Mexico’s Energy Sector: Trends and opportunities

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Baker & McKenzie

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Mexico’s New Energy Industry: Current expected investments

- Opportunities for private and public investment that add to approx. 50 Billion USD

- **Hydrocarbons**
  - 1st Bid: 2.7 Billion USD
  - 2nd Bid: 3.1 Billion USD
  - 3rd Bid: 1.1 Billion USD

- **Natural Gas Transportation**
  - Pipeline network expansion: 13 Billion USD

- **Power Sector**
  - Generation: 24 Billion USD
  - Transmission: 4.5 Billion USD

Source: PROMEXICO
New Oil & Gas Market Framework

### Upstream

<table>
<thead>
<tr>
<th>AGREEMENTS</th>
<th>PAYMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Services</td>
<td>Cash</td>
</tr>
<tr>
<td>Profit Sharing</td>
<td>% of the profit</td>
</tr>
<tr>
<td>Production Sharing</td>
<td>% of the production obtained</td>
</tr>
<tr>
<td>License</td>
<td>Onerous transfer of hydrocarbons</td>
</tr>
</tbody>
</table>

**New granting instruments:**

Report for accounting and financial purposes the agreements entered and their expected benefits.

### Downstream

<table>
<thead>
<tr>
<th>Opening in:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Petrochemical</td>
</tr>
<tr>
<td>Oil Processing and Refining</td>
</tr>
<tr>
<td>Natural Gas Processing</td>
</tr>
</tbody>
</table>

**CENAGAS**

Operation of national natural gas transportation and storage systems.
Mexico’s Natural Gas Midstream Sector

- New permits granted by CRE
- NGTS to expand 84% in length by 2018
- Estimated investment: 13 Billion USD
- New pipelines:
  - 7 concluded
  - 6 in construction
  - 5 awarded
  - 7 in bidding process
Mexico’s Natural Gas Production and Demand

- Natural gas demand is expected to grow at a faster rate, driven by increased demand for natural gas in the electricity sector.

- CFE will increase natural gas pipeline import capacity from the United States to supply combined-cycle power plants.

- Increased pipeline capacity will also help provide natural gas to the industrial sector and to Pemex, allowing Pemex to switch from fuel oil to natural gas in some of its refinery processes, and to install cogeneration (electricity-steam) plants in the future.

- After reaching its peak in 2016, Mexico’s projected imports will decrease as a result of increasing domestic production but will remain high.
Natural Gas Production and Demand

Source: SENER

Mexico’s Business Opportunities: Natural Gas Midstream Sector

- **Transportation, storage and distribution of natural gas**: allowed to private parties prior obtaining permit from CRE

- **Refining of natural gas**: allowed to private parties prior obtaining permit from SENER

- **Compression, liquefaction, decompression, regasification of natural gas**: allowed to private parties prior obtaining permit from CRE

- **Exportation and importation of natural gas**: allowed to private parties prior obtaining permit from SENER

- **Trading and retailing of natural gas**: allowed to private parties prior obtaining permit from CRE
Current Natural Gas Exportation and Importation Points

Source: SENER
New Importation Infrastructure for Mexico

- **Nueces-Brownsville Gas Pipeline (TX):**
  - will transport natural gas from the south of Texas and will help to meet the requirements of natural gas in the Eastern, Central and Western regions of Mexico
  - tendered in accordance with US’ process through a Request for Proposal (RFP) and called by CFE
  - will be interconnected on the Mexican side with the Sur de Texas – Tuxpan (Marine) gas pipeline

<table>
<thead>
<tr>
<th>Geographic Location</th>
<th>Relevant Facts:</th>
</tr>
</thead>
<tbody>
<tr>
<td>State of Texas, USA</td>
<td><strong>Capacity:</strong> 2,600 MMSCFD</td>
</tr>
<tr>
<td></td>
<td><strong>Length (approx.):</strong> 225 km</td>
</tr>
<tr>
<td></td>
<td><strong>Final Docs Publication:</strong> July 17, 2015</td>
</tr>
<tr>
<td></td>
<td><strong>Proposals Filing:</strong> April 18, 2016</td>
</tr>
<tr>
<td></td>
<td><strong>Awarding of Contract:</strong> May 13, 2016</td>
</tr>
<tr>
<td></td>
<td><strong>Commercial Operation:</strong> September 2018</td>
</tr>
</tbody>
</table>

New Importation Infrastructure for Mexico

**Sur de Texas – Tuxpan (Marine) Pipeline:**
- will transport natural gas from an underwater route in the Gulf of Mexico, from the south of Texas, USA to Tuxpan, Veracruz and will supply natural gas to the CFE’s power generation plants located in the States of Tamaulipas and Veracruz, as well as the Eastern, Central and Western regions of the country
- to be interconnected to Nueces – Brownsville gas pipeline (currently being tendered) and to Tuxpan – Tula gas pipeline (awarded to Transcanada)
- will supply natural gas to new power generation plants, as well as those currently operating with fuel oil, which will be converted to use natural gas as their base fuel

**Geographic Location:**
States of Tamaulipas and Veracruz

**Relevant Facts:**
Estimated Investment: **3,100 million** U.S. dollars

<table>
<thead>
<tr>
<th>Capacity:</th>
<th>2,600 MMSCFD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length (approx.):</td>
<td>800 km</td>
</tr>
<tr>
<td>Pre-bid Docs Publication:</td>
<td><strong>August 28, 2015</strong></td>
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<tr>
<td>Final Docs Publication:</td>
<td><strong>October 7, 2015</strong></td>
</tr>
<tr>
<td>Proposals Filing:</td>
<td><strong>April 22, 2016</strong></td>
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<tr>
<td>Awarding of Contract:</td>
<td><strong>May 2016 (TBD)</strong></td>
</tr>
<tr>
<td>Commercial Operation:</td>
<td><strong>September 2018</strong></td>
</tr>
</tbody>
</table>
Mexico’s Natural Gas Imports: Outlook

Billions cubic feet per day

LNG Imports
Pipeline Imports

Natural Gas Exports: Outlook

Source: SENER
Mexico’s Fuel markets

Importation of fuels by private parties is now allowed as of April 1st, 2016

Retailing: Different from PEMEX

2014
Prices pursuant the current regulations

2015
Prices pursuant regulations issued by the Mexican President. These regulations consider transportation between regions, distribution modalities, expected economic inflation and price volatility

2017

2018
Open prices pursuant market conditions
Mexico’s Business Opportunities: Midstream and Downstream Sector

- **Transportation, storage and distribution of gasolines and diesel**: allowed to private parties prior obtaining permit from CRE

- **Exportation and importation of gasolines and diesel**: allowed to private parties prior obtaining permit from SENER

- **Trading and retailing of gasolines and diesel**: allowed to private parties prior obtaining permit from CRE
Production, demand and imports of gasolines in Mexico

Thousands of daily barrels

Source: SENER
Mexico’s Imports of gasolines: Outlook

Thousands of daily barrels

Source: SENER
Mexico’s Production and exports of diesel

Source: SENER
Mexico’s Imports of diesel: Outlook

Thousands of daily barrels

Source: SENER
Mexico’s Upstream Sector

- Energy Reform removed barriers that previously restricted oil and gas production to Pemex, resulting in an increase in production for the following years.

- Mexico’s production expected to increase from 2.5 million b/d in 2013 to 3.3 million b/d in 2029, with production peaking in 2026 at 3.4 million b/d.

Source: SENER
Crude Oil Exports: Outlook

Source: SENER
Mexico’s Round 1 for the O&G Sector

• 169 blocks; 109 exploration and 60 extraction

• Reserves 2P of 3.8 and 3P of 14.6 Bboe

• Expected yearly investments of USD $8.5 Billion between 2015 and 2018

<table>
<thead>
<tr>
<th>AREAS</th>
<th>FIELDS</th>
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<tbody>
<tr>
<td>Deep Waters</td>
<td>Perdido</td>
</tr>
<tr>
<td></td>
<td>South</td>
</tr>
<tr>
<td>Chicontepec and non-conventionals</td>
<td>ATG (Gulf Tertiary Oil)</td>
</tr>
<tr>
<td>Onshore, shallow waters and extra-heavy oil</td>
<td>Pit, Pohp, Alak, Kach and Kastelan</td>
</tr>
<tr>
<td>Non-conventional gas</td>
<td>Sabinas</td>
</tr>
</tbody>
</table>

Source: PEMEX
Round 1 – First Bid and Second Bid

- First Bid
- Second Bid
Round 1 – Third Bid

- 25 license contracts awarded on December 15, 2015

Winners (among others):
4th Bid (Deep Waters)

<table>
<thead>
<tr>
<th>Location</th>
<th>Area (Km²)</th>
<th>Main Hydrocarbon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perdido Area</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1,678.00</td>
<td>Superlight oil</td>
</tr>
<tr>
<td>2</td>
<td>2,976.60</td>
<td>Superlight oil</td>
</tr>
<tr>
<td>3</td>
<td>1,686.90</td>
<td>Light oil</td>
</tr>
<tr>
<td>4</td>
<td>1,876.70</td>
<td>Superlight oil</td>
</tr>
<tr>
<td>Cuenca Salina</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2,381.10</td>
<td>Light oil</td>
</tr>
<tr>
<td>2</td>
<td>2,411.20</td>
<td>Light oil</td>
</tr>
<tr>
<td>3</td>
<td>3,287.10</td>
<td>Light oil</td>
</tr>
<tr>
<td>4</td>
<td>2,358.70</td>
<td>Heavy oil</td>
</tr>
<tr>
<td>5</td>
<td>2,573.20</td>
<td>Light oil</td>
</tr>
<tr>
<td>6</td>
<td>2,605.50</td>
<td>Extra-heavy oil</td>
</tr>
</tbody>
</table>

Possible Players: Shell, Chevron, Statoil, bp, TOTAL, Anadarko Petroleum Corporation, ExxonMobil
Round 1 – 4th Bid (Deep waters)

Who may participate?
- Mexican Companies
- Foreign Companies
- State Productive Companies

Jointly or individually

Companies may be part of 1 or more consortium or A in P

Proposals shall be submitted for each contractual area

Documents shall be submitted in Spanish*
Relevant Tender Requirements

- **Data Room Access**: $38,500,000.00 Mexican Pesos (approx. $2,152,150.00 US Dollars)

- **Registration in the Tender**: $280,000.00 Mexican Pesos (approx. $15,652.00 US Dollars)

- Bid guarantee (Letter of credit) of $3,000,000.00 USD. A bid guarantee shall be submitted per proposal.

<table>
<thead>
<tr>
<th>Technical Requirements</th>
<th>Financial Requirements</th>
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<tbody>
<tr>
<td>-Experience as operator in at least 1 E&amp;P offshore project in deep waters with a water depth larger than 1,000 meters, in the period 2011-2015</td>
<td>-Equity of at least 2 Billion USD; or</td>
</tr>
<tr>
<td>-CAPEX investment in E&amp;P projects that jointly sum at least 2 Billion USD</td>
<td>-Minimum value of 10 Billion USD for total assets and a credit rating of investment grade issued on 2015-2016</td>
</tr>
<tr>
<td>-Experience in matters of industrial safety and environmental protection during the last five years, such as OHSAS 18001 (Safety) and ISO 14001 (Environment)</td>
<td></td>
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**Non-Operator**

<table>
<thead>
<tr>
<th>Financial Requirements</th>
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<tbody>
<tr>
<td>-Equity of at least 250 MM USD</td>
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</table>
Relevant Contract Requirements

- It may only be executed with State Productive Companies and companies that comply with the following:
  - Mexican companies with exclusive corporate purpose: the exploration and production of hydrocarbons
  - Not listed on the optional tax regime for groups of companies referred under Chapter IV, Title II of the Income Tax Law
Power Sector
Power Sector after the Energy Reform

**Upstream**
- Opening in power generation and trading

**Downstream**
- Power Wheeling and Distribution
- Activities reserved to the Mexican State
  - The possibility of contracting with private parties such activities

**Wholesale Power Market**
- Market Rules
  - Cover the energy demand at the lowest cost

**National Energy Control Center**
- SEN managing, managing of the wholesale Power market and the network access

Transition strategy to promote clean technologies
Production, demand and imports of power in Mexico: Outlook

Source: SENER
Mexico’s Business Opportunities: Import of power

- **Exportation and importation:** require authorization from CRE (granted for up to 30 years)

- **Isolated Supply:** Mexican companies may generate or import power for self supply or exportation without using the National Transmission and Distribution Lines prior obtaining permit from CRE (companies non-participating in the market)

- **Transactions under the market:** Companies participating in the market may import or export power and related services (servicios conexos) to or from the wholesale power market as long as the origin or destination is a site interconnected to the Mexican National Power System
Mexico’s Current Import/Export Infrastructure

Source: SENER
New Infrastructure for the North Region 2016-2014
New Infrastructure for the Northeast Region 2016-2024
Thank You

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