Ensuring Reliability and Resilience in South American Power Markets
Josue Prado¹ and Jeffrey Logan²

¹Joint Institute for Strategic Energy Analysis (JISEA), ²Strategic Energy Analysis Center

Motivations

- The global electricity sector is undergoing a period of rapid change as power systems move towards decarbonization, digitalization, and decentralization.

- This transformation has significantly changed the way power systems are designed, planned, and operated.

- Power system flexibility has been receiving increasing attention as variable and uncertain generation options in many South American power markets, especially in drought years.

- There is an increasing need to expand emphasis on flexibility due to reliance on hydropower and VRE supplies.

Methodology

- Primary countries of focus:
  - Argentina
  - Brazil
  - Chile
  - Colombia

Preliminary Work

- LNG imports have become a source of flexible supply to meet peak demand during dry seasons.

- The Global LNG market is evolving rapidly and moving towards higher liquidity, flexibility, and commoditization.

- LNG market trends include "gas-on-gas" prices, short-term, lower-volume, and destination-free contracts, and increasing integration of portfolio players.

- New technologies are enabling cost-effective and fast delivery of LNG storage and regasification. Floating Storage Regasification Units (FSRUs) are more affordable than onshore terminals and enable LNG imports to enter the market faster.

- LNG imports under emerging business models and contracts may help key South American countries to ensure long-term reliability and resiliency.

Table I. Most significant events and complementarity sources

<table>
<thead>
<tr>
<th>Country</th>
<th>Most significant event</th>
<th>Complementarity source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>El Niño, NG, and VRE</td>
<td>Argentina, Brazil, Colombia</td>
</tr>
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<td>El Niño, oil, and VRE</td>
<td>Argentina, Brazil, Colombia</td>
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<tr>
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<td>El Niño, NG, coal, and VRE</td>
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<tr>
<td>Colombia</td>
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</tbody>
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References

- CIA (undated). The World Factbook. Langley, McLean, VA: CIA.