Unconventional gas in Brazil: Above-ground challenges

U.S. – Brazil Unconventional Gas Policy and Regulatory Workshop: Furthering Responsible and Sustainable Unconventional Gas Development

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Rio de Janeiro, December 5th, 2013
Key implications
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Opportunity is here

Different dynamics

A regulatory checklist

Source: IHS CERA.
Opportunity is here
LNG imports provide flexibility to gas supplies

Source: IHS CERA.
Growing demand led by industrial and power sectors

Natural gas demand breakdown

Source: Brazilian Ministry of Mines and Energy.
Brazil is a net importer of natural gas. LNG provides supply flexibility to the grid.

Source: Brazilian Ministry of Mines and Energy.
Oil-linked prices tripled over the past 10 years, creating an opportunity for unconventionals.

Average citygate price of natural gas per source

Source: Brazilian Ministry of Mines and Energy.
IHS CERA Multi-client Study
“The Unconventional Frontier – South America”

Mapped 87 Shale gas and 10 CBM plays in the region
Different supply dynamics
Operational issues needed to be overcome to allow large-scale development.

- Logistics
- Water handling and availability.
- Dependence on imports, especially proppant (sands)
- Access to rigs, trucks, pumping capacity, tubular, and all auxiliary services
- Access to human capital

Source: IHS CERA.
Unconventional gas production profiles tend to display strong declines over the first three years.

Source: IHS CERA.
Unconventional developments require a large number of wells

Source: IHS CERA.
Illustrative production profile of unconventional gas project

Source: IHS CERA.
Rig activity is typically permanent

A service industry would have to be established, in sufficient size to accommodate the deployment of 6 rigs at peak within 3 years of operation start. Drilling is then expected to continue for around 26 years.

Source: IHS CERA.
Different cost and production schedules create different supply dynamics

Unconventional versus conventional gas development

Source: IHS CERA.
A regulatory checklist
Sound above-ground environment needed to allow commercial opportunities.
The challenge of scaling up:
A regulatory checklist to a faster buildup?

- Upstream fiscal regime
- Local content requirements
- Midstream role of Petrobras
- New Gas Law resolutions
- Environmental licensing
- Vertically integrated routes
- Gas-to-wire route:
  - Base-load generation?
  - 50% inflexibility?
  - 20 years of reserves?

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For more information about this presentation or IHS CERA in general, please contact

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