

by [Oswaldo Amaral](#)

Mexico is a top oil producer and has the ninth largest oil and gas sector in the world. With estimated reserves of 50 to 60 billion barrels in the Gulf of Mexico and the sixth largest shale reserves globally, Mexico has entered the dawn of a new oil and gas era with recent monopoly-breaking energy reforms. The energy overhaul brought about with the amendment of the constitution will allow private companies to explore for and produce oil in Mexico for the first time since the 1938 expropriation of the oil industry. The wide-ranging reform is expected to bring billions of dollars of direct foreign and domestic investment for hard to obtain oil reserves in the deep water of the Gulf of Mexico and in shale gas formations on land in northern Mexico. That, in turn, will force Pemex, the Mexican national oil and gas company, to operate in a competitive market for the first time in its 76-year history.

With Pemex struggling to maintain the levels of production of prior years, the energy reform is set to allow private companies to produce oil under production-sharing contracts with the Mexican government under licences and in joint-ventures with Pemex. The previous regulatory framework severely restricted collaboration with private investors and companies, creating an operating environment in which capital investment, technical expertise and state-of-the-art technology were clearly and widely lacking. By the Mexican government's own estimates, the energy reforms could unlock more than 100 billion barrels of oil reserves. In this light, plenty of opportunities abound in the energy value chain in Mexico: from upstream exploration and production through midstream, distribution, refining and infrastructure. This will all help to bring new technology to the Mexican oil and gas playing field.

With the former in mind, there are many ways in which oil and gas technologies can be protected in Mexico in these dynamic times. The oil and gas industry is a high tech industry, and multi-disciplinary in nature as it relies on devices, instruments, and materials developed in fields such as information technology, electronics, mechanics, and advanced materials. Therefore, oil and gas companies operating or wishing to operate in Mexico can look to patenting their inventions, copyrighting their drawings, computer code, and user manuals, keeping confidential information as trade secrets and looking to trade mark

protection for creating strong brands and a retail presence. However, it is through the patenting of inventions that oil and gas companies will reap the greatest benefits of IP protection, as it is probably the most effective way of staking claims to new technologies and equipment, recouping the massive research and development expenses and winning or maintaining market share.

Mexico's patenting framework

Mexico is a patent friendly jurisdiction. Year after year, the Mexican Patent Office issues the most number of patents among Latin American countries, despite not being the country with the most patent applications being filed which, in this case, is Brazil. In 2013 alone, 11,294 patents were granted and 15,444 patent applications were filed. Average patent pendency rates have varied between one to three years, and may be shortened even further if an applicant decides to use the prosecution acceleration mechanisms in place to expedite Mexican patent applications. For example, the Mexican Patent Office has signed Patent Prosecution Highway (PPH) agreements with patent offices from the United States, China, Japan, South Korea, Spain and Singapore and 213 applications were filed by the PPH route in 2013. Overall, 91% of the granted applications were granted within the first five years from the filing date in Mexico.

The Mexican legal patent framework is quite similar to the European Patent Convention (EPC) framework, with a few twists here and there. Mexican substantive patent provisions establish that inventions that are new, the result of inventive step and susceptible to industrial application may be considered. The term new means anything not in the state of the art; state of the art means the body of technical knowledge that has been made public by oral or written description (by use or by any other means of dissemination of information both within the country and abroad); inventive step means the creative process the results of which are not obviously deductible from the state of the art by a person skilled in the relevant art; and, industrial application means the possibility of an invention being produced or used in any branch of economic activity.

In the same way, Mexican non-patentable provisions state that the following

types of subject matter cannot be considered patentable: (i) theoretical or scientific principles; (ii) discoveries that consist in making known or revealing something that already existed in nature, even though it was previously unknown to man; (iii) schemes, plans, rules and methods for carrying out mental processes, playing games or doing business, and mathematical methods; (iv) computer programs; (v) methods of presenting information; (vi) aesthetic creations and artistic or literary works; (vii) methods of surgical, therapeutic or diagnostic treatment applicable to the human body and to animals; and (viii) juxtaposition of known inventions or mixtures of known products, or alteration of the use, form, dimensions or materials. In this particular aspect, it is worth mentioning that Mexico is one of the few jurisdictions in Latin America which has clearly and widely accepted the patentability of computer-implemented inventions. The former is of great importance since the oil and gas industry as a whole is shifting to the digital oilfield where web-based visualization platforms manage, measure and track all of the data coming from the oilfield

The Mexican patent system also allows for pre-grant opposition through third-party prior art submission, widely accepts and takes into consideration foreign examination reports during substantive examination and provides a grace period for 12 months as of the filing of the application (or the priority being claimed by the application in case of disclosure of the invention by the applicant or successor in title).

In terms of Mexican oil and gas patenting statistics, Pemex's research and development arm, the Instituto Mexicano del Petróleo (IMP), has been nationally and internationally recognized as Mexico's premier patenting institution for several years. However, the IMP lags well behind most national oil and gas companies around the world in terms of technology development and research and development. With the breaking of Pemex's oil and gas monopoly, the IMP will be hard pressed to develop more ground-breaking technology to keep Pemex competitive in the Mexican oil and gas marketplace. Further, it will struggle to force Pemex to enter into joint venture agreements, or to become involved in the outright sale or licence of oil and gas technologies from international and newly-forming domestic companies protecting their technologies in Mexico. On the other side of the coin, the technologies already

developed and patented by the IMP for the confines of the Mexican territory could be of interest for exploitation purposes by international companies looking to enter the Mexican exploration and production market. Finally, whereas historically 90% on average of all applications filed and sought to be protected in Mexico came from international applicants, the broad energy reforms may spur on Mexico's technological development – something of the sort of the Petrobras effect experienced in Brazil since the breaking of the Petrobras monopoly in 1997.

Exploiting oil and gas technologies

On top of being a patent-friendly jurisdiction, Mexico is a technology transfer friendly place too, and more so after the energy reforms. Generally speaking, there are few restrictions on the licensing and transfer of technology in Mexico, except for certain ones found in specific industries within government services. There are no restrictions or limitations in the terms and conditions of a licence agreement at the time of transferring or licensing technology with respect to time, financial and economic limitations and conditions (for example, royalties). In addition, there are no mandatory obligations placed upon the foreign licensor. However, before the energy reforms, one of the government-specific service industries that was severely regulated with respect to technology licensing and exploitation was the oil and gas industry. The Mexican state and particularly Pemex, were forbidden from entering into contracts, such as technology licensing agreements, with private exploration and production companies unless the contracts were service-related.

With the energy reforms, these longtime restrictions have been lifted and private companies are now entitled to enter into technology licence contracts with Pemex and the Mexican state.

In short, the opportunities found in patenting and exploiting oil and gas technologies in Mexico are now limitless. The stage is now set for another revolution on Mexican soil – an oil and gas revolution.

Source: Managing Intellectual Property Magazine, September 2014.