Liquefied Natural Gas

Senate Budget Hearing
March 6, 2006

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Chairman
California Energy Commission
Presentation Topics

• California’s Natural Gas Situation
• Overview of LNG Proposals
• LNG Permitting Process/State Role
• LNG Issues Under Discussion
  – Critical Energy Infrastructure Information (CEII)
    Sensitive Security Information (SSI)
  – Natural Gas Quality
  – Greenhouse Gas Emissions
  – International Trade
  – Managed Access
• 2006 LNG Work Plan
California’s Natural Gas Situation

• California imports 86% of its natural gas
• U.S. and Canadian sources expected to decline in future
• California demand expected to grow
• LNG would provide another source of natural gas
• Delivery of gas from a west coast terminal could hedge against supply/price problems in rest of country (e.g., hurricanes)
California Sources of Natural Gas
Overview of CA LNG Proposals

• California Projects Proposed
  – Cabrillo Port (offshore Ventura Co.): Recirculated Draft EIS/EIR due early 2006
  – Clearwater Port (offshore Ventura Co.): application expected to be complete early 2006
  – Pacific Gateway (offshore No. California): announced by Excelerate, application expected 2006
Other Proposed West Coast LNG Terminals

- 2 Onshore Terminals in British Columbia
  - Only 1 (Kitimat) is active. Construction could begin in 2006.

- 4 Onshore Terminals in Oregon
  - Only 1 currently under FERC review; 2 others may start FERC review in 2006

- 3 Terminals in Baja California
  - Costa Azul terminal (onshore) under construction
  - Other 2 (offshore) with some permits received
West Coast LNG Projects
Permitting Onshore vs. Offshore Different Federal Laws

- **Onshore**
  - FERC
  - Exclusive jurisdiction
  - Limited state decision making
  - Land lease decisions by port/city

- **Offshore**
  - MARAD / USCG
  - Joint jurisdiction
  - Gov decision at end
  - Land lease decisions by state
State Role in LNG Permitting

- State and federal agencies coordinate via LNG Working Group
- Governor can veto offshore terminals
- Environmental Document (EIR) prepared pursuant to CA Environmental Quality Act
  - State Lands Commission is state lead agency for offshore terminals
  - Port of Long Beach is state lead agency for onshore terminal
Governor’s Decision on Offshore Projects

- Federal law allows Governor to:
  - Approve, approve with conditions, veto, or take no action; applies to offshore projects only
- CEC will provide information to Governor to support his decision
- Governor’s decision independent of agency permitting decisions
- CEC working with MARAD to ensure coordination
- Decision on BHP expected mid 2006
## Decision Coordination

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<td><strong>FEDERAL PROCESS</strong></td>
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<td><strong>GOVERNOR’S DECISION</strong></td>
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<tr>
<td>Governor’s Decision</td>
<td>Approve, Approve With Conditions, Deny, or No Action (presumed approved)</td>
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<td>California State Lands Commission (CSLC)</td>
<td>Certify Final EIR</td>
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<td>Local Government</td>
<td>CDP for shore crossing/onshore pipeline within coastal zone not retained by CCC</td>
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Timeline for Governor’s Review (Offshore Projects)
LNG Interagency Working Group

• **22 federal, state, local agencies**
  – State: CARB, CCC, CEC, CPUC, CSLC, CDF&G, CDF&G/OSPR, OES, DGS, BCDC, Ca Coastal Conservancy, EOB, OPR
  – Local: PoLB, PoHB, County of Ventura, City of Oxnard

• **Meets monthly**
  – Project Updates, Presentations from diverse stakeholders

• **Provide common information to all agencies**
LNG Issues – CEII and SSI

• Critical Energy Infrastructure Information (CEII) and Sensitive Security Information (SSI) not contained in public documents
• State needs CEII/SSI info to assess public safety impacts
• 2005 Energy Act requires FERC to consult with Governor on public safety issues
• FERC/CA have agreed on terms of access to CEII
• Single “umbrella” non-disclosure agreement with FERC to cover state agencies; 67 names in agreement
• Additional agreements required with USCG for access to SSI
LNG Issues – Natural Gas Quality

- Quality measured in terms of Btu content, Wobbe index
- Quality of LNG can differ among foreign sources and can differ from CA standards
  - FERC sets interstate pipeline gas quality standards
  - CPUC sets retail sales gas quality standards
  - ARB sets CNG vehicle gas quality standards
- If gas is “too hot,” it can harm appliances, increase air emissions
Natural Gas Quality (cont.)

• Ongoing efforts to resolve issue
  – SoCalGas joint research study on emissions
  – Natural Gas Working Group
  – ARB reconsidering standard
  – CPUC currently reviewing the issue

• Looking for LNG Developer Commitment
  – LNG gas conditioning at import terminal
  – LNG gas conditioning at export terminal
  – Delivery of LNG from compatible gas field
LNG Issues – Greenhouse Gas (GHG) Emissions

• CPUC has Issued GHG Decision
  – Emission reductions to be set at future date
  – Currently applies to electricity utilities
  – Targets emissions from natural-gas power plants
  – Rulemaking silent on LNG terminals

• GHGs from LNG terminals, tankers, tug
  – Agencies promoting natural gas use rather than diesel

• GHG may be significant issue at some gas fields
  – High levels of CO₂ when gas is extracted
LNG Issues – Other

• International Trade
  – Need Clarity/Symmetry/Certainty in Trade Policies
    • NAFTA addressed US trades in natural gas with Canada, not trades in natural gas with Mexico
  – Actions Underway
    • CEC to discuss with Mexican colleagues
    • Initiating discussions with US DOE

• Open/managed Access
2006 LNG Work Plan

• Areas of Focus
  – Global market issues (trade, supply sources, NG quality)
  – Offshore access issues
  – Mexican import issues
  – Governor’s decision package for Cabrillo Port
  – LNG effects of current supply sources & prices
  – Public information opportunities
  – Technical research
  – Legislation review
  – Litigation review