Observations on US LNG Export Prospects in Latin America

Eduardo Carvajal, Hogan Lovells

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Discussion Map

• Hogan Lovells and LNG Capabilities
• Delfin Midstream and Delfin LNG Project

• Observations on Market Opportunities for U.S. LNG in Latin America
  – LNG Flexibility & the Latin America Market
  – Sanctions (Iran and Russia)
  – “Operation Car Wash”
  – Petrobras Divestment Program
  – BNDES Reforms v. Relative Availability of ECA Financing
Hogan Lovells - Local roots, global reach
Hogan Lovells - South America

Dominican Republic
- Dominican Republic – LNG to Power

El Salvador
- Puerto Cortes LNG

Peru
- Peru LNG

Colombia
- FSRU Procurement
- Floating Liquefaction Procurement

Chile
- Chilean FSRU
- Octopus LNG
- Mejillones LNG

Uruguay
- Gas Sayago LNG
- FSRU Procurement

Brazil
- Bolivia-Brazil Pipeline
- Master LNG SPAs
- FSRU Procurement

Trinidad and Tobago
- Atlantic LNG1 price review

Venezuela
- CIGMA LNG
Delfin Midstream

- Delfin LNG Joint Venture
- First Offshore Floating Liquefied Natural Gas Project in North America
- Expect To Be Operational 2021/22
Delfin LNG Project: 4 Primary Components
Latin American Opportunities for US LNG
LNG Flexibility and Latin America Market Variability

- Growing energy demand and economic growth profile (tempered by regulatory, political and fiscal complexities).

- LNG complements well both hydroelectric generation and the recent drive to expand wind and solar generation.

- At the same time, historically, LNG imports have been highly variable (e.g., in Brazil, imports from 6 MTPA (2015) to 1.75 MTPA (2017)).

- Other long term considerations include large unexplored reserves of unconventional gas in Brazil and Argentina; alternative plays in other markets (e.g., recent US-China “trade truce”).
Implications of Sanctions Regime on US LNG Exports

• Iran and Russia have among largest conventional reserves of natural gas globally. Both recently announced new liquefaction projects.

• With respect to Iran and the US withdrawal from the Joint Comprehensive Plan of Action, the re-imposition of US sanctions will eliminate (1) opportunities for non-US companies to engage in almost every key industry sector (including energy and petrochemicals and shipping) without potential exposure and (2) the ability of foreign subsidiaries of US companies (or other non-U.S. entities “owned or controlled” by U.S. persons, such as 50/50 joint ventures) to engage in authorized business in Iran (pursuant to OFAC General License H).

• In short- to medium-term, one collateral effect of US sanctions provides further market growth potential in Latin America (and elsewhere) for US LNG.

• Stay tuned for further UK/European nation response and implications for US LNG.
“Operation Car Wash” and ABC Considerations

- As you know, there has been a large scale crackdown on bribery and corruption regionally, such as the Brazilian “Car Wash” scandal and other ABC investigations affecting other Latin America countries.

- Practical implications for all companies engaging in business in Latin America:
  - Understand methods used by corrupt local employees and government officials.
  - Create and enforce strict company policies and procedures regarding vendor and accounts payable processes.
  - Provide training to broader group of employees, not just those that have direct access to company funds.
  - Implement robust third party agreements and protocols with respect to third party agents.
In effort to reduce debt burden and focus on core businesses, Petrobras is in the midst of a multi-billion domestic/global divestment plan.

In Brazil, Petrobras has sold or announced an intention to sell several natural gas- and LNG-related infrastructure assets and companies.

In natural gas and LNG space, provided the Brazilian regulatory environment also evolves, the diminished SOE/government role could lead to opportunities for US players.
BNDES Refocus v. Relative Availability of ECA Financing

- Shifting view of BNDES/government role in financing development in Brazil, protecting domestic business and subsidizing private investment.

- Depending on the target project and the application of proceeds, competitive financing may be available to sponsors/developers from several export agencies in the US, UK or Europe.
## Onshore Regas v. FSRU

<table>
<thead>
<tr>
<th>Onshore Terminals</th>
<th>FSRUs</th>
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<tbody>
<tr>
<td>Provides a more permanent solution</td>
<td>Allows for quicker fuel switching</td>
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<tr>
<td>Offers longer-term supply security</td>
<td>Greater flexibility if there are space constraints or no useable ports</td>
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<tr>
<td>Greater gas storage capacity</td>
<td>Capable of operating further offshore</td>
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<tr>
<td>Generally requires lower operating expenditures (OPEX)</td>
<td>Generally requires less CAPEX</td>
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<tr>
<td>Option for future expansions</td>
<td>Less land regulations</td>
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Eduardo Carvajal, Counsel

Contact details

E-mail: eduardo.carvajal@hoganlovells.com
Phone: +55 21 3550 6678 (Rio de Janeiro)
       +55 11 3568 2861 (São Paulo)
Office: Rua Santa Luzia, 651, Andar 26º
       Centro - Rio de Janeiro, RJ 20030-041
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