

# Advancing with confidence

## INTERVIEW WITH DR GEORGINA KESSEL MARTÍNEZ

SECRETARY OF ENERGY, MEXICO



GEORGINA KESSEL MARTÍNEZ

holds a bachelor's degree in economics from ITAM and a PhD in economics from Columbia University in New York. She has extensive experience in the public sector and particularly in the energy sector, beginning her career at the national oil company Petróleos Mexicanos (PEMEX) before becoming Director General for Economic Analysis of the former Ministry of Energy, Mines and Industry. In 1994 she was appointed as the first chairman of the Energy Regulatory Commission and served as Director General of the Mexican Mint from 2002-06. She assumed her current position in December 2006.

**How did Mexico's hosting of the 12th IEF and 4th IEBF meetings come about? What degree of influence has SENER (Mexico's Ministry of Energy) had in shaping the agenda, and what are your own objectives and expectations for the event?**

Mexico presented its proposal to host both events to the countries that participated in the IEF in 2007, and received the support of the IEF's Executive Board (to which Mexico belongs) as well as of the rest of the participating countries in the IEF. The official announcement of Mexico's selection as host was made in April 2008, during the 11th IEF Ministerial held in Rome.

As Chair of the Executive Board, Mexico has actively participated in shaping the agenda of the meeting, in collaboration with the members of the Industry Advisory group, International Support Group, and the Executive Board.

We expect a fruitful, action-oriented dialogue that serves to further the energy security of both consumers and producers. Ministers will be exchanging perspectives on a broad range of issues that refer to the role of energy in fostering human development, the options available for promoting cleaner sources and efficient uses of energy, the interplay between financial and energy markets, and the strengthening of dialogue to advance mutual understanding.

**What message will you be looking to send to the CEOs of the many international oil and gas companies attending the meeting? How open is Mexico's energy sector to international participation?**

Mexico is a country that looks to the future and is optimistic about its prospects as a major producer of hydrocarbons. By implementing a new and modern framework, we have empowered our national oil company, PEMEX, to expand its opportunities to invest in Mexico's new energy frontiers. In the process, we have embarked on a promising course of exploration and production, pursuing new reserves in places such as the deep waters of the Gulf of Mexico and the complex reservoirs of the Chicontepec basin.

The Mexican Constitution and its Secondary laws and regulations clearly specify international participation in Mexico's energy sector. International companies can provide PEMEX with services, and can directly participate in the storage, transportation, and distribution of natural gas. Likewise, they can

provide services to CFE, the national power company, including the generation of electricity.

Mexicans are proud of their two national energy companies, and will continue to provide them with the support and the means necessary for them to succeed and fulfill their mission of creating value for the Mexican people.

**Last year's drop in oil production cost the Mexican government an estimated US\$ 20 billion in lost revenues. What is the government's strategy for reversing the country's declining reserves and production: reworking existing fields, developing the onshore Chicontepec basin, focusing on deepwater prospects, or a combination of all three?**

From 2003 to 2008, the reserve replacement rate of proven reserves (1P) improved gradually from 26 to 72 per cent. PEMEX's goal is to continue improving the replacement rate of proven reserves, until we can achieve a rate of 100 per cent by 2012.

In order to reach this target, PEMEX expects to achieve the reclassification for 5 billion barrels of oil equivalent of proven reserves during the 2009-2012 period. We can do this by improving exploratory strategy, developing technical skills, and accelerating the drive for technological transformation.

The courses of action to achieve these goals include: a programme to prove discovered oil fields of 3P reserves; expanding the exploration opportunities database, based on projected resources in the post-drilling, and then to all oil fields with similar geological characteristics (plays); and increasing potential and proven reserves in deep water, identifying opportunities with large volumes of prospective resources that allow the identification of 3P reserves through seismic activity.

In 2009, exploration activity resulted in the drilling of 75 exploratory wells, 29 of which are already in production. In relation to deep water activity, as of December 31 2009, there were 13 exploratory wells drilled, one of which is now in production.

To support these courses of action to strengthen exploratory activity, PEMEX plans to increase the level of resources devoted to exploration. In 2009, 14 per cent of total investment expenditures in exploration and exploitation of hydrocarbons was spent on exploration, and it is expected that this percentage will increase gradually to settle around 17 per cent in 2012.

The emphasis on exploratory activity is clearly reflected in budget increases for exploration. Examples of these include an increase of 43 per cent for 2008 and 21 per cent in 2009.

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**President Calderón reiterated in his most recent Informe that “today a deep reform [of the oil sector] is not only the best option, but the only option”. Do you believe that a political consensus has – or can – be reached on this issue, given the strength of opposition from the PRI and others?**

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At the beginning of this administration, President Calderón commissioned a comprehensive study of the nation’s hydrocarbons sector. This analysis identified from the beginning a glaring need to modernise the hydrocarbons industry.

When the analysis was completed and the necessary information became available, the President proposed crucial initiatives for the reform of the hydrocarbons sector as well as to strengthen PEMEX. The fundamental purpose of the reform was to ensure the sustainability and security of energy for Mexico’s future generations.

We worked with Congress to arrive at a consensus regarding one of the most significant legislative reforms our country has ever undertaken: the Energy Sector Reform. In a very fundamental way, therefore, we have already reformed Mexico’s oil industry.

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**PEMEX’s Director General, Juan José Suárez Coppel has played down the need for international companies to play an active role in Mexico’s upstream sub-sector, preferring to focus on building PEMEX’s in-house capabilities. What is your own view?**

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It is no exaggeration to say that today PEMEX and the energy sector here in Mexico are undergoing an historic process of change, and we are moving ahead in the right direction. Through the reform process instituted by the present administration, we have strengthened the regulatory system in order to improve sector planning and to provide more stability and policy continuity. We have changed the law to allow PEMEX to increase its execution capabilities through innovative new approaches.

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**Much attention internationally has focused on the introduction of ‘incentivised contracts’ as part of the government’s energy reform programme. How much detail can you give us at this stage on the nature of these arrangements?**

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In 2008 the Mexican Congress approved a new legal framework for the hydrocarbons sector. This came into effect at the end of 2008.

Within this framework, PEMEX was allowed to sign performance-based contracts for all its activities, including exploration and exploitation, hydrocarbon transformation, transport, storage, and distribution.

Previous contract schemes created a situation in which contractors’ incentives were not necessarily aligned with PEMEX’s. Instead of delivering the best results by applying new technologies or better developments, contractors were trying to maximise their profits.

A key change introduced through the reform, was to allow PEMEX to apply a performance-based PEMEX regime. This will foster incentive alignment. Right now, SENER and PEMEX are working on the design of contract schemes, areas to develop under these contracts, and the implementation of the new type of service contracts.

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**It is estimated that oil theft and ‘pipeline corruption’ costs PEMEX approximately US\$2 billion a year, at a time when the company can ill afford it. To what extent will the current reform and restructuring process address this issue?**

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PEMEX has made several efforts to minimise hydrocarbon losses and risks of personnel, facilities, and environment relating to the unlawful acts, as well as to improve its image.

Among other steps, PEMEX has developed monitoring and control programmes at refining centres, as well as for its pipeline system, both focused on eliminating oil theft.

PEMEX has also increased coordination with both the Ministry of Defence and the Navy, and in doing so has accomplished good results.

**PEMEX’s goal is to continue improving the replacement rate of proven reserves until we can achieve a rate of 100 per cent by 2012**



Photograph courtesy of PEMEX

Offshore platform, Sonda de Campeche, Gulf of Mexico

**Investment in exploration has grown at 16 per cent per annum since 2000, while that of production grew at an annualised rate of 11.9 per cent**

**President Calderón has stated his aim for Mexico to achieve self-sufficiency in natural gas, yet despite possessing significant untapped reserves, the country continues to import the fuel in ever-greater quantities. How does the government intend to harness these resources more effectively for the benefit of the country?**

Mexico has increased venting due in large part to oil production, mainly in the Cantarell field. There are also operational problems and maintenance of compression equipment on platforms that contribute negatively.

Therefore, the Federal Government is taking concrete actions to address these challenges, among which are: membership of the World Alliance for Gas Flaring Reduction with the World Bank, which facilitates the exchange of experiences and adopting best practices; increasing the reliability and availability of compression equipment; improvement in the efficiency of the sweetening process; and increasing the capacity of sour gas injection on site. We have already increased the handling capacity of high pressure gas pipelines and we are increasing compression capacity with booster equipment. The National Hydrocarbons Commission has also issued rules for venting and flaring.

Since the adoption of the energy sector reform, we have implemented a new regulatory framework that will increase the ability of PEMEX to harness natural gas. Additionally, I would like to share with you some of the technical provisions that were issued and came into force in December of 2009. These include ensuring that all new hydrocarbon exploration and exploitation projects are planned and developed with minimal waste or destruction of associated gas.

In addition, fields currently in production must adopt a programme of reductions in flaring and venting of gas, taking into account the best available technology, investments in installations and equipment, and establishing

compliance programmes. Lastly, a national limit or ceiling on gas flaring and venting must be established, with PEMEX's commitment of reducing it annually until reaching the minimum level that is technically and economically feasible. Our goal is to reduce it from nearly 11 per cent in 2009 to 2 per cent by 2012.

**Mexico has huge potential for renewable power generation – particularly solar and wind – yet the country remains overwhelmingly dependent on oil and gas fired plant. Why do you think the country has so far failed to capitalise on its natural advantages in this area and what plans do you have to promote greater investment in renewables in future?**

I believe Mexico is aggressively promoting the development of renewable energy sources, and has been very successful in the past few years. President Calderón's administration set for itself the goal of deriving 26 per cent of total installed generation capacity from renewable sources by the year 2012.

Every country, including Mexico, needs electricity to power industry and enterprise, operate health clinics, and light schools. Between 2009 and 2012, 51.3 per cent of the added generation capacity will use renewable energy sources, including hydroelectric projects as well as local private generation.

Already we are generating electricity from some wind, hydroelectric, and geothermal sources. Hydroelectric power in particular shows great promise for electricity generation in Mexico, and wind power has enormous unexploited potential. Projects are either being planned, under construction, or even already in place to take advantage of the alternative energy sources available. Examples of these include the hydroelectric power plant at La Yesca in Nayarit, as well as the wind power fields in Oaxaca and Baja California. ■



Photograph courtesy of PEMEX

PEMEX: keeping Mexico on the move