West Coast -- Cabrillo Port: Cracking the California Code

Platt’s 5th Annual LNG Conference
Houston, Texas
May 2006
BHP Billiton is the World’s largest diversified resources company

- Petroleum: 19%
- Aluminium: 10%
- Base Metals: 23%
- Carbon Steel Materials: 30%
- Diamonds & Spec Prod: 4%
- Energy Coal: 6%
- Stainless Steel Materials: 8%
Cabrillo Port: Cracking the Code in California

- Does California need LNG regasification capacity?
- How many terminals will be necessary for the West Coast of North America?
- Why is Pacific Basin LNG supply so tight?
- Is BHP Billiton best placed to provide gas to California?
- Can we successfully manage the permitting process for regas facility offshore California?
Cabrillo Port: Cracking the Code in California

• Does California need LNG regasification capacity?
Projected U.S. Natural Gas Supply and Demand

Source: Energy Information Administration Annual Energy Outlook 2006

<table>
<thead>
<tr>
<th>Supply Source</th>
<th>Avg. Annual Change (2006 to 2020)</th>
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</thead>
<tbody>
<tr>
<td>Domestic Production</td>
<td>1.2%</td>
</tr>
<tr>
<td>Pipeline Imports</td>
<td>(4.7%)</td>
</tr>
<tr>
<td>LNG Imports</td>
<td>10.0%</td>
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</tbody>
</table>

Natural Gas Net Imports (2003, 2030)

High Demand Case

Consumption

Production

LNG Pipeline

Net Natural Gas Imports (2003, 2030)
California’s Energy Policy relies on Natural gas

1. Demand Management
2. Renewables
3. Natural Gas

California Energy Commission’s latest Natural Gas Assessment cites the future need for additional supplies of natural gas for Californians.

Western US Pipeline Situation

West Coast LNG Will Likely Displace Gas from Historical Sources

Proposed Rockies Express

Proposed Continental Connector
Cabrillo Port: Cracking the Code in California

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- How many terminals will be necessary for the West Coast of North America?
Regional LNG Projects

- BHP Billiton: Draft EIR March 2006
- Mitsubishi/CoP: Draft EIR Sept 2005
- Chevron: Fed Environmental Permit Obtained
- TAMMSA: Fed Environmental Permit Obtained
- Shell-Sempra: Mexican Permits Received, Site development has commenced Online 2008/2009
Baja California
Is Gas From Baja LNG Imports the Answer for California?
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LNG Supply Capacity vs. Receiving Terminal Capacity
Existing/Under Construction + Proposed + Potential

Pacific Basin LNG
Supply Capacity vs. Market Demand Forecast

California gas markets will be competing with Asian Markets for LNG Supply

China’s LNG Terminals
Existing + Proposed

Source: CERA, from ABN-AMRO, “Fuel Economy” January 2006

Office of Energy Projects
Cabrillo Port: Cracking the Code in California

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Cabrillo Port
Floating Storage & Regasification Unit (FSRU)

Proven Technologies:
- Single Point Mooring
- Side by side LNG transfer
- Moss spherical LNG storage tanks
- Submerged Combustion Vaporization (SCV) technology regasification
Scarborough – A Credible Development Option

Scarborough 8 TCF

Jansz Io

Macedon 0.7 TCF

WA-346-P

WA-1-R

280 km

ONslow

LOCATIONS MAP
Cabrillo Port: Cracking the Code in California

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Completing permitting requires multi-level approach with key stakeholders

- **Federal** – (Secretary of Energy, Dept of Energy, USCG)
- **State** – (legislators and key stakeholders)
- **Agencies** – (CSLC, USCG, CARB, EPA Region 9, CEC, South Coast and Ventura County Air Districts)
- **Local** – (Chambers of commerce, local businesses/industry, city councils, environmental groups)
Progress and Key Events – Cabrillo Port Permitting

- Application submitted September 2003
- Draft EIS/EIR issued and public comments period (Nov 04)
- Data request by CSLC and regulatory clock stopped (Jan 05)
- Draft EIR issued and public comments period (Mar 06)
- Draft air and water permits issued by EPA and public comment period (May 06)
- Final EIS/EIR and vote of Calif. State Lands Commission
- Federal Deepwater Port Permit and State Land Lease Issued
Cabrillo Port is the right project, in the right place, at the right time

- The West Coast US needs an LNG terminal this decade
- Many project concepts exist, but few have advanced to permitting and supply is tight
- BHP Billiton has one of the few supply sources that can provide gas to the West Coast in the 2010-11 timeframe
Thank You

Supplying California with Safe, Clean, Reliable Natural Gas