



The  
New Mexican  
**Upstream**  
**Legal Regime:**  
A **change** of paradigm  
towards **private venture**



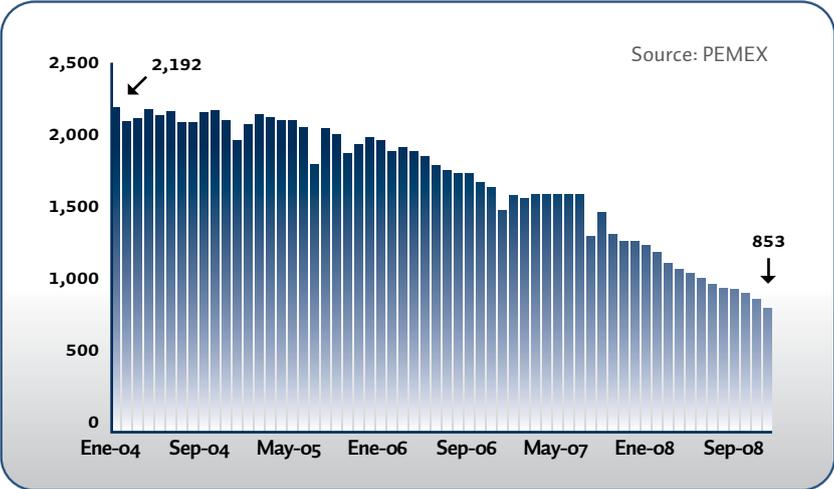
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# 1. UNDERSTANDING THE CONTEXT OF THE NEW E&P REGIME: THE PEMEX'S DIAGNOSIS.

PEMEX reservoirs have dramatically fallen since 2003. In particular, the production of Mexico's gigantic oil field –Cantarell– has decreased approximately 61% representing a fall of 1'358,000 barrels per day (b/d) which in turn equals to a decline in Mexico's total output of 21%. In addition, PEMEX operates with technologically obsolete infrastructure, poor maintenance programs and its equipment has not experienced substantial changes in the last two decades. Undoubtedly, Mexico's easy and cheap oil era has come to an end and therefore the Government needs to address the situation.

**Cantarell's production of crude oil  
(January 2004 – December 2008)**



Considering the foregoing, PEMEX along with other Mexican regulatory and legislative authorities started the works towards finding the best ways to tackle this difficult scenario; especially in exploration and production (E&P). During the last two years some evaluations were carried out to assess PEMEX's (i) productiveness, operational and execution capabilities, (ii) regulatory restrictions, and (iii) corporate governance.

The works concluded that in order for PEMEX to maintain production levels in the short and long terms, it was necessary to adopt some strategies to improving the average of proven reserves through the following actions:

- Discovery of new fields,
- Short-term new fields production,
- Development of proven and probable reserve oil fields, and
- Enhancement of production, discovery and development costs.

Special concerns arose in connection with deep waters potential fields since PEMEX neither possesses the expertise nor the funds to explore risky, deep water oil fields. Due to the importance of this topic, Goodrich will address this particular matter in a separate leaflet in the coming months.

## II. ENERGY SECTOR REFORM: PEMEX NEW DESIGN AND REGULATORY AGENCIES.

November 28, 2008 may be considered as a major step for Mexico's upstream industry in the last 60 years. A new pack of reforms were enacted by the Government aiming to provide PEMEX with an E&P legal regime closer to international oil-industry best practices. The Reform included the enactment of a new PEMEX Law addressing the corporate organization of PEMEX along with its contracting practices.

### **(A) PEMEX's Board of Directors.**

The 2008 Reform gave PEMEX's Board of Directors an organic and an operative structure which resembles to best international practices. Such Board will be formed, amongst others, by independent professional experts. Likewise, the technical operation of the Board will be carried out through different committees, broken down as follows.

- (i) The Performance Audit and Evaluation Committee;
- (ii) The Strategy and Investment Committee;
- (iii) The Remunerations Committee;
- (iv) The Acquisitions, Leasing, Public Works and Services Committee;
- (v) The Environment and Sustainable Development Committee;
- (vi) The Disclosure and Accountability of Information Committee; and
- (vii) The Technologic Development and Investigation Committee.

Furthermore, the PEMEX's Board of Directors was granted with greater administrative and management functions for improving its role and its management. Particular emphasis was devoted to its debt organization.

## (B) Other regulatory agencies.

The Reform also considered other governmental agencies such as the Hydrocarbons National Commission (Comisión Nacional de Hidrocarburos) with the technical capabilities and necessary knowledge to analyze PEMEX's activities in depth, manage the exploitation plans and participate in the selection of the most adequate technology.

Its fundamental tasks will be to regulate and to supervise hydrocarbons' exploration and exploitation in oil basins or fields, refinery, storage, transport, distribution, direct sales of the products obtained from the refinement; natural gas or raw materials are excluded from this regulation. It shall establish and control an Oil Registry (Registro Petrolero) where some agreements, contracts and legal acts shall be recorded.

In addition, the Regulatory Energy Commission (Comisión Reguladora de Energía) will supplement PEMEX's works through:

- The approval and issuance of the terms and conditions to which first-hand sales of (i) heavy oil, (ii) gas, and (iii) other basic petrochemicals shall be subject to. Also, it shall lay down the methodology for the determination of its prices, unless there are conditions of effective competition, and
- The approval and issuance of the terms and conditions to which (i) the distribution of heavy oil, gas, other basic petrochemicals and the bioenergetics through pipe lines shall be subject to, and (ii) the rendering of transportation services shall be subject to.

### III. CONTRACTING WITH PEMEX, E&P.

Mexico belongs to the very limited group of countries the oil industry of which operates within the services regime. Moreover, contracting with PEMEX E&P (PEP) was carried out through different contractual forms which seemed inadequate vis-à-vis international contractual practices. In addition, contracting presented different problems mainly related to Mexico's bureaucracy and complex administrative regulations. Although some of the above mentioned problems were addressed prior to the Reform, former contracting schemes did not respond anymore to the contractual needs of PEMEX.



Prospective resources are mainly located in the Gulf of Mexico area.

## **(A) NEW CONTRACTING ENVIRONMENT.**

The Federal Government's objective through the 2008 Reform aimed to adequate upstream contracting schemes in line with the international outlook. The essential change is that upstream activities will no longer be subject to the Public Works Law (Ley de Obras Públicas y Servicios Relacionados con las Mismas), but to commercial standards determined by the Board of Directors. Former contractual practices which have proved to be successful are expected to continue being a key element for the development of new contractual forms to be prepared pursuant to the new E&P legal regime. Thus, it is important to highlight some of their most important consolidated features:

### **(i) Core matters:**

- Hydrocarbons and oil reserves will remain property of the Nation: Mexico will maintain at all times the control and the direction of the oil industry. All contractual instruments are exclusively service agreements – as opposed to production sharing or equivalent features. Therefore, no rights of preference for the purchase of oil and its derivatives will be awarded;
- Items which are not possible to subcontracting: Job planning, onsite job direction and performance evaluation in meetings with PEMEX;

### **(ii) Management and Technical-related matters:**

- Consortium Leader: Proposals can be submitted on behalf of an entire consortium, which in turn will designate a leader. This leader will be responsible for the communication sustained with PEP and the joint obligations entered into by other consortium's members;
- Annual Work Program (Programa Anual de Trabajo) (PAT): It refers to the work scheduled and its related budget which must be annually made by the bidder. Together, several PATs compose the Master Execution Program, which contains at a basic level the execution schedule of the different PATs;

- Management Group: This group is composed by 3 PEP members and 3 Contractor members and is responsible for proposing, discussing and evaluating all those technical assistance activities for PEP, scheduling of works, coordinating PEP and bidders, applying performance indicators mentioned below and other related matters;
- Directive Group: Integrated by 3 PEP members and 2 bidder members. The group meets to resolve any topic related to the contract or any difference derived from the Management Group. In order to do so, it may require the assistance of independent experts;
- Performance Indicators (ICD): These are specific features to each phase and allow for the evaluation of the safety, environment and health conditions as well as the reliability of the management's performance;

**(iii) Finance-related matters:**

- The Credit Rating: The bidder is required to submit a document issued by a certified rating agency registered before the National Banking and Securities Commission (Comisión Nacional Bancaria y de Valores), containing an approved rating (ie C+: Fitch, Caa1: Moody's);
- Corporate Integration when contracting with PEP: Three different schemes may be planned, each one triggering different contractual and corporate responsibility. Amongst these are: (i) subcontracting (basic level), (ii) joint bid (intermediate level), and (iii) joint venture company (higher level);
- Guarantees: Depending on which requirements each company meets, several guarantees must be issued such as: (i) corporate guarantee, (ii) hidden and latent defect bond, and (iii) performance bond;

- Consideration: Remuneration to be paid under the relevant agreements shall be subject to, amongst others, the following conditions:
  - a) It shall be in cash.
  - b) It shall be reasonable in line with the use and standards of the industry.
  - c) It shall be established as a fix amount or as a predetermined formula the outcome of which is a certain consideration.
  - d) It shall be included penalties in respect of (i) the negative impact to the environment of the relevant activities of the contractor, or (ii) the lack of compliance with indicators of opportunity, time and quality.
  - e) Additional compensation to the contractor may only be agreed upon when:
    1. Such contractor obtains a budget cutback due to the reduction in the time of execution of the works,
    2. PEMEX acquires or receives a benefit from new technologies provided by the contractor, and
    3. Other circumstances attributable to the contractor concur which may represent an additional profit to PEMEX or a better result in the works or services.

Such possible additional compensation shall be expressly established at the time of execution of the agreement;

#### **(iv) Miscellaneous:**

- Environmental Considerations: Initial and final environment indicative reports must be filed as well as annual environmental reports;
- Amendments: The agreements may include provisions whereby the parties may make amendments to the projects due to (i) the incorporation of new technological advances, (ii) variation in the market prices of materials and equipments used in the corresponding works, (iii) the acquisition of new information obtained during the execution of the works, or (iv) others which may contribute to the efficiency of the relevant project; and
- Law and Forum: With respect to international transactions to which PEMEX is a party, it will be authorized to agree on non-Mexican law and forum.

### **(B) IMPLEMENTATION OF PEMEX'S NEW CONTRACTUAL FORMS.**

Currently, the Federal Government is working on the implementation of the Reform which includes the development of regulations and administrative rules as well as the new contractual forms envisaged therein. Although PEMEX has been reluctant to publish the works related to the development of the contractual forms, it is believed that they will be divided into contractual blocks related to (i) deep waters, (ii) Chicontepec, and (iii) other models. Such works may be ready to be issued by the end of 2009 or early 2010.

In the implementation of the Reform, PEMEX has received comments from different international players in the oil-industry, regarding some of their most critical concerns with respect to the development of the new contractual forms, in particular regarding E&P in deep waters. Said concerns are related to:

1. **Surface's extensions:** Considering the nature of deep waters projects, the contracts shall include very well defined areas which may allow the corresponding company to exploit, develop and cause the relevant surface to reach an appropriate level of production. Larger areas contribute to assess and better distribute inherent risks of these projects as well as to increase the possibilities of obtaining an appropriate return;
2. **Duration:** Since most of projects involve a considerable investment along with a parallel risk upon the services' provider, therefore the duration of the relevant agreements shall take into account stable long-term relationships between the State and the relevant company which in turn would permit it to take advantage of its capital, know how, people, experience, technologies and to maximize the value of the corresponding surface, as well as to recover the costs of such investment;
3. **Compensation's formulas:** The oil industry's main concerns in connection with compensation are focused on how a company may recover the capital invested and the operative costs of these projects, while on the other hand, on how it may obtain a reasonable profit and incentives internationally competitive under the services regime contracts in force in Mexico; and
4. **Contractual provisions on the distribution of risks and limitation of liability:** Some of the most critical aspects with respect to the content of the contractual models which may be eventually executed with PEP are related to (i) the incorporation of a "knock-for-knock" provision which may allow a services' company to assess in advance what are the risks inherent to a particular project, along with the potential losses which it may incur; in sum, an objective mechanism to that effect, (ii) the inclusion of a contractual provision whereby such company's liability may be limited for up to the consideration which the latter is entitled to receive as per the relevant contract, (iii) provisions excluding consequential damages, and (iv) the regulation of catastrophic damages, (v) incorporation of arbitration clauses.

## IV. CURRENT COMPETITION IN THE MEXICAN OIL MARKET.

Mexico's oil exploration and production market is highly and strongly competed amongst the oil services' providers such as Schlumberger, Halliburton, Weatherford, Baker Hughes and BJ, just for mentioning some important players. Nevertheless, considering the prohibition of sharing production contracts by Mexico's oil current legal regime, it seems there is an increasing interest in Mexico's market by oil operators which are currently performing as oil services' providers.

In other words, oil operators such as PETROBRAS and Repsol compete with the above referred oil services' providers within Mexico's oil exploration and production market and since last year's Reform consolidated restrictions on sharing production contracts, it may cause and increase competition amongst oil services' providers and oil operators. There are other important oil operators such as BP, Chevron, Statoil-Hydro and Shell that are expected to have a much more dynamic participation with the new E&P legal regime.

Notwithstanding the foregoing and considering the challenges posed by deep waters and other large projects, it seems that the leadership of the same will be borne by one or more oil operators under consortium schemes where a large number of subcontractors for the provision of oil services will participate along with their chains of suppliers.

In particular, taking into account the remarkable role of the National Agency of Oil, Natural Gas and Biofuels of Brazil in the development of Brazil's energy sector, along with a policy of expansion in about 20 countries around the world and the recent announcements made by the President of Mexico pursuing to achieve a strategic alliance between PEMEX and PETROBRAS, it could be expected an important and an increasing role of said Brazil's state-owned oil and gas giant within the Mexican market; in particular, with respect to deep and ultra deep waters where PETROBRAS' expertise will become a prominent element to be considered. Despite this fact, other oil operators such as the ones mentioned above are fully capable and fully prepare to render comparable levels of expertise.

## V. PEMEX: CHALLENGES AND INVESTMENT PROJECTS – E&P and Beyond.

PEMEX is facing an array of challenges. In E&P, the exploitation of mature fractured reservoirs will test PEMEX's drilling capacity since it requires new forms of logistics that PEMEX has never experienced before. Likewise, deep waters will require unprecedented investments and technological challenges.

In refining, there is an unparalleled challenge, it is urgent to finish the upgrading of Mintitlán's refinery and of other three existing refineries, as well as to improve the environmental characteristics of the fuel which will require the construction or upgrading of 39 oil-refinery plants.

Likewise, PEMEX faces other infrastructure challenges with respect to:

- **Pipe lines:** Such pipe lines do not possess technological advantage and their average age, is 24 years. Moreover, clandestine leaks constitute Mexican pipe lines' major challenges.
- **Tankers:** They not comply with international standards; 12 of them are no longer in operation and it will be required approximately 20 of those vessels.
- **Land Transportation:** There is low efficiency concerning loading and discharging operations. There is no adequate infrastructure and multi-purpose capacity. Long term contracts on new routes are required.

As previously suggested, PEMEX will need new investments on deep waters technology and related offshore equipments such as offshore skids and drilling rigs, offshore production platforms along with their components, floating crane barges and platforms, deep-water engineering systems, remotely operated vehicles (such as submarines), tubes, umbilicals that connect the equipment underwater to the rig, valves and similar products, drilling fleets such as semisubmersibles, jack-ups and drillships.

PETROBRAS' deep-water drilling ships



Furthermore, PEMEX will need (i) to better seismic data acquisition designs, (ii) to improve the quality and precision of subsurface seismic images, (iii) to develop methods that integrate seismic data with other sources for the exploration of subsalt reservoirs, and (iv) to develop modeling methods to improve the processing of seismic data.

On other parts of its industry, PEMEX will have to face diverse and urgent challenges which in turn will allow it:

- to foster the development of technologies for specific recovery processes,
- to improve hydro-treatment technology for the enhancement of Mexican heavy oil in order to achieve a higher profitability in comparison with H-Oil and delayed coking processes,
- to generate the required technology for viscosity reduction in extra heavy oil at marine installations, facilitating its transportation onshore with a minimum requirement of supplies,
- to handle sub-products,
- to strive for enhancing the carrying out of efficient drilling at lower costs, and
- the development of:
  - (i) processes for oil production in fractured reservoirs,
  - (ii) heavy and extra heavy oil recovery technologies that are technically and economically advantageous, and
  - (iii) effective diagnosis, control and management methods for water production in reservoirs.

Undoubtedly, such challenges will eventually test its capability to overcome its weaknesses.

As a result of the recent steps carried out by Mexico, PEMEX has an unprecedented approved budget which allows it to pursue mid-term and long-term investment's projects in all areas of the company, as it is pointed out below:

Amounts to be invested (figures in millions of dollars)	2009's Investments	2009-2012's Investments
PEMEX Exploration and Production	16,899	61,151
PEMEX Refining	1,920	13,116
PEMEX Gas and Basic Petrochemicals	353	1,609
PEMEX Petrochemical	208	2,929
Corporate matters	64	304
<b>TOTAL</b>	<b>19,444</b>	<b>79,110</b>

PEMEX E&P investment projects are mainly focus in maintaining the crude oil's and gas' production platform and to increase the restitution rate of reserves; such projects represent 77.3% out of PEMEX's total investments, being amongst the most important the following:

Main Project	Objective and scope of the project	2009's Investments (Millions of USD)	2009-2012's Investments (Millions of USD)
Chicontepec Gulf Oil Project	<ul style="list-style-type: none"> <li>Contribute to the fulfillment of the goals in Exploration and Production, increasing oil and natural gas recovery.</li> <li>2009 Activities: Termination of 1,063 wells, and reparations of other wells thereat.</li> </ul>	2,314	11,149

Main Project	Objective and scope of the project	2009's Investments (Millions of USD)	2009-2012's Investments (Millions of USD)
Cantarell	<ul style="list-style-type: none"> <li>Production of heavy oil and gas through the maintenance of the pressure, the implementation of a recovery system, and the optimization of production systems.</li> <li>2009 Activities: Termination of 14 wells, and reparations of other wells thereat.</li> </ul>	2,176	5,559
Ku-Maloob-Zaap	<ul style="list-style-type: none"> <li>Production of oil and gas through the drilling of wells and the implementation of a pressure's maintenance system related to field's exploitation, and</li> <li>2009 Activities: Termination of 15 wells, and reparations of other wells thereat.</li> </ul>	1,565	5,723
Exploration Projects	<ul style="list-style-type: none"> <li>Incorporation of new reserves, reclassification of current reserves in order to reach a new production reserve of 10 years.</li> </ul>	2,562	5,723
TOTAL		8,617	12,233

It is likely that with the new contractual regime and the autonomy of the Board of Directors, along with the challenges posed upon PEMEX, clusters of oil contracts will be awarded to international oil company consortiums, which in turn will be able to subcontract related services with other private companies. Undoubtedly, there are exciting times coming ahead for the national and the international oil industry. This is why your company is most welcome to participate in this new interesting era of our country.

With a solid experience, our firm is duly prepared to assist its clients interested in the oil and gas sectors. The firm's Energy Practice Group is focused on providing comprehensive assistance to PEMEX's contractors and sub-contractors with respect to public biddings, corporate structuring, and transnational commercial arrangements, among other services related to upstream and downstream operations. Likewise, Goodrich's finance, banking and venture capital experts help clients to structure their businesses in the most efficient way by focusing on minimizing regulatory obstacles while at the same time complying with the applicable regulations.

***With 75 years of experience and being amongst the five largest law firms in Mexico, Goodrich Riquelme y Asociados has a long tradition of standing alongside its clients when helping them make their business objectives a reality. By means of a cross practice among service areas and industry teams, our carefully trained lawyers achieve an innovative approach towards the rendering of contemporary legal services tailored to the demanding business community worldwide.***

***We ensure that our clients are competently represented wherever their businesses take them. This is why, in addition to our network of correspondents in Mexico and our own office in Paris (since 1971), Goodrich actively participates as founder firm of the Bomchil Group, an association of independent law firms with offices in practically every Latin American country. Today, Goodrich has a professional and administrative staff of over 250.***

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