# Mexico's Energy Policy:

## Past, Present, Future and Mexico Petroleum Company's Presence

William J. Waggoner Mexico Petroleum Company

### **Past**

On March 18, 1938, President Lazaro Cardenas declared that all mineral and oil reserves found within Mexico belonged solely to the nation. As a result of this nationalization of hydrocarbons by Mexico, the state-owned company, PEMEX, was born, becoming its sole exploration and production entity. The ensuing decades were a rollercoaster ride for Mexico, with its hopes and needs dependent on its nationalized oil and gas policy, and of course PEMEX's ability to carry that out.

By the mid-1980s, it was beginning to dawn on Mexico that it could not survive under this isolated policy and that, like it or not, Mexico shared with the United States massive anticlinal structures in the deep, mid- and shallow waters of the Gulf of Mexico. Thus, in 1986, as a result of the bilateral recognition between the United States and Mexico of shared offshore hydrocarbon reserves, a group of lawyers and geologists from both countries began conducting a series of negotiations and analyses on how best to bilaterally explore and produce hydrocarbons from these shared reserves along a common maritime transboundary line through the Gulf of Mexico. After four years of challenging and somewhat delicate work, the *Puerto Vallarta Treaty - Bilateral Exploration and Recovery of Hydrocarbons Along the Common Maritime Transboundary Line*, 31 Nat. Res. J. 609 (1991) was published.

<sup>&</sup>lt;sup>1</sup>William J. Waggoner, Esq., the undersigned author, was a principal participant, negotiator and drafter of the Puerto Vallarta Treaty.

This early negotiated process between these two nations was, in many ways, the proverbial "foot in the door" notion that Mexico would need foreign companies to come to Mexico and assist PEMEX in its exploration and production of the country's oil and gas reserves. In 2012, it appears that the *Puerto Vallarta Treaty* became the core portion of the law now between the United States and Mexico under a ratified Treaty entered into by them.

During the course of this century, Mexico elected two successive PAN administrations, a significantly historical occurrence simply because this was the first time in seventy (70) years of the PRI domination that another party took the presidency and did so in successive administrations. Thus, a true multi-party democracy in Mexico was realized. Along with this multi-party event came a robust debate about the country's energy policy<sup>2</sup>. An open discussion about the ineffectiveness of PEMEX in terms of capitalization and technical capabilities ensued. And, thus, Mexico and PEMEX took the very honorable step of admitting publically that massive change was needed, and needed immediately.

By 2004, Mexico's oil production peaked and a rapid decline of at least a million barrels of oil a day followed (see offshore reservoir known as Cantarell). Recognizing the dire need to increase, indeed, merely reestablish production, Mexico, in 2009, through PEMEX, began offering incentives for well drilling service contracts to induce the participation of foreign companies by focusing the service contracts on actually increasing production, and not merely drilling wells without any incentives towards completion and production.

<sup>&</sup>lt;sup>2</sup> AMESPAC, Mexico's first and foremost oil and gas trade association, along with numerous other influential organizations and individuals, were key participants in this process. Luis Vielma (CBM, AINDA, Vielma Technology), Mexico Petroleum Company's Mexican Partner through Vielma Technology, was a founding member and sits as its current Vice-President, International Issues.

Accordingly, Mexico attempted to entice foreign well service and exploration companies to come to Mexico through offering a variety of new 'incentivized' contracts, which offered bonuses on increased volumes, reimbursement of capital expenditures, and/or a small profit on each barrel of oil or MCF. However, these efforts, without an actual and a substantive change to the Mexican Constitution, were only half measures and offered too little. These contracts, prior to the Energy Reform, did not allow foreign companies to book reserves and the timing of these offerings coincided with the fracking bonanza across the United States. So, it was no real surprise that United States' interest waned, at best.

Thus, by 2012, it was clear that Mexico would have to lose its distinction as the only industrialized nation in the world that did not allow foreign investment / activities to assist in the exploration, production and sale of its oil and gas within its borders.

In 2012, Enrique Peña Nieto was elected President, the first PRI President of Mexico in twelve (12) years. An energetic and charismatic individual, he managed to gain the agreement of all three political parties in Mexico (PRI, PAN and PRD) to approve, in concept, the Pact of Mexico which, in essence, was an exhaustive list of major reforms to be enacted, and they are:

- 1) Anti-Monopoly / Anti-Trusts;
- 2) Bank / Finance;
- 3) Education3;
- 4) Fiscal / Tax:
- 5) Electoral / Political;
- 6) Telecom / Broadcasting; and
- 7) Energy.

<sup>&</sup>lt;sup>3</sup> To initiate his Education Reform, President Peña Nieto stunned the nation of Mexico by arresting the leader of Mexico's most powerful union, the Teacher's Union, Elba Esther Gordillo, on charges of embezzling 137 million dollars. She was viewed as a kingmaker of politicians, making her arrest by the President all the more bold.

Any one of these Reforms would take a typical democratic government, like the United States, at least two or three years to pass and enact into Legislation. Amazingly, this Mexican President and Congress have enacted all seven Reforms in less than a year and a half.

Without exception, the Energy Reform is the crown jewel of the seven Reforms. It is the Energy Reform that required actual changes to the Mexican Constitution. Mexico, as a nation, received and approved the Energy Reform with overwhelming enthusiasm, clearly mandating that Mexico open its borders to foreign oil and gas companies to explore, produce and sell hydrocarbons extracted from it<sup>4</sup>.

The votes in favor of the Constitutional changes sailed through the Chamber of Deputies (Congress) and the Senate in a matter of days. The unanimous vote in the affirmative by all the Mexican States was accomplished in similar rapid fashion.

The Energy Reform amended Articles 25, 27 and 28 of the Mexican Constitution which, again, allow for the entry of foreign companies to explore, produce and sell oil and gas from Mexican reserves, as well as 'book' those reserves. The Energy Reform largely follows what is commonly known as the Norwegian Model, one that is quite favorable to foreign companies and investments, indeed, more so than most other countries' models. Note that an integral part of the Energy Reform is the provision that makes the Amendments, the Secondary Legislation to implement the Amendments and the regulatory scheme to operational and administratively affect the Energy Reform the prevalent and superseding law of any conflicting laws in Mexico.

<sup>&</sup>lt;sup>4</sup> In this author's opinion, it is undeniable that the massive success of fracking shale was a key catalyst to pushing the Energy Reform through. The ability to successfully extract oil and gas from shale is a classic story of the genius and tenacity of American independent oil and gas producers; and, it is one of some notable lore throughout Mexico.

## **Present**

There are an estimated 29 billion barrels of oil and gas reserves in the Gulf of Mexico, 13 billion barrels of oil shale reserves, and at least 17 billion barrels of oil and gas reserves in the mature fields, i.e. Chicontepec Basin. (Citi Research). And, if you believe Jose Antonio Perez Chavez, the Subdirector of PEMEX International Business Development, there is 160 billion barrels of recoverable oil in Mexico. Either way, the message is very clear; there is more than plenty of oil and gas in Mexico to produce and sell.

The Amendments to Mexico's Constitution, the Secondary Laws that implement the Constitutional Amendments, and the Regulations that further define operationally and administratively how the Secondary Laws are to be implemented and administered, are all designed to expeditiously, yet prudently, invite, indeed entice, foreign investment and operations to best exploit those reserves.

On December 21, 2013, Mexico's ambitious Energy Reform became law. The Energy Reform Amendments to the Mexican Constitution do a myriad of things but, for purposes of this paper, we will focus on what was done to allow and authorize the exploration and production of oil and gas in Mexico.

The Energy Reform by way of Amendments to the Mexico Constitution expressly list the following five plus contracts as available to the State (as well PEMEX) to enter into with foreign investors for the exploration and production of hydrocarbons from Mexican territory:

- A. Licenses;
- B. Profit sharing;
- C. Production sharing;
- D. Pure service contracts; and
- E. Other instruments (possible concessions).

In relation to these contracts, the Energy Reform provides five forms of payment and/or consideration. They are as follows:

- i) cash, for service contracts;
- ii) a percentage of profits for profit sharing contracts;
- iii) a percentage of production of hydrocarbons for shared production contracts;
- iv) transfers of hydrocarbons in exchange for goods and valuable consideration once extracted from the subsurface pursuant to license contracts; and
  - v) any combination of each form of consideration.

It is expected that the contract and payment models for mature field operations and shale operations will resemble United States Federal Leases, although the Royalty Payment to Mexico will be notably less than the 12.5% charged by the United States Government. These contracts are called licenses or concessions. They will be offered either by SENER<sup>5</sup> for rights not owned by PEMEX, or by PEMEX on rights it has<sup>6</sup>.

On April 30, 2014, President Enrique Peña Nieto submitted to Congress his proposed package of Secondary Legislation designed to best implement the Constitutional Reforms. By July 20, 2014, much of the Presidential package was passed by the Senate and sent to the Chamber of Deputies. On July 24th, the Chamber of Deputies voted in favor of the Secondary Law package. Conferenced and final passage of the Secondary Laws Package is expected no later than the first week of August, 2014.

<sup>&</sup>lt;sup>5</sup>SENER (Secretaria de Energia de Mexico) is the Mexican Ministry whose mission is to conduct energy policies that are competitive, high-quality, efficient and economically/financially sound.

<sup>&</sup>lt;sup>6</sup> On March 21, 2014, PEMEX was required and submitted to SENER which oil and gas fields it wants to retain. On September 17, 2014, SENER will inform PEMEX about which areas it will be allowed to keep; capitalization and expertise considered. It is not expected that PEMEX will get to keep (or substantially requested) the Eagle Ford Shale area or Chicontepec. PEMEX has made it known however, if awarded any acreage in those areas, it will promptly Farm Out to industry partners to create additional capital.

The timeline attached hereto as Appendix "A" outlines the significant dates for implementation of the Energy Reform.

The first round (Round 1) of areas to be offered for license (lease) is expected to take place no later than mid-2015. It is expected that mature fields (Chicontepec) and deep water areas will be the areas first offered up for license. The much discussed Eagle Ford shale area of Mexico will, in all likelihood, not be offered until Rounds 2 and/or 3. The Eagle Ford shale area in Mexico currently lacks much needed infrastructure.

Currently, at least two entities are working on size, location, and cost of each area that will be offered for foreign operations, SENER and CNH7. In a mature field, such as Chicontepec, it is this author's considered opinion that the sizes of the offered leases will be at least 10,000 acres a parcel. A variety of locations dependent upon the geology will be offered<sup>8</sup>, and the costs are expected to be influenced by United States Federal Lease costs for similar areas with similar geology and/or production history (albeit these prices will be competitively lower than United States Federal Lease costs in order to motivate foreign companies to invest in Mexico). For example, a pertinent portion of the Secondary Legislation proposes a royalty structure tied to a benchmark point of oil and/or gas. If oil went at \$60.00 USD/BOD, then the royalty would be 6%; if \$100.00 USD/BOD, then 10%; obviously, a more competitive rate than the straight U.S. Federal royalty rate of 12.5%.

<sup>&</sup>lt;sup>7</sup> CNH (Comisión Nacional de Hidrocarburos) is an independent agency created in 2008 to assist and support the Ministry of Energy in the definition and implementation of Mexico's hydrocarbon policies. Its purpose is to supervise and regulate the exploration and production of hydrocarbons by establishing technical guidelines and designing operational efficiency evaluation mechanisms and rule on exploration and production projects.

<sup>&</sup>lt;sup>8</sup> Because Mexico not only wants, but needs, to have a robust and successful initial return on its Energy Reform, I expect Mexico to offer up those areas where oil and gas can be really extracted and sold.

It is important to note that Mexico Petroleum Company, through its equity partner Vielma Technology (CBM/AINDA), has a distinct advantage in the Chicontepec field. Chicontepec is the largest onshore oil and gas reserve in Mexico (other than possibly the shale reserves). In 2010/2011, PEMEX ceased further service contracts in Chicontepec, except for a select few "field laboratories", which were engineered and operated by CBM/Baker Hughes. CBM, in conjunction with Baker Hughes, was able to double and, in some cases, triple production, over the volume produced by all other service companies operating in Chicontepec. That accumulation of knowledge, data and expertise places Mexico Petroleum Company at the forefront of its competitors to receive and best exploit reserves from Chicontepec. Furthermore, because of existing infrastructure, operations by Mexico Petroleum Company in Chicontepec will generate large amounts of revenue almost immediately upon initiation of operations. However, it is not known yet whether producing wells will be assigned under licensing contracts.

## **Other Considerations**

#### Surface Land:

In this Brave New World of foreign operators possessing the right to explore and produce oil and gas in Mexico lurks the issue of what are the rights of the Mexican surface owner? During the recent Senate debates on Secondary Legislation, there was considerable discussion about this issue. The end result is one that is akin to the 'forced pooling' statutes found in the United States.

### Qualified Bidders:

Another distinction that should be noted is that, in the United States, any adult may bid for a Federal Lease, regardless of whether they are an oil and gas operator or some type of industry entity; that is not the expected case in Mexico. Licenses will not be awarded simply to the highest bidder but, instead, they will be awarded pursuant to a weighted criterion of amount of bid, experience, expertise, and overall capital wherewithal. Accordingly, given the expertise and experience of our local partner

(Vielma Technology), and our American team (EnergyFit and United Drilling), Mexico Petroleum Company is assured selection for award of bid(s).

#### Release of PEMEX's Seismic Records:

Juan Carlos Zepeda Molina, President of the National Hydrocarbon Commission (CNH), has promised to disclose to prospective investors years of exploration and testing data (seismic and well data), information that has been kept confidential for decades. PEMEX will transfer the data to CNH no later than the Spring of 2015. CNH will then promptly make the information available for review and analysis by prospective investors in time for the mid-2015 Round 1 bids.

Additionally, Mexican regulators have recently permitted commercial seismic companies to perform new seismic testing in Mexico and is allowing them to sell the data as proprietary for a specified number of years with the understanding that it will eventually be public.

Mexico Petroleum Company will acquire data from both PEMEX and the private companies who are currently conducting the seismic testing applicable to the regions Mexico Petroleum Company will conduct its operations.

#### *Environmental:*

Mexico's enthusiastic Energy Reform is not without environmental considerations. In fact, a new environmental agency to oversee and to some degree regulate the manner in which exploration and production activities (as well as downstream activities) take place has been created, called the National Agency for Industrial Safety and Environmental Protection of the Hydrocarbon Sector. Mexico Petroleum Company welcomes the oversight and participation of such agencies because their mission is in keeping with Mexico Petroleum Company's best practices for both industrial safety and environmental compliance.

## Mexico Petroleum Company's Presence in Mexico

## 1. Mexico Petroleum Company, a Delaware Corporation:

Mexico Petroleum Company, USA, is an exploration and production company that draws on the experience, expertise, talents and resources of a number of different companies that have come together to form a single entity now known as Mexico Petroleum Company. Those entities coming together include, but are not limited to, EnergyFit, as the operator of the exploration and production and as an operator, has considerable experience in drilling, completing and producing in both conventional and unconventional fields/wells, and United Drilling Company, a seasoned drilling/service company in its own right, both in conventional and nonconventional drilling and completion throughout the southwestern United States, including contracts for DOE in the Nevada Test Site Areas. These companies are English/Spanish speaking companies with their roots tied to Mexico and New Mexico for several generations. They have worked successfully together on several exploration and production projects; drilling and completing numerous wells in Texas and New Mexico, and their combined experience, expertise, and network throughout the United States oil and gas industry makes them a uniquely qualified group, through Mexico Petroleum Company, S.A. de C.V. (a Mexican corporation comprised of Mexico Petroleum Company, USA and Vielma Technology) to do the same in the interior of Mexico.

Thus, Mexico Petroleum Company, USA, will, through its operator and drilling company, bring together the various U.S. fracking and other U.S. ancillary service companies, which include well pad (and well location) construction, placement and configuration, hook-up of tank batteries, upstream gathering systems, and points for distribution and sale.

Simply put, Mexico Petroleum Company, USA, will perform all those operating, drilling and production activities that are necessary to explore and produce hydrocarbons through drilling and completing wells, employing a variety of methods, in a variety of different geographic and geological formations to the actual sale of the hydrocarbons. The acquisition of drilling rigs, pipes, rig equipment and tools, service vehicles, fracking units, pulling units, reverse units, communication systems, computer systems, trailers, and any and all other items necessary for the operation and drilling and completion of wells will be provided by Mexico Petroleum Company, USA.

Mexico Petroleum Company, USA, also will supply the necessary funding for not only its operations and drilling commitments, but also for the acquisition of licenses as they are offered by the Mexican government. And, Mexico Petroleum Company, USA, will also provide the overall administrative oversight services for the company.

In essence, Mexico Petroleum Company, USA, will furnish the necessary capital, all tangible assets, intangible services and operation and drilling expertise, administrative overhead, and shared governance of Mexico Petroleum Company, S.A. de C.V.

Mexico Petroleum Company, USA, will also ensure, in coordination with its counsel and local counsel of the region, the acquisition of surface acreage, rights of way, or leases, in conjunction with the licenses it acquires from the Mexican government.

Mexico Petroleum Company, USA, will look to Vielma Technology to provide petroleum engineering services, geo-reservoir analysis and engineering, assistance with acquisition of local labor, as well as its experience, expertise, knowledge, current databases of seismic, 3-D, electric logs, and any other information that it may have acquired in the course of its existence through either of its sister companies, CBM, or AINDA, or otherwise, which will assist Mexico Petroleum Company, S.A. de C.V., to acquire licenses and then successfully and efficiently drill, complete and produce oil and gas from wells in the acquired license area(s).

### 2. Vielma Technology, S.A. de C.V. (A Mexican Corporation):

Vielma Technology brings to Mexico Petroleum Company, S.A. de C.V., its preeminent petroleum engineering, reservoir engineering, geological expertise, database of subsurface information, its network and incomparable reputation in the Mexico oil and gas industry. Additionally, Vielma Technology shall be responsible for the preparation of bids and other requisite documents to comply with the Mexican government requirements to properly bid on and acquire licenses and to comply with all regulatory requirements for drilling and completing wells and then ultimately selling those hydrocarbons in Mexico. Vielma Technology, through AINDA, will produce project economic/financial analysis and will provide overall project management and analysis and recommendations.

Vielma Technology will also provide an overall source of information with the appropriate Mexican governmental agencies (and PEMEX, if necessary) as well as bring an in-depth and thorough understanding of the Mexican oil and gas industry to coordinate Mexico Petroleum Company, S.A. de C.V.'s efforts and successes.

Luis Vielma Lobo (of Vielma Technology, CBM and AINDA), is an internationally acclaimed Petroleum Engineer and served as the General Director of Exploration and Production for Venezuela, PDVSA. Over a decade ago, he moved to Mexico, establishing Vielma Technology, CBM and AINDA.

These three companies are located in four offices in Mexico, with their headquarters in Mexico City, and employ 200 petroleum engineers, geologists and geophysicists, as well as an independent financial arm (AINDA) that performs their financial project analysis. Vielma and the professionals in his companies have worked daily with PEMEX on a variety of oil and gas projects throughout Mexico and are unequivocally recognized as Mexico's preeminent OPEC producer<sup>9</sup>.

<sup>&</sup>lt;sup>9</sup> Vielma Technology is a sister company to CBM and AINDA, all of which Dr. Luis Vielma has been the principal founder (see Background, Luis Vielma, this document).

It is this impeccable international reputation of Vielma and his companies, along with the actual resources, in terms of knowledge, manpower, expertise, knowledge base, computer modeling and, again, the unblemished trust that has been built over the years with the Mexican government that will ensure that Mexico Petroleum Company, S.A. de C.V., will indeed acquire the licenses it seeks through the bidding process and the ability to then efficiently and profitably extract and sell hydrocarbons.

While recognizing the enormity of the tangible and intangible assets the Vielma Technology Group brings, it is worth mentioning again that, on the U.S. side of the equation, Mexico Petroleum Company, USA (through its various companies) brings to the table not only the capital requirements for such a project in the several millions of dollars, but also the years of experience and knowledge on how to frack shale reservoirs to acquire the maximum amount of oil and gas from those shale reservoirs, as well as how to complete vertical and horizontal wells in a variety of geological structures to maximize the extraction of hydrocarbons from those formations.

Suffice it to say that combining the USA companies and the Mexico companies together produces a powerful and preeminent new company called Mexico Petroleum Company, S.A. de C.V., and that the synergistic efforts and combinations of these companies and their resources, both tangible and intangible, creates a company which is indeed far greater than the sum of its parts.

## **Initial Areas Of Concentration**

## 1. Chicontepec Basin:

The Chicontepec Basin is a petroleum system covering 1,500 square miles in the states of Veracruz, Puebla and Hidalgo. It is the largest certified hydrocarbon reserve in Mexico, with an estimated 40% of Mexico's onshore reserves (shale areas excepted because they have not been certified as of the writing of this paper).

We have all read about those historic moments where the right people came together at the right time, prepared to seize the opportunity presented to them through prudent planning, hard work, and a united vision of what they were to accomplish and then did it. That is exactly the case we have before us now. I have had the tremendous opportunity to witness and participate in the evolution of the Mexico petroleum scenario since the late 1980s. And, over the past five (5) plus years, I have been to Mexico at least once a month, every month. During this time, I have had the incredible providence to work with some of Mexico's finest petroleum engineers, lawyers, financiers, industry leaders and government leaders. Likewise, I have the incomparable good fortune to share my vision and the vision of my Mexican colleagues with some of the highest quality engineers and drillers in the United States, Joseph and Rached Hindi of EnergyFit, and Jesus and Angel Salazar of United Drilling.

Now, we have the perfect blend of experts from U.S. and Mexico. The U.S. brings experience and expertise in the latest conventional and unconventional drilling, including the state of the art horizontal and fracking completion techniques. The U.S. team has proven its metal in the United States in areas comparable to being considered to those in Mexico. This will now be combined with the very best petroleum engineers, geologists, reservoir analysts, economists and financial analysts in Mexico who have been the 'go-to' guys for PEMEX for the past decade; and understand the Chicontepec basin as well as the other onshore plays in Mexico better than anyone in all of Mexico. This is the combined team that has been created.

The question that I think we all need to ask ourselves is simply this, if you knew the amount of reserves that were in the Eagle Ford in Texas, and knew the best drilling practices to extract that oil and gas from that shale area, and it was completely untouched, what would you do to acquire that land to complete your drilling project? That is the scenario we have in northern Mexico. It is a similar situation that we have in Chicontepec, and it is a truly historic and monumental opportunity for all involved.

Respectfully submitted,

MEXICO PETROLEUM COMPANY

By:

William J. Waggoner

#### AND OTHER OFF-MATURE FIELDS, OFFER AREAS EXPECTED TO FOR LICENSE: ROUND TWO: EAGLE FORD, 12/15/2014 3/31/2015 SENER SHORE EXPECTED TO OFFER AREAS FOR LICENSE: DEPTH AND ROUND ONE: SENER MATURE FIELDS TIMELINE OF THE ENERGY REFORM RESOLVE PEMEX'S REQUESTS FOR THE ASSIGNMENT OF FIELDS AND AREAS 9/17/2014 RESOLUTION: SENER WILL ROUND ZERO DEPUTITIES AND SENT LEGISLATION OF THE ENERGY REFORM IS TO PRESIDENT PEÑA APPROVED BY BOTH THE SENATE AND CHAMBER OF NIETO FOR HIS SIGNATURE SECONDARY 8/7/2014 LEGISLATION OF THE ENERGY REFORM TO NIETO SENDS THE PRESIDENT PEÑA 4/30/2014 SECONDARY CONGRESS ROUND ZERO, PEMEX SENDS AND AREAS TO SENER FOR ITS REQUEST FOR FIELDS EVALUATION 3/21/2014 ARTICLES 25, 27 AND 28 OF THE POLITICAL CONSTITUTION OF THE UNITED MEXICAN STATES ARE MODIFIED SIGNS THE ENERGY REFORM PRESIDENT INTO LAW PEÑA NIETO 12/20/13

APPENDIX "A"