Mexico’s Natural Gas Story

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1. Mexico’s natural gas crisis: how everything started

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3. The future for México: Is self sufficiency possible? If not, what’s next?
Mexico’s NG industry was partially opened to private investment in 1995, for transportation, marketing and distribution.

Source: México’s Undersecretary of Hydrocarbons. White Books presentations 2018
USA shale gas revolution pushed down prices 68% between 2008 and 2018

Source: US Energy Information Administration
Low prices boosted Mexico’s demand while domestic production dropped

Mexico’s dry gas production (BCFD)

Pemex integration and regulated prices acted as a barrier for competition in trading and new infrastructure.

Pipeline permits granted by regulator (CRE)

Year: 2000-2012

Number of permits:
- 2000: 0
- 2001: 0
- 2002: 3
- 2003: 0
- 2004: 0
- 2005: 0
- 2006: 0
- 2007: 0
- 2008: 0
- 2009: 0
- 2010: 0
- 2011: 0
- 2012: 0

Source: México’s Undersecretary of Hydrocarbons. White Books presentations, 2018
15 years after the opening, Mexico faced 53 supply shutdowns in 3 years, due to curtailments.

Mexico’s Central Bank calculated that shutdowns represented 0.3 points of GDP in 2013.

Source: México’s Undersecretary of Hydrocarbons. White Books presentations, 2018
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Step 1: Increase pipeline infrastructure to access the cheapest gas in the world

We went from 11,347 kms to 18,668 (66%) more pipelines in 6 years

Source: México´s Undersecretary of Hydrocarbons. White Books presentations, 2018
Step 2: Opening the value chain attracted the best companies in the world

Achievements in E&P:

- 11 bidding rounds
- 107 contracts awarded
- 161 billion dollars of investment
- 73 new companies from 20 countries
- 71% average royalty for Mexican State in shallow waters
- 60% for deep waters
Step 3: Create markets and encourage competition

- Market prices for natural gas began in July, 2017

- Open access to infrastructure: Pemex pipelines were transferred to the new ISO: Cenagas. Cenagas held its first open season in July, 2017

- Symmetric information: Cenagas digital table CRE publishes prices SENER publishes linepack, imports, national production
Step 4: Storage

- Should create a strategic reserve of 45 bcf (5 days of demand)
- Requires a bid process for the utilization of a deployed field
- The winner should operate the storage facility
- The cost of the project should be amortized between all transportation users
- It should be the first step in order to develop commercial storage
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Current policy adjustments

• All bid rounds (E&P, power generation and transmission), have been suspended, as well as Pemex farmouts
• Fracking has no Presidential support
• Storage policy has also been suspended, even though the ISO (Cenagas) has said they could develop a project directly with Pemex

We need natural gas

• Imports dependence is a valid concern
• Pemex needs significant capital, more than can be met by a public budget
• CFE cannot meet renewable targets on its own

GDP growth target has been set in 4%
Even in the best case scenario, demand will be higher than production for the next 15 years.

Mexico. Current and expected demand, production and imports. (BCFD)
Therefore, USA production is crucial for México

- AEO 2019 (EIA), shows 6 different scenarios besides reference one.
- Difference between highest and lowest is almost 90%
- Difference between reference scenario and lowest is 50%

Source: Energy Information Administration
In EIA reference case, 2019 and 2020 have the highest rate of growth in production. After that, growth is more stable.

Mexico’s estimated imports represents 1/3 of USA export capacity

Source: Annual Energy Outlook 2019. Energy Information Administration
LNG under construction facilities should be operating by 2022

Source: Energy Information Administration
USA-LNG exports reach the highest level in high oil price scenario.

There are five key factors to watch in the next two years:

- USA production
- LNG facilities building
- Short term contracts vs long term contracts
- Building process in regasification facilities
- Mexico´s natural gas production
Many thanks

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