Compañía Perforadora México, established in 1959, is one of the leading companies in exploration and drilling, on and offshore in Mexico.

**Mexico’s energy policy reformation**

Enrique PEÑA NIETO
President of Mexico

**Instruments of change**

Pedro JOAQUÍN COLDWELL
Secretary of Energy

**Trial by fire**

Emilio LOZOYA AUSTIN
CEO
PEMEX
Following the passing of secondary legislation for Mexico's energy reform in August 2014, calls to bid for the first two shallow-water rounds kick-started the Round One tender in December 2014 and February 2015.
#1
In Offshore hydrocarbon production

Pipelines that span 63,630 km
MEXICO 2015

Politics & Regulation

Mexico is in the midst of implementing its Energy Reform Act, which opened up the country’s oil and gas market to international operators. Regulatory institutions restructured by the legislation are now concentrating on bringing in foreign investment. As part of these efforts, the Round One tender for oil and gas blocks is underway, with the first results to be announced in September 2015.

Exploration & Production

While the Mexican oil and gas industry is enthusiastic about the energy reform, it is also coping with the effects of the global oil price slump, as Pemex announced a $4-billion budget cut in February 2015. But the steep ongoing decline in Mexico’s national hydrocarbons output means the country has no choice but to push forward to find companies that will help it take advantage of potentially major untapped reserves, particularly in the Gulf of Mexico.
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We are a Mexican company with more than 67 years of experience in providing solutions to complex infrastructure challenges.

With a strong presence in Mexico, Latin America and an expansion into other markets such as the United States; our commitment is to operate in an innovative, profitable and sustainable way to create value for all the groups we work with.

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66 The Year’s Focus: The Evolution of Pemex

National oil company Pemex has given up its monopoly on the Mexican energy industry and revamped its corporate structure to facilitate the reform of the country’s oil and gas market. The move will place Mexico in a better position to capitalise on the technological expertise of international companies and encourage further exploration activity.

76 Gas & Pipelines

Latin America’s largest natural gas consumer, Mexico, is expanding its midstream infrastructure to meet rising demand. The opening of the energy industry is expected to enable the exploitation of the country’s shale reserves, but in the meantime US gas will help meet domestic needs. The Los Ramones pipeline, which saw its first phase completed in December 2014, will bring gas to the Mexican market from its northern neighbour.

88 Oilfield Services: Domestic

Domestic oilfield services companies are gearing up for a period of rapid expansion as a result of the opening of Mexico’s oil and gas market. From enhanced oil recovery to rig provision, services providers will be in high demand. The Mexican government has tried to ensure that local businesses will benefit from increased exploration and production through local content requirements.
Engineering & Construction

Infrastructure throughout the Mexican hydrocarbons value chain is in need of upgrades. With overused pipelines and only six refineries—all of which are outdated—engineering, procurement and construction companies in the country are poised to take advantage of upcoming opportunities. While Pemex’s budget cuts are likely to have a negative impact on the sector, several projects are expected to move forward in the near future, providing relief.

Marine & Logistics

Mexico’s deepwater and ultra-deepwater plays hold much promise for oil and gas companies looking to enter the newly liberalised market. However, a bid round for unconventional resources has been suspended until oil prices recover. In Mexico’s logistics sector, several port expansions are expected to upgrade terminal processing capacity to make the export and import of hydrocarbons more efficient.

Associated Services & Supplies

Recently opened for the first time in 76 years, Mexico’s oil and gas market holds opportunities for both domestic and international players. Local services providers and suppliers will significantly benefit from partnerships with foreign operators looking to enter the Mexican market. The country’s technical education programmes are undergoing reform in order to facilitate the training of the 300,000 new skilled workers that the market will require by 2018.
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Mexico’s energy policy reformation

President Enrique Peña Nieto, who has guided Mexico through the energy reform process, discussed with TOGY the steps being taken to ensure a stable future for both the nation and foreign investment. The reforms implemented have already begun to take effect, with an increase of $24.2 billion in the combined foreign direct investment (FDI) of 2011 and 2012 to that of 2013 and 2014.

What are the obstacles associated with implementing the 2014 reforms and how is the government addressing these obstacles?

Implementation represents a major challenge in moving forward with the 2014 reforms. While it is true that these reforms will need a certain amount of time to mature, we have already seen a great deal of progress. For example, as a result of the labour and fiscal reforms, 714,000 jobs were created in 2014, one of the highest numbers in the past 50 years.

The fiscal reform has also played an important role in strengthening the stability of Mexico’s public finances, even in times of international volatility. It has allowed the country to eliminate the monthly increase in petrol prices and allocate more resources to areas such as infrastructure, technology and scientific research.

Mexico’s energy reform has made it possible to lower electricity rates in homes and industry. The electricity rates for the industrial sector fell from April 2014 to April 2015.

What other reforms have been implemented that may indirectly affect the energy reform?

To strengthen the institutional and democratic regime of the country, political reforms now allow for the participation of independent candidates in the election process and better monitoring of federal resources.

For the first time in the country’s history, gender equality is present in the registration of candidates for both federal and local legislators. Also, the Transparency and Access to Public Information Law and the National Anti-Corruption System were recently approved. These measures were enacted to strengthen the Mexican state’s capacity to overcome situations that have an affect on public institutions.

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How does the 2015 US-Mexico joint task force collaboration on climate change policy issues fit into the nation’s energy activities?

In March 2015, at the UN Framework Convention on Climate Change, Mexico committed to reducing the effect of greenhouse gases by 22 percent and black carbon emissions by 51 percent by 2030. We are currently the only developing country to make this commitment, which will also serve to strengthen the US-Mexico joint venture task force, implemented as a means of combating climate change.

Pemex has shown its commitment to this venture by implementing measures to produce clean, sustainable energy. The company has significantly reduced gas flaring and carbon dioxide emissions. It has also constructed key refineries to enable the production of ultra-low sulphur diesel. In 2015, we will begin incorporating the use of this fuel in the country.

A development strategy for electricity cogeneration projects, in which steam and natural gas will be used in the new installations instead of fuel oil, has also been initiated. These are concrete examples ensuring Mexico will have a greener and more sustainable energy future.

IN FIGURES

Combined FDI Mexico received in 2013 and 2014

More than $66.7 billion

Mexico’s targeted reduction in greenhouse gas emissions by 2030

22 percent

Mexico’s targeted reduction in black carbon emissions by 2030

51 percent
IN FIGURES

Energy Reform Act signed into law
August 11, 2014
Pemex’s Round Zero take of total 2P reserves
83 percent
Pemex’s Round Zero take of total prospective reserves
21 percent
Pemex’s expected production rate through 2035
2.5 million barrels of oil per day

THE YEAR IN REVIEW

Pedro JOAQUÍN COLDWELL
Secretary of Energy

"Clear rules for the design, processing and licensing of contracts and assignments have been established. This also applies to the management of oil income.

Instruments of change

The Secretariat of Energy has been instrumental in designing the rules and regulations of the country’s Energy Reform Act, passed on August 11, 2014. Now that the reform is being implemented, Mexican Secretary of Energy Pedro Joaquín Coldwell has been tasked with setting the groundwork for energy independence in the years ahead. He spoke with TOGY about the ongoing reform process.

How will Mexico meet its goal of bringing in $50 billion in oil and gas investment by 2018? The opening of the industry to private investment and its subsequent growth pose important challenges that Mexico must overcome.

The availability of labour, the enforcement of national content and the strengthening of regulatory agencies are complex themes and processes that may present difficulties. However, the energy reform provides an answer.

In matters of transparency, clear rules for the design, processing and licensing of contracts and assignments have been established. This also applies to the management of oil income. The agreements, resolutions, drafts and licensing decisions will all be made public.

Likewise, the Federal Electricity Commission and state oil company Pemex will publish information about their dealings and those of their subsidiaries and affiliated companies.

The work of strengthening Mexico’s institutional framework is fully underway. New regulatory powers have been assigned to the Secretariat of Energy and internal revenue and public credit that will allow for greater oversight of regulations.

The National Agency of Industrial Security and Environmental Protection of the Hydrocarbons Sector will be in charge of industrial safety and environmental matters. It will regulate and enforce bans on hydrocarbons extraction activities in established protected areas.

Has the national oil company received sufficient assets in the Round Zero and One tenders? Out of the resources Pemex asked for in Round Zero, the company obtained 100 percent of 2P reserves and 67 percent of prospective resources, ensuring its daily production at a rate of 2.5 million barrels of oil per day until at least 2035.

Most of the resources assigned to Pemex are located in conventional basins, though they also obtained resources in deepwater and unconventional formations as well.

How does Mexico intend to meet increased industry demand for skilled labour? The Strategic Programme of Human Resources Training in Energy Matters, published on September 30, 2014, establishes training initiatives that will develop human capital and projects that generate value for the Mexican energy industry. The programme’s goal is also to identify mechanisms that will be implemented to develop human resources in Mexico’s energy industry during the period from 2015 to 2018.

With regards to national content, the reform will establish obligatory requirements for assignments and contracts. The share of national content required will increase from 25 percent in 2015 to 35 percent by 2025. The Secretariat of Economy will define the methodology of measurements and compliance for this minimum.

In addition, the secretariat will manage the new Public Trust to Promote the Development of National Providers and Contractors. This trust aims to provide special attention to small and medium-sized enterprises for training, research and certification processes to close gaps in technical and quality skill levels.

What initiatives are being implemented to reduce the cost of electricity in Mexico? The cost of electricity in the country is heavily dependent on the feedstock used by the country’s power generators. The energy reform aims to expand gas use, because it is cheaper and emits less carbon dioxide than oil-based fuels.

The eventual development of natural gasfields in Mexico will also allow us to reduce imports and meet the demand of the power generation sector. This, in conjunction with the enhancement of the national gas pipeline network and the exploitation of Mexico’s shale reserves, represents favourable conditions for national electricity producers and foreign investment.

What other aspects of the reform present openings for foreign and local investment? Besides the opening of the industry to private investment for the exploration and extraction of oil and gas resources, the energy reform establishes new operating models in the natural gas and electricity markets.

The goal of this is promoting private investment in Mexico and increasing the domestic infrastructure for natural gas pipelines, power generation capacity and transmission lines.

Additionally, a progressive opening of the domestic petrol and diesel market is expected to encourage a reduction in prices by 2018.

In the years ahead, Mexico’s oil and gas sectors will be open and transparent.

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More complicated?

NO PROBLEM

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THE YEAR’S AWARDS – MEXICO 2015

PERSON OF THE YEAR

Enrique OCHOA REZA

The Federal Electricity Commission (CFE) has undergone a massive restructuring process alongside national oil company Pemex and now faces competition for the first time. Enrique Ochoa Reza, director general of the CFE, has seized the opportunity to reduce the country’s reliance on inefficient fuels for electricity generation and to increase the use of cleaner-burning and more cost-effective natural gas. The CFE’s plans for an unprecedented 11 natural gas pipeline projects to be tendered by the end of 2015 offers an indication of Ochoa’s commitment to a more efficient energy industry and a new electricity institution that is ready to compete in an open marketplace.

DOWNSTREAM PROJECT OF THE YEAR

In recognition of much-needed process overhauls in Pemex’s 77 fuel storage facilities, the national oil company has allocated $230 million in 2015 to the maintenance and upgrade of the Integrated System for Measurement, Control and Operations of Terminals (SIMCOT) and the Gas and Fire Detection and Alarm Systems (SICCI). The SIMCOT-SICCI project brings together five of the Mexican energy industry’s leading automation players to supply and install the latest technologies in automated measurement and systems control.

DOMESTIC SERVICES COMPANY OF THE YEAR

With operating contracts under Pemex for two onshore oilfields and two gasfields, Diavaz DEP, the exploration and production subsidiary of publicly listed conglomerate Grupo Diavaz, is one of the most active services companies in Mexico. Its experience producing shale gas in the Burgos Basin and operating mature onshore fields have provided the company a valuable skill set for the years ahead. Diavaz DEP has set its sights on the Round One tender in 2015, where it is well positioned to make the most of its experience and transition into a fully independent operator.

INTERNATIONAL SERVICES COMPANY OF THE YEAR

More than 60 years of operations in Mexico alone are testament to Schlumberger’s close working relationship with Pemex. In addition to the company’s hands-on involvement in nearly every hydrocarbons-producing basin in Mexico, it is responsible for compiling Mexico’s National Data Repository and setting up the data rooms for the Round One tender. The contract, issued by the National Hydrocarbons Agency in October 2014, allotted the company a brief three months to complete the task by the time the first bidding round was launched in December 2014.

NEWCOMER OF THE YEAR

Sierra Oil and Gas made history in September 2014, when it became the first independent exploration and production player in Mexico. With more than $1 billion in financial backing and an ambitious bidding agenda for the Round One tender, Sierra Oil and Gas can be expected to make a significant impact on the future of Mexico’s hydrocarbons environment. An experienced team of oil and gas professionals at the helm places the company in a strong position for the development of both onshore and shallow-water fields in the country.

CORPORATE ENTITY OF THE YEAR

The Pemex Office of Corporate Procurement (DCPA) has undertaken the monumental task of streamlining the national oil company’s purchasing lines. Where once every Pemex division employed separate procurement strategies, the DCPA now has the responsibility of organising all of the company’s purchases into procurement categories that optimise purchasing power. The DCPA’s efforts towards increasing efficiency are a key representation of Pemex’s drive towards becoming a productive entity ready to compete in the global marketplace.
“I FOUND OUT THAT THANKS TO THE NEW ENERGY LAW TRANSPARENCY IS ENSURED SO ALL THE CONTRIBUTIONS, REMUNERATIONS AND PAYMENTS RELATED TO THE CONTRACTS MUST BE PUBLICLY DISCLOSED.”

- LAURA DOCTOR

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MEXICO AT A GLANCE

POLITICS
- Official name: United Mexican States
- Political system: Federal republic
- Head of state: President Enrique Peña Nieto
- Capital city: Mexico City
- Administrative divisions: 31 states and one federal district

DEMOGRAPHY
- Population: 120,286,655 (July 2014 estimate)
- Population growth rate: 1.21 percent (July 2014 estimate)
- Languages: Spanish and indigenous languages
- Unemployment: 4.7 percent (2014 estimate)

ECONOMY
- Currency: Mexican peso ($1:MX14.66)
- GDP (official exchange rate): $1.3 trillion (2014 estimate)
- GDP (real growth rate): 2.4 percent (2014 estimate)
- GDP (per capita): $17,900 (2014 estimate)
- Inflation rate: 3.8 percent (2014 estimate)
- Natural resources: Crude oil, natural gas, silver, copper, gold, lead, bismuth, zinc, celestite, fluor spar, timber
- Exports 2014: $406.4 billion
- Imports 2014: $407.1 billion
- Main industries: Food and beverages, tobacco, chemicals, iron and steel, oil and gas, mining, textiles, clothing, motor vehicles, tourism
- Major export partners: US (78.8 percent)
- Major import partners: US (49.1 percent), China (16.1 percent), Japan (4.5 percent)

GEOGRAPHY
- Area: 1,964,375 square kilometres
- Coastline: 9,330 kilometres
- Climate: Varies from tropical to desert

ENERGY
- 2014 crude oil production: 2.43 million barrels of oil per day
- 2015 proven oil reserves: 9.71 billion barrels
- 2014 natural gas production: 58.1 bcm (2.05 tcf)
- 2015 proven natural gas reserves: 433 bcm (15.3 tcf)
- 2013 technically recoverable shale gas reserves: 15.4 tcm (545 tcf)

Sources: BP Statistical Review 2015, CIA World Factbook, EIA, Pemex, World Bank
Oil & Gas

▲ Upstream

- Well stimulations
- Artificial lift systems
- Scale inhibitors for wells
- Crude desalting and dehydration
- Associated water conditioning and reinjection
- Pipeline internal protection
- Soil and water remediation

▼ Downstream

- Anticorrosion and antifouling protection for refining process plants
- Water systems management
- Additives for combustion
- Chemical cleanings
- Drag reducing agents to increase oil delivery through pipelines

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