MEXICO'S ENERGY REFORM

A GAME CHANGER IN THE NATION'S HISTORY

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ENERGY REFORM'S FUNDAMENTALS

The Energy Reform's bill adopted by a narrow margin on December 12, 2013 and which took effect on January 1st, 2014 finally formalizes the most liberal regime in the Nation's history.

PACTO POR MÉXICO

Framed by the far reaching political agreement promoted by President Peña at an early stage of his administration "Pact for Mexico" (Pacto por México), the scope of the Reform was already established: first and foremost, the hydrocarbons remain the Nation's property; will be extended the National Hydrocarbons Commission's (CNH) faculties; will be opened up to competition refining, petrochemistry and transportation; will lower electricity production costs through gas; will set up energy supplying in the country with reasonable prices and quality[1]; and, last but not least, PEMEX will be converted into a public "Productive Company".

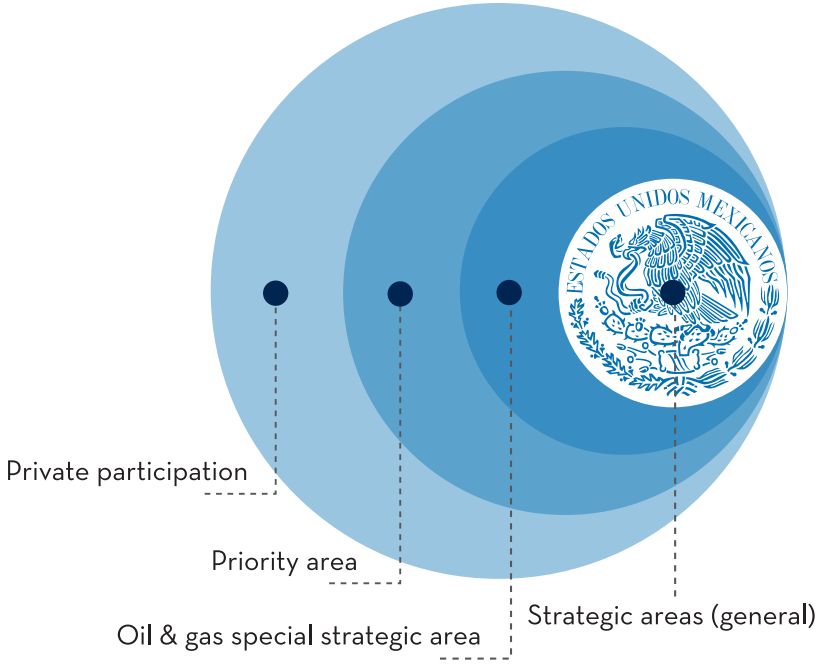
To summarize, the Reform addresses three key aspects as follows:

- **Authorizing private investment** for exploration and extraction of hydrocarbons under contracts (i.e., Production Sharing Agreement) with the Federal Government, as further exposed.
- **Authorizing oil processing and refining** by private companies as well as gas processing, oil and oil derivatives transportation, storage and distribution.
- **And, authorizing private investment for electricity generation, commercialization**, transmission and distribution under contract with CFE (Electricity Federal Commission).

[1] See our publication about the Reform's consequences for the Electricity Market - 2014

Despite the Reform's innovating character, the core constitutional reservation, stemming from the hydrocarbons ownership by the Nation and therefore prohibiting concessions, remains intact.

Indeed, the Mexican Constitution rules the exploitation of the Nation's resources through different -relatively open- areas to private investment, depending on the nature of the resource and the activity involved.



Hydrocarbons resources have always been carefully preserved and maintained in a narrow strategic area. Nonetheless, the Energy Reform cracked this historical shell to unfold a new oil & gas special strategic area thus offering new business opportunities.

CONTRACTUAL MODEL

Four different contractual arrangements have been introduced:

- **Service Contracts,** with a cash compensation;
- **Profit Sharing Contracts,** with a compensation based on a percentage of profit;
- **Production Sharing Contracts**, with a compensation based on a percentage of production;
- **License Contracts,** with a compensation through licensing in return for payment for hydrocarbons extracted from subsoil. This feature, which could be linked with the traditional concept of "permit", remains unknown in Mexican law. Moreover, the concept of "permit" does not fully cover the meaning that the license aims to bear.

The bill's final version also includes a fifth alternative allowing *"any combination of the aforementioned contracts"*. In this respect, it is likely that this provision may allow a wider flexibility and a greater similarity with the concession model. However such flexibility depends on the legal framework to be developed in the secondary legislation, expected by mid-2014 approximately.

Indeed the participation in the oil and gas industry is not mandatorily bound to these four pre-formatted models. Pemex is still entitled to directly contract and/or subcontract third parties by means of standard remunerated integrated services agreements or other standard forms. In the same way, the farm-out model remains a managing option for Pemex, depending on the strategic vs. non-strategic importance of each oilfield in the framework of its E&P portfolio.

The Reform extends the private sector's possibilities allowing for further operative innovation in the entire upstream sector. As a combination of contractual arrangements, compensation schemes and special fiscal elements will be in effect shortly, it will be for the business community to generate the business opportunities in the sector.

PEMEX'S CONVERSION INTO A "PRODUCTIVE COMPANY"

According to the bill's transitional clauses, PEMEX is expected to progressively become, within two years, a "Productive Company" (along with the Electricity Federal Commission, CFE). This transition has for purpose to head toward a greater managerial and technical autonomy of PEMEX, which would involve a special budget regime. Pemex would be subject to financial balance as well as income taxes, as any other private company.

The distinction implies, first of all, a greater relief for Pemex as it will benefit from a whole new governance approach and a tailor-made budget, and secondly, greater revenue expectative for the federal government as the private sector is likely to represent further economic value for the Nation.

However, this conversion inevitably forces Pemex to pass its oil & gas traditional power to the new manager of the resource: the National Hydrocarbons Commission (CNH), and the Energy Ministry, as the country's policy maker.

INSTITUTIONAL DESIGN

The institutional design rests on a trinity driven by the CNH in collaboration with the SHCP (Tax Administration, in charge of tax conditions related to public biddings and contracts) and the SENER (Energy Ministry, in charge of area selection, technical design of contracts, and technical guidelines of public biddings).

As per this new structure, CNH becomes the new key player in the Mexican oil & gas industry being the new awarding authority for private companies as well as for Pemex (organize public biddings, assignments, contract executions, technical administration, and supervision of development plans).

This collaborative scheme also includes the SEMARNAT (Environment Ministry), which will act as a monitoring authority in the hydrocarbon sector, via a specialized agency.

The Reform also brought a substantial modification with regard to the counterparty since each contract should be signed with the Federal State and no longer with Pemex. This means that, among other consequences, the negotiation stage will be carried out without the participation of Pemex's Trade Union (STPRM), which came out strongly weakened of the Reform as it has also been dismissed from Pemex's governing bodies.

The new role that the CNH will carry out considerably diminishes Pemex decision-making power. In fact, the CNH is in charge of two major duties:

- Identify and authorize which fields Pemex may exploit and who may accompany Pemex in their development, if Pemex so decides (Round Zero);
- Determine whether or not a field should be opened to public bidding, the awarding and management of the allocated fields (Round One and onwards);

Indeed Pemex will barely have a suggestion right as the CNH detains the power to have the last word as for the fields' assignments as well as for the partnerships, when Pemex decides to migrate its exploratory titles ***(asignaciones).*** In the same way, the contractual flexibility will mainly be regulated by the CNH along with the SENER, which should be in charge, among other matters, of the contracts' technical design.

OIL REVENUES

The oil revenues will be placed under control of the Bank of Mexico and invested into a "Mexican Oil Fund".

The fund will receive, upon tax payment, all revenues stemming from hydrocarbon's exploration and extraction. In this regard, a priority chain has been designed to organize its distribution.

For that purpose, the contractor's payment precedes any distribution. The following elements, ordered by priority, will be: fixed Federal budget; sovereign debt payment and long-term savings.

Finally, if the net income exceeds 0.15% of the GDP, an investment program will be triggered (developments, projects, pensions).

ROUND ZERO

As producing fields will be kept (due to public finance status quo), the Reform allows a time-window to Pemex in order to select and submit to the CNH's approval, the exploratory fields of its interest. CNH would then grant Pemex exploitation titles. ***(asignaciones).***

The following main options are available to Pemex:

- To request the migration of its exploitation titles into oil & gas contracts (i.e. Production Sharing Agreement - PSA) in which Pemex would be part to a Consortium with a Private Operator. Such Consortium would then, execute the said Contract (i.e. PSA) with the Federation (via CNH);
- To request exploitation titles without migration into oil & gas contracts. In so doing Pemex can either continue using traditional service contracts or enter into internationally-based oil & gas contracts (such as PSAs or other risk-based contracts) conducting its own bid rounds;

In addition to the above mentioned options, Pemex has the right to migrate its exploitation titles at any time (and not only during the Round Zero) with the CNH's approval. Further, when conducting Round One and onwards the CNH might also decide to make the participation of Pemex mandatory.

In this regard, Pemex will also be required to meet the highest technical and financial requirements for exploration fields. CNH has the right to revoke Pemex's exploitation title after five years, if the activity was proven unproductive.

ROUND ONE AND ONWARDS

The CNH's assignment decision after the Round Zero will clearly give way to the portfolio of fields left for the following rounds and will also give an indication as to the transition to an open market arena.

Round One will not include all fields, but probably, the most significant ones in terms of prospective resources. Due to the maturity term, level of CAPEX and other key factors, deep water fields might encompass Round One.

As per the Mexican law, the bidding may be organized either as an open international bidding process (Pemex's preferred form until now); a closed invitation to tender (to at least three companies); or, exceptionally through direct awarding. If public bidding benefits of its own set of rules, the CNH will have a free hand to set up the bidding context although the contracts' technical design should be the SENER's task.

PROSPECTIVE MARKET

The Round Zero has all the characteristics of an attractive business-opportunity moment, since Pemex is definitely looking forward to build up consortia, as soon as possible. In this regard, Pemex's CEO has been giving strong signals regarding the Pemex's will to behave as a true competitor.

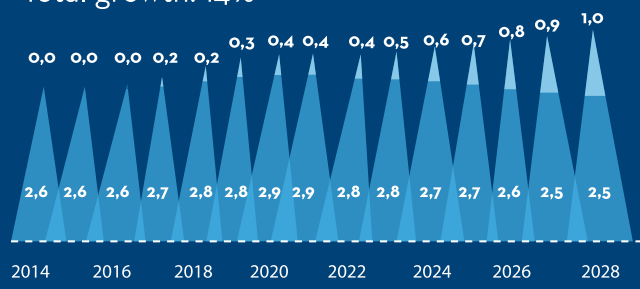
Indeed, despite the preferential rights of the Round Zero, Pemex will be considered as competitor and will be required to duly justify its participation in any area. In such environment, it should be expected that Pemex may change its management and business policy, even before the 2-years period, upon which it will be transformed into a commercially-driven entity.

From a Game's Theory perspective, some of the reasonable decisions, which Pemex could potentially take in the short/medium term, are the following:

- Because of the public finance status quo contained in the Energy Reform, Pemex is most likely to keep all fields already in production. However, it may not dismiss the possibility to resort to partnerships for some of them (specifically Salamanca, Salina Cruz and Tula);

CRUDE OIL PRODUCTION (MBD)

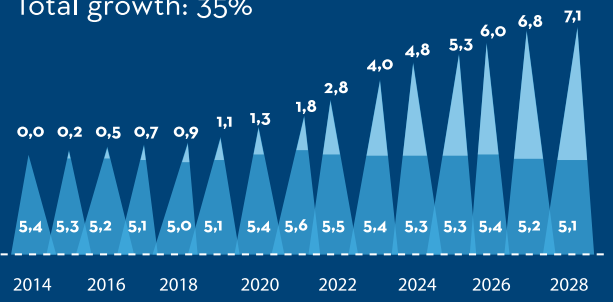
Total growth: 14%



Conventional
Unconventional

NATURAL GAS PRODUCTION (BCDF)

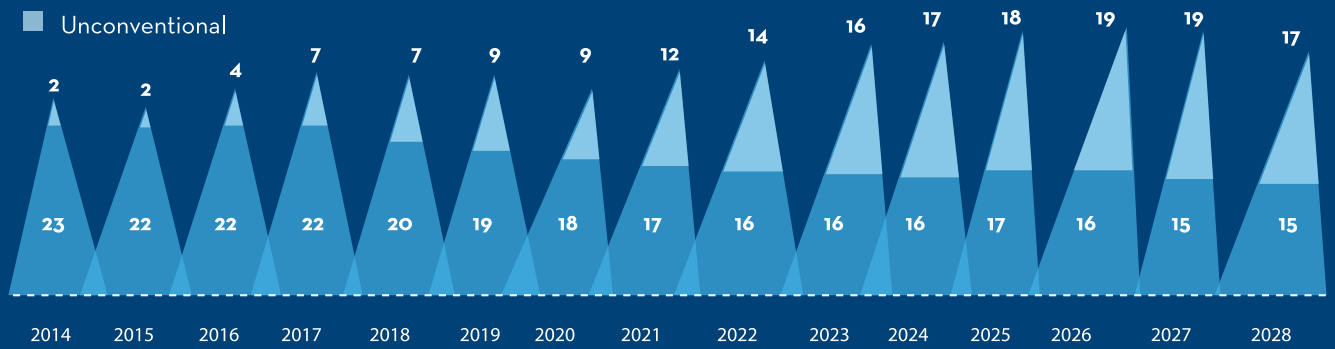
Total growth: 35%



Conventional
Unconventional

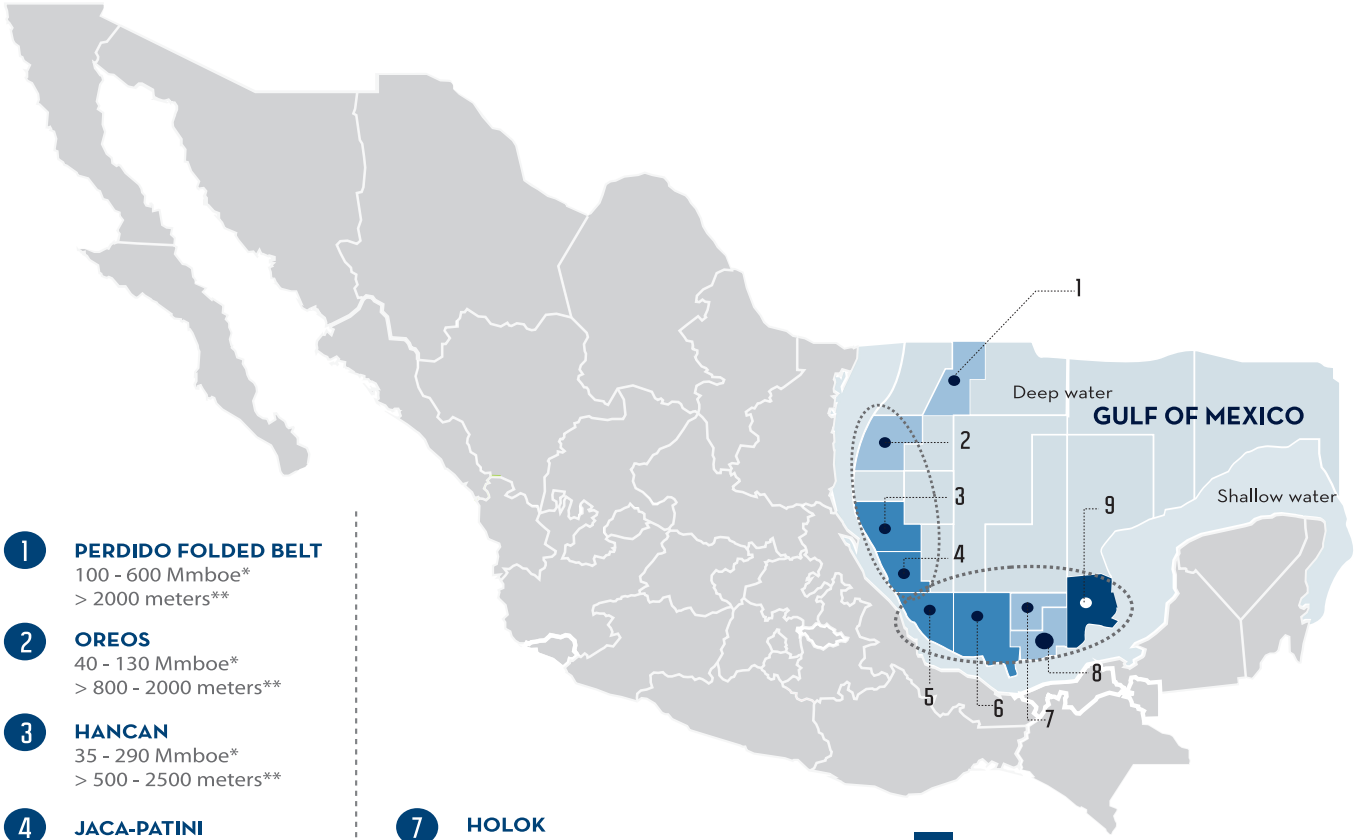
PEMEX TOTAL CAPEX (US$BN)

Conventional
Unconventional



Sources.- IEA, SENER, CNH, PEMEX

PROSPECTIVE RESOURCES
DEEPWATER



1. **PERDIDO FOLDED BELT**
   100 - 600 Mmboe*
   > 2000 meters**
2. **OREOS**
   40 - 130 Mmboe*
   > 800 - 2000 meters**
3. **HANCAN**
   35 - 290 Mmboe*
   > 500 - 2500 meters**
4. **JACA-PATINI**
   90 - 260 Mmboe*
   > 1000 - 1500 meters**
5. **TEMOA**
   20- 270 Mmboe*
   > 850 - 1950 meters**
6. **LIPAX**
   50- 200 Mmboe*
   > 950 - 2000 meters**
7. **HOLOK**
   100- 480 Mmboe*
   > 1500 - 2000 meters**
8. **HAN**
   80- 350 Mmboe*
   > 450 - 2250 meters**
9. **NOX- HUX**
   90- 250 Mmboe*
   > 650 - 1850 meters**

Heavy Crude Oil

Light Crude Oil

Gas / Light Crude Oil

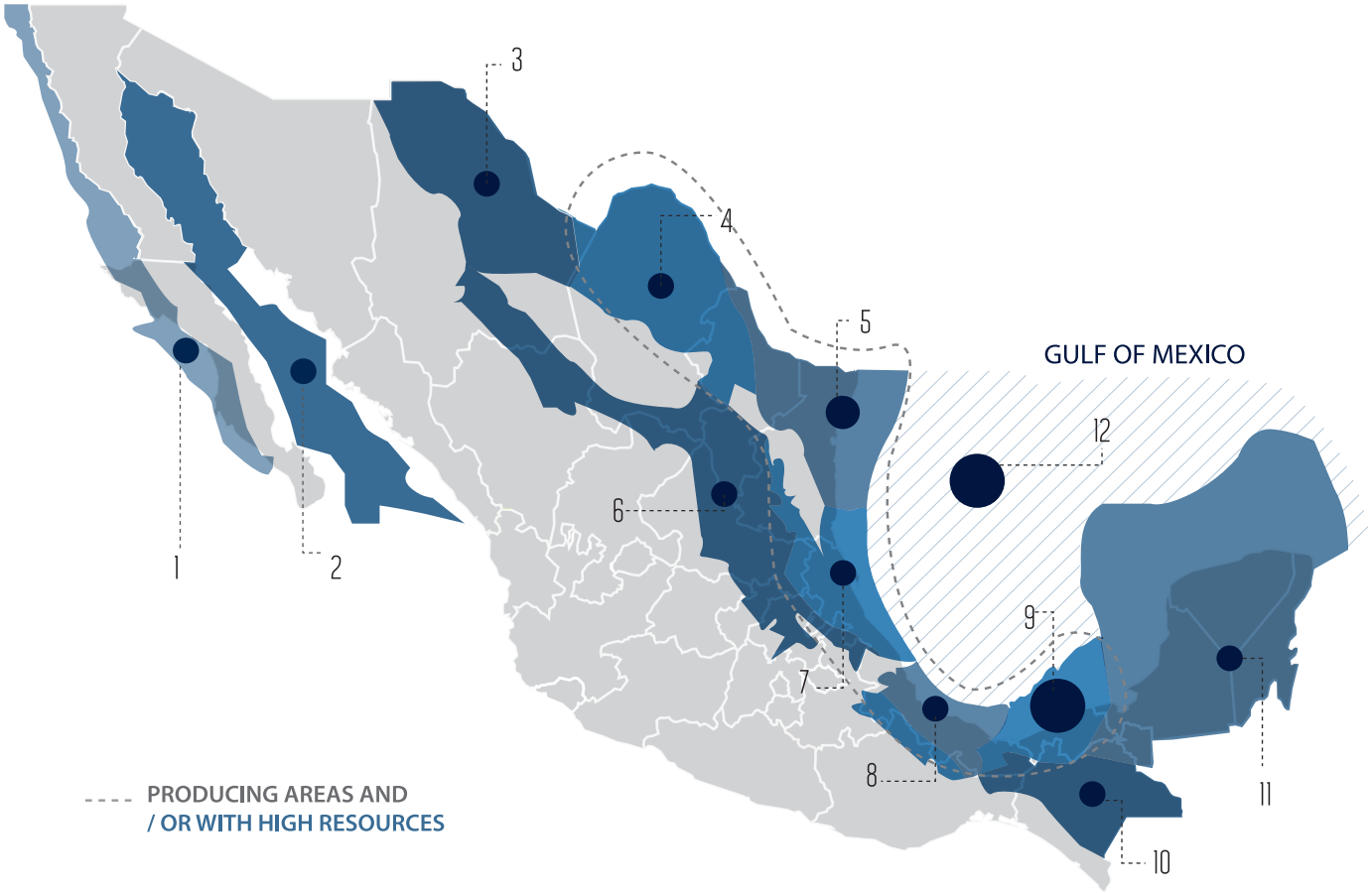
9 exploration oil wells
for 7 years (2012- 2018)
Est. Investment: $26.500 millions (MXN)

*Prospective resources in million barrels of oil or equivalent
**Depth

- Pemex is most likely to ask for shallow water and light crude oil fields without farming-out. However, Pemex might resort to farm-out for heavy crude oil in shallow water;
- Pemex will probably migrate some of the deep water exploitation titles;
- Pemex will probably migrate mature fields exploitation titles (not yet in production)
- Pemex may foster early partnerships or even PSAs, without migrating some of its exploitation titles.

Pemex's goal is quite clear: to upgrade its role, from being a passive super-powers entity executing service contracts, to become a key active partner in numerous high value projects. When entering into PSAs, Pemex might be carried by the IOCs, aiming to expand the number of fields in which it can participate, depending on the size and characteristics of its portfolio after Round Zero.

PROSPECTIVE RESOURCES
ONSHORE / OFFSHORE



1. **VIZCAINO - LA PURÍSIMA- IRAY**
   Considered as a medium - low potential area
2. **GOLFO DE CALIFORNIA**
   Dry gas area with a medium - low potential
3. **CHIHUAHUA**
   Considered as a medium - low potential area
4. **SABINAS - BURRO- PICACHOS**
   Ava. 0.4 MMMbpce
5. **BURGOS**
   Ava. 2.9 MMMbpce
6. **CINTURÓN PLEGADO DE LA SIERRA MADRE ORIENTAL**
   Considered as a medium - low potential area
7. **TAMPICO-MISANTLA**
   Ava. 2.5 MMMbpce
8. **VERACRUZ**
   Ava. 0.5 MMMbpce
9. **SURESTE**
   Ava. 20.1 MMMbpce
   (Cantarell, Ku- Malob-Zaap, A.J. Bermúdez, Julio Tecominoacán)
10. **CINTURÓN PLEGADO DE CHIAPAS**
    Discoveries in the north of this area
11. **PLATAFORMA DE YUCATAN**
    Ava. 0.5 MMMbpce
    Only in production in Guatemala and Belize
12. **GULF OF MEXICO**
    Ava. 2.6 MMMbpce

DOWNSTREAM AND MIDSTREAM OPPORTUNITIES

Another key element of this reform that should not be neglected is the development of midstream and downstream opportunities to be regulated, case by case, through a permitting regime. Even if the E&P business remains the major market, the reform clearly opens the other two levels of the oil-related business (midstream and downstream). Refining will be one of the key areas to be considered by long-term investors.

According to the SENER's 2011-2025 Natural Gas Market Prospective, a new strategy has been considered to intensify the use of natural gas. This new strategy involves the development of transport systems (pipeline networks) and compression facilities. In addition to these projects, distribution programs have been considered to develop distribution infrastructure and gas provisioning capabilities. Midstream activities have not been put aside and will offer wide possibilities.

Indeed, the secondary legislation will be decisive in this regard, since it will determine the basis and criterion of downstream activities (storage, transportation, oil pipelines building, petrochemicals, marketing, etc.). However, the improvement of the State's earnings is paramount and their maximization will rule the partner designation process.

DEEPWATER PROJECTS

Deepwater projects are still under-exploited in Mexico since Pemex behaved cautiously and massive areas are yet to be de-risked.

Notwithstanding this prudent behavior, Mexico's deepwater prospective resources are high in the Gulf, with an estimated 26.56 MMMBPCE. Some fields are in this regard particularly relevant: Perdido (100-600 MMboe in light crude oil); Holok (100-480 MMboe in gas and light crude oil) and Nox-Hux (90-250 MMboe in heavy crude oil).

SHALE GAS

According to the U.S. Energy Information Administration, Mexico is the fourth country with largest reserves of Shale Gas, only after China, the U.S.A. and Argentina and it is estimated to represent the 6% of the world reserves of shale gas, and the country plans to profit from this advantage.

Pemex's serious lack of advanced technology leads the national company towards the formalization of foreign partnerships. Due to the nature of Pemex's needs, it is fair to believe that partnerships are most likely to concern specialized companies skilled in hydraulic fracturing, horizontal drilling and other extraction techniques.

If deepwater projects related to shale gas may remain risky, plenty of onshore opportunities are available. The Burgos Basin is considered as one of the country's most promising field in shale gas and is currently arousing keen interest of private investors.

In any event, due to the low margins on shale gas, the awarding of fields by CNH might still take some time. Moreover, as Mexico does not have key comparative advantages vis-à-vis the USA in terms of shale gas, it is likely that only reservoirs which also include liquids are to be of interest for private operators. The shale gas market will definitively have a different momentum and characteristics, as the case of the USA.

WHAT ABOUT FUNDING?

The Mexican oil sector will seek and require unprecedented investment levels, estimated around 60 billion dollars a year. With such investment, the production may reach over 3 million oil barrels and 16 billion cubic feet of gas a day, when Pemex's current cash flow is around 20 to 23 billion dollars a year.

Reaching such levels entails higher stakes for financial institutions of all types. Private equity for oil & gas activities will soon be rocketing in the country. Furthermore, a potential IPO of a Pemex's highly specialized subsidiary (i.e. deep waters) is likely to take place in the near future.

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As one of the top-5 full service Law firms in Mexico with more than 80 years of experience and over 250 professionals and staff members, Goodrich remains a renowned and respected actor of the Mexican law environment. Ranked Tier 1 full-service Law firm in the Energy sector *(Chambers & Partners)*, Goodrich does not only advice and represent companies for energy deals but also accompanies its clients through all the steps of their ventures providing them thoroughly processed and far-reaching proposals in various practice areas. We have been representing for many years – amongst other relevant players – IOCs (International Oil Companies) from all around the globe and some of the top-10 biggest players in the industry, Independent Producers, Oil Service Companies, Maritime-Oil Contractors and International Financing Entities, leaders in the most important projects of Mexico's current energy scene.

We believe that our vast experience and our business-oriented & innovative approach cover our clientele expectations. In this regard, Goodrich has recently participated in projects as significant as: (i) the main integrity system for oil pipelines for the country; (ii) the first natural oil and gas fields awarded through performance contracts in Mexico's modern history; (iii) a variety of projects for the on-shore production of unconventional hydrocarbons (ATG) of the country's largest reservoir; (iv) Accompanying a worldwide leading oilfield service company to enter into the first E&P risk service contracts (RSC) awarded by Pemex for onshore and offshore mature fields projects; (v) operation and financing of state-of-the-art semi-submersible oil platforms for deep-waters exploration and production; (vi) the secondary market contract structure for Mexico's main natural gas duct transport capacity; and (vii) the design of ad hoc international multi-party financing models for Mexico's oil and gas industry.

For further information about issues discussed in this newsletter, please contact:

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