Mexico’s energy industry is living exciting times. As in some other countries, energy in Mexico—especially oil and gas—is an element of cultural identity, rather than a simple commodity subject to market forces. However, the major challenges Mexico is facing, such as the rapid decline in its energy resources, are pushing the country towards an imminent reform.

Since the late 30’s—when the sector was deeply nationalised—Mexico has experienced waves of complicated ideological debate, in which both civil society and political powers have sought a consensus that embraces the national values whilst providing economic strength and sustainability. Despite a long history of ideological debate, now more than ever, Mexico is at least clear as to the existence of a fundamental issue: something must be done, and quick.

The result of such a devastating exercise has been PEMEX’s lack of ability to reinvent itself and face today’s challenges: desperate needs for massive investing in—among other areas—exploration and production, not only in shallow waters, but, more importantly, in deep waters and even in trans-boundary reservoirs. The challenge is even more profound if the necessary legal reforms are considered within the context of a rapid decline in proved crude oil reserves.

Fortunately, the governmental electric power industry—with CFE and LyFC, has found its way into a more effective and integrated private-public environment. In fact, nearly a fourth of the electric generation is currently provided by private companies. Moreover, the natural gas industry has been deregulated in order to foster the supply to the electric power companies nationwide. Although still in its early days, renewable sources of energy are also finding their way into the Mexican market.

The highly ideological oil and gas industry has much to learn from the more pragmatic sectors of natural gas and electric power. Interestingly enough, 2008 is potentially the year in which politicians will finally learn the lesson: a modern country should be able to maintain a robust State-owned oil & gas sector, complemented by state of the art technology and developed by private companies from all over the planet.

It is in this exciting context, in which we aim to explore the somewhat complex Mexican energy industry in a business oriented fashion. Our goal is to disclose some of the most relevant business opportunities that may attract your attention within each specific field. In doing so, we have divided the study in seven sections: (i) oil; (ii) natural gas; (iii) liquefied natural gas; (iv) electricity; (v) climate change, emissions trading and renewables; (vi) energy financing; and (vii) energy public procurement. Each section describes the economic background of the specific area, highlights the investment opportunities according to official sources; and outlines the respective regulatory framework.

In an ever evolving energy industry, we warmly welcome you to keep track of regulatory trends and business prospects by visiting our website and accepting our newsletters on the subject.

With 75 years of sound experience assisting entrepreneurs from numerous countries, Goodrich, Riquelme y Asociados is prepared to creatively assist you towards a success story in Mexico.

Editors,

David Enríquez. Partner
Carlos Morán. Associate
2008 will be a milestone year in the Mexican energy sector. As a result of the rapid diminishing of its proven oil reserves, Mexico is currently addressing the most aggressive oil & gas reform of its modern history. This is why the moment to rethink your investment portfolio is about to start …

BACKGROUND

Mexico’s proven oil reserves are rapidly diminishing. Cantarell, the world’s 6th super giant field is now in a declining stage. From 2003 to 2007 proven crude oil reserves dropped 7% to 12.84 billion barrels. During 2007, PEMEX, the Mexican State-owned oil monopoly, exported 188 thousand barrels per day less than in 2006. By the end of President Calderon’s administration (December 2012), the shortfall could reach 500 thousand barrels per day. In addition, Mexico’s domestic demand of natural gas and oil by-products is steadily increasing.

It is expected that US$75 billion a total investment of during the next 5 years will be required in order to maintain the production at 2007 levels. Next 15 years forecasts of Mexican marine regions estimate that more than 25,000 wells will be required.

Even though Mexico’s oil exports account for only 15% of the country’s total exports and 13% of its GDP, oil revenues are still extremely important for the country because 40% of the budget of the Federal government comes from taxes and dividends paid by PEMEX.

As a result of this, PEMEX is now focusing in identifying new production fields at sea. Although the volume of probable reserves still to be produced both in shallow waters and onshore is substantial, deep waters stand as one of the main long-term sources. It is estimated that there are enough resources in deep waters in the Gulf of Mexico in order to confront the depletion of the Cantarell field, satisfy the domestic demand and comply with export commitments.

However, PEMEX depends on private contractors – and indeed strategic partners- to develop deep waters fields because it has neither the funds nor the technology to do so by itself. Therefore, it is expected that PEMEX’s legal framework is reformed in order to allow more private participation in the exploitation of Mexican oil fields.

In addition, transboundary oil reservoirs are believed to exist in the Mexican marine borders with US, Cuba, Belize and Guatemala. A new legal structure for the oil sector – both downstream and upstream - will not only allow oil sharing in transboundary reservoirs, but would also boost private participation in that market and a more efficient and profitable exploitation.

Both, President Calderon and the Mexican Congress – especially the Senate’s Energy Committee– have been very active in sponsoring the debate towards a potential reform to the energy sector this very year. As the process is expected to be finalised in a few months, you are kindly welcome to visit our website for further news and a comprehensive analysis of such an exciting issue for business purposes.

At this stage, we can advance that the upcoming reform would likely consider three aspects, in which political consensus is emerging: (i) an organisational re-structuring of PEMEX aiming a more effective operational, financial and managerial autonomy; (ii) a fairly relevant opening of certain downstream activities including oil distribution, storage, transportation – and potentially even some refining activities-; and (iii) more flexibility for PEMEX in order to enter into partnerships and model contracts for tackling heavy upstream challenges, specially those of deep waters and transboundary reservoirs. We are certain that the upcoming months will be remarkably interesting for the oil and gas industry in Mexico, and indeed, for the future of PEMEX.

INVESTING ON MEXICAN UPSTREAM MARKETS

Special reference to the oil & gas offshore sector

Depending on the level of the upcoming legal reform, the scope of the investment prospects might become rather wide. However, the aim of this study is to concentrate on current upstream demands, which, as we explain below, are truly monumental for the country’s standards and can only be effectively faced by the experienced foreign investors.

In spite of the decline in its crude oil production, with a production of 2.63 million barrels per day out of the Campeche Sound, PEMEX is still the world’s 3rd largest crude oil producer, the largest company in Latin America and the 2nd most important supplier of oil to the U.S.—behind Canada—. Today, in addition to approximately 80 drilling units, there are more than 150 ships (both, conventional and new generation) in the area, including supply vessels, passenger ships, construction and crane vessels, tugs, seismic research, collectors, well stimulation boats, process ships, fire control, flotels, heavy lifting units, among others.

PEMEX’s 2007 exploration and production investment budget reached US$12.4 billion, out of which US$5.4 billion were directed towards the perforation of 720 development wells, US$2.5 billion to oil fields development, US$1.9 billion to maintenance works, US$900 million to the drilling of 71 exploration wells, US$270 million to seismic activities and US$1 billion to other priority activities. Most of those funds have been invested in the Kukulcan-Perforadora de Campeche, Perforadora de Campeche, the Norwegian company Larsen Oil and Gas, which was awarded a US$5.4 billion contract regarding the La Muralla III oil rig, the British company Sea Dragon, which was awarded a US$959 million contract in respect of the Sea Dragon I oil rig, and the Norwegian company Larsen Oil and Gas, which was awarded a US$942 million contract in relation with the Praetorium III oil rig. These contracts will enable PEMEX to reach depths of 3,000 meters.
In addition, PEMEX’s Marine Operations Contracting Plan for 2007-2011 shows great business opportunities for marine services providers. According to that plan more than 200 vessels will be hired during the next 5 years. The vessels required include a variety of offshore support vessels, supply vessels, tugs, crew boats, special purpose vessels, accommodation units (floets), semi-submersible oil rigs and even an FPSO unit. Although the table below only refers to nautical equipment, dozens of service contracts will be awarded when developing the new oil fields, especially in the deep waters.

### VESSEL TYPE AND PLATFORMS REQUIRED BY PEMEX FROM 2007 TO 2011

<table>
<thead>
<tr>
<th>VESSEL TYPE</th>
<th>QUANTITY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply vessels</td>
<td>64</td>
<td>31.1</td>
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<tr>
<td>Boats</td>
<td>56</td>
<td>27.2</td>
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<tr>
<td>Supply tugs</td>
<td>42</td>
<td>20.4</td>
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<tr>
<td>DP II maintenance vessels</td>
<td>12</td>
<td>5.8</td>
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<tr>
<td>Refrigerated supply vessels</td>
<td>11</td>
<td>5.3</td>
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<tr>
<td>Special purpose vessels</td>
<td>10</td>
<td>4.9</td>
</tr>
<tr>
<td>Semi-submersible oil rigs</td>
<td>5</td>
<td>2.4</td>
</tr>
<tr>
<td>Accommodation facilities</td>
<td>4</td>
<td>1.9</td>
</tr>
<tr>
<td>FPSOs</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Mooring tug boat</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>206</strong></td>
<td><strong>100 %</strong></td>
</tr>
</tbody>
</table>

### REGULATORY FRAMEWORK FOR INTERNATIONAL PARTICIPATION IN MARINE SERVICES TO THE MEXICAN OFFSHORE INDUSTRY

Coastal trade in Mexican waters is reserved to Mexican shipowners and Mexican vessels. However, if there are no Mexican-flagged vessels available, foreign-flagged vessels may be engaged in cabotage trade. Under Mexican law vessels and naval artefacts—i.e. oil rigs whether fixed or not—are subject to the same regulatory framework—a few exceptions apply. It must be noted that nearly 500 temporary navigation permits are granted and renewed every year. Temporary navigation permits are granted through a special bidding procedure comprised of two stages in which bidders must compete in equal technical conditions. In the first stage, only Mexican shipowners may participate in the priority ranking is as follows:

(i) Mexican shipowners with foreign vessels under any other charter agreement (under this assumption priority is given to the vessel having a higher number of Mexican crewmembers).

(ii) Mexican shipowners with foreign vessels under any other charter agreement (under this assumption priority is given to the vessel having a higher number of Mexican crewmembers).

In the event that no vessels are available under the above assumptions, the second stage of the special bidding procedure begins and foreigners with foreign vessels may participate.

Temporary navigation permits are granted for three-month periods and can be renewed only seven times. Thus, the maximum period for foreign vessels to operate under these permits is two years, after which, vessels must be flagged Mexican in order to continue operating in cabotage trade. This rule does not apply to extraordinarily specialised vessels, as temporary navigation permits for the latter may be extended for longer periods.

Of course, the sensitive issue is to determine the extraordinary component. The new Regulations to the Navigation and Maritime Trade Law (currently being drafted) will further create a technical commission that will determine on the case by case basis if a vessel or naval artefact unique.

In accordance with the Draft of said Regulations, the criteria to determine if a vessel is unique are the following:

1. The state of technology in the international market;
2. The availability of technology in the international market, and;
3. Construction and equipment reports in respect of vessels and naval artefacts that may be considered as extraordinary.

Supply vessels, tugs, crew boats, tankers, cargo vessels and fixed oil rigs are not to be considered as unique in any case.

As regards the duration of the stay of foreign extraordinary specialised vessels under navigation permits, upon the entry into force of the new Regulations mobile oil rigs will be permitted to stay up to 13 years, and vessels and support units will be allowed to stay up to 7 years.

A Mexican flag will be necessary for ordinary foreign vessels planning to stay over two years in Mexican waters. Vessels under ownership or authentic financial lease contracts are eligible for flagging. Concerning the latter, the leasing company may be located in Mexico or abroad.

It goes without saying that foreign participation in the equity of a Mexican shipping company may exceed the 49 % threshold and even reach 100 %, upon favourable resolution by the Foreign Investment Commission, if the company is exclusively engaged in international navigation or in port (or terminal) services, such as towage, launching and line handling.

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“With respect to the oil sector, the firm’s Maritime & Offshore Energy Practice is focused on the comprehensive assistance to PEMEX’s marine contractors, concerning public bids, corporate structuring, ship finance, permits, charters and transnational commercial agreements, among other services related to vessels, naval artefacts and oil rigs, that are used in upstream operations.”
The demand of natural gas in Mexico has increased significantly in the last years. In spite of its large reservoirs, Mexico joined in 2006 the list of importers of natural gas. This situation has prompted PEMEX to create contracting models that allow more private participation in the production of natural gas.

BACKGROUND

PGPB’s—PEMEX Gas y Petroquímica Básica—investments program for 2008–2016 anticipates that natural gas availability will grow at an annual rate of 2.9% during the same period. This growth will be basically supported by an increase in the supply in the Northern Region and particularly by the development of the Chicontepec field. The programme contemplates a MXN 54 billion investment—at 2007 prices—with the intention to be mainly directed towards projects that guarantee the processing of PEP’s—PEMEX Exploración y Producción—natural gas supply and the operation of the company’s fields under the best security, health and environmental practices.

In this context, it is predicted that 60% of those funds—MXN 32 billion—will be invested in projects related to facing the additional supply of natural gas, and 34%—MXN 18 billion—in projects intended to improve the maintenance, safety and efficiency of their facilities. In addition, MXN 2 billion will be directed towards taking care in a reliable manner of the demand for hydrocarbons that PGPB commercialises. MXN 2 billion will be invested in guaranteeing the transportation of gas and other products, the transportation of products, MXN 257 million to technological integration and MXN 187 million to process management.

With these funds the sour gas processing capacity will be increased in 5%, the sulphur recovery in 3%, the liquids recovery in 30% and the gas fractioning in 9%.

INVESTMENT OPPORTUNITIES

In order to reach PGPB’s goals, the following projects will be carried out, fostering the investment of private contractors:

• The construction of two 200 MMcfd modular cryogenic plants in the Burgos gas processing complex.
• The construction of four cryogenic plants in the Poza Rica area with a joint capacity of 700 MMcfd.
• The construction of two integral projects, in a location yet to be defined, to process the supply of gas from the delta of the Rio Grande and deep waters in the Gulf of Mexico, with a cryogenic capacity of 200 MMcfd and 450 MMcfd, respectively.
• Increasing the humid sour gas processing capacity in the Arenaque complex.
• The construction of a 300 MMcfd cryogenic plant in the Coatzacoalcos area.

It is estimated that if the previously described investments are made, PGPB will have the required elements to cope with the supply of hydrocarbons by PEP, guaranteeing their optimal utilisation and operating the fields in a reliable and safe manner.

REGULATORY FRAMEWORK

Private participation in the petrochemical and gas industry has increased through the implementation of the Multiple Services Contracts Model—MSC—in the natural gas industry in the north of the country—Burgos Basin—since 2002.

The MSC model was meant as a tool to reduce the importation of natural gas by increasing the production through hiring private contractors and aimed at transforming Mexico into an exporter of natural gas. MSCs are generic works contracts based on unit prices and a predetermined duration—20 years, which is much larger than the regular works or services contract. The main features of the MSC model are the following:
• The reservoirs continue under the exclusive ownership of the State and the production remains the sole responsibility of PEMEX;
• Contractors do not participate in the profits of PEMEX;
• PEMEX pays for all the works and services, which are its property; and,
• PEMEX shall approve all the programs and supervise the works and operations.

According to PEMEX, the most attractive features of the MSC for the international oil companies are the following:
• Due to the unit prices, the contractor profits from his efficiency in the performance and operation of the projects;
• The works are performed in zones where there are proved existing reservoirs;
• Initial investments are low; and,
• Investments may be recovered quickly if there is a quick drilling process. MSCs have already been tested in the exploitation of natural gas in the Burgos Basin, notwithstanding the political pressure and legal claims in the sense that they oppose to the State’s exclusivity for the exploitation of hydrocarbons.

Although no claim has been successful in so determining, PEMEX has made some amendments in order to convert the MSCs into “new performance models”, which have recently been used in mature oil fields onshore. It is likely that these new models may be extensively used not only on-shore, but also in offshore marine regions, specially in deep waters and transboundary reservoirs.

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LIQUEFIED NATURAL GAS

One of the strategies established in the Mexican energy policy is the diversification of sources of natural gas to supply the electric sector. In line with this and in order to secure the supply of natural gas, the Mexican government has favoured the construction of LNG regasification import terminals.

On the other hand, Sempra Energy is finalising the construction of an LNG reception, storage and regasification terminal through its subsidiary Energia Costa Azul. The terminal is located approximately 26 km north of Ensenada, Baja California. The site acquired by that company has access to coastal waters with the depth required by the project. The Energia Costa Azul project represents an investment of approximately US$75 million and will have a capacity of 1,000 MMcft/d. The terminal is expected to start operations in the first quarter of 2008. This will be the first LNG project in the west coast of North America and will supply LNG to Baja California, Mexico and California, U.S. The gas processed by this terminal will be used by electricity generating plants and diverse industries in the region through a new 72 km pipeline that will be connected with the already existing pipeline in the area –the Bajonaroe pipeline–.

In a different project, ChevronTexaco has a permit for the construction of an offshore terminal near Isla Coronado, 14 km west of the coast of Tijuana. However, its construction was postponed because its first supply source delayed the delivery of its first cargo. The Energy Regulatory Commission (CRE) approved a new construction programme that started in December 2007. The commercial operation is planned to start in the beginning of 2011. Finally, the Manzanillo LNG storage and regasification terminal is scheduled to begin operations in 2011. The purpose of this project is to satisfy the electricity demand in western zones of the country. The construction of a pipeline to Guadalajara is also included in the project. Its total cost will approximately be US$1 billion. It is expected that the terminal begins operations in 2011.

REGULATORY FRAMEWORK

As provided by the Mexican Constitution, the Mexican Nation, through PEMEX, has a monopoly over its hydrocarbons. PEMEX is the only entity allowed to explore, exploit, produce and sell firsthand natural gas, as well as to carry out the transportation and storage required in order to produce it and interconnect different points of its exploitation system. PEMEX is also expected that the terminal begins operations in 2011.

INVESTMENT OPPORTUNITIES

As per the map below there are at least five other potential LNG terminal projects. According to the Energy Regulatory Commission (CRE), the Mexican energy regulator, the projects are expected to start operations in 2011. Finally, the Manzanillo LNG storage and regasification terminal is scheduled to begin operations in 2011. The purpose of this project is to satisfy the electricity demand in western zones of the country. The construction of a pipeline to Guadalajara is also included in the project. Its total cost will approximately be US$1 billion. It is expected that the terminal begins operations in 2011.

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Private entities or individuals may only be involved in the transport, storage and distribution of natural gas under a 30-year permit issued by the Energy Regulatory Commission. To effect, all gas produced in Mexico must be purchased by PEMEX. The scope of the Regulated Activities is the following:

“Distribution. Receiving, conducting, delivering, and in certain cases, commercialising gas through ducts within a Geographical Area –as it is defined further below–. It includes the commercialisation and delivery of gas by the distributor to a final consumer within said Geographical Area, and the reception of gas in one or several points of the distribution system and delivery of a similar amount in a different point of such system.”

Storage. Receiving, keeping in a deposit and delivering gas, when the gas has been deposited in fixed facilities different from the ducts. It includes the reception of natural gas in one point of the storage system and delivery of a similar quantity in the same point or in an adjacent point of such system.

Geographical Area. Area delimited by the CRE for distribution purposes. The permit holder may apply for exclusivity in the Geographical Area –special rules apply– if granted, the exclusivity would last a maximum of 12 years.
Taking into consideration that industrial and economic development depends upon sufficient electric supply, the Mexican federal government has agreed to encourage private investment in the electric power sector through the modalities permitted by law.

BACKGROUND

In the last few years, the use of electric energy has increased by an approximate annual rate of 5 percent, which reflects an increasing industrial activity and evidences the growing need for a greater electric supply. Zones such as Baja California, the northeast, and the peninsular areas, are the regions experiencing the largest annual increases in demand and use of electric energy.

According to the National Development Plan 2006-2012, the Mexican electric power sector has several challenges to face.

One of them is the current level of electricity tariffs, which is an important factor when making an investment decision and a key factor for the competitiveness of the economy. Currently, 64% of electricity generated in Mexico is based on the utilisation of hydrocarbons as a primary source. In Mexico, the modalities permitted by law.

Another challenge is to improve the quality of the electric power supply. During the following years, the Mexican government will seek to develop the infrastructure required in order to reach reliability levels in accordance with international standards.

The Mexican government also aims at increasing the coverage in remote communities by using renewable energy sources in cases where it is not technically or economically feasible to establish a connection to the grid.

Last year, the President inaugurated the La Venta II wind farm, which has a generation capacity of 83 MW, and the La Venta III wind farm will add up over 100 MW in 2008 – Both projects are located in the Isthmus of Tehuantepec in the state of Oaxaca -. This is one of the sites with greatest wind potential in the world. The U.S. National Renewable Energy Laboratory – NREL – estimates that there are about 6,600 km² of windy land with good-to-excellent wind resource potential in Oaxaca.

In accordance with the Works and Investment Program for the Electricity Sector 2007-2016, around 80% of the investment needs for the future expansion of the national electric system will be financed through the PIDIREGAS program. The program includes investment in combined cycle facilities built and operated by independent energy producers.

The Ministry of Finance reports that during 2006 the total amount invested in the Mexican electricity sector was US$4.3 billion, including national budget works, financed public works and independent production of energy. The Ministry of Finance estimates that by 2015, the annual investment level will reach US$5.4 billion in order to reach a national generation capacity in the region of 65,980 MW.

INVESTMENT OPPORTUNITIES

According to data of the Ministry of Energy, Mexico’s electricity production capacity was at 53,858 MW in December 2005, out of which CFE and LyFC – the two State-owned electric power companies – together produced 71%, while independent producers provided 15.3%. It is estimated that the electricity demand will reach 80,000 MW by 2026.

The Ministry of Energy reported that during 2006 the total amount invested in the Mexican electricity sector was US$4.3 billion, including national budget works, financed public works and independent production of energy. The Ministry of Finance estimates that by 2015, the annual investment level will reach US$5.4 billion in order to reach a national generation capacity in the region of 65,980 MW.

Renewable energy sources still account for a minority of the electricity production when compared with traditional generation technologies. Altogether, geothermal, wind and nuclear electricity generation amount to only 5% of the total generation of the country.

Hydropower plants provide over 11,000 MW, including 750 MW generated by the new El Cajon dam. El Cajon will be followed by La Yesca, a US$768 million dam awarded by CFE. This project will also have a generation capacity of 750 MW.

Nuclear power, represented by the Laguna Verde nuclear plant, provides almost 1,365 MW to the national network, which equals 2% of the national production. This amount will be increased around 20% to reach 1,500 MW by the year 2010 when the rehabilitation and modernisation works currently performed by the Iberdrola–Alstom consortium are completed. The Ministry of Energy, has recently recognised that the nuclear energy option might be considered for the long term plans of the country given that nuclear energy has become very competitive in terms of costs and emissions to the atmosphere.

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The Federal Electricity Commission – CFE – is the larger of two State-owned power companies in Mexico and serves the whole country except for Mexico City and surrounding areas. The following table summarise CFE’s investment needs for the 2007-2016 period. Those needs are divided into four categories, namely: financed public works – OFP-; budget works; independent production of energy – PIE-; and, works under a scheme yet to be defined.
Articles 27 and 28 of the Constitution establish the exclusive authority of the government to provide electric power. However, based on historical and social factors, since 1992, the Law for the Public Service of Electric Power allows private investment as a complement to the public funds directed to improve the electric power sector.

As previously mentioned, the current legal framework permits the private sector to participate in the following areas, which were previously considered reserved to the government:

(i) Co-generation – Production of electric power together with steam or any other type of secondary thermal power, or both; direct or indirect production of electric energy from unused thermal power in a given process; or the direct or indirect production of electric power through the use of fuels produced in a given process.

(ii) Self-generation – When a company or closed group of companies acquire, establish, or operate an electricity generating facility to satisfy their own needs, such as within an industrial park.

(iii) Independent production – The production of electric power in a plant with capacity over 30MW, which only purpose is to sell energy to CFE. The independent production is always derived from a public procurement agreement deals with the transmission, backup, purchase and sale of economical resources.

(iv) Small production – The sale of electric power produced from renewable sources, which was previously considered reserved to 30MW, in an area previously determined by the Ministry of Energy. The creation of this type of power plant does not require previous authorisation from CFE.

(v) Exportation and Importation – The exportation of electric power derived from co-generation, independent production, or small production –note that CFE must be part of the negotiations– Importation refers to covering its own needs.

(vi) Permit-holders must adopt the proper methods to comply with Official Mexican Standards –NOMs– related to public works, installations, industry services, and delivery of electric power to the public service network, and shall also be subject to transmission and operation regulations of the National Electricity System. Permit-holders may assign their rights derived from permits to third parties upon prior approval of the Ministry of Energy.

An important regulatory improvement was achieved for the benefit of new private electric power generators when the current legal framework permits the private sector to participate in the following areas, which were previously considered reserved to the government:

REGULATORY FRAMEWORK
Climate Change, Emissions Trading and Renewables

The Clean Development Mechanism is starting to take off in Mexico as a great area of opportunity. All sectors within the energy industry will be clear beneficiaries in terms of investment and technology. Both, because of environmental commitment and business attraction, this is definitely the time to go green.

Background

Scientific evidence and data have demonstrated that the existence of greenhouse gases in our atmosphere is one of the most important causes of the climatic change registered during the last decades.

As a response to said problematic, the Kyoto Protocol was designed by means of which industrialised nations (that have ratified the Protocol) have committed to reduce their greenhouse gas emissions. In this way, companies located in industrialised countries that have ratified this Protocol are equally obliged to reduce their greenhouse gas emissions.

In accordance with the Kyoto Protocol, one of the mechanisms that said companies can undertake to comply with their obligation to reduce greenhouse gas emissions is the implementation of the Clean Development Mechanism (CDM), through the investment in projects in developing nations such as Mexico, aimed for reduction of green house gas emissions.

The reduction of emissions registered in developing countries may be accredited to the Kyoto Protocol towards compliance with their obligation to reduce emissions. “Companies from European countries will be able to use CERs not only to comply with Kyoto targets but also towards those fixed by the EU Emissions Trading Scheme (“EU ETS”). This is because of the “Linking Directive” which allows European companies to use CERs from CDMs to comply with EU ETS.”

The CERs issued as a result of the implementation of CDM projects may be kept by the companies owning the Project or sold in the international market, where these CERs are highly negotiable commodities. The estimated price of a CER representing a reduction of one ton of carbon dioxide, for 2008, is approximately 17 euros. In 2007 the worldwide carbon market represented US$30 billion (approximately) and is expected to reach US$50 billion in 2008 (approximately). The sale of these CERs can help in the finance of the projects implemented.

Although they do not qualify as CDMs, in Mexico some wind farm projects have already been designated as Large-Scale Renewable Energy Development Projects and received funds from the Global Environment Trust Fund (World Bank), which derives from the Kyoto Protocol. This trend is expected to be followed in on other renewable energy projects in the near future.

CDM Opportunities in the Mexican Energy Industry

Although CDM projects in Mexico have aggressively started in the agro-industrial sector, Mexican authorities have forecasted that the Energy Industry as a whole will be a booming area in the utilization of the CDM mechanism. In this context, the main areas of opportunity are the following:

CDM Opportunities - Mexico

- Projects that implement mechanisms that increase the efficiency of energy production and its usage (those that produce the same or greater amount of electric power, with a lower level of greenhouse gas emissions).
- Projects that use cleaner fuels in the production of electricity (change to cleaner combustibles such as natural gas).
- Projects that generate energy by using renewable or non contaminating fuels (wind energy, hydroelectric energy, solar energy, geothermal energy).

Regulatory Framework

To have a project certified as a CDM project, and receive CER’s for the emissions reduced it is necessary to follow the procedure marked by the Kyoto Protocol as well as the Marrakesh Accords of 2001. As in other Contracting State, to qualify as a CDM Project the following regulatory requisites are to be met:

- Compliance with the sustainable development policies of the host country; and lack of unacceptable impacts to the environment.
- The project must result in a reduction of emissions that would not have occurred in the project’s absence.
- Assessment of the context, including the financial characteristics of the project, in view of fostering the financial attractiveness of it, by using the CDM mechanism.
- Measurable, verifiable, and sustainable GHG emissions reductions.
- No standard or national legislation ordering the mandatory reduction of emissions.
- The project must not result in the diversion of Official Development Assistance (ODA).

As far as possible, the project must generate transfers of technology and know-how:
- Formal approval by the host country (“Letter of approval”).

New Bio-fuels Law

As a consequence of high air pollution levels and the decline of proved oil reserves, on 1st February 2008 a new Law for the Fostering and Development of Bio-fuels was passed. This law seeks to develop the production of bio-fuels out of agricultural and forestry activities, algae, as well as other biotechnological and enzymatic processes, without affecting food prices.

As a result, the Ministry of Energy will grant permits to private companies for the production of bio-fuels, such as ethanol and bio-diesel. The bio-fuel produced will have to be sold to PEMEX, which has the monopoly over hydrocarbons in Mexico. It is expected that the government fosters not only the production of bio-fuels out of sugar cane but also out of other crops, such as beet, yucca and sorghum. As per the new law, at least 5% of the petrol produced in Mexico will contain ethanol. Corn may not be used in the production of bio-fuels unless there are production surpluses.
FINANCING

As a first complement to the energy sections, the foregoing provides a brief description of the most common financing mechanisms used by Mexican governmental entities, such as PEMEX and CFE. It also addresses the guarantees available to financial institutions when financing a contractor in Mexico.

THE PIDIREGAS PROGRAMME

During the last 6 years, the annual investment in infrastructure by PEMEX and CFE has increased from US$11.2 billion in 2000 to 18.6 billion in 2006 – accounting for 86% increase. This investment level has been reached as a consequence of the PIDIREGAS – proyectos de impacto diferido en el registro del gasto – programme. This acronym was created by the Ministry of Finance in 1996 to refer to long term projects and the relevant debts.

Under the PIDIREGAS programme, construction works are performed by private companies – normally international – and awarded through a public procurement procedure. Contractors make the required investments on behalf of PEMEX or CFE and obtain funds to finance the costs of the construction phase of the project. When the works are completed, PEMEX or CFE pay the total costs of the construction by making use of their PIDIREGAS budget. Therefore, the private sector does not share the risks associated with the operation of the project.

Even though the PIDIREGAS budget is previously authorised by the Congress, the actual funds come from national or international financial institutions. PEMEX obtains funds for its PIDIREGAS projects from the issuance of bonds in US dollars or euros through the PEMEX Project Funding Master Trust. Syndicated loans and project finance schemes are other financial mechanisms commonly used by PEMEX and CFE to fund PIDIREGAS projects. Under the Build-Lease-Transfer – BLT – modality the financing is part of the awarded contract and under the financed public works scheme – obra pública financiada or OPF – financing is obtained when the works are completed.

Since 2003, over 80% of PEMEX’s investments have been made under the PIDIREGAS scheme. In 2006, 80% of PEMEX’s capital investments – US$13 billion – were directed to exploration and production projects and the rest to refining, gas and petrochemicals projects. However, due to the high oil prices in the recent years, PEMEX might reduce the utilisation of PIDIREGAS schemes to finance its projects and instead finance its projects with its own budget.

CFE’s PIDIREGAS investments – historically around 50% of its total investment – include the construction of generation plants under the BLT modality and the construction of substations and transmission lines under the OPF modality. Private investors may also own power plants through the independent energy producer scheme – productor independiente de energía or PIE –.

FINANCING

The government of Mexico has a large budget. The budget is divided into two main categories: the Federal Budget and the State Budget. The Federal Budget covers the operations of the federal government, while the State Budget covers the operations of the state governments.

The Federal Budget is divided into three main categories: the General Account, the Special Account, and the Public Debt. The General Account covers the operations of the federal government, while the Special Account covers the operations of the state governments. The Public Debt is the debt held by the federal government.

The government of Mexico also has a large private sector. The private sector includes businesses, banks, and other financial institutions. The government of Mexico has many methods of financing its operations, including the issuance of bonds, the issuance of stocks, and the issuance of loans.

SECURING TRANSACTIONS

Many types of security measures are available in Mexico to foreign or local lenders. The following are some of the most prominent types of guarantees available to financial institutions when financing a contractor that is about to enter into a contract with a Mexican governmental entity.

Assignment of earnings under a contract. Contracts entered into with governmental entities may not be assigned to third parties, except for the collection rights thereof if prior authorisation from the public entity is obtained. Collection rights may be irrevocably assigned to a bank or trust, and in this case the public entity pays the bank or trust directly when payments are due.

Mortgages/Liens. The most widely used security device in Mexico is the mortgage. Mortgages may be placed on real estate, vessels, aircraft, or on complete production (industrial) facilities if granted to a bank.

Maritime mortgages. Mortgages may be placed on any vessel, whether built or under construction, and must be registered with the Mexican Shipping Registry to be effective against third parties.

Pledges. There are three kinds of pledges under Mexican legislation: the commercial pledge, the commercial pledge without transmission of possession, and the civil pledge.

Bonds. A bond is an agreement accessory to a principal contract between the creditor and the debtor whereby the guarantor assumes the debtor’s obligation in the event of default. A bond may not exist without the existence of a valid obligation.

Although trusts are widely used for many different purposes and in a wide variety of transactions (such as...
Financial lease. Financial lease agreements are normally executed with financial leasing institutions, which in order to grant the financial lease require promissory notes and insurance cover to guarantee a transaction. The lessee pays a determined amount, which includes the price of the goods, as well as the financial and other costs. Unless otherwise agreed, the price has to be paid even if the goods have not been delivered. The lessee is responsible for the maintenance and preservation of the goods and it is liable for any damage the goods may suffer, including loss, deterioration or destruction. Upon termination of the lease, the lessee may: (i) purchase the merchandise at a value lower than the original purchase price paid by the lessor or market value; (ii) extend the agreement and pay a lower rent in accordance with the terms established in the agreement; or (iii) participate in the proceeds from the sale of the leased merchandise to a third party, as may be agreed. Vessels hired by Mexican shipping companies under financial lease agreements are eligible for flagging in Mexico.

A. RELEVANT LAW SOURCES

The legal framework for government procurement is set out in two pieces of legislation, namely the Law of Public Acquisitions, Leases and Services of the Public Sector and the Law of Public Works and Related Services.

Those laws, having very similar contents, regulate the planning, programming, execution, budgeting, cost, conservation, maintenance, and control of acquisitions, lease of property and goods, any type of service agreements, and public works, required by federal governmental entities, companies in which the federal government holds a majority ownership interest, and federal government-owned entities. Other laws and regulations in specific activities often detail the content, formalities, and obligations of particular government procurement contracts.

Before 30th November of each year, agencies and entities shall publish online their annual program for acquisitions, leases, and services, or public works, as the case may be, for the next year. Government entities and agencies, such as PEMEX and CFE, may award contracts by virtue of any of the following procedures: (i) open bidding, (ii) restricted bidding, or (iii) single-source bidding. However, in the great majority of cases, the open bidding procedure is followed, as the restricted and single-source bidding procedures can only be conducted if very strict conditions are met.

The invitation to bid is published in the Official Federal Gazette and a nationally distributed newspaper. The invitation to bid—bases—for public biddings shall be available to the interested parties at the domicile designated in the invitation to bid and on www.compranet.gob.mx on the day the call has been published and up to six calendar days before the ceremony of delivery and the opening proposals. Within that time period, it is the exclusive responsibility of the interested parties to acquire the invitation to bid.

B. AWARDING CONTRACTS

Any party that satisfies the requirements in the invitation to bid may submit a proposal during the event for the delivery and opening of proposals or submit it by postal service, courier or electronic means. The bid must include both a technical and economic proposal, incorporating guarantees, depending upon the nature of the project. Bids are first evaluated to ensure that all requirements are met, and any bid not satisfying the legal, technical and economic requirements, including effective guarantees, outlined in the invitation to bid, is subject to disqualification.

After a detailed examination of both technical and economic proposals, the contract will be awarded to that bidder who satisfies the technical, legal and economic conditions required by the procuring entity, and satisfactorily guarantees compliance of the respective obligations.

However, when two or more bidders are eligible, the contract will be granted to the bidder that offers best value for money. In public procurement procedures related to acquisitions, leases and services, procuring entities may also award the contract to the best evaluated bidder in terms of points, percentage or cost/benefit criteria, which have to be previously set forth in the invitation to bid. Contracts must be executed within 20 calendar days after the notice of the award. Otherwise, the contract may be awarded to the second best bidder.

The laws also permit government agencies and entities to conclude restricted bidding under certain conditions. In which case, invitations must be extended to at least three prospective suppliers or contractors. Additionally, the laws contain requirements for the use of restricted bidding. For example, restricted bidding is permitted when the contract can only be executed with a determined individual, since he is the holder of certain patent or trademark rights, or other exclusive rights.

If the entity or agency concludes that restricted bidding is not suitable, it may opt to award the contract directly through a single-source procurement procedure.
C. FOREIGN PARTICIPATION

Mexican law distinguishes between national and international bids. The bidding procedure is considered to be national when, only Mexican nationals are permitted to participate. 100% foreign owned Mexican companies are eligible for national bids. Under the Law of Acquisitions, the assets to be acquired through a national procurement procedure must have been produced in the country and contain at least fifty percent of national content. On the other hand, the bidding procedure is considered to be international when the contract may be awarded to either Mexican or foreign nationals.

International bidding procedures are carried out only in the following cases:

1. When it is mandatory pursuant to a treaty where foreign companies are granted national treatment (i.e. free trade agreements, such as the NAFTA and MEUFTA);
2. When the relevant entity or agency determines, after a market investigation, that the quantity or quality of national suppliers is not adequate, or that national contractors do not have the capacity to perform the work contemplated;
3. When the contract cannot be awarded, because no bids were tendered, or the bids did not meet minimum requirements set forth under the bidding terms; or
4. When required as a condition for the granting of foreign credits to the federal government, or its guarantor.

Therefore, contractors from nations that have entered into free trade agreements, which include a public procurement section, with Mexico may hold a distinct advantage in obtaining government procurement contracts.

D. USUAL GUARANTEES AND INSURANCE REQUIREMENTS

Guarantees. Prior to the beginning of the works or services, contractors must provide a bond in respect of any payment on account to be received and a performance bond.

Upon the completion of the works or services, contractors must post security for any possible hidden vices or latent defects –warranty bond– that may arise during a given period of time. Otherwise, the contractor may elect to either provide an irrevocable letter of credit or provide funds to be allocated in a trust.

All guarantees must be issued by an authorised Mexican institution and comply with the specifications contained in the invitation to bid.

Insurance. A civil liability insurance policy for the duration of the works or services must be provided to the procuring entity in accordance with the specifications laid down in the invitation to bid and the contract. The insurance must be taken with an authorised Mexican institution.

E. OTHER TYPICAL CONTRACTUAL OBLIGATIONS

Temporary Suspension and Early Termination of the Contract.

Every contract with a federal public entity provides that the same may temporarily suspend, in all or in part, the contract at any moment for a justified cause or for reasons of general interest without implying the final termination of the contract. The public entity must only advise the contractor as to the approximate duration of the suspension. Once the cause for suspension has disappeared, the public entity may order in writing the renewal of the works and the appropriate extension of the contract. Under the same grounds the public entity may invoke the early termination of the contract.

If certain conditions are met, the contractor may claim compensation from the public entity for the expenses that the contractor may have incurred during the suspension—or due to an early termination of the contract not caused by default of the contractor—.

Liquidated Damages. The contract provides a mathematical formula in order to determine liquidated damages. The penalty is applied if due to causes imputable to the contractor the works are not completed within the term provided in the contract due to causes. The penalty is applied for each day of delay with reference to the works yet to be delivered. Liquidated damages cannot be higher than the total value of the contract. The actual losses or damages do not need to be proved by the claimant when seeking liquidated damages in court.

Payment. Governmental entities may opt for any of the three payments methods provided by law, namely: (i) on a unit prices basis; (ii) on a lump sum basis; or, (iii) on a mixed basis. The unit prices basis means that the governmental entity pays the contractor for each concept unit completed. The lump sum basis means that the government pays for the works or services once they are completely terminated. On a mixed basis means that the government may use both payment mechanisms in the same contract.

GRA represents foreign and domestic companies providing a wide range of goods and services to Mexican government agencies at all levels. We also represent contractors and subcontractors in their dealings with one another. Primarily, we are called on to assist in preparing bids and proposals, negotiate contracts with government agencies, interpret contract requirements, and ensure compliance with the applicable bidding procedures. We also represent clients in both, litigation and arbitration related to public procurement.”