

Mexico opens up energy sector and frees PEMEX to change



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On December 20, 2013, President Enrique Peña Nieto enacted the much needed and anticipated Energy Reform, which will allow private companies to invest in the oil and gas sector in Mexico. This bill will allow PEMEX to compete with other companies for the first time in its 76-year history in an open market. I am confident that competition will make us more efficient and transparent, which will increase our competitiveness and let PEMEX become a trustworthy partner for other companies.

The age of easy oil is almost over in the world. Thus, we have a huge challenge to generate more output through better practices and partnerships by sharing our expertise, technology and risk management. The energy bill will allow private oil companies to invest in Mexico through different types of contracts, with the Mexican state retaining full ownership of hydrocarbons.

The energy reform and PEMEX's imminent entry into the competitive market will bring many challenges for the company. In exploration and production we will focus on increasing the reserve replacement rate as well as the exploration success rate. We need to improve the recovery factor of our brown fields, while at the same time to reduce decline rates. Furthermore, we must reduce the operational costs and accelerate the development of new production.

Much has been done to improve our deep water and ultra-deep water fields in the last few years. Still, it has not been enough to have a meaningful impact on overall production. We need to inject capital into our new projects and generate value for the company.

Likewise, we need to double our investment in the prospective new plays so that we can take advantage of the energy revolution in the rest of North America. The shape of the demand is changing, since the US aims at energy self-sufficiency through plentiful non-conventional resources. These advances have been enabled by new technologies. The fast pace of change in the technical landscape has become more capital-intensive and with a different risk management profile. We must keep up with this trend, and that is the reason why it is vital for us to be able to establish joint ventures and cooperation agreements with other oil companies, especially in regard to non-conventional resources.

PEMEX is the most important company in the country, providing a third of the federal government's fiscal revenues. The Energy Reform will consolidate PEMEX's place as Mexico's most important company and a leader in world oil and gas. It will be a 'game changer.' However, PEMEX cannot explore and drill all the Mexican plays alone. We need international oil companies to come and invest in our resources.

Positive outlook: PEMEX has one of the highest deep water success rates in the world



Corporate transformation

To succeed in this new context, we are transforming ourselves. PEMEX has not changed its corporate structure since 1992. Today, we require a much more agile enterprise so we can act swiftly and efficiently. We have already started to restructure the company in order to eliminate red tape and produce an efficient model of corporate governance that will free us to manage our budget.

One of our first fundamental changes is the modernisation of PEMEX's buying methods, with the creation of a directorate for procurement and supply to streamline the buying process and make it more transparent. This will



save 5-10 per cent of this year's US\$40 billion worth of purchases. It will also allow us to base spending on our long-term needs, and to develop a trustworthy list of suppliers and contractors. Along with this, we will transform the four subsidiaries into two business units for upstream and downstream. These changes will give PEMEX the tools to compete in an open market, just as any other oil company in the world.

Challenge of the talent trap

One of the biggest challenges we foresee is the 'talent trap'. We need to make sure that we attract and retain the best human capital. Therefore, we need to work very closely with the universities in Mexico, which are producing thousands of engineers every year. However, their skillset has to adapt to the needs of the industry. We have created a corporate university in order to certify our employees on various tasks, as well as provide training on leadership skills that will be important in competing with the private sector. Hitherto, PEMEX has been the only entity attracting talent in Mexico in the oil sector, particularly in exploration and production. Competition and an open market will surely change this state of affairs. This is why attracting and retaining talent is the number one job for the company, although we realise this is also a problem for the whole industry.

Competition will force PEMEX to be more transparent as well as efficient, as we improve accountability and show our operations to be highly trustworthy to our potential new partners and stakeholders. A main concern is to enforce zero tolerance for corruption. Regulatory institutions such as the Energy Regulation Commission (CRE) and the National Hydrocarbons Commission (CNH) will help enforce transparency controls, with public disclosure of information becoming part of the company's everyday operation.

Round Zero

PEMEX has been given the opportunity to retain assets and exploit resources during the so-called 'round zero' before the open bidding for blocks. The company requested

to retain exclusive rights to prospective oil resources. This is mostly where it has already been drilling and in fields currently exploited or in advanced development, where its exploration strategies have proved effective, and in fields with a strategic role. PEMEX applied for a portion of Mexico's vast exploration opportunities. But this still leaves ample parts of the Gulf of Mexico's deep water and shale gas formations available to private players. Additionally, even in areas where PEMEX is given exclusive rights, we will be free to pursue joint ventures or cooperation agreements.

The Energy Ministry, aided by the counsel of the CNH, has until September 17 to decide which of the requested projects will be assigned directly to PEMEX. Their decision will seek to maintain balance between keeping resources to meet PEMEX's needs and encouraging the entrance of new players. Round Zero, for the time being, leaves the majority of the Mexico's potential in shale-rock formations open to private sector investment.

PEMEX is currently one of the top five oil producers in the world and the most important in shallow waters. But our oil production from these areas, although very important, has declined in the last few years. With the certain plateauing of Cantarell output, we have focused on the diversification of our production. We

All change: PEMEX is undertaking its biggest corporate restructuring since 1992





have increased the output of fields such as Ku-Maloob-Zaap, Ixtal, or Crudo Ligero Marino. In addition to that, we revitalised mature fields such as Ebano, Delta del Grijalva and Cinco Presidentes through an integrated exploration and production contract model. To keep up with production, we need to increase our reserve inventories with new discoveries and reclassify our existing proven reserves. PEMEX has been able to replace its reserves above 100 per cent since 2008, and is investing the largest amount in its history.

Nevertheless, our production has stabilised at 2.5 million barrels per day, down 25 per cent from the 3.3 million barrels per day produced only nine years ago. To increase production back to the 3 million barrels per day mark within six years, we need to invest approximately US\$60 billion every year, a feat we will only be able to accomplish through partnerships with other oil companies. Mexico has a potential of 160 billion barrels in hydrocarbons, and most of it is in non-conventional resources, that is, in deep water and shale oil and gas reserves. Thus, we need to expand our horizon beyond shallow waters.

One of the biggest challenges for PEMEX was leaving shallow waters to explore the potential we have in deep waters in the Gulf of Mexico, because deep water exploration implied new technologies and practices. Nevertheless, we have proven to be very successful. In

Flying the flag: PEMEX is Mexico's most important company



2011, we were the second most active company in terms of deep water drilling in the world and, since then, we have been increasing our participation in the area. Our exploration success rate was of 50 per cent, above the international average. We currently have four deepwater platforms with the most advanced technology drilling off the coasts of Veracruz and Tamaulipas.

The probability of commercial success in deep waters ranges between 20 and 50 per cent around the world. This implies that for every 100 exploratory wells, there is a loss on average of between US\$14 billion and US\$8.75 billion in dry wells. Although PEMEX has one of the highest success rates and the potential losses have been minimised, we have to increase our drilling in the Gulf of Mexico. More importantly, we need to share risk with other oil companies. The oil industry in Mexico needs investments of around US\$10 billion a year until the year 2025 from PEMEX and other oil companies.

Unconventional resources will play a major role in contributing to Mexico's energy security. We have the sixth biggest proven shale gas reserves in the world. With the current rate of consumption, we would have enough barrels of oil equivalent for 10 years, and including probable and possible reserves we have enough barrels of oil equivalent for 30 years. Our country has prospective non-conventional resources for almost 100 billion barrels of crude oil equivalent.

The Energy Reform will allow us to increase the production of natural gas too. Mexico is part of the North American market, which has the lowest gas prices in the world at US\$3-4 per million BTU. The differential of this with US\$10-12 in Europe, and US\$15-16 in Asia creates a great business opportunity and economic boon for the country. With private investment, Mexico will start producing more gas and will also develop more gas pipelines. We have already started the ambitious Los Ramones pipeline project, which will go from the northern border to the centre of the country.

Our strategic vision is to broaden the international business lines for PEMEX by searching for new export markets, since all the forecasts predict diminished demand from the US, which is currently our biggest client. Hence, we have signed agreements with several Asian oil companies for the sale of oil, and we have started exporting on a regular basis to the Far East. We expect to strengthen our commercial links with India, China, Japan and other Asian countries. ■