcement of such a wide-reaching clause may be cumbersome. The clause could also have perverse effects on agency recruitment. Restricting the clause to public servants or categories of public servants may be sufficient to deter conflicts while being enforceable.
- **Assess the effectiveness and appropriateness of the appeal process.** The complexity and, in the case of the co-ordinated agencies, the severity of the appeal process could provide opportunities to delay or block decisions made by regulators. Regulators should closely monitor outcomes and delays of appeals to assess the performance of available mechanisms. Any arising issues and challenges linked to the appeals processes could be addressed at the CCSE.
- **Assess the feasibility and benefit of appointing ASEA’s own Internal Audit Office (*Órgano Interno de Control, OIC*).** ASEA is currently governed by the OIC of SEMARNAT. An Internal Audit Office integrated in ASEA could be more effective in supporting ASEA’s performance and preventing non-compliance.

Output and outcome

Performance indicators help assess the performance of the regulator and help further identify priorities. ASEA is developing a sophisticated results-based monitoring system, built around strategic objectives selected by the senior management. Attention should be placed on selecting indicators that not only focus on intermediate management goals (input-process) but also on the ultimate performance and results achieved by the agency (output-outcome, related to the delivery of public services). Moreover, outcome metrics could be embedded into the RIA at the regulatory design stage. At present, CRE’s Planning and Evaluation Unit is co-ordinating the development of a set of indicators, composed of mostly quantitative indicators, to measure the efficiency and effectiveness of the various activities and projects conducted by the institution. CNH is similarly working on a mechanism to evaluate regulatory impact.

Recommendations

- **Focus on more output-outcome based goals without losing sight of the intermediate goals.** Agencies are required to report on some key performance indicators during the budget planning process, but these are mostly based on inputs and processes (e.g. the number of regulation issued). Placing more focus on output-outcome goals based on the agencies' strategic objectives can enhance and improve service delivery without discounting its intermediate goals. This monitoring framework should be linked to the overall steering of the reform and report to the CCSE through the recommended technical committees/working groups. This framework should also serve to monitor regulatory quality and provide a transparent process for monitoring the performance of the three agencies against their direct objectives and functions. Other regulators have set up and participate in processes that provide for monitoring and regular reporting on progress (see Box 4).

Box 4. Scotland's Output Monitoring Group

The Outputs Monitoring Group (OMG) is chaired by the Scottish Government and comprises senior (executive level) representatives from the Drinking Water Quality Regulator, the Scottish Environmental Protection Agency, the Water Industry Commission (the economic regulator), Consumer Futures Unit (the customer representative body) and Scottish Water.

The primary function of the group, which meets quarterly, is to oversee the delivery of the investment objectives set by Scottish Ministers for the regulatory period. These objectives set out high level outcomes for the industry: such as meeting defined drinking water quality standards, environmental performance targets and customer service standards.

As part of the regulatory process, these high level objectives have been translated, prior to the start of the regulatory period, into an agreed set of programme outputs; for example, the 'number of water treatment works to be improved' or 'environmental performance assessments to be carried out'. In turn, these output programmes are linked to an agreed list of projects – termed 'the Technical Expression' – which details the investment works and studies that will deliver the output programmes. This provides the OMG with clarity on the projects that will deliver the output programmes and the ministerial objectives.

Going into the regulatory period, Scottish Water provide a baseline delivery plan for the regulatory period which details the expected profile of completion of these output programmes. This then allows the OMG to monitor output delivery performance against Scottish Waters' planned delivery profile.

Box 4. Scotland’s Output Monitoring Group (*cont.*)

The OMG owns and maintains this agreed baseline of outputs: ensuring that any changes arising from study outputs or new information during the period are incorporated into the baseline in a controlled and transparent way. This is achieved through a well-defined change mechanism which requires regulatory sign-off of changes.

The preparation of reports and information for the OMG is carried out by the OMG working group (OMGWG) which comprises senior representatives from the same set of stakeholders as OMG. The OMGWG also meets quarterly, a month ahead of the OMG meeting, and focusses on the preparation of accurate reports for the OMG, as well as overseeing the change mechanism.

At the OMG meetings, based on the information provided by the OMGWG, output delivery progress across the investment programme is discussed and any shortfalls against the targets are highlighted. The OMG reviews progress at five key delivery milestones – such as ‘financial approval’ and ‘regulatory sign-off of output delivery’. Scottish Water is required to provide explanations in respect of any shortfall against a milestone target: highlighting what corrective action is underway. This provides a high degree of transparency in respect of the delivery of the outputs for which customers have paid.

The OMG produces a quarterly report on progress which is published on the Scottish Government web-site. At the end of the regulatory control period, the group also provides a final report that details progress with the delivery of the agreed set of outputs and the Ministerial Objectives.

Source: Information provided by the Water Industry Commission of Scotland (October 2016).

- Seek to align and harmonise regulatory quality monitoring between ASEA, CNH and CRE to facilitate a consolidated view of the performance of the energy sector regulatory framework.** With little effective co-ordination, there is a risk that an opportunity is missed to provide data that can give a comprehensive view of the energy sector. The M&E or planning units of the three agencies could share their plans and seek to harmonise these, possibly into a unified results matrix, while defining clear responsibilities for overseeing their implementation within the agencies. A window of opportunity is created by the current design of their results matrices by the agencies.

- **Measure inspection outcomes with a view to developing a risk strategy.** ASEA, CNH and CRE have front-line inspection functions that can collect valuable information on possible risks to be addressed. This wealth of information could be jointly used to create a risk mapping and contingency planning for the sector, and shared across the three agencies. Given the inter-connectedness of the energy reform with the environmental targets of the government, the risk strategy could link risks in both areas.
- **Conduct *ex post* evaluations of the agencies' regulatory activities.** At present, there are few existing mechanisms to appropriately evaluate each of the agencies' performance, notably in relation to its processes and outputs. In the absence of a statutory external evaluation, the agencies could carry out regular self-evaluation of their regulatory activities.
- **Consider the inclusion of stakeholders in assessing performance.** Given the relevance and scale of the energy reform, it would be important to ensure that the performance assessment process involves also non-government stakeholders and consumers. There could be, for example, a forum with market participants periodically reviewing the relevant of performance measurements and being informed on results.

Chapter 1

Methodology and approach

Measuring regulatory performance is challenging, starting with defining what to measure, dealing with confounding factors, attributing outcomes to interventions and coping with the lack of data and information. This chapter describes the methodology developed by the OECD to help regulators address these challenges through a Performance Assessment Framework for Economic Regulators (PAFER), which informs this review. The chapter first presents some of the work conducted by the OECD on measuring regulatory performance. It then describes the key features of the PAFER and presents a typology of performance indicators to measure input, process, output and outcome. It finally provides an overview of the approach and practical steps undertaken for developing this review.

Analytical framework

The analytical framework that informs this review draws on the work conducted by the OECD on measuring regulatory performance and the governance of economic regulators. OECD countries and regulators have recognised the need for measuring regulatory performance. Information on regulatory performance is necessary to better target scarce resources and improve the overall performance of regulatory policies and regulators. However, measuring regulatory performance can prove challenging. Some of these challenges include:

- *What to measure*: evaluation systems require an assessment of how inputs have influenced outputs and outcomes. In the case of regulatory policy, the inputs can focus on: i) overall programmes intended to promote a systemic improvement of regulatory quality; ii) the application of specific practices intended to improve regulation, or, iii) changes in the design of specific regulations.
- *Confounding factors*: there is a myriad of contingent issues which have an impact on the outcomes in society that regulation is intended to affect. These issues can be as simple as a change in the weather, or as complicated as the last financial crisis. Accordingly, it is difficult to establish a direct causal relationship between the adoption of better regulation practices and specific improvements to the welfare outcomes that are sought in the economy.
- *Lack of data and information*: countries tend to lack data and methodologies to identify if regulatory practices are being undertaken correctly and what impact these practices may be having on the real economy.

The *OECD Framework for Regulatory Policy Evaluation* starts addressing these challenges through an input-process-output-outcome logic, which breaks down the regulatory process into a sequence of discrete steps. The input-process-output-outcome logic is flexible and can be applied both to evaluate practices to improve regulatory policy in general, and also to evaluate regulatory policy in specific sectors, based on the identification of relevant strategic objectives. It can be tailored to economic regulators by taking into consideration the conditions that support the performance of economic regulators (Box 1.1).

Box 1.1. The input-process-output-outcome logic sequence

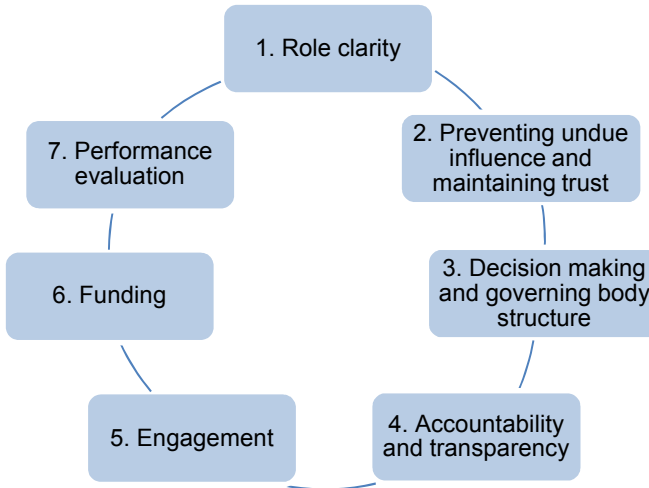
- Step I. Input: indicators include for example the budget and staff of the regulatory oversight body.
- Step II. Process: indicators assess whether formal requirements for good regulatory practices are in place. This includes requirements for objective-setting, consultation, evidence-based analysis, administrative simplification, risk assessments and aligning regulatory changes internationally.
- Step III. Output: indicators provide information on whether the good regulatory practices have actually been implemented.
- Step IV. Impact of design on outcome (also referred to as intermediate outcome): indicators assess whether good regulatory practices contributed to an improvement in the quality of regulations. It therefore attempts to make a causal link between the design of regulatory policy and outcomes.
- Step V. Strategic outcomes: indicators assess whether the desired outcomes of regulatory policy have been achieved, both in terms of regulatory quality and in terms of regulatory outcomes.

Source: OECD (2014a), *OECD Framework for Regulatory Policy Evaluation*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264214453-en>.

The *OECD Best Practice Principles for Regulatory Policy: The Governance of Regulators* (OECD, 2014b) identifies some of the conditions that support the performance of economic regulators. They recognise the importance of assessing how a regulator is directed, controlled, resourced and held to account, in order to improve the overall effectiveness of regulators and promote growth and investment, including by supporting competition. Moreover, they acknowledge the positive impact of the regulator’s own internal process—how the regulator manages resources and what processes the regulator puts in place to regulate a given sector or market—on outcomes (Figure 1.1).

The two frameworks are brought together into a Performance Assessment Framework for Economic Regulators that structures the drivers of performance along the input-process-output-outcome framework (Table 1.1).

Figure 1.1. The OECD Best Practice Principles on the Governance of Regulators



Source: Adapted from OECD (2014b), *OECD Best Practice Principles for Regulatory Policy*, The Governance of Regulators, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264209015-en>.

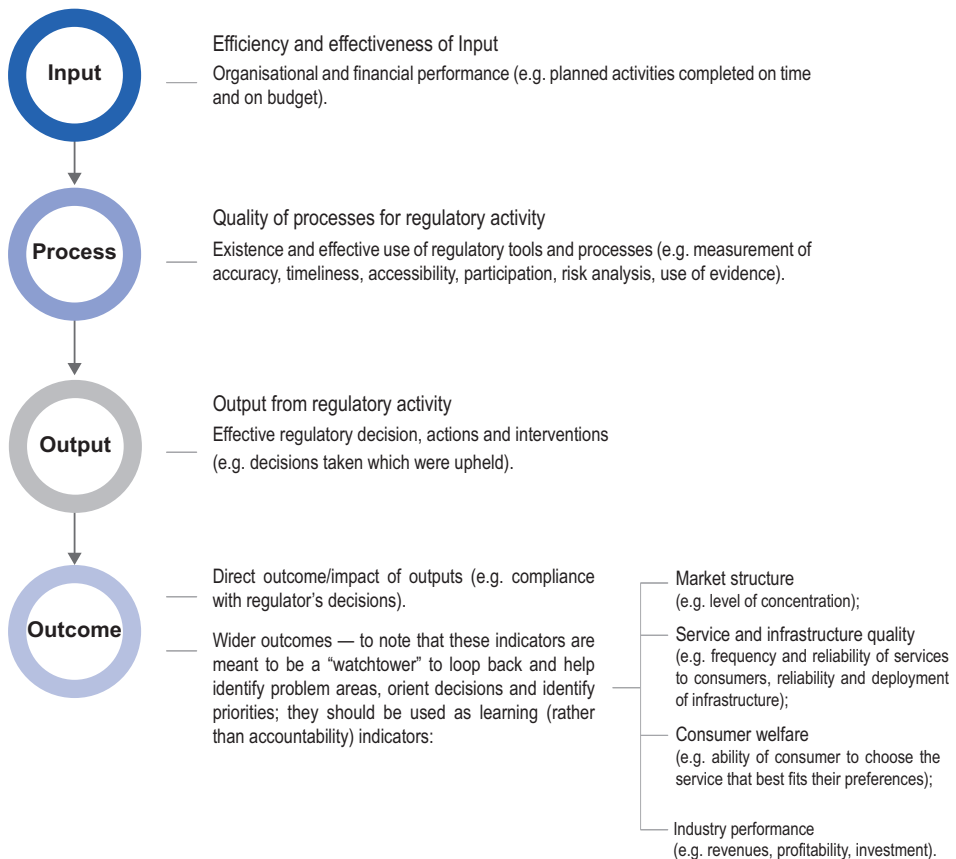
Table 1.1. Criteria for assessing regulators’ own performance framework

References	Strategic objectives	Input	Process	Output and outcome
Best Practice Principles for the Governance of Regulators	<ul style="list-style-type: none"> • Role clarity 	<ul style="list-style-type: none"> • Funding 	<ul style="list-style-type: none"> • Maintaining trust and preventing undue influence • Decision making and governing body structure • Accountability and transparency • Engagement 	<ul style="list-style-type: none"> • Performance evaluation
Institutional, organisational and monitoring drivers	<ul style="list-style-type: none"> • Objectives and targets • Functions and powers 	<ul style="list-style-type: none"> • Budgeting and financial management • Human resources management 	<ul style="list-style-type: none"> • Strategy, leadership and co-ordination • Institutional structure • Management systems and operating processes • Relations and interfaces with Government bodies, regulated entities and other key stakeholders • Regulatory management tools 	<ul style="list-style-type: none"> • Performance standards and indicators • Performance processes and reports • Feedback or outside evidence on performance

Performance indicators

For regulators, performance indicators need to fit the purpose of performance assessment, which is a systematic, analytical evaluation of the regulator’s activities, with the purpose of seeking reliability and usability of the regulator’s activities. Performance assessment is neither an audit, which judges how employees and managers complete their mission, nor a control, which puts emphasis on compliance with standards (OECD, 2004).

Figure 1.2. **Input-process-output-outcome framework for performance indicators**



Note: This framework was proposed in the initial methodology for the performance assessment framework for economic regulators (PAFER) discussed with the OECD Network of Economic Regulators (NER). It has been refined to reflect feedback from NER members and the experience of other regulators in assessing their own performance.

Source: OECD (2015), *Driving Performance at Colombia’s Communications Regulator*, Figure 3.3, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264232945-en>.

Accordingly, performance indicators need to assess the efficient and effective use of a regulator’s inputs, the quality of regulatory processes and identify outputs and some direct outcomes that can be attributed to the regulator’s interventions. Wider outcomes should serve as a “watchtower”, which provides the information the regulator can use to identify problem areas, orient decisions and identify priorities (Figure 1.2).

Approach

The analytical framework presented above informed the data collection and the analysis presented in the report. Accordingly, the assessment of Mexico’s energy regulators in the present report focuses on the external governance elements (the roles, relationships and distribution of powers and responsibilities with other government and non-government stakeholders) in the following areas:

- **Strategic objectives:** to identify the existence of a set of clearly identified objectives, targets, or goals that are aligned with the regulator’s functions and powers, which can inform the development of actionable performance indicators;
- **Input:** to determine the extent to which the regulator’s funding and staffing are aligned with the regulator’s objectives, targets or goals, and the regulator’s ability to manage financial and human resources autonomously and effectively;
- **Process:** to assess the extent to which processes and the organisational management support the regulator’s performance;
- **Output and outcome:** to identify the existence of a systematic assessment of the performance of the regulated entities, the impact of the regulator’s decisions and activities, and the extent to which these measurements are used appropriately.

Data informing the analysis presented in the report was collected through a questionnaire completed separately by the three regulators, a fact-finding mission and a peer mission to Mexico:

- **Questionnaire:** the questionnaire developed by the review team and completed by ASEA, CNH and CRE provided a snapshot of the *de jure* status of the performance assessment framework developed by the regulators. The questionnaire tailored the PAFER methodology already applied to Colombia’s Communications Regulation Commission (OECD, 2015a) and Latvia’s Public Utilities Commission (OECD, 2016b) to the Mexican regulators’ features. It also built on and integrated the information that CNH and CRE had already provided for the OECD survey on the independence of

regulators (OECD, 2016). The replies to these questionnaires will inform the separate review of the internal governance of the regulators.

- **Fact-finding mission:** the mission was conducted by the OECD Secretariat staff on 22-26 August 2016 in Mexico City and was the key tool to understand how the regulatory governance of Mexico’s energy sector works in practice, completing the *de jure* information obtained through the questionnaires with *de facto* state of play.
- **Peer mission:** the mission took place on 26-30 September 2016 in Mexico City and included peer reviewers, in addition to OECD Secretariat staff. The value of the mission was to identify initial recommendations through discussions with key stakeholders.

During the fact-finding and peer missions, the team met with senior management of ASEA, members of the CNH and CRE board, as well as staff from across the three institutions. The team also met with other government institutions and external stakeholders, including:

- The Ministry of Energy (SENER)
- The Ministry of Environment and Natural Resources (SEMARNAT)
- The Ministry of Finance and Public Credit (SHCP)
- The Ministry of Rural, Territorial and Urban Development (SEDATU)
- The Petroleum Fund for Stabilisation and Development of Mexico (FMP)
- The Energy Commissions of the Chamber of Deputies and the Senate of the Republic
- The Federal Electricity Commission (CFE)
- The National Centre for the Control of Energy (CENACE)
- The Federal Commission for Economic Competition (COFECE)
- The National Commission for Energy Efficiency (CONUEE)
- The Consumer Attorney’s Office (PROFECO)
- Association of Distributors of Liquid Gas (ADG)
- Enagas
- Ienova
- PEMEX.

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Chapter 2

Sector context

This chapter describes the main features of Mexico's federal institutional set-up and regulatory framework. It provides an overview of the energy sector reform in 2013 and ensuing institutional sector transformations.

As part of an ambitious structural reform programme launched in 2013, the government of Mexico introduced a major transformation of the country's energy sector. The reform restructured the oil and gas industry in order not only to increase investment and government revenue for the benefit of all Mexicans but also to lead on environmental issues by embedding clean energy targets in legislation. It opened access to the country's hydrocarbon resources to national and foreign, public and private entities, thus ending the monopoly of the state-owned oil company *Petróleos Mexicanos* (PEMEX). Equally important, the national energy system was fully opened up to private participation in order to reduce electricity costs, facilitate the transition to renewable sources of energy and extend electricity coverage. Corresponding significant modifications were made to the institutional framework with regard to sector regulation, including a modification of the constitution of the United States of Mexico and the promulgation of several primary and secondary laws. This new institutional framework strengthened existing regulators and created new ones, and introduced important changes in the functions and powers of different federal entities.

Institutions

The Constitution of the United States of Mexico divides the Supreme Power of the Mexican federation into three branches: Legislative, with a bicameral Congress, Executive, with a directly elected president, and Judiciary. Mexico is composed of thirty-two federal entities including Mexico City; each one has its own constitution, congress, judiciary and executive power, the latter exercised by a governor. The constitution states that the right to initiate laws and decrees belongs to: the president of Mexico, the deputies and senators to Congress and the state legislatures. (OECD 2014)

Executive

Within the executive branch, several institutions intervene at different stages of the regulatory cycle. They include:

- **The Office of the President of the Republic** (*Oficina de la Presidencia de la República*). It supports the President in the exercise of his functions and monitors and periodically evaluates public policies, with the aim of contributing to decision-making by the Executive.

- **Federal line ministries** (*Secretarías*). They are the core entities of the Federal Executive and are responsible for putting forward national public policies in their area of competence. Ministries are entitled to propose bills, enact regulation, decrees and agreements, among other legal instruments. The Ministry of Finance (*Secretaría de Hacienda y Crédito Público, SHCP*) leads the effort of preparing and monitoring of the National Development Plan (*Plan Nacional de Desarrollo*) which sets out the overarching development objectives of the administration.
- **Ministry of Interior** (*Secretaría de Gobernación*). It promotes the political development of the country and contributes to relations between the executive federal power and other entities. While all ministries are hierarchically equal, the Ministry of Interior co-ordinates the actions of the Federal Public Administration, its centralised and para-statal entities. The Ministry administers the Official Gazette (*Diario Oficial de la Federación, DFO*) where all laws and regulations are published.
- **Legal Counsel of the Federal Executive** (*Consejería Jurídica del Ejecutivo Federal*). It reviews and validates all decrees, agreements and other legal instruments that are submitted for consideration of the President, as well as those initiated by the President before they are presented to Congress. It evaluates coherence of the proposals with the Constitution and existing legislation.
- **Federal Commission for Regulatory Improvement** (COFEMER). It is responsible for driving forth the regulatory quality and improvement agenda in Mexico, established as the regulatory oversight body by the Federal Law of Administrative Procedure in 1994. All federal ministries and agencies are obliged to submit their regulatory proposals and corresponding RIA for consideration of COFEMER.
- **Independent federal regulators**. These are autonomous entities whose independence is enshrined in the constitution, with powers ranging from emitting regulation, setting tariffs, enforcing regulation and applying sanctions. The 2013 constitutional reform established the Federal Institute of Telecommunications (IFETEL) and the Federal Commission for Economic Competition (COFECE) as constitutionally independent regulators.

- **Co-ordinated Energy Regulators.** These are entities with technical, financial and managerial independence that, like the former category, are Ministry level institutions whose budgets are approved by Congress and who submit their draft regulations directly to COFEMER. The 2013 reform transformed the National Hydrocarbons Commission (CNH) and Energy Regulatory Commission (CRE) – that had previously been attached to the Ministry of Energy – into Co-ordinated Energy Regulators.
- **Deconcentrated bodies.** These include regulators that have technical independence but with differing degrees of administrative or financial autonomy from federal line ministries. They have generally been created either through laws or decrees with a sector-specific mandates. As specialised entities of the federal government their jurisdiction applies at federal, regional and state levels. In the energy sector, ASEA, CENACE and CENAGAS are deconcentrated entities with technical and managerial independence.

Legislature

The federal legislative power in Mexico is vested in a General Congress composed by the Chamber of Deputies and the Senate. The Congress is formed by a Chamber of Deputies made up of 500 deputies and the Senate which hosts 128 senators and has as its main purpose the analysis, discussion and issuance of laws. The Chamber of Deputies approves the federal budget and supervises the Superior Audit Office that verifies its execution.

Judiciary

The Federal Judiciary Power in Mexico is vested in the Supreme Court of Justice of the Nation (*Suprema Corte de Justicia de la Nación – SCJN*), the Electoral Tribunal (*Tribunal Electoral*), the collegiate courts (*Tribunales Colegiados de Circuito*) and unitary circuit courts (*Tribunales Unitarios de Circuito*) and the district courts (*Juzgados de Distrito*). The administration, supervision, and discipline of the Judiciary of the Federation, except for the Supreme Court and the Electoral Tribunal, rely on the Federal Judiciary Council (*Consejo de la Judicatura Federal*).

The SCJN has final appellate jurisdiction over all state and federal courts. Below the SCJN are the circuit courts, which are divided into single-judge circuit courts and collegiate circuit courts. The Federal Judiciary oversees a broader range of cases, and thus holds more judicial power than do the judiciaries at the state level (OECD, 2014).

Supreme audit institutions

- Office of the General Prosecutor (*Procuraduría General de la República*). Part of the Executive branch of government, it is responsible for the investigation and prosecution of federal crime. The Attorney General heads the Federal Public Ministry (Ministerio Público de la Federación).
- Ministry of Public Administration (*Secretaría de Función Pública, SFP*). It establishes the normative framework for the control and audit of federal funds, supervises the implementation of existing norms and can, upon request, audit federal institutions. The Ministry counts with detached units (*Órganos internos de control*) in all federal entities, including ASEA, that oversee the use of resources and report to the Ministry.
- Superior Audit Office (*Auditoría Superior de la Federación*). It has the power to carry out external audits of the three branches of government as well as of the constitutionally independent bodies and states and municipalities. It verifies the fulfilment of government policy and programme objectives, and examines the level of performance of public entities and the correct management of income and expenditure. It is a technical body of the Chamber of Deputies and supports it in its role of monitoring the Federal Public Treasury.

Box 2.1. Structural reform in Mexico

In 2012, Mexico’s newly elected government embarked on a bold package of structural reforms aimed to help the country break away from three decades of slow growth and low productivity, as well as the high levels of poverty and inequality that have hampered the quality of life of its citizens. The foundations for these goals were laid in the 13 Presidential decisions for Mexico, contained in President Enrique Peña Nieto’s Message to the Nation upon taking office on 1 December in the National Palace. These were further developed in the 95 commitments of the Pact for Mexico (*Pacto por México*), signed by the leaders of the main political parties.

Each of the reforms is wide-ranging in scope, and addresses the main challenges in their respective sectors. They include: a labour reform that substantially increased the flexibility of hiring; a reform of “amparos” that made the legal system more efficient and fair; the introduction of a national code of criminal procedure; a wide-ranging educational reform that introduced clearer standards for teachers and schools; a fiscal reform that improved the efficiency of the tax system, raised the revenue ratio and strengthened the fiscal responsibility

Box 2.1. Structural reform in Mexico (*cont.*)

framework; an economy-wide competition reform; reforms to the financial, telecom and energy sectors that have opened long-closed sectors to competition and strengthened the powers of regulators; and a reform of the political system to allow politicians to be re-elected, giving them a longer-term perspective on policy. This impressive policy effort, which makes Mexico the top reformer in the OECD over the past two years, deserves acclaim.

If fully implemented, these reforms could increase annual trend per capita GDP growth by as much as one percentage point over the next ten years, with the energy reforms having the most front-loaded effects, and the education reforms more lasting effects in the years to come. From now on, the main challenge is to ensure full implementation of these reforms and progress further in areas that have not yet been tackled, and that are key to ensure success of the current package.

Source: OECD (2013), *Getting It Right: Strategic Agenda for Reforms in Mexico*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264190320-en>.

Institutional and regulatory reform of the energy sector

Market reform

Prior to the 2013 reform, the energy industry in Mexico was characterised by limited private sector involvement. Activities in hydrocarbons, such as extraction and sale of oil and gas, were the sole responsibility of PEMEX. PEMEX's sole responsibility for the hydrocarbons sector was set out in Mexico's constitution. (Seelke et al, 2015) Mexico's oil production has decreased steadily over the past decade, due to natural production declines in the country's largest oilfields as well as a lack of investment in the sector. Despite this, Mexico has remained one of the largest producers of oil and related products in the world, and the fourth largest in the Americas after the United States, Canada and Venezuela. The hydrocarbon sector carries much weight in the country's economy in all respects: in 2014, earnings from the oil sector represented 30% of government income and 11% of export earnings (EIA, 2015). In 2013, fiscal revenue from non-renewable natural resources represented 8% of GDP (OECD, 2015b).

For natural gas, PEMEX had a monopoly over the entire supply chain until 1995, when part of the market was opened. This enabled private firms to enter the downstream gas market (in the transport, storage and importing of natural gas) (OECD, 2004).

Box 2.2. Summary of current trends in Mexico’s energy sector

- Mexico’s Energy Reform (*Reforma Energética*), initiated in 2013, is transforming the country’s oil, gas and electricity sectors. A new regulatory and institutional framework has brought an end to long-standing monopolies, opening competition in all aspects of oil and gas supply, and power generation. Private investors can now participate, alongside PEMEX and CFE, the two large state-owned enterprises, in a wide range of the energy industry value chain, attracting capital and technology to areas that are in need of renewal.
- Total energy demand in Mexico has grown by a quarter since 2000 and electricity consumption by half, but per-capita energy use is still less than 40% of the OECD average, leaving scope for further growth. The energy mix is dominated by oil and gas, with oil accounting for around half of the total – a share higher even than that in the highly oil-dependent Middle East.
- Oil has traditionally played a major role as a fuel for power generation, but it is rapidly losing ground to natural gas, whose cost advantage has been reinforced by the shale gas boom in the United States. Non-fossil fuelled generation, primarily from hydropower and nuclear, currently accounts for one-fifth of the total. Wind power has gained a foothold, with capacity of around 3 GW in 2015; but this remains far below its potential. The market for solar PV is nascent, but is expected to grow rapidly: the first two auctions for new long-term power supply, held in 2016, demonstrated private sector willingness to invest in new solar and wind capacity.
- Mexico’s long-standing position as one of the world’s major oil producers and exporters has weakened in recent years, with oil production declining by over 1 mb/d since 2004. This fall in output is linked to a shortfall in the funds available to PEMEX for capital expenditure to slow declines in mature fields or to develop new ones. A combination of limited refining capacities and rising demand means that Mexico is a net importer of oil products. Natural gas output has also been in decline (most of the production is associated with oil) and imports now meet almost 50% of gas demand.
- Sustainability and climate change considerations are prominent in Mexico’s energy policy. Mexico was among the first nations to submit a climate pledge in the run-up to COP21, and was among the countries that pushed hardest for a climate change agreement in Paris. It has legislated to adopt a binding climate target: the second country in the world to do so. With institutional changes that help promote clean energy, Mexico is embarked on a course towards a considerably more sustainable and efficient energy system in the future.

Source: IEA (2016), *Mexico Energy Outlook*, IEA, Paris, <http://dx.doi.org/10.1787/9789264266896-en>.

Similar to the hydrocarbons sector, prior to 2013, the electricity sector was primarily operated by a state owned entity, the Federal Electricity Commission (CFE).¹ Reforms to Mexican energy legislation enacted in 1992 had enabled private companies to obtain permits to generate electricity and as a result, there was private sector involvement in electricity generation in Mexico even prior to the 2013 reform. However, the electricity network (both the transmission and distribution networks) were owned and operated by CFE (OECD, 2004).

The 2013 reforms were designed inter alia to increase investment in the hydrocarbons sector with the objective of increasing oil production, as well as to place downward pressure on electricity prices (Mexican Presidency, 2013). Greater use of markets in the hydrocarbons and electricity sectors, combined with strengthened independent regulation, were used to achieve this objective. As such, PEMEX’s monopoly was ended, opening the country’s hydrocarbons resources for exploration and production also by private and foreign entities, in rounds of bidding administered by CNH. However, the reforms make clear Mexico’s ownership of hydrocarbons (SENER 2014). In the electricity sector, as a result of the reform, private companies are able to participate in power generation and sell to the new Mexican wholesale market independently of CFE (SENER, 2014). While the reforms reinforce the transmission and distribution of electricity as “exclusive and strategic state activities” in the Mexican constitution, CFE may contract with private firms to reinforce its electricity network (SENER, 2014).

Institutional and regulatory reform

Prior to the reform, sector policy was set by SENER and activities were regulated by the Ministry, CNH and CRE, and in some instances by states or PEMEX itself. The reform introduced very significant changes to this institutional set-up enacted by a reform of the Mexican Constitution and the subsequent promulgation of 21 federal laws and 24 secondary laws (reglamentos). The changes included:

- Strengthening existing energy regulators into ministry level independent agencies, that regulate the participation of public and private companies: CNH and CRE (the Co-ordinated Regulators of the Energy Sector);
1. Until 1999, Central Light and Power also supplied electricity (Center for Energy Economics and Instituto Tecnológico y de Estudios Superiores de Monterrey, 2013).

- Creation of a new regulatory agency responsible for regulating and enforcing industrial safety and environmental protection throughout the hydrocarbons value chain: ASEA;
- Granting responsibilities linked to the hydrocarbons sector to the Ministry of the Environment and Natural resources (*Secretaría de Medio Ambiente y Recursos Naturales*, SEMARNAT) with the attachment of ASEA to the Ministry;
- Creation of new decentralised agencies that operate the electricity and gas markets: National Center for the Control of Energy (*Centro Nacional de Control de Energía*, CENACE), and the National Center for the Control of Natural Gas (*Centro Nacional de Control del Gas Natural*, CENAGAS);
- Creation of two state productive enterprises that compete and can associate with private companies (previous monopolies): *Petróleos Mexicanos* (PEMEX) and Federal Electricity Commission (*Comisión federal de Electricidad*, CFE);
- Creation of federal fund to manage, distribute and invest revenue from hydrocarbons activities: Petroleum Fund for Stabilisation and Development Of Mexico (Fondo Mexicano del Petróleo para la Estabilización y Desarrollo, FMP);
- Creation of the National Center for Hydrocarbon Information (*Centro Nacional de Información de Hidrocarburos*, CNIH) to manage national data and information on hydrocarbons, a function previously carried out by PEMEX. CNIH is integrated in the structure of CNH.

Following the reform, SENER continues to set policy for the energy sector. Main regulatory functions for the sector are now held by CNH as the “upstream regulator” and CRE as the “midstream and downstream regulator” in hydrocarbons and the electric power regulator, with ASEA holding responsibilities for safety and protection throughout the hydrocarbons value-chain.

Figure 2.1. **Timeline of the implementation of the energy reform, 2013-19**

2013

Dec.

- **Constitutional reform of Mexico's energy sector**



• Reform of the constitution of Mexico

2014

Aug.

- **Promulgation of a set of laws relative to the implementation of the energy reform**



- **Round 0: assignment of areas of exploitation to PEMEX by SENER and CNH**

- Hydrocarbons Act
- Electrical Industry Act
- The Co-ordinated Energy Regulators Act
- PEMEX Act
- Fedecal Electricity Commission Act
- ASEA Act
- Geothermal Energy Act
- Hydrocarbons Revenue Act
- Petroleum Fund for Stabilisation and Development of Mexico Act

Nov.

- **CNH issues guidelines for oil & gas bidding rounds**

Nov.-Dec.

- **Definition of internal structure and functioning of ASEA, CNH and CRE**



• Reglamento interno of ASEA, CRE and CNH (secondary legislation)

2015

Jan.

- **CNH issues guidelines for G&G surveys**

March

- **ASEA begins operations**

Jul. - Mar. 2016

- **Round 1: tender of oil and gas fields by SENER and CNH**

Aug.

- **CNH issues guidelines governing the procedure for quantification and certification of reserves of the nation**

Sept.

- **CNH issues dispositions for licensing information of the Hydrocarbons National Data Repository**
- **CNH issues guidelines for the approval of oil & gas production[**
- **CRE issues Electricity transmission tariffs**

Nov.

- **CNH issues guidelines for the approval of exploratory & production plans**

Dec.

- **ASEA emits its first regulation relative to design, construction, operation and maintenance of petrol stations**
- **CRE issues Electricity distribution tariffs and Independent ISO tariffs**
- **CRE issues permits for retail gasoline stations**

Figure 2.1. **Timeline of the implementation of the energy reform, 2013-19** (*cont.*)**2016**

- Jan.**
 - CNH issues guidelines for the usage of the non-associated gas in oil production
- Mar.**
 - CRE publishes Clean Energy Certificate (CEC) initial market rules
- April**
 - CRE issues National electricity system grid code
 - CNH issues guidelines for the migration of historical information
- May**
 - ASEA emits regulations on Safety and Environmental Management Systems (SEMS)
- June**
 - ASEA issues regulation on insurance for upstream activities
- Jul. -Mar. 2017**
 - Round 2: tender of oil and gas fields by SENER and CNH
- Sept.**
 - First meeting of the Co-ordination Council for the Energy Sector (CCSE)
- Oct.**
 - CNH issues guidelines for drilling wells for exploration and production of hydrocarbons
- Nov.**
 - CRE to issue Ancillary services and Basic supply tariffs
- Dec.**
 - ASEA issues regulation for Safety and Environmental Management Systems for downstream and retail and comprehensive ruling for upstream activities
- 2017**
 - Electricity wholesale market monitoring by CRE
 - Gasoline market opening (subject to early opening, under proposed legislation Revenue Law Initiative 2017)
 - ASEA to issue comprehensive ruling for midstream activities
- 2018**
 - ASEA aims to finalise consolidated secondary legislation for industrial safety and environmental protection in the hydrocarbons sectors
 - CRE to release first CEL market monitoring report with SENER
- 2019**
 - The three energy regulators are expected to reach financial autonomy through perceived duties and fines

Source: Adapted by OECD from ASEA, CNH and CRE.

Figure 2.2. Areas of influence and legal status of energy sector institutional actors, post-2013

Areas of influence					Safety & envt hydrocarbons	Legal status
Oil	Gas	Electricity	Nuclear energy	Energy efficiency		
SENER					SEMARNAT	Sector head
			CNSNS	CONUEE	ASEA*	Ministry's deconcentrated entities
CRE**						Regulatory bodies
CNH***						
PEMEX		CFE				State productive enterprises
	CENAGAS	CENAS				Independent transmission operators
IMP		NIECE	ININ****			Technological research institutions

* Regulations are applicable to the entire hydrocarbons value chain.

** In the oil and gas industry, the regulations are applicable only to the midstream and downstream segments.

*** In the oil and gas industry, the regulations are applicable only to the upstream segment.

SENER: Ministry of Energy; SEMARNAT: Ministry of Environment and Natural Resources; CNSNS: National Commission for Nuclear Safety and Safeguards; CONUEE: National Commission for the Efficient Use of Energy; ASEA: Agency for Industrial Safety and Environmental Protection of the Hydrocarbon Sector; CRE: Energy Regulatory Commission; CNH: National Hydrocarbons Commission; PEMEX: Petróleos Mexicanos; CFE: Federal Electricity Commission (utility); CENACE: National Centre for Energy Control; CENAGAS: National Centre for Natural Gas Control; IMP: Mexican Petroleum Institute; IIE: Electricity Research Institute; ININ: National Institute for Nuclear Research.

Source: Adapted from APEC Secretariat (2016), “APEC Energy Overview”, <http://aperc.ieej.or.jp/file/2016/5/31/apec+energy+overview+2015.pdf> (accessed 29 November 2016).

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Chapter 3

External governance of the energy sector

The Performance Assessment Framework for Economic Regulators (PAFER) was developed by the OECD to help regulators assess their own performance. The PAFER structures the drivers of performance along an input-process-output-outcome framework. This chapter applies the framework to the external governance of Mexico's Agency for Safety, Energy and Environment (ASEA), National Hydrocarbons Commission (CNH) and Energy Regulatory Commission (CRE) and reviews the existing features, the opportunities and challenges faced by the regulators in developing an effective performance assessment framework.

Role and objectives

The 2013 reform of the energy sector was accompanied by a series of significant corresponding changes to the sector regulatory framework. Namely, the role and functions of the National Hydrocarbons Commission (*Comisión Nacional de Hidrocarburos*, CNH) as the “upstream regulator” and of the Energy Regulatory Commission (*Comisión Reguladora de Energía*, CRE) as the “midstream and downstream, and electricity regulator” were strengthened, and the reform created a new regulatory body: the Agency for Safety, Energy and Environment (*Agencia de Seguridad, Energía y Medio Ambiente*, ASEA), responsible for ensuring safety and protection throughout the hydrocarbons value-chain.

The creation of CNH and CRE as “Co-ordinated energy regulators” was put forward in Article 28 of the reformed Mexican Constitution in December 2013 and their functions and operations were defined in the Law of the Co-ordinated Energy Regulators (*Ley de los Órganos Reguladores Coordinados en Materia Energética*, LORCME) in August 2014.

Transitory Article 19 of the reformed Constitution also proposed the creation of an agency to oversee industrial safety and environmental protection (ASEA). The functions and operations ASEA were further defined in the ASEA Act, enacted in August 2014. Due to the absorption by ASEA of functions from several federal institutions, overall its functions are governed by a total of 11 federal laws and 12 subordinate regulations (*reglamentos*). This results in a fragmented legal landscape with 52 different licensing or administrative procedures.

The implementation of the reform was further detailed in the Hydrocarbons Act of August 2014. SENER retained the lead in designing sector policy and objectives that are embodied in the National Energy Strategy 2014-2028.¹ SENER also issues five year plans for the development of specific activities within the energy sector, such as the 2015-2019 Tender Plan for the Exploration and Extraction of Hydrocarbons published in 2015 that guides CNH contracting activities. SENER also retains functions related to permits including processing, refining, imports and exports.

In parallel to SENER’s overarching role, the 2013 reform reinforced the involvement of the Ministry of Environment (*Secretaría de Medio Ambiente y Recursos Naturales*, SEMARNAT) in the energy sector. SEMARNAT had previously only been involved in renewable and green energy and emissions regulations. It has retained its functions in this area, but co-ordination on the roles and responsibilities with relation to green energy with other actors remains unclear. With the creation of ASEA, attached to the Ministry, a

number of new functions linked to the hydrocarbons sector were introduced for the first time under the scope of SEMARNAT.

Agency for Safety, Energy and Environment – ASEA

Established as part of Mexico’s ambitious energy sector reform, ASEA is a multidisciplinary regulatory agency charged with the mission of overseeing industrial safety and environmental protection throughout the hydrocarbons value chain, from upstream, midstream, downstream to retail activities. Given the scope of its responsibilities, ASEA is internationally unique, and it is the first time that industrial safety and environmental protection are brought under the competence of one institution in Mexico. Prior to the reform, most environmental regulation and licensing powers were held by the Ministry of Environment (SEMARNAT) and its bodies, and some by CNH and CRE. As the sole sector operator, PEMEX had auto-regulated its industrial and operational safety, and the reform created a regulatory void in this area. Regulatory and supervisory functions linked to the retail sector (petrol stations) had been held by state-level authorities. Upon its creation in 2015, ASEA had to tackle a complex transfer of powers from these entities. Given this, ASEA has laid out a roadmap to better structure regulatory affairs in the hydrocarbons sector that involves three phases to be carried out between 2015 and 2018, namely: i) the stabilisation or the transfer of powers (2015); ii) the alignment of the legal framework from the energy and environmental sector (planned for 2016-17); and iii) the final architecture or the institutional arrangement based on secondary legislations specific to ASEA.

The ASEA Act enacted in August 2014, assigns the Agency the following functions:

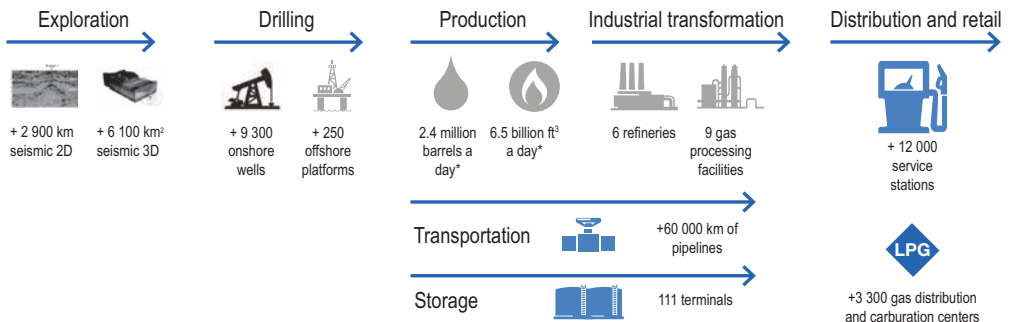
- Contribute technical elements relative to industrial and operational safety and the protection of the environment to national energy policies and laws;
- Regulate and supervise activities in the hydrocarbon sector relative to industrial and operational safety and the protection of the environment throughout the value chain, including the dismantling of infrastructure;
- License operators throughout the hydrocarbons value chain relative to industrial and operational safety and environmental protection in collaboration with CNH and CRE (who hold responsibility for other areas of the licensing process);
- Authorise Safety and Environmental Management Systems (SEMS) of based on requirements established by ASEA;

- Carry out inspections, propose corrective actions, and impose sanctions or suspend activities;
- Co-ordinate and review Root Cause Analyses (RCA) (*investigaciones de causa raíz*) in case of incidents or accidents and communicate risks and lessons learnt;
- Provide technical elements to the design of national contingency plans and safety protocols in case of emergency with a view to reducing risks in the energy sector; and
- Produce economic analyses of the environmental externalities and associated risks of industry installations and operations.

Figure 3.1. Functions of the Agency for Safety, Energy and Environment (ASEA)

REGULATE and SUPERVISE industrial safety and environmental protection

HYDROCARBONS



Source: Adapted from ASEA.

National Commission for Hydrocarbons – CNH

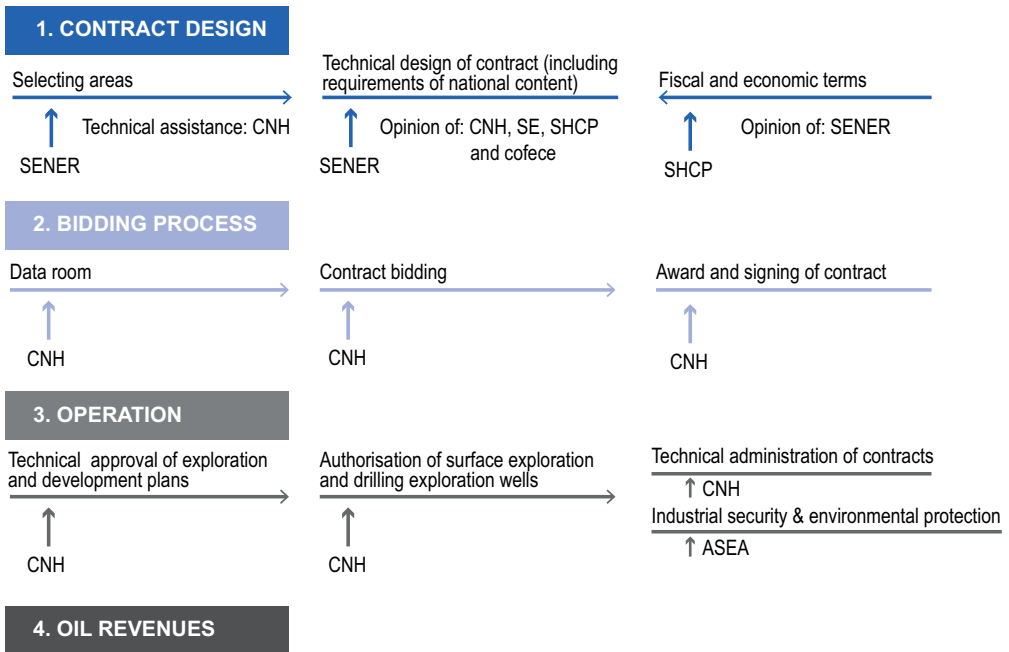
The CNH was established in 2008 with the aim of regulating and supervising the exploration and extraction of hydrocarbons by PEMEX. The reform opened these activities to other national or foreign actors and entrusted CNH with regulating the reformed hydrocarbons industry and all its actors in the upstream sector. CNH current functions are defined as:

- Regulate and grant geological and geophysical exploration permits;
- Regulate and supervise hydrocarbon exploration and extraction, from production points into transport and storage systems;
- Arrange bidding processes for exploration and extraction and sign contracts on behalf of the Mexican state;

- Administer the technical aspects of assignments and contracts;
- Establish and administer the National Center for Hydrocarbon Information (*Centro Nacional de Información de Hidrocarburos*, CNIH); and
- Provide technical assistance to SENER.

The Hydrocarbons Law transferred the administration of Mexico's geological and geophysical information from PEMEX and the Mexican Petroleum Institute (IMP) to CNH, through the creation of CNIH. Following a two-year period during which information was transferred to CNIH, CNH has to by law provide and share its information with SENER and SHCP and any interested parties.

Figure 3.2. **Functions of the National Hydrocarbons Commission (CNH)**



Fondo Mexicano del Petróleo para la Estabilización y el Desarrollo (Banxico) makes payments and manages revenues from exploration and exploitation

Source: Adapted from CNH.

The Energy Regulatory Commission: CRE

CRE is a multisector regulator with powers to regulate different areas of the hydrocarbons and electricity sectors. CRE was created in 1993 to regulate private sector activities linked to electric power generation; in 1994, its mandate was expanded to the gas sector. In 2007, CRE was granted additional powers for the regulation of other industries within the hydrocarbons sector, such as oil, petroleum products & petrochemicals transportation, distribution and storage. CRE also acquired new objectives associated with the regulation of renewable and clean energies.

The 2013 reform broadened CRE's functions in the energy sector to regulating the entire electric power supply chain and granted CRE additional powers for regulating, oil, petroleum products, petrochemicals and biofuels. Current CRE functions and powers include, among others:

In the hydrocarbon sector:

- To grant permits, to supervise the compliance of regulatory obligations associated with those permits and to determine different aspects of the technical and economic regulation related to midstream & downstream activities;
- To set tariffs for the distribution and transportation of hydrocarbons by pipelines; hydrocarbons storage; and “First Hand Sales” (FHS) of natural gas, liquefied petroleum gas, petroleum products and petrochemicals;

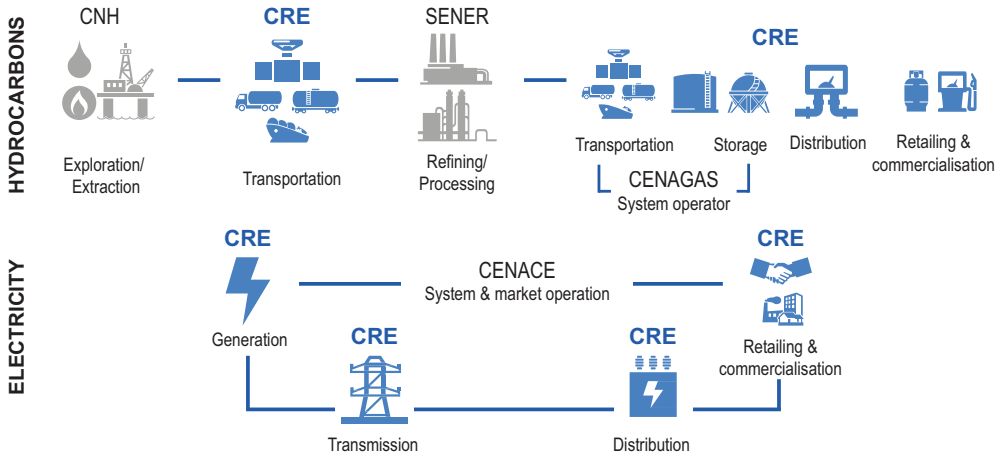
In electricity sector:

- To grant permits, to supervise the compliance of regulatory obligations associated with those permits and to determine different aspects of the technical and economic regulation throughout the electricity value chain;
- To determine tariffs for the transmission, distribution, basic supply & last-resource supply of electric power; and the provision of ancillary services not included within the electric wholesale market;

For clean energy:

- Design and manage a clean energy certificate system to incentivise clean energy generation in line with Mexico's goals of 25% by 2018, 30% by 2021 and 35% by 2024.

Figure 3.3. Jurisdiction of the Energy Regulatory Commission (CRE) in the hydrocarbons and electricity sectors

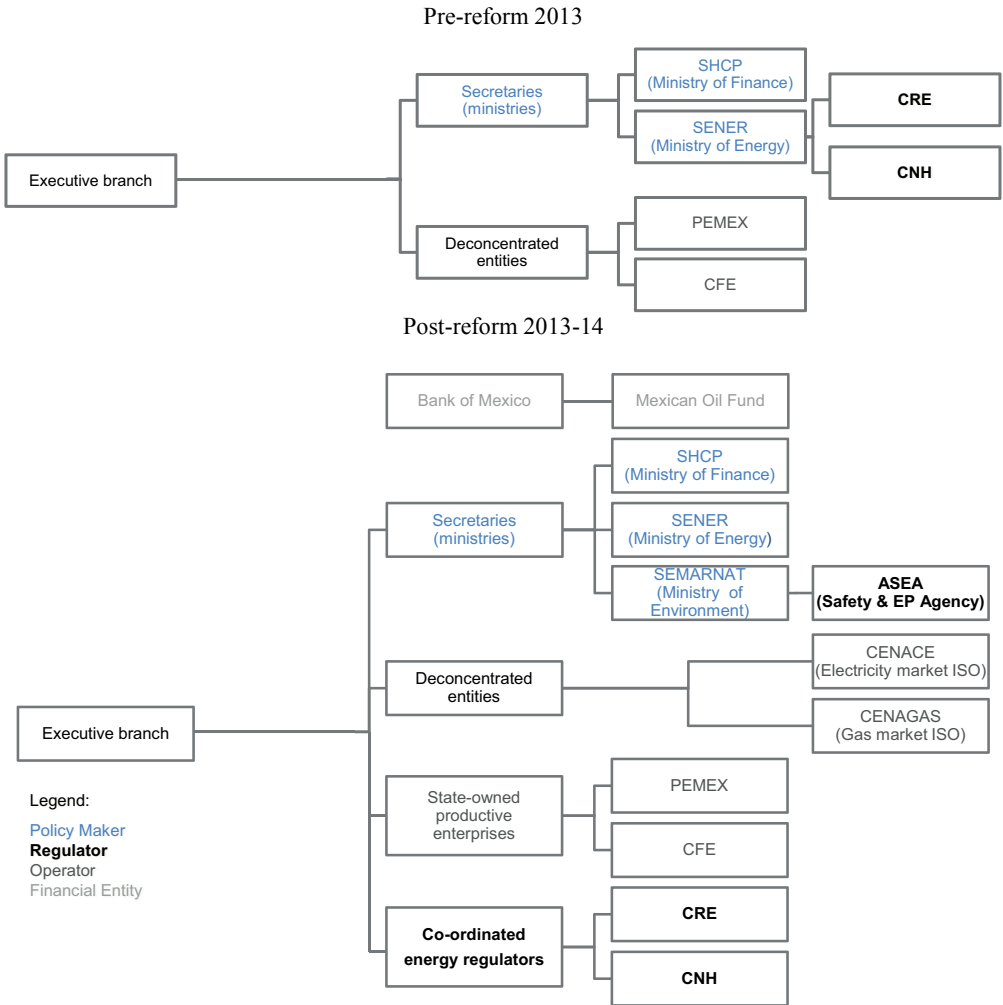


Source: Adapted from CRE.

Co-ordination

The energy reform enacted a revolutionary transformation of the sector institutional framework (see Figure 3.4), generating an increasing need for co-ordination between a growing number of actors involved in the management of sector activities. The most important foreseen co-ordination mechanism for the implementation of the reform is the Co-ordination Council for the Energy Sector (*Consejo de coordinación del Sector Energético*, CCSE), created by LORCME (Art. 19), issued in 2014. It met for the first time in September 2016. It is to act as a co-ordination mechanism between the Co-ordinated Energy Regulators, the Ministry of Energy, and other federal institutions. The CCSE is integrated by officials of the Ministry of Energy (SENER), CRE, CNH, CENAGAS (Natural Gas ISO) and CENACE (Electric Power ISO). ASEA can be invited to participate in the CCSE. The CCSE is chaired by the Minister of Energy, who has the power to convene the ordinary and extraordinary sessions of this council.

Figure 3.4. Overview of institutional arrangements in Mexico’s energy sector: Pre-and post-reform



Source: Adapted from CRE.

The CCSE has the purpose of informing CRE and CNH on energy policy determined by the Ministry of Energy. It also has the powers to issue recommendations concerning aspects of the energy policy that should be incorporated into the annual working plans of CRE and CNH. The CCSE is also entitled to analyse the recommendations provided by CRE and CNH regarding the energy policy implemented in Mexico. Finally, and most importantly, the CCSE has been designed to analyse and assess possible

setbacks which might affect the implementation of Mexico's energy policy and, if so, to propose additional mechanisms of co-ordination which might help to solve such difficulties. The Council is also to implement systems for information sharing and institutional co-operation in the sector. It is headed by the Ministry of Energy and is to meet at least quarterly.

Prior to the creation of the CCSE, most collaboration between the three regulators and with other sector actors has taken place mostly informally, through operational working meetings, correspondence to exchange information, or technical consultations between the agencies. This has been facilitated and made more efficient by the existing good relations between agency heads and staff, highlighting a need to institutionalise and consolidate channels of communication beyond good personal contacts.

Other relevant co-ordination mechanisms exist within the energy sector. The CRE chairs two multi-stakeholder mechanisms that are fundamental for the design of official standards in the energy industry: the *Comité Consultivo Nacional de Normalización Eléctrico* (CCNNE)² and the *Comité Consultivo Nacional de Normalización de Hidrocarburos, Petrolíferos y Petroquímicos* (CCNNHPP)³. The Committees bring together federal bodies, a number of private sector representatives (industrial organisations, confederations and chambers) and academia to discuss standard development in the electric sector and the hydrocarbons industries, respectively. CRE also chairs two other Advisory Councils, the first one related to the electric power sector, while the second relates to the hydrocarbons sector. Each Council is integrated by nine members that are part of academia and the industry, having as function to provide feedback and assist the Commission on relevant regulatory issues.

The Ministry of Economy (*Secretaría de Economía*, SE) chairs another set of Advisory Councils that focus on the development of national supply chains within the energy industry. The *Consejo Consultivo para el Fomento a la Industria Eléctrica* focuses on electric power, and *Consejo Consultivo para el Fomento de la Industria de Hidrocarburo* on hydrocarbons, created by the Hydrocarbons Act.⁴

Since the energy reform, some other specific co-ordination and collaboration mechanisms have been put in place by each of the regulators. For example, in 2014, CNH entered into an agreement for collaboration, coordination and technical assistance with the Bank of Mexico, through the Mexican Petroleum Fund, Secretary of Finance and Public Credit, Secretary of Energy, and the Tax Administration Service. Similarly, in 2015, an agreement was signed between Mexico's Federal Consumer Protection Agency (PROFECO) and CRE to better address user complaints on electric power supply services. This agreement clarified the roles of both agencies

when responding to user complaints. CRE is responsible for complaints from industrial and commercial customers, while PROFECO remains responsible for residential consumers. The agreement is in the process of being fine-tuned to further improve information exchanges. The ASEA Act also foresees the creation of bilateral coordination agreements, at least with the Ministry of Labour and Social Affairs, and with CNH and CRE.

The regulators have entered into co-ordination agreements and operational collaboration internationally in the interest of exchange of information and peer learning, and in some cases the implementation of staff training programmes. ASEA has entered into or is finalising agreements with Bureau of Safety and Environmental Enforcement (BSEE), the Bureau of Ocean Energy Management (BOEM) and the American Petroleum Institute (API) of the United States, Britain's Health and Safety Executive (HSE) and Canada's Alberta Energy Regulator (AER). CNH has collaborated with the International Confederation of Energy Regulators (ICER) and the Association of Energy Regulators in Iberoamerica (ARIAE), and has entered into collaboration agreements with the Brazilian, Alberta (Canada), and Bolivian energy regulators. CRE has also worked with ICER and ARIAIE, as well as the National Association of Regulatory Utility Commissioners (United States – NARUC), the Peruvian petrochemicals regulator, the School of Public Policy of the University of Calgary, and the US Department of State via the Bureau of Energy Resources.

Relations with the executive: independence

The 2013 constitutional reform changed the status of CRE and CNH from de-concentrated entities under SENER to co-ordinated energy regulators that enjoy Ministry-level autonomy, with regard to technical, operational, financial and administrative aspects. Sector policy and five-year plans linked to its implementation in specific areas is still defined by SENER, but the Ministry cannot instruct CRE or CNH on specific regulatory functions or responsibilities. Unlike other independent Mexican regulators (IFETEL and COFECE, whose independence is encoded in the Constitution), CRE and CNH are subject to regulatory oversight by COFEMER as stipulated in Article 22 of LORCME for most of the regulations issued.

ASEA is a deconcentrated agency of the Ministry of Environment (SEMARNAT). It has technical and managerial independence, meaning that the Ministry cannot interfere in technical decisions, but the agency depends on SEMARNAT for financial and budgetary aspects. The ASEA Technical Committee that approves annual work plans and annual reports, presented by the Agency's Executive Director, is headed by the Minister of Environment.

Statements of expectation, formal or informal, from government to regulators are not practiced in the Mexican administration. The purpose and goals of regulators are written in law (LORCME for CRE and CNH, the ASEA Act for ASEA). Government cannot overturn specific decisions of the regulators.

Input

Financial resources

By law, following the reform, ASEA, CNH and CRE are funded by resources from the federal budget as well as their own income, and follow a process for the approval of yearly federal funding. Given ASEA's status as de-concentrated entity attached to SEMARNAT, ASEA submits its proposal for the following year's budget to SEMARNAT in June or July. SEMARNAT includes this in its overall budget which is submitted to the Ministry of Finance and Public Credit (*Secretaría de Hacienda y Crédito Público* – SHCP) in August. As autonomous ministry-level entities, CRE and CNH submit their budget proposals directly to SHCP. The consolidated federal budget is presented by the SHCP to Congress in September, and following a two month period of discussion and amendments, is approved in November.

It is intended that by 2019, all three agencies fund their operations with their own income and no longer rely on federal resources although they will remain federal entities of the Executive branch. Prior to the reform, CNH and CRE were funded solely by transfers from the federal budget. Today, in addition to federal resources, their funding model includes resources from regulatory fees and duties paid by regulated entities under CRE's/CNH's jurisdiction. ASEA similarly collects fees and fines but has yet to define the procedure for recovering the resources from SHCP (as of November 2016). It remains to be seen whether the self-sufficiency of the three agencies will be reached by the planned date, especially for ASEA and CRE, also in light of the volatility in oil prices.

All three agencies dispose of trust funds (*fideicomiso*) for their own income. Funds from fees, as well as carry forward of the previous year's budget can be carried into the trust fund, under certain conditions, in an effort to guarantee financial stability and self-sufficiency. ASEA has yet to set up a committee that will define the trust fund's rules of operation and operationalise it. The ceiling of the trust fund is set at three times the agency's federal budget in the previous year. For example, CNH, whose federal budget for 2015 was MXN 350 mln, perceived MXN 2 654 mln in fees in 2015. Of this amount, it was able to transfer MXN 1 050 mln

(3 x MXN 350 mln) to its trust fund, used MXN 678 mln and transferred the rest (MXN 926 mln) to SHCP.

Table 3.1. ASEA, CNH and CRE budget and funding sources, 2013-16

Million MXN

	ASEA	%	CNH *	%	CRE	%
2013 Total	-		393 000		173 407	
Federal budget			63 000	16%	173 407	100%
Own resources			330 000	84%	-	-
2014 Total	-		400 000		212 144	
Federal budget			75 000	19%	212 144	100%
Own resources			325 000	81%	-	-
2015 Total	307 448		3 004 000		473 931	
Federal budget	307 448	100%	350 000	12%	400 000	84%
Own resources	-	-	2 654 000	88%	73 931	16%
2016 Total	480 031		1 894 000		492 220	
Federal budget	472 296	98%	320 000	17%	370 000	75%
Own resources	7 735 ¹	2%	1 574 000	83%	122 220	25%

1. ASEA own resources 2016 refer to funds received as of May 2016.

Source: OECD Questionnaire responses by ASEA, CNH and CRE, 2016.

As a de-concentrated entity attached to the Ministry of Environment, ASEA is dependent of the Ministry for financial and administrative management. In terms of budget management, additional approvals are needed in case of new activities or request for more funds (SEMARNAT) and international staff travel (Minister of Environment). An annual procurement plan is prepared on the basis of the annual budget. It is approved by the SEMARNAT procurement board, which also has to approve documents relative to market consultations and open tenders. ASEA can award contracts directly under MXN 310 000 (approximately EUR 15 000), has to proceed to a market consultation of three providers for contracts between 310 000 and MXN 1 900 000 (EUR 92 000), and has to publish an open tender for contracts above MXN 1 900 000.⁵ These processes overall and respectively take approximately two weeks, one month and five days, and between 45 and 60 days.

CNH and CRE have relative autonomy over the implementation of their budgets. A similar level of autonomy characterises all ministry-level federal entities. In practice it can be limited, for instance, by the fact that some

federal resources are earmarked for several specific activities (*partidas presupuestales*) and cannot be re-allocated without approval. Moreover, the regulators cannot immediately dispose of all of their own resources, which are collected through fees and duties paid by the regulated industry, but not always or systematically channeled to trust funds, which requires approval by the Ministry of Finance. These approvals or processes can represent a high transaction cost.

The setting of fees usually involves a number of federal stakeholders. In the case of CRE and CNH, SHCP uses a methodology that takes into account the cost of the service provided, based on estimates by the regulators, or uses international references. This fee set by SHCP is renewed annually. Following the reform and the attribution of new functions to CNH, the regulator is in the process of defining fees for these new activities. In the case of ASEA, fees are set by SHCP and COFEMER, whereas the agency itself sets the amounts of fines.

Human resources

The energy reform created a significant demand for qualified personnel across job families in the area of energy regulation, following an increase in staff at both CRE and CNH, the creation of ASEA, and similar pressure from a newly growing private sector. As federal agencies, all three regulators are subject to the Federal wages and salaries scale that is approved by Congress (*tabulador de sueldos*). At certain levels, the salaries are lower than in the private sector, hindering in some cases finding competent and skilled human resources.

Moreover, the head count and job descriptions are approved by the Ministry of Public Administration (*Secretaría de la Función Pública*, SFP) and SHCP, based on an administrative and financial, rather than operational, analysis. These cannot be modified without a formal amendment and approval process involving the Ministry. This can seriously limit the autonomy and flexibility of the regulators in managing their staff, in particular during a time of adjusting to new functions and powers following the energy reform.

Recruitment processes at CRE will be governed by a Professional Regulatory Service Statute that is expected to be published in the following months.⁶ In general terms, this professional service will describe processes that include vacancy announcements, curriculum reviews, written examinations, interviews and appointment by the corresponding head of service. CNH is also currently in the process of drafting its institutional Professional Regulatory Service Statute which will include clear selection rules and professional development systems to hire and retain the best

talents. At present, the CNH website includes an open-access tool where interested candidates can register their personal data and career profiles; when a vacancy is announced, the database is searched for matching candidates.

The recruitment process of ASEA is not codified as in the case of the co-ordinated regulators. After the creation of the Agency and in a context of high pressure for its rapid operationalisation, 300 persons were recruited in 2015. Vacancies were not advertised and after being approached directly by senior management, candidates were assessed in interviews and written tests.

The three agencies have put in place different mechanisms to compensate for restrictions imposed by the federal system. Within the federal salary scale, ASEA has been able to offer more attractive wages by granting salaries at the highest “band” within a grade (starting new recruits at the C – rather than A – band), representing an approximate 30% salary increase. In addition to trying to implement the highest salaries available for its staff, CRE has put in place other non-financial benefits, such as implementing less working hours on Fridays to incentivise productivity. This measure was approved by CRE’s governing body. Moreover, the agencies provide on the job training to enhance staff competences and provide incentives. For example, ASEA have established a programme to provide training enabling its staff to carry out federal inspections, providing better skills and qualifications to its staff. CNH does the same. ASEA has also entered into agreements with other countries’ regulatory authorities, such as the US Bureau of Safety and Environmental Enforcement (BSEE) and the UK Health and Safety Executive to provide training courses to its staff, on site in the United States and the United Kingdom. The training and certification of staff, without a contractual clause for retention, carries the risk of losing the investment to the regulated industry.

Process

Decision-making

The Executive Director of ASEA is directly appointed by the President of Mexico, upon proposal of the Minister of Environment (SEMARNAT), based on criteria set forth in the ASEA Act. S/he then holds the authority of appointing or terminating Senior Management Team personnel (or Heads of Units). The Executive Director presents the agency’s work programme for approval to the Technical Council, which is presided by SEMARNAT, and has the authority to dismiss any staff of ASEA.

The constitution of the ASEA Technical Council and its functions are set out in the ASEA Act: it is to approve the annual work plan (but not the budget) and annual reports, agree upon any matters linked to industrial and operational security and environmental protection presented to it, oversee the functioning of the ASEA trust, approve the Agency's code of conduct, and contribute technical elements to the design and formulation of national policies. Led by the Minister of Environment, representatives at minimum Director General -level from the following institutions participate in the Council: Ministries of Interior, Finance and Public Credit, Energy, Communications and Transport, Employment and Social Provision, Health, the Navy, CRE, CNH, National Water Commission, National Commission for Protected Natural Areas, and the National Institute of Ecology and Climate Change. It is to meet at least once a year.

The CRE and CNH governing councils are appointed by the Senate upon proposals made by the Executive. The hiring process for CRE and CNH's President Commissioner and Commissioners is conducted through a short-list of three candidates proposed by the President of the Republic to the Senate, which chooses one of them following hearings and a vote. The shortlist is based on specific requirements stipulated in LORCME and it is established by the Executive through informal internal consultations. Some of the requirements to be a Commissioner is to be Mexican and to have a good reputation, own a Bachelor's Degree, and have a minimum of five years of work experience in energy-related fields, among others. The governing council then appoints an Executive Secretariat, with the guidance of the President Commissioner. The Commissioners are appointed for a period of seven years and can serve an additional seven year mandate. Their mandates are staggered and can only be removed for severe causes listed in LORCME. The senior management is then selected by the President Commissioner according to the candidate's profile and the technical requirements for the position. The President Commissioner likewise has the authority to dismiss any staff under specific circumstances. CNH has created a Career advancement council, integrated by the Commissioners, the Executive Secretary and the Budget Director, which convenes to approve the Senior Management Team (Heads of Units and General Directors).

Accountability

Federal entities are accountable to the representative of the Executive and to Congress. The CRE and CNH, and ASEA indirectly via SEMARNAT, provide inputs to elaboration of the annual Government Report issued by the President of the Republic.

In Congress, both Chambers of Congress include Ordinary Committees for Energy; a Special Committee for Monitoring the Co-ordinated Energy Regulators was created in May 2016 but seems to not yet be operational. There are no formal channels or systematic mechanisms for the accountability of the regulators to Congress. ASEA, CRE and CNH are required to prepare annual reports on their activities and results but there is no formal mechanism for their discussion by Congress or its select committees. The heads of the agencies can be called to appear in Congress to report on their activities and results, but this does not happen systematically. This contrasts with SENER that on an annual basis has the obligation to elaborate a report on its main activities, projects, and policies developed, which has to be presented by the Minister in Congress.

As any federal body, ASEA, CNH and CRE can be audited by the Superior Audit Office that reports directly to Congress, as well as by the Ministry of Public Administration that reports to the President of Mexico. In that sense, they can be directly audited by and are accountable to both Congress and the Federal Executive. These audits focus on administrative and financial aspects. In the case of relations with SFP, all federal entities include an *Órgano Interno de Control* (Internal Audit Office), which responds directly to the SFP. The purpose of these Internal audit offices is to support the performance of the entity, to prevent non-compliance by staff and handle complaints against public servants. They are also responsible for supervising and enforcing the Federal Law on the Liabilities of Public Officers (*Ley Federal de Responsabilidades Administrativas de los Servidores Públicos*).

Other accountability mechanisms within the Executive branch include the assessment of the alignment of the budget of federal entities with their mandates and objectives, in line with results-based budgeting best practices, by SHCP. Each year through the “*Presupuesto de Egresos de la Federación*” (PEF) resources are allocated to agencies based on a programme structure; each programme has a corresponding set of Key Performance Indicators within a results matrix (*Matriz de Indicadores para Resultados*, MIR). They report on these quarterly to SHCP. CRE and CNH both represent their own budgetary programmes whereas ASEA reports to the SHCP via SEMARNAT. During 2016, CRE carried out an assessment of the two budgetary programmes under its responsibility: i) permits and regulation in the hydrocarbons industry and, ii) permits and regulation in the electricity industry. These assessments evaluated the consistency between the Key Performance Indicators of the two programmes and the policy objectives that the indicators measure. The results of these evaluations are reported to the Ministry of Finance in order to follow up on the effectiveness of the budgetary programmes administered by particular institutions.

Regulators are also accountable to Mexican citizens. As instructed by LORCME, CNH and CRE publish a quarterly newsletter that summarises activities and results. Moreover, decisions and votes of the board as well as minutes of meetings are made available on the CRE and CNH websites in real time. Finally, CNH has prepared a White Book on the tender process of Round 1, including data from the start of the bid to the signature of the contracts, in the interest of increasing accountability and transparency. This report, once reviewed by SFP, will be made available on the CNH website. Similarly, ASEA publishes its annual report on its website, once it has been approved by the technical Council.

As requested by law, the regulators have set up several internal mechanisms that seek to minimise conflict of interest and enhance accountability of agency heads and staff. As such, LORCME defines the minimum content of an institutional Code of conduct and sets the institutional values of the co-ordinated regulators as uprightness, honesty, justice, respect and transparency. The two regulators' codes of conduct were approved by the CRE board in December 2014 (updated in October 2016) and the CNH board in December 2014 (updated in March 2016). These texts set the requirements for the management of meetings between Commissioners/technical staff and the regulated industry, defining minimum participation by Commissioners/staff, the recording of meetings, and their organisation on regulator premises. Furthermore, both codes propose the creation of an Ethics Committee within the regulator that will contribute to the implementation and enforcement of the Code of Conduct, in collaboration with the Órgano Interno de Control.

CNH Commissioners sign a declaration of interest, specifying if they have previously worked in companies linked to the hydrocarbon sector, acted as counsellors, assessors or suppliers of any sector economic agent, or have any kinship or parentage connections to employees of companies operating in the hydrocarbons sector. These declarations are posted on the CNH website and will be updated every year. The CNH Code of conduct requires that Senior Management also sign this declaration. CNH was the first federal entity to undertake this transparency exercise.

Similarly, the ASEA Code of conduct (June 2016) provides a framework for the behaviour of Agency staff, according to the institutional values of professionalism, transparency, impartiality, and timeliness. Contact with the industry is strictly regulated by the Code. Upon soliciting a meeting with ASEA staff, regulated entities communicate proposed areas of discussion, which allow for categorisation of the meeting into a hearing (to discuss of an on-going procedure) or working meeting (general information request). A hearing can only be granted by the Executive Director or Head of Unit, has to include at least two ASEA officials, take place on ASEA

premises, an audio or video recording of the meeting has to be preserved and a record of the meeting published on the ASEA website (attendance, date). Records of these meetings are to be published on ASEA's website but are not yet available for consultation. Unlike CRE or CNH, the ASEA code of conduct does not create an instance or designate an authority within the Agency to oversee its enforcement; this responsibility lies with the *Órgano Interno de Control* of SEMARNAT.

Finally, LORCME and the ASEA Act establish a number of safeguards with regard to agency head or senior management employment and links with the regulated industry. The ASEA Act states that in the year prior to his nomination, the Executive Director cannot have held a high-level political position in the Mexican administration or owned shares in or been employed by the regulated industry. Similar dispositions are included in the Coordinated Energy Regulatory Bodies Act for CRE and CNH, but do not include ownership of shares in the regulated industry. Nevertheless, in Article 37 of its Code of conduct, CNH has prohibited personnel from having shares or any other financial interest in companies in the hydrocarbon sector or related investment funds. The Acts do not include any specific restrictions on employment (cooling-off period) upon leaving the regulator; these considerations are included in Article 9 of the Federal Law on the Administrative Liabilities of Public Officers (*Ley Federal de Responsabilidades Administrativas de los Servidores Públicos*) which stipulates that public officers shall not accept any benefit or employment in the regulated industry for themselves or their families for up to a year after they have concluded their duties. CNH's Code of conduct prohibits negotiations, talks or actions aimed at obtaining a job from a regulated entity. Moreover, the Federal Law on the Liabilities of Public Officers stipulates that public officers shall not use in their own profit or that of third parties, any information that is not in the public domain for up to a year after they have concluded their duties.

Regulatory quality tools

According to the Federal Law of Administrative Procedure (*Ley Federal de Procedimiento Administrativo*, LFPA), COFEMER is responsible for oversight and regulatory improvement across the Mexican federal administration. Accordingly, federal entities must send their draft regulations to COFEMER for review and a public consultation that is managed by this entity. The draft regulation must be accompanied by a Regulatory Impact Assessment (RIA), based on methodologies defined by COFEMER. The required depth of the RIA is defined according to two categories: moderate impact and high impact regulation. In the former case, the RIA must include information on the problem the regulation attempts to

solve, objectives, analysis of regulatory alternatives, qualitative cost benefit analysis, among others. In the latter case, if the regulation is deemed high impact due to its consequences for a large number of actors and high social regulatory cost of implementation, the RIA must also include a quantitative cost-benefit analysis and in some cases, impact on competition and risk analysis. ASEA, CNH and CRE submit draft regulation to COFEMER according to these guidelines.

There are no systemic requirements to carry out *ex post* assessments or regulations. *Normas oficiales* have to be reviewed after their first year of implementation for relevance, but no other normative requirement exists for other categories of regulations.

Appeals

As specified in LORCME, decisions by CNH and CRE can only be appealed to the federal courts via *amparo indirecto*, which examines the constitutionality of the decision. With regard to exploration and extraction contracts, CNH and operators can resort to International Arbitration to address alleged contract breaches.

Conversely, various levels of appeals against decisions by ASEA are available to regulated entities. The first step is an appeal (*recurso de revisión*) before the issuing authority and resolved by its superior without resorting to the courts. Upon finalization of the three month process, a version of the exchange can be presented through a public information access request. Regulated entities may also initiate legal proceedings via a *juicio contencioso* or *juicio de amparo* before federal courts. Up to May 2016, most *juicios contenciosos* were brought forward contesting sanctions or decisions regarding clandestine siphoning from pipelines; *juicios de amparo* on the other hand have been used in various cases to appeal against decisions made by ASEA. Following this level of proceeding, appeals in second instance should be filed before the *Tribunal Colegiado de Circuito*, decisions made by such Courts can only be overturned by the Supreme Court (SCJN). There are currently eight active *juicios de amparo* regarding clandestine siphoning of oil products from pipelines, three of which are currently being reviewed by the Supreme Court at ASEA's request. In May 2016, ASEA has obtained an important ruling upholding operator's responsibility for damages in these cases.

Moreover, citizens are able to file complaints (*denuncias*) about non-compliance by the regulated industry or incidents directly to ASEA, in writing or over the phone. As at May 2016, ASEA had received 520 complaints. When a complaint is received, and ASEA has competence in the subject matter, ASEA investigates and informs the concerned party.

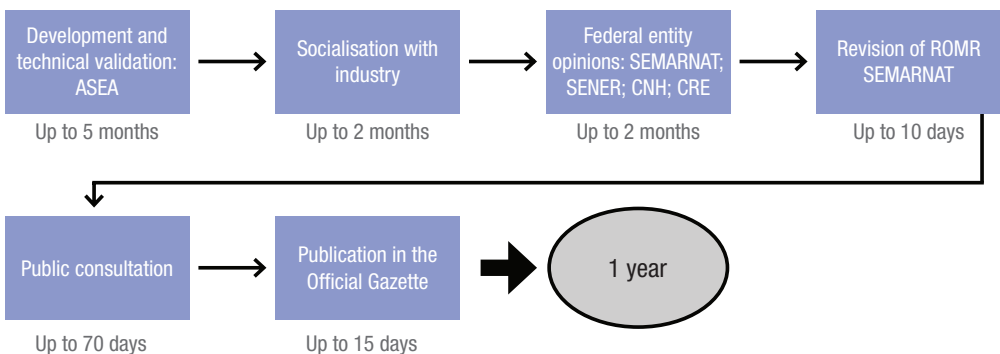
Stakeholder engagement

Formal stakeholder engagement during public consultation is managed by COFEMER, following submission of draft regulation by the agencies. In addition to this, the regulators have instated “early stage” mechanisms to engage with industry in order to solicit their feedback and hear their concerns.

In the case of ASEA, the consultation with industry on draft regulation (*socialización con la industria*) can take up to two months. It consists of a meeting where ASEA invites industry representatives (collective bodies), presents the draft law and shares it in writing with industry. The comments are not binding and industry can make same comments again during the COFEMER public consultation phase. The participants list of the information meeting and the written comments are kept on record by ASEA, but they are not made public.

While ASEA is endowed with technical independence, following the above industry consultation, it also submits draft regulation for comments by the Ministry of Finance, the Ministry of Environment, the Ministry of Energy, CRE and CNH before finalising the draft law and submitting it to COFEMER for public consultation. Comments made by these entities are not binding, but ASEA has modified texts in line with comments received. They are archived by the Agency. ASEA sees this step as a useful tool for quality control and co-ordination, rather than a mechanism to exert influence over ASEA regulatory activities.

Figure 3.5. ASEA steps for developing new regulations including stakeholder engagement: one year



Source: Information provided by ASEA, October 2016.

In addition to several types of formal meetings that can be organised with the regulated industry, that are governed by rules included in both institutions' Codes of conduct, as foreseen by Article 28 of LORCME, the board of CNH and CRE can convene Advisory Councils for the discussion of each developed regulation. Once the board has approved the list of industry representatives who will participate in the Committee, a meeting is convened and regulated entities have an average two weeks to send their comments on the draft regulation. Accordingly, CRE manages the Advisory Council on Hydrocarbons; and the Advisory Council on Electricity related issues. These Consultative Councils are integrated by nine counsellors selected for their expertise linked to the energy sector. This formal engagement mechanism helps share regulators' points of view with the private sector and allows for the inclusion of the industry's perspective in the process of designing and developing regulatory instruments.

Moreover, it is important for CNH to advocate for a formal engagement mechanism for the CNIH that can help the management and development of the E&P Data. Establishing an Advisory Council similar to the Common Data Access Limited (CDA) in the United Kingdom can engage with stakeholders for them to provide their perspective. The exchange of information with academia and oil and service companies could be jointly used to provide stability and facilitate long-term planning for E&P Data, and to contribute to effective management and to assessing performance.

Output and outcome

Assessing the performance of regulated entities

As per regulation issued by ASEA relative to Safety and Environmental Management Systems (SEMS), regulated entities are requested to submit information linked to all areas of operations and performance to ASEA on a yearly basis. These include: Objectives and targets; Competences and training; Communication and consultation; Document records; Controls and changes; Mechanical integrity and quality insurance; Contractor security (including performance evaluation results of contractors and corrective measures in case of lags); Monitoring, verification and evaluation; Emergency preparedness; Audits; Investigation of incidents and accidents (including indicators of frequency and gravity). ASEA has not emitted manuals for the compilation of this information nor has it prescribed specific overall performance indicators. Based on this information, ASEA plans to prepare annual reports on sector performance (ASEA will not publish information relative to the performance of specific operators).

CNH requires the regulated entities to submit performance information for contracts and allocations on a regular basis, on seven different topics:

- Oil activities (monthly, quarterly and annually)
- Health, safety, security and environment status (monthly, quarterly and annually)
- Discoveries (5 working days following Discovery)
- Commerciality (60 days after completion of the evaluation)
- Drilling and results (upon completion of drilling)
- Geological- geophysical studies and results (no timeframe)
- Budget (monthly).

It is felt that CNH is overwhelmed with data and does not have resources to analyse the wealth of information sent by the regulated industry.

In the interest of transparency, CNH publishes each week an update on the status of each exploration and extraction contract that it has awarded and signed. These updates include information on contract phases and features, a document record, performance indicators, CNH technical opinions, and inspection reports. Regarding leases, CNH publishes on its website technical/economic factsheets that include information on general features, production data, and advance in work. Additionally, CNH publishes on its website fact sheets that present national exploration and production indicators, information on spills, leaks, gas flaring and venting, gas shale and price statistics, and annual reserve reports.

In its areas of competence, CRE has set in place different indicators to assess the performance of the regulated entities. For instance, in terms of market monitoring, CRE is developing a set of indicators to measure market concentration. Regarding the petroleum products, petrochemicals and oil sector, Article 9 of the Hydrocarbons Act contemplates the publication of transport, storage, distribution and retail activities statistics. Permit holders also publish through an e-newsletter their available capacity, tariffs, service delivery terms & conditions, and other information related to their operations and delivered services. In addition to this, CRE is developing a system to collect, process and use the information received by CRE, in order to elaborate a set of indicators for the periodic monitoring of the energy sector.

Electric power supply permit holders must publish on their website, and deliver to CRE and PROFECO, their performance reports on a monthly, quarterly and annual basis. Electric power transmission and distribution service providers have the obligation to publish reports and inform CRE on technical issues and service provision conditions. Information related to the electric power generation permit holder's performance should also be published on the Commission's official website. Regarding the reports delivered by the hydrocarbons permit holders, these are not made public; nonetheless, some sector indicators are developed based on the information reported by the regulated entities

Assessing the performance of the regulator

Since the creation of the agency, ASEA has worked on setting up a results-based monitoring system to follow the implementation of strategic objectives defined by senior management. The agency has developed 36 indicators to measure the achievement of the 7 Strategic objectives selected for its first planning period (2016-18). The 7 strategic objectives retained for the first planning period seem to focus mostly on intermediate management goals rather than looking at the ultimate performance and results of the regulator's work. As such, classifying ASEA indicators along the input-process-output-outcome framework shows a focus on input and process, to the detriment of analysing the impact of ASEA activities on higher level policy or public service delivery outcomes.

The CNH Governing Board began a strategic planning process in August 2016 that will measure achievement of internal strategic objectives. Strategic objectives and initiatives will derive from this exercise, as will the human resources structure. For now, CNH does not report on performance indicators for these internal strategic objectives or for policy objectives set by SENER. Seeking to involve the regulated industry in its performance assessment efforts, CNH has carried out polls with sector participants to obtain their opinion with regards to data packages given to them in the bidding rounds.

CRE periodically convenes Committee for the Evaluation of Regulatory Performance (CEDR), that has the purpose of enhancing the systematic evaluation and assessment of CRE's regulatory activities. Within this Committee, CRE may develop documents/projects to determine the objectives of the regulation issued, as well as defining cost-benefit criteria to assess the impact of the regulation designed by CRE. These projects will provide CRE with guidelines and useful concepts to systematically assess the impact of its decisions in the energy sector development, as well as the improvement of the overall economic and social welfare conditions. CEDR

is expected to lead to an *ex-post* assessment system, to regularly evaluate CRE's decisions and regulatory activities.

Mechanisms for the systematic collection and *ex post* analysis of CNH's and CRE's decision have not yet been established. Nonetheless, it is expected that one of the outcomes of the work of the Regulatory Performance Evaluation Committee is the definition of an *ex post* assessment system, to regularly evaluate CNH's and CRE's decisions and regulatory activities.

Notes

1. www.gob.mx/cms/uploads/attachment/file/214/ene.pdf.
2. www.cre.gob.mx/documento/6115.pdf.
3. www.cre.gob.mx/documento/1247.pdf.
4. www.gob.mx/se/acciones-y-programas/industria-y-comercio-energia.
5. Exchange rate 27 May 2016, 1 MXN = EUR 0.0484. MXN 310 000 = EUR 15 011; MXN 1 900 000 = EUR 92 015.23.
6. CRE:
http://dof.gob.mx/nota_detalle.php?codigo=5335244&fecha=07/03/2014.

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The Governance of Regulators

Driving Performance of Mexico's Energy Regulators

As “market referees”, regulators need to be constantly alert, monitoring trends as well as assessing the impact of their decisions. What should be measured? Is it possible to attribute impacts to regulators’ decisions? How to make effective use of what is measured? How should the organisational structure and governance be optimised? Addressing these questions effectively can ultimately determine whether trains will run on time, there is clean water in the tap, lights switch on, the telephone and internet work and there is cash in the ATM machines. To help regulators in their quest to better evaluate their performance, the OECD has developed a Performance Assessment Framework for Economic Regulators (PAFER) that looks at the institutions, processes and practices that help regulators improve their organisational impact.

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Contents

Assessment and recommendations

Chapter 1. Methodology and approach

Chapter 2. Sector context

Chapter 3. External governance of the energy sector

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