

The International Comparative Legal Guide to: **Gas Regulation 2007**

A practical insight to cross-border Gas Regulation work



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with contributions from:

A. Y. Chitale & Associates

Abeledo Gottheil Abogados S.C.

Aluko & Oyeboode

Arntzen de Besche Advokatfirma AS

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Colja, Rojs & Partnerji

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Trench, Rossi e Watanabe Advogados

Mexico



Rogelio López-Velarde



Daniel E. Sánchez

López Velarde, Heftye y Soria, S.C.

1 Overview of Natural Gas Sector

- 1.1 A brief outline of the country's natural gas sector, including a general description of: natural gas reserves; natural gas production including the extent to which production is associated or non-associated natural gas; importation and exportation of natural gas, including liquefied natural gas (LNG) liquefaction and export facilities, and/or receiving and re-gasification facilities ("LNG facilities"); natural gas pipeline transportation and distribution/transmission network; natural gas storage; and commodity sales and trading.

Mexico is one of the few countries that have liberalised its natural gas midstream and downstream industry without liberalising and allowing competition in the domestic production of such fuel. Currently, natural gas exploration and production, among other activities related to the oil and gas industry, are exclusively reserved to the Mexican State through its national oil company, *Petróleos Mexicanos*, and its four operating subsidiaries (collectively 'Pemex'). Pemex is a public instrumentality of the federal government of Mexico created in 1938 by an act of Congress and entrusted by law to exclusively develop Mexico's oil and gas industry. Except for the natural gas midstream and downstream industry, in Mexico the petroleum industry (oil, gas and basic petrochemicals) is subject to a vertically-integrated monopoly exclusively reserved to Pemex.

Back in 1995, Congress passed a bill amending the 1958 Petroleum Law, (which is the federal state that created this vertical monopoly) allowing private participation (national and foreign) in the transportation, storage (which includes LNG liquefaction or regasification terminals), distribution and marketing of natural gas in Mexico. Originally, such activities were exclusively reserved to the Mexican State, specifically, to *Pemex-Gas y Petroquímica Básica* (PGPB), one of the four operating subsidiaries of Pemex. In that same year, the National Gas Regulations ("NGR") were published by the Executive branch implementing the liberalisation. In 1998, Mexico's clean air laws calling for the use of low sulphur fossil fuels became effective, making natural gas the best choice for end users, particularly for industrial customers. In 1994, a new federal agency was created in order to enforce the natural gas and electricity laws and regulations: the Energy Regulatory Commission ("CRE"). Also in 1995, the Law of the Energy Regulatory Commission (the "CRE Law") was promulgated and vested upon such federal agency broad powers and authority to regulate the natural gas and electricity industry. The CRE is not only in charge of enforcing the NGR, but also is empowered to grant and enforce permits for the generation and import of power by

private parties, and to regulate other certain power-related activities.

The exploration and production of natural gas has been exclusively entrusted to *Pemex-Exploración y Producción* (PEP) (the most important operating subsidiary of Pemex), and the supply of natural gas within Mexican territory has been entrusted to PGPB, which in turn also competes with private entities in the natural gas transportation and marketing segments. Pemex does not participate in the natural gas distribution business, and the federal government has not yet allowed Pemex to participate in LNG regasification terminals, despite the fact that Pemex is the largest importer of gas through pipelines.

The federal government has encouraged the use of natural gas not only through the publication of 'clean air' laws and norms, but also through the establishment of local distribution companies (LDCs), legally compelled to 'gasify' a specific geographic zone in Mexico, and through the development of gas-fired power projects. 26 LDCs are currently supplying gas within the most important cities of Mexico; LDC permits are granted by CRE, and most of them were awarded through international tender.

Since the 1995 liberalisation, the use of natural gas in Mexico has been primarily prompted by the IPP programme launched by *Comisión Federal de Electricidad* ("CFE"), the national electricity utility controlled by the federal government, as a result of its decision to convert several power plants from fuel oil to natural gas, and to use combined-cycle technology in all greenfield power projects. Under this IPP programme, which began in 1997, each power plant is subject to an open bid, and the winning bidder is required to build and operate a gas-fired combined-cycle power plant under a 25-year PPA whose anchor tenant is CFE. Up to this date, 21 projects have been awarded so far with a total aggregating capacity of 11,550 MW, and one more project is currently subject to bid for an aggregate load of 450 MW.

Natural gas demand in Mexico is growing by around 5 to 7 per cent yearly, with a 15 per cent yearly demand for power plants (currently, Mexico's electric power industry is consuming more than 60% of the gas made available to the market).

Currently natural gas reserves are in the order of 30 TCF, concentrating around 61 per cent in the Northern Region. From such natural gas reserves approximately 72% is associated gas (mostly from oil fields) and 28% is non-associated gas (either solely from gas and/or from condensed, damp and dry gas fields). PEP is currently producing 5.2 MMCFD.

Natural gas imports have grown substantially during the last ten years. Mexico is trying to meet the increasing demand not only through imports (which includes the installation of 2 LNG regasification terminals in the Pacific Ocean and 1 in the Gulf of

Mexico), but also with an upstream programme aimed at producing dry gas in the Burgos basin (which is located near the Texan border), through the so-called *Multiple Services Contracts* (MSC). Although very few IOCs were interested to participate in the early rounds of the MSC launched by PEP, the companies that are developing Burgos are currently producing 1.3 BCFD which is higher than the targeted production level. In May 2006, importation and exportation volumes of natural gas were 651 MMCFD and 3.9 MMCFD, respectively.

1.2 To what extent are the country's energy requirements met using natural gas (including LNG)?

The current availability of natural gas is in the order of 6.5 BCFD. Mexico's Ministry of Energy (known as "SenEr") believes that imports will cover around 20 per cent of domestic requirements by 2010, despite Pemex's attempts to rapidly increase natural gas production. Mexico's current imports of natural gas are mainly from the US. In order to meet future requirements, imports will be mainly covered by 3 LNG regasification terminals currently being developed (one in Ensenada, Baja California for 1 BCFD, with the possibility to be expanded to 2.6 BCFD); one in Altamira, Tamaulipas for 425 MMCFD; and one in Manzanillo, Colima for 500 MMCFD (scheduled to be expanded to 1 BCFD in 2013). Most of the LNG capacity to be built in Baja California is earmarked to California, US, although CFE has booked part of such capacity for its power plants which plants are currently relying on the US market.

Most of the indigenous gas is used by Pemex itself; close to 40% of Mexico's electric power is produced by natural gas. Close to 3.1 BCFD is consumed by the industrial sector (which includes power generation). Natural gas is slowly penetrating to the commercial and residential markets not only because the use of natural gas is relatively new in Mexico, but also because Mexico is one of the largest residential consumers of LPG in the world.

1.3 To what extent are the country's natural gas requirements met through domestic natural gas production?

See question 1.2 above.

1.4 To what extent is the country's natural gas production exported (pipeline or LNG)?

See question 1.2 above.

2 Development of Natural Gas

2.1 Outline broadly the legal/statutory and organisational framework for the exploration and production ("development") of natural gas reserves including: principal legislation; in whom the State's mineral rights to natural gas are vested; Government authority or authorities responsible for the regulation of natural gas development; and current major initiatives or policies of the Government (if any) in relation to natural gas development.

According to the federal Constitution: (a) the ownership of all subsoil domestic hydrocarbons (including natural gas) is permanently vested on the Mexican State; (b) no concessions are allowed for the exploration and exploitation of domestic hydrocarbons; and (c) the development of the 'petroleum industry' is exclusively reserved to the Mexican State.

The 1958 Petroleum Law went beyond the constitutional mandate by expanding the exclusivity of the federal government in the petroleum industry, by including almost all of the activities related to the oil, gas and petrochemical industry (from E&P to the first-hand sale of oil, gas and by-products), creating a vertically-integrated monopoly in favour of Pemex.

In 1992, Congress enacted the Organizational Law of Pemex and Subsidiary Entities, incorporating its four operating arms, one for each of the main areas of the petroleum industry: PEP; PGPB; Pemex-Refinación; and Pemex-Petroquímica. Currently, all of the natural gas produced by PEP is reinjected in order to maintain the necessary pressure in its wells, and the rest is sold to its sister operating subsidiary, PGPB, which currently controls the largest transportation system in Mexico.

Energy policy is set by the Mexican President in compliance with laws and regulations, through the Ministry of Energy ("SenEr"), CRE and the Ministry of Finance. National energy policy is required to be set within the first six months of the beginning of each 6-year presidential term. The CRE, through the publication of directives, norms and resolutions, and the regulation of rates and services, is the most important policy-maker in the natural gas midstream and downstream markets. The CRE's directives and norms are administrative regulations that do not require congressional nor presidential action to be issued; CRE norms are technical standards applicable to the gas industry. CRE directives currently regulate specific activities such as gas pricing, rates, accounting, determination of geographic zones, first-hand sales of gas, insurance, reporting obligations and others.

SenEr is the governmental agency that oversees, in a very general fashion, the activities performed by Pemex. The head of SenEr is, by operation of law, the chairman of the Board of Directors of Pemex.

Currently, the federal government is looking to foster the participation of the private sector in the natural gas industry, not only in the midstream and downstream sectors, but also in the production of natural gas through service contracts with PEP. As a result of the recent elections, it is expected that reforms will be introduced by the new President in order to allow the participation of IOCs in the natural gas E&P industry through internationally accepted models and business structures.

2.2 How are the State's mineral rights to develop natural gas reserves transferred to investors or companies ("participants") (e.g. license, concession, service contract, contractual rights under Production Sharing Agreement?) and what is the legal status of those rights or interests under domestic law?

By virtue of the legal monopoly established by the Petroleum Law, PEP is the only entity authorised to carry out the exploration and production of natural gas in Mexico; therefore, all activities related to exploration and production of natural in Mexico are performed either by: (i) PEP itself; or (ii) through private contractors retained by PEP, under the control and supervision of PEP, and subject to government procurement laws and regulations, and international treaties. Currently, most of the upstream activities are performed through contractors; nonetheless, pursuant to the Petroleum Law, PEP is barred from granting percentages, mineral rights or any sort of participation in the production of domestic hydrocarbons.

The Constitution dictates that all minerals shall remain under the sole domain of the State, and that such minerals can be exploited through concessions to private parties (with no foreign investment restrictions) except for the exploration and exploitation of radioactive minerals and oil and gas, since such activities are

exclusively reserved to the State.

Mineral concessions, such as coal concessions, are granted by The Ministry of Economy pursuant to Mexico's Mining Law. Under a recent reform, coal concessionaires are allowed to develop coal-bed methane reserves subject to permit by SenEr. All methane produced by the concessionaire shall be used for "self-consumption purposes" (as such term is defined under applicable laws), or to be "delivered" to Pemex. The term "delivery" includes all costs associated for the development, transportation and delivery of the methane to Pemex (including a reasonable rate of return), under terms and conditions to be established by SenEr (prior to the reform, coal concessionaires were barred from recovering and using the methane commingled with the coal, and were obligated to vent the methane to the air).

2.3 If different authorisations are issued in respect of different stages of development (e.g., exploration or production arrangements), please specify those authorisations and briefly summarise the most important (standard) terms (such as term/duration, scope of rights, expenditure obligations).

Natural gas exploitation and production is subject to permit by SenEr; only PEP is eligible to obtain such permit. The permit is granted in a very general fashion, and there is minimum supervision on the part of SenEr.

As a result of the Presidential elections, it is expected that the new President will introduce reforms aimed at creating a specialised agency that will be in charge of the oil and gas E&P sector, similar to those agencies working in Norway and Brazil.

2.4 To what extent, if any, does the State have an ownership interest, or seek to participate, in the development of natural gas reserves (whether as a matter of law or policy)?

See question 2.2 above.

2.5 How does the State derive value from natural gas development (e.g. royalty, share of production, taxes)?

Since the State has a complete monopoly over the ownership, production and sale of natural gas in Mexico by Pemex, and Pemex is fully controlled by the federal government, all of the revenue obtained by Pemex is for the federal government. Pemex does not pay any sort of royalties and is not subject to income tax. Gas sales by Pemex are subject to 60.8% flat tax.

2.6 Are there any restrictions on the export of production?

Due to the monopolistic nature of the natural gas E&P industry, indigenous gas is only exported by Pemex, although there is no restriction to export gas by private marketers and suppliers.

2.7 Are there any currency exchange restrictions, or restrictions on the transfer of funds derived from production out of the jurisdiction?

Pursuant to NAFTA and more than 21 Bilateral Investment Treaties ratified with major trading countries, Mexico is barred from imposing any sort of exchange controls or transfer restrictions, except for cases related to liquidity crisis regulated under the IMF.

2.8 What restrictions (if any) apply to the transfer or disposal of natural gas development rights or interests?

See question 2.2 above.

2.9 Are participants obliged to provide any security or guarantees in relation to natural gas development?

See question 2.2 above.

2.10 Can rights to develop natural gas reserves granted to a participant be pledged for security, or booked for accounting purposes under domestic law?

See question 2.2 above. Pemex is barred from granting any sort of security or interest with respect to the natural gas reserves. Pemex can only pledge under certain circumstances, the account receivables stemming from the sale of natural gas.

Certain mechanisms are currently being reviewed in order to allow the booking of reserves by private contractors working with Pemex.

2.11 In addition to those rights/authorisations required to explore for and produce natural gas, what other principal Government authorisations are required to develop natural gas reserves (e.g. environmental, occupational health and safety) and from whom are these authorizations to be obtained?

See questions 2.2 and 2.12.

2.12 Is there any legislation or framework relating to the abandonment or decommissioning of physical structures used in natural gas development? If so, what are the principal features/requirements of the legislation?

Yes; mainly related to environmental matters. In principle, all areas affected by the development, construction, and operation of natural gas infrastructure, shall be restored to their original conditions. These obligations are met by PEP itself or through its contractors performing natural gas development or drilling services.

3 Importation / Exportation

3.1 Outline any regulatory requirements, or specific terms, limitations or rules applying in respect of cross-border sales or deliveries of natural gas (including LNG).

There are no regulatory requirements or specific terms, limitations or rules in respect of the import or export of cross-border sales or deliveries of natural gas or LNG, except for standard customs-related obligations. Unlike other jurisdictions, there is no Presidential permit required for the construction of a border-crossing pipeline. If the border-crossing is with the US (which is normally the case), developers shall obtain the authorisation from the Mexico-US International Boundaries and Waters Commission. Moreover, an authorisation by the Ministry of Finance is required in connection with the metering devices that will be used to determine the gas volumes being imported/exported.

The President is empowered to curtail or restrict the importation or exportation of natural gas; this power has not been restricted or regulated under the various free trade agreements that Mexico has ratified including NAFTA.

4 Transportation

4.1 Outline broadly the ownership, organisational and regulatory framework in relation to transportation pipelines and associated infrastructure (such as natural gas processing and storage facilities).

Most of the gas transportation pipeline systems in Mexico are owned and operated by PGPB one comprised of 8,704 km of trunklines fully interconnected (known as the national pipeline system), and another isolated system in the northwestern part of Mexico, known as the Naco-Hermosillo system, whose 339-kilometre trunkline is interconnected to El Paso's pipeline system in Arizona, US. Nonetheless, and since the opening of the midstream industry in late 1995, many other transportation systems have been, and are being, developed by private players such as Sempra, El Paso, Kinder Morgan, Gaz de France, TransCanada Pipelines and others (close to 3,000 km of transportation pipeline have been approved by CRE).

Until 2003 when several LNG regasification terminals began their development, no storage project (either through salt caverns or exhausted fields), had been developed yet in Mexico.

Gas processing is exclusively reserved to PGPB except in the case of imported gas or gas that has been already sold by PGPB.

4.2 What Governmental authorisations (including any applicable environmental authorisations) are required to construct and operate natural gas transportation pipelines and associated infrastructure?

In order to build and operate a natural gas transportation system or a storage facility (e.g. LNG liquefaction or regasification terminals), different types of governmental permits and authorisations are required from federal and local authorities; the most important being the permit granted by the CRE, the authorisations required under the environmental laws, and the need to obtain the necessary real estate rights for the project.

Natural gas transportation/storage permit

Pursuant to the NGR, natural gas pipeline transportation services are subject to a federal permit granted by the CRE, upon evidencing to such agency the experience and capabilities of the relevant transportation company, both technical and financial, the feasibility of the pipeline project to be implemented, and the approval of the proposed recourse rates and services. Transportation permits operate as 30-year renewable quasi-concessions, and impose to the relevant transporter a series of regulatory obligations.

There are two types of natural gas transportation permits: open access; and self-use. Open access transportation permits are granted to those transmission systems that will serve very much like a utility: they are compelled to grant open access on a not unduly discriminatory basis, to any user that requests the service, provided there is available capacity in the system and the parties sign the agreement included under the General Terms of Service approved by the CRE ("GTS"), as part of the transportation permit. Open access transportation permit holders are heavily regulated and supervised by the CRE. Self-use transportation permits, on the other hand, are exclusively granted to end users or a group of end users organised in a consumption club company, whose transmission systems will not be providing open access services. There are no restrictions in terms of length and width of the pipeline or the capacity of the system, or the number of end users that can form part of a self-use gas consumption club company. Since there are no local utility agencies or commissions in Mexico, the CRE is

in charge of granting both interstate and intrastate transportation permits. Unlike gas distribution permits, transportation companies are not obligated to gasify any pre-determined geographic zone or to connect any given number of users. Thus, gas transportation permits are granted by the CRE on a non-exclusive basis.

As discussed, LNG liquefaction or regasification facilities are subject to an open access "storage permit" by CRE. The regulations for natural gas storage are similar to those applicable to transportation; there are also self-use and open access storage permits with similar obligations to its transportation counterparts. Pursuant to the CRE Directive on Pricing and Rates, open access gas storage permits shall be subject to the ratemaking regulations and tariff adjustment and enforcement mechanisms prescribed for open access transportation permits, *mutatis mutandi*. The granting of open access transportation or storage permits (i.e. the approval of the technical and safety aspects of the project, rate schedule and the GTS), takes from 5 to 10 months, depending on the complexity of the project.

Environmental authorisations

The developer for a pipeline or LNG or storage facility shall obtain the authorisation of the project's environmental, health and safety impact assessment report and risk study from the Ministry of Environment and Natural Resources ("ESHIA"). The filing review process normally takes from 4 to 6 months.

Other permits

There are a number of other additional permits that are required from governmental authorities (whether federal, local or municipal), that apply depending on each case (e.g. construction licences, land use authorisation, authorisations for crossing of rivers and streams under federal supervision, authorisation for the use and/or crossing of federal highways, among others). With respect to LNG or storage facilities, other critical permits will probably be required to be obtained such as the port concession, and the concession for the use of the federal maritime zone.

4.3 In general, how does an entity obtain the necessary land (or other) rights to construct natural gas transportation pipelines or associated infrastructure? Do Government authorities have any powers of compulsory acquisition to facilitate land access?

The developer shall negotiate and obtain all rights-of-way ("ROW"), pipeline crossing authorisations, and real estate rights necessary for the construction and operation of the pipeline or the LNG or storage facility.

Such real estate rights are obtained through the negotiation and execution of ROW contracts or easement agreements with the respective servient tenements, or through the filing of a ROW permit application if the land is owned by the government. The same applies to securing a site for a storage or LNG facility or metering station (i.e. option, purchase, lease or usufruct agreements need to be negotiated, signed, notarised and registered), provided that possession of public land may require the granting of a concession, which in some instances, is subject to public tender.

The ROW contracts and easement agreements depend on the type of land to be affected: private; public; or agrarian. Private property in Mexico is subject to State law. Accordingly, the Civil Codes of the relevant states where the facilities are to be built are the statutes that will govern the terms under which the developer will negotiate the corresponding ROW and real estate rights for the construction of the pipeline or the storage facility (e.g. LNG regasification terminal). Public property is governed by different statutes, depending on the type of owner (i.e. federal, state or municipal

owner or public instrumentality). In this case, and instead of executing an easement agreement, the developer will be obtaining a ROW permit. The ROW permit may be (a) a pipeline crossing permit, and/or (b) a ROW permit.

Agrarian property is subject to federal law under the Agrarian Law. ROWs granted over agrarian property are documented through easement agreements; agrarian easement agreements are cumulatively subject to the Agrarian Law and the Federal Civil Code.

The holder of an open access natural gas transportation or distribution permit has the right to demand the eminent domain over the servient tenement for the construction and installation of the pipeline. Nonetheless, such statutory right has not been invoked because of the ability of the land owners to easily enjoin the condemnation process through a court order; thus, gas transportation companies generally only use such eminent domain right as a bargaining tool for the negotiation of voluntary ROW contracts or easement agreements. Distribution systems are normally developed in urban areas and therefore, land rights are obtained through a ROW permit from the local government.

4.4 How is access to natural gas transportation pipelines and associated infrastructure organised?

All transportation/storage companies (other than self-use transportation/storage companies) are obligated to provide open access to their systems on a non-discriminatory basis (provided there is available capacity in the system) to any person that requests their transportation services, as required under the relevant GTS.

The GTS is normally an all-encompassing instrument which includes the type of services the transportation or storage company is allowed to offer, the terms and conditions regarding the provision of such services (including imbalances procedures and gas quality provisions), and the rate schedule approved by the CRE. Each GTS is available at the CRE, and can only be amended upon the prior approval of the CRE. Issues omitted or not adequately covered under the relevant GTS may be addressed in the gas transportation agreement, storage capacity agreement or the gas storage-vaporisation agreement (in the case of LNG regasification terminals) to be signed by the permittee and the user. A template of such agreement is attached to the relevant GTS, which agreement incorporates by reference the provisions stipulated under the GTS.

All gas to be injected into a Mexican pipeline, terminal or storage facility is subject to a gas quality norm published by the CRE.

CRE has imposed in most of the open access transportation and LNG storage permits, the obligation to carry out an open season not only before the commencement of operations of the system but also before the implementation of any expansion.

4.5 To what degree are natural gas transportation pipelines integrated or interconnected, and how is co-operation between different transportation systems established and regulated?

Except for few cases, most of the pipeline systems in Mexico are interconnected to PGPB's system or to a PGPB processing plant.

The NGR, the CRE Directive on Pricing and Rates, and each GTS govern the cooperation between pipelines, which is reflected into an interconnection agreement, connection agreement, and in some instances, in an Operation Balancing Agreement, or in an Operation Cooperation Agreement for the case of LNG regasification terminals. All of the open access pipelines are required to allow the interconnection or connection to their systems, to the extent there is

available capacity, the proposed tapping is technically feasible, and the parties agree on the terms and conditions of such tapping.

4.6 Outline any third-party access regime/rights in respect of natural gas transportation and associated infrastructure. For example, can the regulator or a new customer wishing to transport natural gas compel or require the operator/owner of a natural gas transportation pipeline or associated infrastructure to grant capacity or expand its facilities in order to accommodate the new customer? If so, how are the costs (including costs of interconnection, capacity reservation or facility expansions) allocated?

See the answer to question 4.4.

Transporters are required to expand or extend their systems upon request by any potential user whenever the transportation service being requested is technically and economically feasible (whether through pipeline expansion, looping or by adding compression). Such obligation is subject, however, to the execution by the parties of an agreement to cover the cost of the pipelines and other facilities constituting the relevant extension or expansion (the so-called Investment Agreements). As to who bears the cost of the expansion or extension of the pipeline system, that depends on the specific conditions of each project. Depending on the relevant transportation permit, the requested expansion or extension may be subject to a rate case before the CRE, whereby the transporter may be required to request the modification of its rate schedule (e.g. incremental rate, rolled-in rate, marginal cost methodology, etc.), as a condition precedent for the expansion or extension of the facilities.

There is no statutory obligation to expand or extend the system with respect to open access storage facilities. Perhaps at the time of drafting the NGR, the draftsmen never imagined that LNG regasification terminals were going to be developed a few years after the publication of the NGR. Nonetheless, similar to open access transportation permits, the CRE is imposing to storage open access permits, the obligation to expand subject to open seasons the implementation of which is supervised by the CRE (e.g. Ensenada's open season for the 2.6 BCF expansion of Semptra's LNG regasification terminal).

4.7 Are parties free to agree the terms upon which natural gas is to be transported or are the terms (including costs/tariffs which may be charged) regulated?

Further to question 4.4 above, terms and conditions of service are regulated under the respective GTS. Subject to prior approval by the CRE, the GTS may provide and allow for the parties to agree on special conditions of service, and to the extent they are not unduly discriminatory. Rates for the provision of pipeline and storage services are subject to recourse rates which are set and regulated by the CRE pursuant to the NGR, and the CRE Directive on Pricing and Rates (additionally, see questions 5.1 and 5.5 below); negotiated rates are allowed to the extent permitted under the relevant permit and provided there is no undue discriminatory treatment.

5 Transmission / Distribution

5.1 Outline broadly the ownership, organisational and regulatory framework in relation to the natural gas transmission/distribution network.

Gas distribution is subject to the issuance of a permit by, and subject

to the supervision of, the CRE.

Same as open access and transportation storage companies, LDCs are heavily regulated by the CRE. As common carriers subject to open access and unbundling rules, LDCs are generally barred from vertical integration with a transportation company if they are serving the same geographic zone; they are also banned from granting cross subsidies or imposing tied-in services. LDCs are subject to recourse rates based on a 'maximum revenue yield cap' methodology. Gas marketers are not subject to permit by the CRE, and gas suppliers, transporters and distributors are free to participate in such marketing companies.

The first distribution permit for a "geographic zone" designated by the CRE is, as a general rule, awarded by the CRE through international bid. In exchange for the legal commitment to gasify such geographic zone through the connection of a minimum number of end users to be connected by the fifth year of operation of the relevant LDC, and subject to compliance with the regulated rates, the CRE grants to the winning LDC a 30-year distribution permit, renewable for periods of 15 years thereafter, with 12 years of exclusivity as of the issuance of the permit. This exclusivity is only granted in respect of the right of the LDC to distribute the commodity within the pre-determined geographic zone, and not with respect to its marketing. Thus, marketers are entitled to sell gas to end users located in an LDC zone. Despite the exclusivity granted to LDCs, end users are entitled to physically bypass the LDC upon compliance with certain requirements embodied in the NGR, and the obtaining of a self-use gas transportation permit.

The CRE has been successful in granting LDC permits since 1996; currently, the CRE has awarded more than 26 LDC permits covering the most important economically active cities in Mexico. The determination, expansion or modification of a geographic zone is determined by the CRE in accordance with the Directive on Geographic Zones.

5.2 What Governmental authorisations (including any applicable environmental authorisations) are required to operate a distribution network?

The main governmental authorisations required are the CRE permit (whether as a result of being awarded by the CRE in a tender or otherwise), EHSIA authorisations and ROWs permits and consents (whether from federal, local or municipal authorities, or from private owners).

5.3 How is access to the natural gas distribution network organised?

Access to the distribution grid is substantially subject to the same rules applicable to open access transportation systems.

5.4 Can the regulator require a distributor to grant capacity or expand its system in order to accommodate new customers?

Yes, LDCs have the same statutory obligations to expand or extend their grid within its designated geographic zone, as the ones imposed to an open access transportation permit.

Under the CRE Law, CRE has broad powers and authority to regulate the efficient development of the midstream and downstream natural gas industry; under such premise, the CRE may require an LDC to limit service to existing customers in order to serve new customers, or unilaterally modify the geographic zone where the LDC is serving; only if the proposed modification occurs

within the exclusivity period, the CRE is required to obtain the consent of the LDC. This situation, however, has not occurred yet in Mexico. The LDC, on the other hand, may request the modification of its geographic zone which approval may be granted by CRE and Federal Competition Commission ("CFC"); so far only modifications requesting the expansion of the geographic zone have been filed.

5.5 What fees are charged for accessing the distribution network, and are these fees regulated?

See question 5.1 above. All users accessing a distribution system shall pay the respective LDC the corresponding interconnection fee, which is previously approved by the CRE and included in the relevant GTS, as part of the LDC rate schedule. Regulated rates for the relevant distribution service are also approved as part of the LDCs rate schedule. Such rate schedule is published in Mexico's Federal Register, and is subject to the adjustment and supervision mechanisms provided under the Directive on Pricing and Rates. According to these mechanisms: (a) such regulated rates are subject to annual adjustments based on Mexico-US inflation and their currency exchange variations; and (b) after every five years of operation the rate schedule shall be revised by the CRE and the LDC based on the methodology established under the CRE Directive on Pricing and Rates (which includes efficiency and correction factors), considering the business plan, investment commitments, efficiency factors and other considerations included in the distribution or transportation permit. Propane and fuel oil are still and will continue to be widely used in Mexico. Therefore the CRE is keen to maintain transportation and distribution rates at a very competitive level with respect to other competing fossil fuels.

The rate schedule cannot be modified by the LDC unless it has been approved by the CRE. Evidently, the CRE is normally reluctant to accept the modification of a rate schedule unless it is in order to lower such rates. Likewise, the gas utility may modify its rate schedule and rebalance it to the extent it does not exceed its maximum revenue yield cap (the so-called "Po").

5.6 Are there any restrictions or limitations in relation to acquiring an interest in a gas utility, or the transfer of assets forming part of the distribution network (whether directly or indirectly)?

There are no change-in-control rules embodied within the NGR. Accordingly, there is no statutory restriction to acquire the controlling interest in a regulated gas utility, except for the vertical-integration prohibition established under the NGR with respect to open access transporters and distributors serving the same geographic zone. Nevertheless, the CRE is beginning to introduce within the open access permits the requirement to obtain the prior approval of the CRE in case of a change in control of the permittee. The CRE is keen to make sure that new owners of the utility meet the same technical, financial and legal requirements that the previous shareholders were required to prove to the CRE as part of the approval of its permit, especially with respect to LDCs since many of them were granted through public tender.

The transfer of an open access permit, or the assets, requires the prior approval of the CRE, and depending on the characteristics of the transaction, the approval of the CFC would also be required, and the transfer may then be subject to the waiting periods established under the Federal Law of Economic Competition (the "Competition Law"). Since utility assets are inextricably linked to the permit, once cannot transfer the assets without the permit and vice versa.

6 Natural Gas Trading

- 6.1 Outline broadly the ownership, organizational and regulatory framework in relation to natural gas trading. Please include details of current major initiatives or policies of the Government or regulator (if any) relating to natural gas trading.

Gas trading is not subject to a permit, and gas marketers are free to participate in gas distribution, storage and transportation permits, to the extent such vertical integration is not considered an anti-competitive practice or a punishable concentration by the CFC. The supply and pricing of gas by Pemex is regulated by the CRE pursuant to the Directive on Pricing and Rates and the First-Hand Sales Directive. Domestic gas is subject to a liquid market price index (Houston Ship Channel), subject to a net back pricing procedure. The marketing of domestic gas after a first-hand sale by PGPB has occurred, and the sale of imported gas by private parties, is not subject to regulation under Mexican law.

PGPB continues to be the largest gas marketer in Mexico, mainly due to the fact that it is the only producer and supplier of indigenous gas, the largest transporter, and the largest importer. Since CFE is the largest shipper and the anchor tenant of 3 LNG regasification terminals being developed, this balance will start to change as CFE starts competing in the marketing sector.

- 6.2 What range of natural gas commodities can be traded? For example, can only “bundled” products (i.e., the natural gas commodity and the distribution thereof) be traded?

Under Mexican law all shippers (wholesale or retail), are free to purchase gas on an unbundled or bundled basis; in other words, users and end users in Mexico are free to purchase the molecule from any supplier or marketer, and become shippers in, and retain the service from, any open access transportation, storage or distribution company, or purchase the natural gas from the distribution company.

7 Liquefied Natural Gas

- 7.1 Outline broadly the ownership, organisational and regulatory framework in relation to LNG facilities.

There are no liquefaction-export facilities, and due to the increasing demand for natural gas, 3 major private LNG regasification terminals are being developed in Mexico, and another 4 are being considered (Topolobampo, Lazaro Cardenas, Puerto Libertad and Yucatán). The design, construction, safety, operation and maintenance of an LNG facility are mainly regulated through an official norm issued by the CRE (the so-called “LNG Norm”).

- 7.2 What Governmental authorisations are required to construct and operate LNG facilities?

As discussed under question 4.2 above, in addition to the CRE storage permit, the ESHIA authorisation and other permits, LNG liquefaction or regasification terminals may require concessions from the federal government, if they are not located within a pre-established industrial port (e.g. Manzanillo and Ensenada).

- 7.3 Is there any regulation of the price or terms of service in the LNG sector?

See question 4.7 above. The CRE is currently allowing LNG regasification developers to propose their own rate methodology which shall be consistent with the general principles of the revenue yield cap methodology established in the CRE Directive on Pricing and Rates. Such permit holders would nevertheless be subject to the adjustment and supervision mechanisms established on the permit itself and the Directive on Pricing and Rates.

8 Competition

- 8.1 Which Governmental authority or authorities are responsible for the regulation of competition aspects, or anti-competitive practices, in the natural gas sector?

Unlike some other jurisdictions, antitrust matters in the natural gas midstream and downstream sectors are not exclusively regulated and enforced by the CRE; the CFC has concurrent jurisdiction in most of the natural gas activities that may be punishable from the antitrust point of view.

The CFC has concurrent jurisdiction with the CRE in four areas: (i) operation of the pipeline and LNG systems; (ii) regulated rates; (iii) merger control; and (iv) refusal to deal, predatory and discriminatory pricing, cross subsidies, tied sales and exclusive dealings, among other punishable monopolistic practices.

Pursuant to the NGR, the commercial operation of the open access pipeline or storage permit is subject to a ‘no objection’ resolution of the CFC. Each applicant is required to include as part of its CRE permit application a copy of the ‘notification of interest’ filed by such applicant before the CFC. Although this type of filing with the CFC does not amount to a pre-merger notification report, it may become data-intensive and heavily scrutinised by the CFC, depending on the type of project being pursued, and whether the involved parties have substantial power over the relevant market.

Open access pipeline and storage permits, on the other hand, may not be required to abide by their GTS and rate schedules if the CFC declares the existence of effective competition conditions within the relevant market. Such declaration may be initiated by any interested party or by the CFC *sua sponte*, and may be determined without the intervention of the CRE. Due to the conditions of the Mexican natural gas market, the fact that production of natural gas is exclusively reserved to Pemex, and that the supply and transportation of natural gas is mainly controlled by Pemex, the possibility of the CFC deregulating the rates of natural gas services seems to be very unlikely to occur in Mexico within the next couple of decades.

As discussed, the transfer of an open access pipeline or storage permit, or the transfer of their assets, is subject to the prior approval of the CRE, and probably to the prior authorisation of the CFC if the relevant transaction exceeds one of the monetary thresholds established under Mexico’s merger control rules. Both agencies may independently object to the transaction or impose conditions or performance requirements on the transfer.

Finally, the CFC may impose sanctions on open access permit holders and other related parties (for example, an affiliated marketing company), upon determining the existence of a punishable conduct (such as a refusal to deal when the permittee unduly denies open access, or undertakes predatory pricing, imposes tie-in requirements or other kinds of monopolistic practice), causing harm to other economic agents vertically or

horizontally located.

Since its creation in 1993, the CFC has been slowly learning about the energy sector and the important role this federal agency has to play in enforcing antitrust laws and regulations in a market that, by its own nature and condition, is per se monopsonistic, but, more importantly, because of the unparallel monopolistic situation that the Mexican energy industry has with two vertically-integrated monopolies controlled by the Government of Mexico: Pemex (oil, gas and basic petrochemicals); and CFE (power).

8.2 To what criteria does the regulator have regard in determining whether conduct is anti-competitive?

Two main sets of rules regulate whether a conduct is anti-competitive in the midstream and downstream natural gas arena: (i) the NGR (including all of the CRE directives, resolutions, norms and the applicable GTS and rate schedule); and (ii) the Competition Law, its implementing regulations and the CFC's resolutions. See question 8.1 above.

8.3 What power or authority does the regulator have to preclude or take action in relation to anti-competitive practices?

Both the CFC and the CRE may independently preclude and/or remedy anticompetitive practices in the natural gas sector within the scope of their jurisdiction. The main tool is the imposition of hefty fines, and even in some cases the revocation of the permit on the part of the CRE. Also, the CFC and/or the CRE may require the relevant economic agent/permittee to cease the anti-competitive practice, and the CFC may even order the divestment of assets. Once such sanctions have been conclusively established by the CFC, the relevant injured party may use such resolution for a prima facie case for the payment of actual and consequential damages before a Mexican court.

End users, on the other hand, are entitled to cumulatively pursue a claim before Mexico's federal consumer protection agency (known by its Spanish acronym PROFECO), if the pipeline or storage service provider violates the Federal Law of Consumer Protection.

8.4 Does the regulator (or any other Government authority) have the power to approve/disapprove mergers or other changes in control over businesses in the natural gas sector, or proposed acquisitions of development assets, transportation or associated infrastructure or distribution assets? If so, what criteria and procedures are applied? How long does it typically take to obtain a decision approving or disapproving the transaction?

Mexico's Competition Law requires that certain mergers or transfers exceeding certain monetary thresholds (known in Mexico as 'concentrations') be reported to the CFC prior to closing. In some instances, the transaction cannot occur until clearance is obtained from the CFC. For purposes of the Competition Law, a 'concentration' includes any transaction or series of transactions which result in the accumulation or concentration of capital from two or more economic agents, and includes mergers, asset and stock acquisitions, as well as the formation of new companies, where the economic thresholds established by the Competition Law are met. The CFC reviews the power over the relevant market of the parties involved, and the probable anticompetitive effects of the change in control or merger. Typically, the resolution of the CFC takes two to three months, approximately.

9 Foreign Investment and International Obligations

9.1 Are there any special requirements or limitations on acquisitions of interests in the natural gas sector (whether development, transportation or associated infrastructure, distribution or other) by foreign companies?

No, there are no special requirements or limitations on acquisitions of interest in the natural gas sector by foreign companies, except where the foreign company intends to acquire more than 49 per cent of the capital of the Mexican company, and such company has more than approximately US\$175 million in assets, in which case the prior approval of the National Commission on Foreign Investments may be required, in addition to the CRE and CFC approvals discussed above.

9.2 To what extent is regulatory policy in respect of the natural gas sector influenced or affected by international treaties or other multinational arrangements?

NAFTA provides very general provisions regarding the liberalisation of the energy sector, the use of performance contracts for the exploration and exploitation of oil and natural gas, antitrust and State enterprises such as Pemex and CFE, and government procurement rules which may become relevant if providing services or selling goods to Pemex or CFE. Mexico is a member of the OECD, and is involved in the International Energy Agency through the committee of non-member countries; thus, Mexico must follow the policies established by such organisations to the extent permitted by Mexican law.

Mexico has signed or ratified more than 45 bilateral investment treaties and double taxation treaties, and is a signatory to the most important regional and multinational treaties on private international law.

10 Dispute Resolution

10.1 Provide a brief overview of compulsory dispute resolution procedures (statutory or otherwise) applying to the natural gas sector (if any), including procedures applying in the context of disputes between the applicable Government authority/regulator and: participants in relation to natural gas development; transportation pipeline and associated infrastructure owners or users in relation to the transportation, processing or storage of natural gas; and distribution network owners or users in relation to the distribution/transmission of natural gas.

Dispute resolution mechanisms under the natural gas regulatory framework are, in principle, predicated on commercial arbitration. The law of the CRE provides that without prejudice to other applicable actions available, controversies arising from natural gas regulated activities (i.e. transportation, storage and distribution, and PGPB's supply and trading), may be solved through binding arbitration at the option of the end user.

The arbitration procedure to be followed by the parties undertaking regulated activities could be: (i) that agreed between them (e.g. whether subject to the rules of the ICC, AAA, or otherwise), and which shall for all legal effects be notified to, and recorded before the CRE; or (ii) in the absence of such recording before the CRE, the one adopted by the CRE (which is the one included in the Commerce Code and that, in most of its parts, adopted the

UNCITRAL Model Arbitration Law).

With respect to end users or natural gas services petitioners see question 8.3 above, and for disputes between governmental authorities and natural gas participants, see question 10.3 below.

10.2 Is the country a signatory to, and has it duly ratified into domestic legislation: the New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards; and/or the Convention on the Settlement of Investment Disputes between States and Nationals of Other States ("ICSID")?

Mexico has ratified (i) the 1958 NY Convention; (ii) the 1975 Panama Inter-American Convention on International Commercial Arbitration, and its protocol; and (iii) the 1979 Montevideo Inter-American Convention on Extraterritorial Validity of Foreign



Rogelio López-Velarde

López Velarde, Heftye y Soria, S.C.
Guillermo González Camarena No. 1600, 6B,
Col. Centro de Ciudad Santa Fe, C.P. 01210,
México, D.F.

Tel: +52 55 5081 1423
Fax: +52 55 5081 1425
Email: rlopezv@lvhs.com.mx
URL: www.lvhs.com.mx

Rogelio López-Velarde is an Attorney and Counselor-at-Law, admitted in Mexico in 1988, and in the State of New York in 1991. Mr. López-Velarde received his J.D. Degree, *summa cum laude*, from the Universidad Iberoamericana Law School in 1988, and earned his LL.M. degree from University of Houston Law Center in 1989.

Mr. López-Velarde held various positions at Pemex during 1988-1993, including that of Financial Advisor to the Finance Department, In-House Counsel in Houston, Texas, In-House Counsel in New York, and Head of the International Legal Department of Pemex. He was honoured with the "Most Distinguished Attorney Award" of Pemex for the period 1990-1991.

Mr. López-Velarde's practice concentrates on energy.

Mr. López-Velarde is the former Chairman of the Energy Committee of the Mexican Bar Association, and the former the President for the Latin America Chapter of the Association of the International Petroleum Negotiators (AIPN).

Mr. López-Velarde was a Professor of Private International Law at the Universidad Iberoamericana Law School from 1992-2000. He has been an active speaker on numerous occasions, and has extensively published articles on international law in Mexico, U.S., Canada, Europe and South America. He is a member of the Mexican Bar Association, the ABA and the Mexican Academy of Private International Law, among other associations. He is the Mexican representative of the Editorial Board of the *Oil & Gas Law and Taxation Review*, the UK-based International Law Office, and the Oil & Gas Committee of the International Bar Association, and Editorial Board of the *Journal of Energy & Natural Resources Law* of the International Bar Association.

Mr. López-Velarde is considered by *Euromoney*, *Who is Who* and *Latin Lawyer* as one of the top energy lawyers in the world.

Judgments and Arbitral Awards, and its protocol. Likewise, Mexico substantially adopted the UNCITRAL Model Arbitration Law within its Commerce Code.

Mexico is not a member of the ICSID Convention or MIGA. Mexico just recently signed an Executive Agreement with OPIC. Nonetheless, Mexico contains one of the most advanced investment arbitration proceedings (as recognised by OECD) within Chapter XI of NAFTA, which investment protection rules have been included in the 21 Bilateral Investment Treaties ratified by Mexico.

10.3 Is there any special difficulty (whether as a matter of law or practice) in litigating, or seeking to enforce judgments or awards, against Government authorities or State organs (including any immunity)?

Unlike other jurisdictions, sovereign immunity cannot be invoked in Mexico; there is, though, a certain type of sovereign immunity against attachment, attachment in aid of execution or execution in respect of certain assets of public instrumentalities (e.g. Pemex and CFE).

10.4 Have there been instances in the natural gas sector when foreign corporations have successfully obtained judgments or awards against Government authorities or State organs pursuant to litigation before domestic courts?

Yes, in many instances.



Daniel E. Sánchez

López Velarde, Heftye y Soria, S.C.
Guillermo González Camarena No. 1600, 6B,
Col. Centro de Ciudad Santa Fe, C.P. 01210,
México, D.F.

Tel: +52 55 5081 1424
Fax: +52 55 5081 1425
Email: dsanchez@lvhs.com.mx
URL: www.lvhs.com.mx

Daniel E. Sánchez is an Attorney admitted in Mexico in 2002. He received his J.D. Degree from the Universidad La Salle Law School. Mr. Sánchez is an alternate lecturer at Universidad La Salle Law School on Public Economy Law. Mr. Sánchez' practice concentrates on energy law, corporate law and real estate law.



Since its inception, *Lopez Velarde, Heftye y Soria, S.C.* has been considered by firm ranking services and recognised by industry players, as the top legal advice in the energy sector in Mexico. Legal 500® has ranked our Firm, with the highest ranking in the energy and natural resources practice areas, as well as among the top law firms in project finance, antitrust, environmental law, and general corporate practice. The International Financial Law Review has ranked LVHS as one of the top firms in project finance. The International Financial Law Review nominated three of our members for its list of World's Leading Energy Lawyers, and *Euromoney* and *Who is Who* have recently nominated Rogelio López-Velarde as one of the top energy lawyers in the world.