LNG: Can it Work for California?

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LNG 2004: Supply, Demand, Market Change and Financing

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Today’s Talk

• California’s future natural gas needs
• Potential value of LNG
• Potential risks of LNG
• Issues needing resolution
• Actions underway
California’s Future Natural Gas Needs

- Electricity and Natural Gas Assessment Report
- Natural Gas Market Assessment Report

CEC Reports available at www.energy.ca.gov
California’s Future Natural Gas Needs
General Observations

- Current supply/infrastructure is adequate
- Prices are higher than desired
- Demand for natural gas is growing
  - In spite of aggressive EE and renewables activity
- Additional import capacity is needed
- Prices will continue to increase
- Prices will become more volatile
Potential Value of LNG

- LNG identified as a supply option
  - New pipelines also identified
- LNG imports specifically analyzed
- LNG provides significant benefit to California
  - Potential overall price reduction
  - Supply diversity
  - Additional import capacity
Potential Value of LNG

• Terminals in Baja and California
• California energy policy endorses both
• Value to Baja
  – Supply diversity for Baja
  – Balanced with pipes
• Value to California
  – Reduces risk of supply disruptions
  – Least-cost access to LNG
Potential Risks of LNG

- Terminals:
  - Safety risks
  - Environmental risks
- Supplies:
  - Reduced control over supply source
  - Supply disruption could have significant impacts
  - Potential for market power abuse
Issues Needing Resolution

- Clarify natural gas quality standards
- Provide equal access to markets in California
- Define role of longer term purchase contracts
- Clarify potential pipeline upgrades
- Reduce risk of market power abuses
- Reduce uncertainty in terminal permitting
- Clarify international trade issues
Natural Gas Quality Standards

- State gas quality standards
  - Pipeline Quality (CPUC)
  - CNG Vehicles (CARB)

- Differing standards in other states

- Worldwide LNG Btu content too hot
  - NOx emissions too high

- Little flexibility in standard
Equal Access to Markets

- In-state pipe network designed to receive gas from East and North.
- Regulatory rules originally designed for pipelines and domestic supply sources.
- Delivery points and acceptance rules need reexamination.
Longer Term Purchase Contracts

- LNG terminals are capital intensive.
- Investors need longer term assurance.
- California has a mixed history on long term contracts.
  - Risks of overpaying
  - Risks of buying too much
- Can ratepayer protection be balanced with investors’ needs?
Potential Pipeline Upgrades

- In-state pipe system not designed for significant flows from West or South

- Flows from Baja
  - Can use existing pipe/Ehrenberg hub
  - Limited new capacity
  - Significant flows require pipe upgrades

- Flows from California coast
  - Require downstream pipe upgrades
Risk of Market Power Abuses

• Single supplier controls significant quantities

• Current FERC policy allows LNG terminal operator to control access to terminal.
Uncertainty in Terminal Permitting

- No single stop permitting agency
- Many agencies involved
- Local communities very concerned about safety risks
- LNG is “new” to California
Clarify International Trade

• NAFTA addressed US exports of NG to Mexico, not imports

• Need symmetry in trade

• Need certainty in long term trade policies
Actions Underway

- **Natural gas quality standards**
  - Joint research study on emissions—SoCalGas
  - ARB reconsidering standard
  - LNG developer commitment
    - LNG gas conditioning at import terminal
    - LNG gas conditioning at export terminal
  - Natural Gas Working Group
  - FERC Technical Conference
  - ARB resolution expected by end of this year
Actions Underway

• Equal Access to Markets
  – NG Infrastructure Workshop last December
  – CPUC Natural Gas OIR
    • Specifically addressing LNG access
    • Expect preliminary ruling later this year
Actions Underway

- Longer term purchase contracts
  - Energy Action Plan
  - CPUC NG OIR
  - Long term vs. longer term
  - Portfolio approach to contracts
  - Preliminary guidance later this year
Actions Underway

• Potential pipeline upgrades
  – CPUC proceeding last year
    • Defined options
    • Defined preliminary costs
  – NG Infrastructure Workshop last December
  – CPUC NG OIR addressing issue
  – California LNG developers have committed to pay for upgrade costs
Actions Underway

• Risk of market power abuses
  – FERC established Office of Market Oversight and Investigation
  – CPUC has established oversight authority to protect Core ratepayers
  – Energy Commission closely monitors markets
  – FERC/CPUC/Energy Commission working closely together
**Actions Underway**

- **Uncertainty in terminal permitting**
  - California established the LNG Interagency Permitting Working Group
  - Agency review is now coordinated
  - FERC/USCG and State working closely together

Public information available at
www.energy.ca.gov/lng
Actions Underway

• Clarify international trade
  – Border Governor’s Conference will soon address issue
  – Stanford University conducting research
  – Energy Commission very interested in meeting with our Mexican colleagues
LNG: Can it Work for California?

- LNG offers significant potential benefits
- LNG also poses significant risks
- California has successfully dealt with controversial projects in the past
- California is taking action to allow LNG to be fully considered
  - Baja terminals
  - California terminals
- California is very interested in working with our southern colleagues to resolve all issues
Questions?