

Mexico

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DESCRIPTION OF DOMESTIC NATURAL GAS SECTOR

- 1 In general terms, describe the domestic natural gas sector, including the natural gas production (including liquefied natural gas (LNG) production and exportation), storage, pipeline transportation, distribution, commodity sales and trading, and LNG terminalling segments.

Mexico is one of the few countries that has liberalised its natural gas midstream and downstream industry without liberalising and allowing competition in the production of such fuel. Currently, natural gas production is exclusively reserved to the Mexican State through *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 petroleum industry. Except for the case of the natural gas midstream and downstream industry, in Mexico the petroleum industry (oil, gas and basic petrochemicals) is subject to a vertically-integrated monopoly established in favour of Pemex.

Back in 1995, Congress passed a bill amending the 1958 Petroleum Law, allowing private participation (national and foreign) in the transportation, storage (including 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 Natural Gas Regulations were published by the Executive branch implementing the liberalisation. In 1998 new environmental norms calling for the use of low sulphur fossil fuels became effective, making natural gas the best choice for end users, particularly for industrial customers. A new federal agency was created in order to enforce the natural gas and electricity laws and regulations: the Energy Regulatory Commission ('CRE').

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.

In 1995, when the Mexican government finally decided to use and consider natural gas as an efficient, safe, environmentally friendly fuel, the federal government decided to encourage 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.

The use of natural gas in Mexico, on the other hand, has been primarily prompted by the IPP programme launched by Comisión Federal de Electricidad (CFE), the national electricity utility controlled by the federal government, and its decision to convert several power plants from fuel oil to natural gas operation. Under this IPP programme, which began in 1997, the winning bidder (all of them foreign developers) is required to build and operate a gas-fired combined-cycle power plant for 25 years which anchor tenant is the CFE. Up to this date, 16 projects have been awarded so far with a total aggregating capacity of 7,213 MW, and four more projects are currently subject to bid for an aggregate load of 2,216.4 MW.

Thus, power development in Mexico is forcing an increase in natural gas production in Mexico, and to that extent the opening of Mexico's upstream market. Natural gas demand in Mexico is growing by around 6 to 8 per cent yearly, with a 15 per cent demand in growth for power plants. Imports of natural gas have grown by around 35 per cent during the last five years, mainly due to the fuel requirements of the power plants. Pemex is required to double the current production of natural gas (ie 4.5 BCFD) just in order to keep imports in check (ie by year 2010, 6.400 MMCFD for local production, 1.800 MMCFD for imports). Mexico is trying to meet the increasing demand not only through imports (which includes, of course, the installation of LNG regasification terminals in Ensenada, Altamira, and Lázaro Cárdenas), but more importantly, with an upstream programme aimed at developing dry gas in the Burgos basin (which is located near the Texas border), through the implementation of the so-called Multiple Services Contracts (MSCs) to be subject to international bid during this year. More than 80 per cent of the natural gas produced in Mexico is associated gas.

POLICY AND LEGAL FRAMEWORK

- 2 What is the statutory framework for the domestic natural gas sector?

According to Article 27 and Article 28 of the federal Constitution (x) the ownership of all subsoil domestic hydrocarbons (including natural gas) is permanently vested on the Mexican State, (y) no concessions are allowed for the exploration and exploitation of domestic hydrocarbons, and (z) 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, the Mexican Congress enacted the Organisational Law of *Petróleos Mexicanos* 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 sold to its sister operating subsidiary, PGPB, which currently controls the largest transportation system in Mexico.

In 1995, when Mexico started the liberalisation of its natural gas industry, allowing private participation, the President issued the Natural Gas Regulations, whose main purposes are, on one hand, to regulate the participation of the government, through PGPB, in the transportation and marketing of natural gas, and on the other hand, to foster, implement and regulate the participation of private companies in the midstream and downstream sectors. As a result of the new framework, PGPB became, among others, a transporter of gas, subject in principle to the same market rules as new private transporters coming into the market. By the same token, also in 1995, the Law of the Energy Regulatory Commission was promulgated and vested upon such federal agency broad powers and authority to regulate the natural gas and electricity industry. The CRE is a federal agency created in 1994, in charge of enforcing the Natural Gas Regulations, granting and enforcing permits for the generation and import of power by private parties, and regulating certain other power-related activities.

- 3 Broadly speaking, what is the governmental policy for the domestic natural gas sector and which governmental bodies set it?

The federal government is looking to foster the participation of the private sector in the natural gas industry, with special emphasis in the production of natural gas.

Government policy is set by the Mexican President in compliance with laws and regulations, through the Ministry of Energy (known as '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 Presidential term (ie six-year term). The CRE, on the other hand, through the publication of directives, norms and resolutions, and the regulation of rates and services, is the most important policy-maker in the midstream and downstream arena. The CRE's directives and norms are administrative regulations that do not require Congressional action to be issued (not even Presidential action is required); CRE norms (known in Spanish as *Normas Oficiales Mexicanas*) are technical standards applicable to the gas industry; the CRE itself may amend the directives and norms it issues. Such directives currently regulate specific activities such as gas pricing, rates, accounting, determination of geographic zones, first-hand sales of gas, and others.

REGULATION OF NATURAL GAS PRODUCTION & IMPORTATION

- 4 What percentage of the country's energy needs are met directly or indirectly with natural gas and/or liquefied natural gas (LNG)? What percentage of the country's natural gas needs are met through domestic production?

Domestic production of natural gas for 2003 available to the market is in the order of 4.5 BCFD. Natural gas imports for 2003 are expected to reach between 700 MMCFD to more than 1 BCFD, representing around 15 to 22 per cent of the total amount of natural gas consumed in Mexico. SenEr believes that imports will cover around 19 per cent of national requirements by 2010, despite Pemex's attempts to rapidly increase natural gas production. Such imports will be mainly covered by the three LNG regasification terminals that are planned to be built in Mexico during the following years (one in Ensenada, Baja California for 1.3 BCFD; one in Altamira, Tamaulipas for 425 MMCFD, and the third in Lázaro Cárdenas, Michoacán, for 495 MMCFD). Most of the LNG capacity to be built in Baja California will be earmarked for California, US.

- 5 What is the ownership and organisational structure for production and importation of natural gas (other than LNG)?

Since the Mexican State is the only entity allowed to pursue E&P activities in Mexico, the organisational structure remains completely controlled by Pemex through PEP. Nonetheless, Pemex is allowed to develop the 'petroleum industry' through the execution of contracts with private companies, subject to Mexico's government procurements laws and other regulations, and international treaties such as Chapter X of NAFTA.

Pemex is looking to increase natural gas production through the execution of incentive-based contracts with private companies (eg the MSCs as indicated above). SenEr is also reviewing the best way to amend the current legislation aimed at allowing private equity participation in the upstream arena. Depending on the scope of the proposed bill, a Constitutional amendment may not be needed. Constitutional amendments require a supra majority vote of Congress (2/3 of the representatives and senators of Congress), and a simple majority vote of the 32 local legislatures.

The importing of natural gas is not a regulated activity; any person may import gas into Mexico. Needless to say, the largest importer-shipper of natural gas in Mexico is Pemex. Currently, there are 10 natural gas pipelines that cross the US-Mexico border. In order to increase the supply of natural gas in Mexico, in 1999 Mexico unilaterally eliminated the 4 per cent import duty on natural gas coming from the US or Canada, which was originally scheduled to be phased out in 2003 according to NAFTA.

- 6 What governmental or administrative authorisations are required to carry out natural gas exploration and production?

By virtue of the legal monopoly established by the Mexican Constitution and 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) private parties specifically contracted by PEP to

carry out such activity, under the control and supervision of the former, and subject to government procurement laws and regulations, and international treaties.

6.1 Does the government allow the lease of mineral rights?

No, the Mexican Constitution dictates that all domestic hydrocarbons and minerals shall remain under the sole domain of the Mexican State, and that no concessions are allowed in respect of the exploration and exploitation of domestic hydrocarbons. All mineral rights, except for domestic hydrocarbons and radioactive minerals, are subject to private exploration and exploitation through the granting of a governmental concession.

6.2 Are there laws or regulations governing when, where or how much natural gas may be produced?

No.

6.3 For drilling on public land, is there a governmental authority that authorises and/or monitors such activities?

SenEr is the governmental body that oversees in general the activities performed by Pemex and PEP. The head of SenEr is, by operation of law, the Chairman of the Board of Directors of Pemex. There is not much involvement or scrutiny on the part of SenEr with respect to drilling in public land by Pemex.

7 Generally, how does the government derive value from natural gas production?

Since the Mexican State has a complete monopoly over the production of natural gas in Mexico, the value of natural gas is directly related to the income obtained from its sale.

REGULATION OF NATURAL GAS PIPELINE TRANSPORTATION AND STORAGE

8 What is the ownership and organisational structure for the pipeline transportation and storage of natural gas?

Most of the gas transportation pipelines in Mexico are owned and controlled by Pemex: one comprised of 8,704 Kms of trunklines fully interconnected (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 mid-stream 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 and others.

Until last year when several LNG regasification terminals began their development, no storage project (either through salt caverns or exhausted fields), has been implemented yet in Mexico.

9 What governmental or administrative authorisations are required to construct and operate natural gas transportation pipelines and storage facilities?

In order to build and operate a natural gas transportation system or a storage facility (eg 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 Natural Gas Regulations, 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 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 reach an agreement on the subject matter, as provided under the General Terms of Service approved by the CRE ('GTS'). For obvious reasons, 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.

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 rate-making regulations prescribed for open access transportation permits, *mutatis mutandi*.

The granting of an open access transportation or storage permits (ie 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 shall obtain the authorisation of environmental impact assessment report and risk study from the Ministry of

Environment and Natural Resources (know as SEMARNAT). The filing review process normally takes from four to six months.

Real estate rights

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 storage facility.

10 In general, how does a company obtain the land rights to construct a natural gas transportation or storage facility?

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 facility or metering station (ie option, purchase or lease agreements need to be negotiated, signed, notarised and registered), provided that possession of public land normally requires the granting of a concession, which in some instances, is subject to public tender.

The ROW contracts and servitude 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 (eg LNG terminal). Public property is governed by different statutes, depending on the type of owner (ie federal, state or municipal owner or public instrumentality). In this type of situation, and instead of executing an easement agreement, the developer will be filing and obtaining a ROW permit. The ROW permit may be (y) a pipeline crossing permit, and/or (z) a right of way permit.

Agrarian property is subject to federal law under the Agrarian Law. ROWs granted over Agrarian property is 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 permit has the right to demand the eminent domain over a 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; as a result, gas transportation companies have decided to use such eminent domain right only as a bargaining tool for the negotiation of voluntary ROW contracts or easement agreements.

11 How is access to the natural gas transportation system organised? [Please also address related issues like balancing, adjustment of different gas qualities.] Access to storage facilities?

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 document which includes the type of services offered by the transportation or storage company, the terms and conditions regarding the provision of such services (including imbalances procedures and gas quality provisions), and the rates 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 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 (transportation and distribution) is subject to a Gas Quality Norm published by the CRE.

12 To what degree are pipeline systems interconnected with one another and by what means is co-operation between such systems established?

Despite liberalisation efforts, PGPB continues to be largest transporter and supplier of gas in Mexico. Therefore, a very large amount of distribution and transportation systems are interconnected with PGPB's pipeline system.

The Natural Gas Regulations, the CRE Directive on Pricing and Rates, and each GTS, governs the cooperation between pipelines, which is reflected into an Interconnection Agreement or a Connection Agreement, and in some instances, in an Operation Balancing Agreement. 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.

13 Can customers, other natural gas suppliers or an authority require a pipeline or storage facilities operator to expand its facilities in order to accommodate new customers? If so, who bears the costs of interconnection or expansion?

Yes, 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. As to who bears the cost of the expansion or extension of the pipeline system, that would depend 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 (eg 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 Natural Gas Regulations, the draftsmen never imagined that LNG regasification terminals were going to be developed eight years after the publication of the Natural Gas Regulations.

- 14 Describe any regulation of the prices or terms of service for pipeline or storage services.

Rates for the provision of pipeline and storage services are regulated by the CRE pursuant to the Natural Gas Regulations, and the CRE Directive on Pricing and Rates. (See 16 and 19 below.)

- 15 Describe any statutory and regulatory requirements applicable to the processing of natural gas to extract liquids and to prepare it for pipeline transportation.

Pursuant to the Petroleum Law, domestic natural gas processing is exclusively reserved to Pemex through PGPB. Processing of imported natural gas may be undertaken by private companies, although no one has undertaken such activity yet. The same situation occurs with the ability to process natural gas bought from Pemex.

In processing natural gas, one should be mindful that any natural gas to be injected into a pipeline or storage system in Mexico must meet the CRE's Gas Quality Norm.

REGULATION OF NATURAL GAS DISTRIBUTION

- 16 What is the ownership and organisational structure for the local distribution of natural gas (transportation from trunkline pipeline to consumer)?

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

Both open access natural gas distribution and transportation companies are heavily regulated by the CRE. As common carriers subject to open access and unbundling rules, transportation and distribution companies are generally barred from vertical integration if they are serving the same geographic zone. Preparation and approval of open access transportation and distribution rates are subject to a 'maximum revenue yield cap' methodology, established in the CRE Directive on Pricing and Rates. Gas marketers are not subject to permit by the CRE, and gas suppliers, transporters and distributors are free to participate in such marketing companies.

As a general rule, the first distribution permit for a designated geographic zone by the CRE should always be awarded by the CRE through an international tender. In exchange for the legal commitment to gasify a predetermined geographic zone through the imposition 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 Natural Gas Regulations, 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 21 LDC

permits covering the most important cities in Mexico. The determination and modification of a geographic zone is established by the CRE in accordance with the CRE Directive on Geographic Zones.

- 17 What governmental or administrative authorisations are required to operate a distribution network? To what extent are gas distribution utilities subject to public service obligations.

See 9 and 16. above

- 18 How is access to the natural gas distribution grid organised?

Access to the distribution grid is substantially the same as the one imposed to open access transportation companies (see 11 above).

- 19 Describe any regulation of the prices for distribution services. Are there any fees for access to the distribution system? Under what circumstances can a rate or term of service be changed?

See 16 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. Such rate schedule is published in Mexico's Federal Register, and is subject to the adjustment mechanisms provided under the Directive on Pricing and Rates. According to these mechanisms, (y) such regulated rates are subject to annual adjustments based on Mexico-US inflation and their currency exchange variations, and (z) 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').

- 20 In the purchase of a regulated gas utility, are there any restrictions on the inclusion of the purchase cost in the price of services?

The purchase cost of a regulated gas utility cannot be included in the price of the services, since such regulated gas utility can only modify its rate schedule under the conditions described above. If you acquire a regulated gas utility, you will have to live with its rate schedule, and be subject to the CRE reviews and adjustment mechanisms described in answer 19 above.

- 21 Can the regulator require a distributor to expand its system in order to accommodate new customers? Can the regulator require the distributor to limit service to existing customers so that new customers can be served?

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 (see 13 above).

Under the Law of the Energy Regulatory Commission, the CRE has broad powers and authority to regulate the efficient development of the midstream and downstream natural gas industry; under such premise, and pursuant to other statutory provisions, the CRE may require an LDC to limit service to existing customers in order to serve new customers. This situation, however, has not occurred yet in Mexico.

- 22 Are there any restrictions to the acquisition of shares in gas utilities? Are there any corporate governance regulations or rules with regard to the transfer of assets that apply to distribution operators?

There are no change in control rules embodied within the Natural Gas Regulations. 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 Natural Gas Regulations with respect to 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.

Under the Natural Gas Regulations, on the other hand, one cannot transfer an open access permit without transferring the corresponding assets. 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 Federal Competition Commission (FCC) would also be required, and the transfer would then be subject to the waiting periods established under the Federal Law of Economic Competition ('the Competition Law'). Since utility assets are attached to the permit, the assignment of other permits related to the assets would be required to be obtained as part of the transfer.

REGULATION OF NATURAL GAS SALES AND TRADING

- 23 What is the ownership and organisational structure for the supply and trading of natural gas?

Gas trading is not subject to a permit, and gas marketers are free to participate in gas distribution and transportation permits, to the extent such vertical integration is not considered an anti-competitive practice or a punishable concentration by the FCC. The price of domestic natural gas (which due to the legal monopoly granted to Pemex can only be produced and supplied by Pemex) is regulated by the CRE pursuant to the Directive on Pricing and Rates. Domestic gas is subject to a liquid market price index (Houston Ship Channel), subject to a net back procedure. The marketing of domestic gas after a first-hand sale by

PGPB has occurred, and the sale of imported gas, are 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 of natural gas and the largest transporter.

- 24 To what extent are natural gas supply and trading activities subject to governmental oversight?

Since no permit or authorisation is required to undertake trading activities of natural gas, the oversight of governmental authorities is negligible, except for the case of Pemex, due to its evident market power, and the fact that Pemex is the only producer and supplier of domestic natural gas in Mexico, and the largest importer, trader and transporter. Pemex gas trading activities are regulated by and subject to the scrutiny of the CRE, through the CRE Directive on Pricing and Rates, the CRE Directive on First-Hand Sales, PGPB's General Terms and Conditions for First-Hand Sales, and indirectly, PGPB's gas transportation permit.

CRE has not been able to introduce strong affiliated-marketing regulations. Since there are no strong Chinese-wall rules, the fact that marketing and transportation activities of Pemex remain under the same affiliate (ie PGPB), PGPB is the largest shipper within PGPB transportation system, and PGPB's open access remains a chimera.

- 25 Must wholesale and retail buyers of natural gas purchase a bundled product (the natural gas commodity and transmission/distribution thereof) from a single franchised provider? If not, describe the range of services and products that customers can procure from competing providers.

No, under Mexican law all users (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 or distribution company, or purchase the natural gas from the distribution company.

REGULATION OF LIQUEFIED NATURAL GAS (LNG)

- 26 What is the ownership and organisational structure for LNG, including (as applicable) liquefaction and export facilities and receiving and regasification facilities?

Although Mexico is rich in natural gas reserves, alas there are no liquefaction-export facilities, and due to the increasing demand for natural gas, three major LNG regasification terminals are being developed in Mexico (see 1 and 4 above). As discussed above, liquefaction and regasification facilities are subject to a storage permit by the CRE. The design, construction, safety, operation and maintenance is subject to an Emergency Norm issued by the CRE wherein, among other things, full containment of tanks is required.

27 What governmental or administrative authorisations are required to build and operate LNG facilities and which are the responsible authorities to grant such approvals?

See 9 above. Moreover, LNG terminals require concessions granted by SEMARNAT and the Ministry of Transportation and Communications if they are not located within a pre-established industrial port

28 Describe any regulation of the prices and terms of service in the LNG sector.

See 14 above. It should be noted that the CRE is currently allowing LNG developers to propose their own rate methodology for the revenue yield cap methodology established in the CRE Directive on Pricing and Rates.

REGULATORS

29 Which governmental or administrative authorities determine regulatory policies governing the production, transmission, distribution, and supply of natural gas?

The CRE and SenEr.

30 What is the scope of each regulator's authority?

The main powers given to the CRE are the granting and enforcement of permits for the distribution, transportation and storage of natural gas, to approve the terms and conditions which will govern all natural gas related permits, issue the corresponding methodology for the calculation of the considerations for the permit holders, approve model agreements for the provision of services to end users, issue administrative regulations (directives and norms) in order to regulate natural gas related activities, and impose sanctions related to natural gas activities.

SenEr is in charge of the national energy policy. SenEr, however, does not grant or enforce any governmental permits regarding the development of the natural gas industry.

31 How is each regulator established? To what extent, if any, is that regulator considered to be independent of the regulated business and of the governing officials?

The CRE was created by administrative action, but was later strengthened by the Law of the Energy Regulatory Commission enacted by Congress in 1995. The CRE is considered in Mexico as a quasi-independent agency of SenEr. The CRE is a staggered Commission comprising five Commissioners who are appointed by the President of Mexico, upon the recommendation of SenEr. In general terms, CRE's resolutions, directives, norms and permits are independent, and do not require the supervision or approval of a third agency. Alas, the CRE is not completely independent from political influence. As a result of the proposed electricity reform, the current administration is requesting Congress to bolster the CRE's regulatory authority by making the agency more independent. In order to do that, changes are being considered, including making the appointment of Commissioners subject to prior approval by the Senate, making removal of the

Commissioners possible only for a 'justified cause' established by law, and ensuring that the CRE budget is not dependent upon a third agency.

32 To what extent can decisions of the regulator be challenged or appealed, and to whom? What are the grounds and procedures for appeal?

CRE decisions are challengeable through the reconsideration recourse which is resolved by the CRE itself, and, as a result of such legal action, the CRE may overturn or modify its previous decision. As a second stage of the process, the resolution issued by the CRE may be further challenged before the Federal Tribunal of Tax and Administrative Justice, which may resolve to annul the original challenged decision.

Furthermore, under Mexican law any act or omission by any governmental authority may be subject to judicial review through an *amparo* proceeding. An *Amparo* proceeding is a special type of court proceeding wherein any person or entity in Mexico (national or foreign) may ask for judicial review in respect of acts or omissions of the government in violation of petitioner's 'Bill of Rights'. An *amparo* proceeding is a combination of a US 'injunction-writ of certiorari-writ of mandamus-writ of habeas corpus'. In this type of *amparo* proceeding, the petitioners typically request: (y) an injunction against certain governmental acts, and (z) a 'mandamus', that is, a request to the court to order the defendants (ie the governmental agencies involved in the challenged act) to redress the governmental acts in question, because such acts were performed in violation of the petitioner's Bill of Rights.

COMPETITION AND MERGER CONTROL

33 Which governmental body (or bodies), if any, has the authority to prevent or punish 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 FCC has concurrent jurisdiction in most of the natural gas activities that may be punishable from the antitrust point of view.

The FCC has concurrent jurisdiction with the CRE in four areas: (i) operation of the system, (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 Natural Gas Regulations, the commercial operation of the open access pipeline or storage permit is subject to a 'no objection' resolution of the FCC. As a matter of law, each applicant is required to include as a part of its CRE permit application a copy of the 'notification of interest' filed by such applicant before the FCC. Although this type of filing to the FCC does not amount to a pre-merger notification report, it may become data-intensive and heavily scrutinised by the FCC, depending on the type of project being pursued, and whether the involved parties have substantial power in 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 FCC declares the existence of effective competition conditions within the relevant market. Such declaration may be initiated by any interested party or by the

FCC 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 FCC deregulating the rates of natural gas services seems to be very unlikely to occur in Mexico within the next couple of decades.

As discussed above, 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 FCC if the relevant transaction exceeds one of the monetary thresholds established under Mexico's merger control rules. Both agencies may object to the transaction or impose conditions or performance requirements on the transfer.

Finally, the FCC 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 FCC 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).

34 What substantive standards does that governmental body apply to determine 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 Natural Gas Regulations (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 FCC's resolutions. For further discussion, see answer above.

35 What authority does the governmental body have to preclude or remedy anti-competitive practices?

Both the FCC and the CRE may preclude and/or remedy anti-competitive practices in the natural gas sector within the scope of their competence. 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 FCC and/or the CRE may require the relevant economic agent/permittee to cease the anti-competitive practice, and the FCC may even order the divestment of assets. Once such sanctions have been conclusively established by the FCC, 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 PROFEPA), if the

pipeline or storage service provider violates the Federal Law of Consumer Protection.

36 Does any governmental body have authority to approve/disapprove mergers or other changes in control over businesses in the sector or acquisition of production, transportation 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 (known in Mexico as 'concentrations') be notified to the FCC prior to closing. In such cases, the transaction cannot occur until clearance is obtained from the FCC. 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 FCC reviews the power over the relevant market of the parties involved, and the probable anti-competitive effects of the change in control or merger. Typically, the resolution of the FCC takes three to four months, approximately.

INTERNATIONAL

37 Are there any special requirements or limitations on acquisitions of interests in the natural gas sector 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 US\$150 million in assets, in which case the prior approval of the National Commission on Foreign Investments may be required.

38 To what extent is regulatory policy affected by treaties or other multinational agreements?

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, 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; as a result, Mexico must follow the policies established by such organisations to the extent permitted by Mexican law. Mexico has signed or ratified more than 35 Bilateral Investment Treaties and Double Taxation Treaties, and is a signatory to the most important regional and multinational treaties on private international law.

39 What rules, if any, apply to cross-border sales or deliveries of natural gas?

Unlike other jurisdictions, there are no special permits (eg a Presidential permit) for the construction of a border-crossing

UPDATE AND TRENDS

Currently, LNG projects (representing the fastest growing segment of the energy industry), the proposed electricity reform allowing further private participation in the industry (which includes a major regulatory overhaul) and the MSCs whereby Pemex is intending to increase natural gas production with the participation of international oil companies.

pipeline, or the import or export of natural gas. If the border-crossing is with the US (as is normally the case), the developers shall obtain the authorisation of 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.

TRANSACTIONS BETWEEN AFFILIATES

40 What, if any, restrictions exist on transactions between a natural gas utility and its affiliates?

See 10 through 23 above.

41 Who enforces the affiliate restrictions and what are the sanctions for non-compliance?

Mainly the CRE, but see 25 and 26 above.

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