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Natural Gas Production and Demand

EL CONSUMO DE GAS NATURAL EN MÉXICO SE HA INCREMENTADO EN 32% EN LOS ÚLTIMOS 12 AÑOS

Producción y demanda de gas natural (millones de pies cúbicos diarios, MMpcd)

<table>
<thead>
<tr>
<th>Año</th>
<th>Consumo de gas</th>
<th>Producción de gas seco</th>
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<tbody>
<tr>
<td>2007</td>
<td>6,071</td>
<td>4,880</td>
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<tr>
<td>2008</td>
<td>6,256</td>
<td>4,844</td>
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<td>2009</td>
<td>6,229</td>
<td>4,897</td>
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<td>2010</td>
<td>6,463</td>
<td>4,930</td>
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<td>2011</td>
<td>6,599</td>
<td>4,774</td>
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<tr>
<td>2012</td>
<td>6,733</td>
<td>4,539</td>
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<tr>
<td>2013</td>
<td>7,009</td>
<td>4,431</td>
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<tr>
<td>2014</td>
<td>7,254</td>
<td>4,334</td>
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<td>2015</td>
<td>7,676</td>
<td>4,010</td>
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<td>2016</td>
<td>7,887</td>
<td>3,541</td>
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<tr>
<td>2017</td>
<td>7,982</td>
<td>3,054</td>
</tr>
<tr>
<td>2018</td>
<td>8,198</td>
<td>2,738</td>
</tr>
<tr>
<td>2019</td>
<td>8,042</td>
<td>2,587</td>
</tr>
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</table>

Con base en la Consulta Pública 2019 de CENAGAS, la proyección de demanda nacional sería de casi 14,500 MMpcd para 2024 (considerando la demanda contenida).
Mexico’s Demand is Being Met With Imports
Production Growth

- PEMEX priority fields
- PEMEX joint ventures
- Bidding round contracts
Regional Price Index for Natural Gas
U.S. Natural Gas Price Index
Prospective Resources

Mmbpce = million barrels of crude oil, equivalent
Allocation of Prospective Resources

Allocation of Prospective resources:

- Pemex has **23%** of the national prospective resources.
  - 24% gas (20,692 MMMpc)
  - 76% oil (19,430 MMb)

The awarded contracts represent:

- **11%** of the prospective national resources
  - 30% gas (18,256 MMMpc)
  - 70% oil (8,259 MMb)

State owned areas that have yet to be assigned:

- **67%** of prospective resources
  - 48% gas (178,779 MMMpc)
  - 52% oil (39,329 MMb)
Natural Gas Estimated Production from Awarded Contracts and Pemex

- Need for further exploration activities in areas with potential.
Status of the Energy Reform

- Pemex is accelerating the development of 22 onshore and shallow water fields entirely via contratos de servicios integrales de exploración y extracción, or CSIEEs, a type of oilfield services (OFS) contract that the company used prior to the energy reform.

- Mexican state oil company Petróleos Mexicanos (Pemex) will seek to allocate $1.04 billion of next year’s capital expenditures (capex) to the Ixachi onshore natural gas and condensate project in Veracruz state, making Ixachi Pemex's third-largest upstream project in the country.
Natural Gas Production Prospects

• Ixachi is one of 20 fields for which Pemex is accelerating development in order to reverse more than a decade of declining hydrocarbon output.
• $6.4 billion development plan at the field. Pemex plans to drill 47 wells at Ixachi, where natural gas output is expected to peak in 2022 at 638.5 MMcf/d.
• The budget also allocates $238 million for seven shale oil and gas pilot projects in the Sabinas, Burro-Picachos, Burgos, Tampico-Misantla, and Chihuahua basins, up from $171 million approved for the same projects in 2019.
• Other gas-focused line items in the budget include the Integral Veracruz and Burgos projects, which received allocations of $384 million and $157 million, respectively.
• Though important to improving gas supply to Mexico’s gas-deprived southeast, Ixachi would only partially offset gas declines in the country.
Risks and Opportunities

Risks:
1. Suspending joint ventures between Pemex and the private sector permanently
2. Putting oil block auctions on hold
3. Failure to meet AMLO’s oil and gas production targets
4. Potential downgrade for Pemex could affect sovereign ratings

Opportunities:
1. Resuming joint ventures between PEMEX and the private sector in 2020
2. Assigning new prospective resources to private companies
3. Government take for future contracts 72-74% could boost Mexico’s economic growth