Where Does LNG Fit In?
A California Perspective

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LNG 2004: Supply, Demand, Market Change and Financing

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Today’s Talk

- Why the Sudden Interest in LNG?
- Energy Policy Affecting LNG
- Cross Border Work on LNG
- California’s Interest in South American LNG
- Concluding Remarks
Why the Sudden Interest for LNG on the West Coast?

- California natural gas demand is increasing.
- Power generation accounts for as much as 40% of natural gas consumed in California.

![California Natural Gas Demand Graph](image-url)
Why the Sudden Interest for LNG on the West Coast?

- California is at the end of the pipeline network.
- Demand east-of-California continues to impact delivery capacity to California.
Why the Sudden Interest for LNG on the West Coast?

- Natural gas prices are expected to exceed $4.50 per MMBtu in the future.

NYMEX Prices (1/26/04)
$/MMBtu
Why the Sudden Interest for LNG on the West Coast?

Just Look at the Benefits!

- Delivery capacity, similar to a pipeline
- Additional supply, similar to a gas field
- Additional storage, similar to a local facility
- Supply diversity, gas from a new, price-competitive source
- Fuel diversity, liquid fuel for transportation
State Policies on LNG Are Developing

- Governor Schwarzenegger has expressed an interest in LNG.

  - Recognizes LNG as a potential supply source.
  - Recognizes value of LNG to California.

- Energy Action Plan Commitment (CEC/CPUC/CPA)
  - “License and, where appropriate, fund construction of new energy facilities that are consistent with the reliability, economic, public health, and environmental needs of the state.”
  - “Partner with governmental and other groups in western North America to pursue commonly held energy goals.”
California Public Utilities Commission
- Recently issued rulemaking on natural gas policies will include LNG contracting issues.

Coordination Among State Agencies
- CEC, CPUC, State Lands Commission, California Coastal Commission all committed to working together.
- Agencies also coordinating with federal and local agencies.
LNG Is Not a Stranger to California

- In the 1970s insufficient supply causing supply curtailments lead to a proposal for an LNG terminal at Point Conception.

- The Point Conception LNG site went through lengthy hearings.

- By the time approval was received, it was uneconomic due to increased domestic supply.
West Coast LNG Proposals

Proposed West Coast LNG Projects

- Humboldt Bay
  - Calpine Energy
    - 1,000 MMcf/d Capacity LNG Terminal

- Offshore, Oxnard
  - Crystal Energy, Small Ventures, et. al.
    - 500 MMcf/d Capacity Offshore LNG Terminal

- BHP Billiton
  - 800 MMcf/d Capacity, Offshore LNG Terminal

- Long Beach Harbor
  - Mitsubishi Corporation
    - 700 MMcf/d Capacity LNG Terminal

- Vicinity Tijuana, Baja California
  - ChevronTexaco
    - 750 MMcf/d Capacity LNG Terminal

- Ensenada, Baja California
  - Sempra & Pacific LNG Consortium/Shell Group
    - 1,000 MMcf/d Capacity LNG Terminal

California Energy Commission
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Cross Border Work

- **Border Governor’s Conference**
  - Compile a “State of Border Energy” report.
  - Promote border region to test new policies.
  - Enhance bi-national communication and activities.
  - Support NADBank development of exemplary power plants.

- **Energy Working Table**
  - Co-chaired by California and Baja.
  - Goal is to establish closer working relationships.
  - Group addresses power plants, transmission lines, pipelines, LNG, and environmental issues.
A “Californias” Approach

- California and Mexico share many resources.
- We share a common energy network.
- Long-term energy infrastructure development should be guided by the combined sustainable needs of our shared region.
- Our region could potentially benefit from privately-financed LNG projects.
California Has an Interest in South American LNG

- Energy policy does not discriminate regarding supply sources.
- South America is one of our closest sources.
- Cost competitive supplier
- Supply contracts negotiated with:
  - Terminal developers
  - Consumers in California
Conclusions

- Gas availability will become increasingly tighter as gas demand grows in North America.
- Pipeline capacity and storage expansions are critical to satisfying future natural gas demand.
- LNG has great potential to serve the energy needs of a growing North American population.

The California Energy Commission is very interested in working with government agencies in Mexico to coordinate LNG policy development.