



# Issues and Challenges in Developing Gas Markets in South America – Is LNG a practical solution

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The Global Energy Challenge: Reviewing the Strategies for Natural Gas

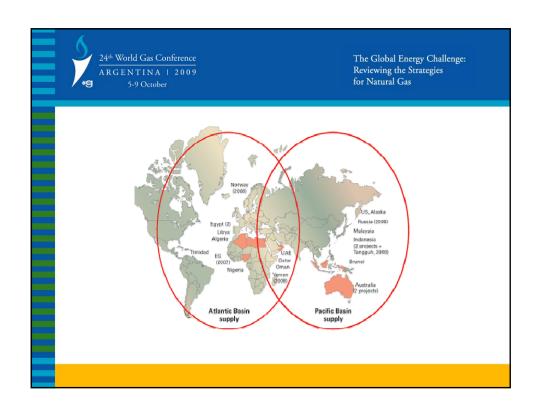
# Current Natural Gas Market in South America

- Mature markets in Argentina, Colombia, Venezuela and Trinidad and Tobago
- ■Expanding resource base Brazil, Peru and Bolivia
- •Net producers Columbia, Bolivia and Trinidad and Tobago
- ■Importers Brazil, Chile & Argentina



# Current Natural Gas Market in South America

- Market opportunities
  - Power generation
    - Competitors Crude oil, coal and hydroelectricity
  - Limited home heating
  - Motor fuel CNG
  - Feedstock for Petrochemical production





# Characteristics of LNG trade

- Traditionally
  - Difficult to transport
  - Market size was important
  - Infrastructure is expensive
- Majority sales in base load contracts
- Growing spot cargoes trade -25% of current sales



- Key Drivers for LNG penetration
  - Current oversupply of LNG
  - Security of Supplies
  - Lack of interconnections pipelines
  - Natural gas price and price lag with crude oil
  - Competitive technical options



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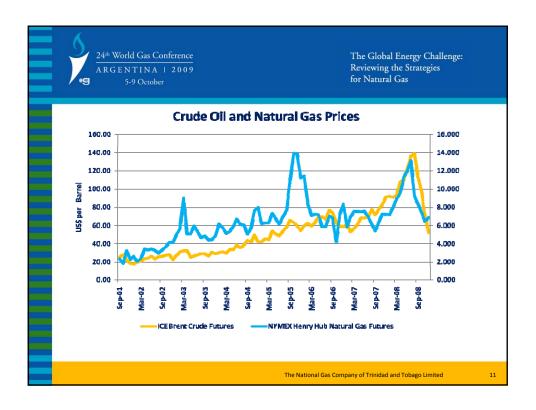


# Constraints

- •Limited gas transmission pipelines and not inter connected. Solution have been proposed by
  - ■Venezuela Brazil
  - ■Columbia to Venezuela
  - ■Trinidad to Barbados, St Lucia, Martinique/Guadeloupe
  - ■Venezuela to Cuba



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- Emerging Picture
  - LNG import terminals -6
    - Puerto Rico -1
    - Dominican republic -1
    - Brazil 2
    - Argentina -1
    - Chile 1
  - Future
    - Uruguay
    - Jamaica
    - Honduras
    - Others



- Conclusions
  - LNG imports will grow in South America