Overview

- Any comprehensive U.S. energy solution will require innovative thinking.
- LNG should be an integral part of any U.S. energy solution.
- Floating LNG terminals offer many unique advantages.
- To promote growth of LNG, terminals need to be unregulated:
  - Floating terminals test current regulations.
  - Regulatory environment may discourage investment in floating technology.
  - El Paso recommendations.
- El Paso plans to aggressively expand LNG capacity.
### Some FERC Legal Issues to be Resolved

<table>
<thead>
<tr>
<th>Potential Jurisdiction</th>
<th>Applicability to Floating Platforms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outer Continental Shelf Lands Act (OCSLA)</td>
<td>Must be determined if CSLA extends jurisdiction over &quot;artificial islands, and all installations and other devices permanently or temporarily attached to the seabed&quot; that are not specifically for exploring, developing, or producing (no current precedent). Must be determined whether terminal and regasification facilities are deemed to be used &quot;for pipeline purposes.&quot;</td>
</tr>
<tr>
<td>Section 3 of Natural Gas Act/Energy Policy Act of 1992</td>
<td>Must be determined if LNG is imported from a country with whom the U.S. has a free trade agreement and whether LNG imports are &quot;first sales,&quot; which fall outside of Section 3 jurisdiction.</td>
</tr>
<tr>
<td>Section 7 of Natural Gas Act</td>
<td>Must be determined if gas is involved in &quot;interstate commerce.&quot; Must be determined if terminal and regasification facilities are deemed for transportation or &quot;the production or gathering of natural gas&quot; and whether are outside of territorial jurisdiction.</td>
</tr>
</tbody>
</table>

Obtained and made public by the Natural Resources Defense Council, March/April 2002
<table>
<thead>
<tr>
<th>Potential Regulations</th>
<th>Effect on Feasibility of Floating Platforms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Access</td>
<td>Intensifies the difficulty of coordinating shipping among multiple players</td>
</tr>
<tr>
<td></td>
<td>- Number of ships required may change if terminal is moved</td>
</tr>
<tr>
<td></td>
<td>- Voyage times and intervals may change</td>
</tr>
<tr>
<td>Certificate of Public Convenience and Necessity</td>
<td>Provides disincentive to &quot;prove&quot; technology</td>
</tr>
<tr>
<td></td>
<td>Limits floating terminals’ unique ability to solve unsuspected problems</td>
</tr>
<tr>
<td></td>
<td>- Unusual weather</td>
</tr>
<tr>
<td></td>
<td>- Market disruption</td>
</tr>
<tr>
<td></td>
<td>- Supply/demand imbalance</td>
</tr>
</tbody>
</table>

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Overview

Any comprehensive U.S. energy solution will require innovative thinking.

LNG should be an integral part of any U.S. energy solution.

Floating LNG terminals offer many unique advantages.

To promote growth of LNG, terminals need to be unregulated.

El Paso plans to aggressively expand LNG capacity.

- El Paso is capable solution provider.
- Several attractive markets have been identified.
El Paso is Capable Solution Provider

- El Paso is a major international energy infrastructure company
  - Active in 36 countries
  - Enterprise value over $50 billion
  - Production
  - Processing
  - Transmission
  - LNG imports
  - Storage
  - Wholesale marketing
  - Merchant power

- Emphasis on U.S., Canada, Mexico, Brazil, Argentina, Korea, and Southeast Asia
- Expanding European business to concentrate on gas and power trading, LNG, and selected power generation
El Paso Has Identified Several Attractive LNG Markets

Characteristics of attractive markets for LNG:
- Large or fast-growing
- Lie at end of existing pipeline infrastructure
- Requires expensive pipeline expansions for new supply

Obtained and made public by the Natural Resources Defense Council, March/April 2002
Gas Shortage in California May Get Worse

Daily Demand Ecf

Demand

Storage capacity

Average existing capacity

Natural gas shortage likely to intensify this year

Storage will be unable to "supply" the market

Source: EIA, SoCal Gas, CERA, McKinsey & Company analysis

Obtained and made public by the Natural Resources Defense Council, March/April 2002
Southeast Capacity Constraints are Chronic by 2005

Source: Lukens Consulting Group

Obtained and made public by the Natural Resources Defense Council, March/April 2002
Capacity Constraints Currently Expected in Northeast

"New York reached $36.00 per MMbtu by second day of cold spell, and New England saw prices as high as $20.00."

--CERA, December 15, 2000

"The Northeast Region has several local areas where deliverability problems could increase."

--EIA, October 2000

"In Boston, Massachusetts area, where pipeline capacity is already heavily utilized . . . demand is expected to grow rapidly over next several years."

--EIA, October 2000

"CERA is revising its estimated basis into New York to $2.25 on average for December and January."

--CERA, December 15, 2000
Southern and Baja California: Current Issues

Sempra cannot provide "firm" gas to Mexico
- Unable to provide true firm gas supplies: Non-Core Firm Service
- Rosarito plant gas supply cut several times between November 2000 and February 2001
- CFE concerned with security of supply and is considering re-bid of Rosarito supply

Proposed North Baja Pipeline (NBPL)
- Expression of interest was roughly 2 times the 400 MMcf/d pipeline capacity
- May be possible to send 400 MMcf/d from EPNG and up to 400 MMcf/d from the proposed LNG regas terminal to meet demand

FERV has expressed concerns regarding EPNG's ability to divert supply to Mexico and still supply California
Southern and Baja California: Current Issues

Otay Mesa Generating Company (OMGC) proposed 510 MW power plant
- Duke's Intervenor plant in Encina may suffer increased curtailments if OMGC plant is supplied
- Gas supply from an LNG terminal into the TGN pipeline will free up SDG&E capacity to serve its native load, alleviating this problem
<table>
<thead>
<tr>
<th>Project</th>
<th>Company</th>
<th>MW</th>
<th>MMBtu</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rosarito</td>
<td>CFE</td>
<td>550</td>
<td>90,000</td>
<td>Sempra current supplier</td>
</tr>
<tr>
<td>Rosarito</td>
<td>CFE</td>
<td>320</td>
<td>Fuel oil</td>
<td>Could be converted</td>
</tr>
<tr>
<td>La Jovita</td>
<td>AES</td>
<td>600</td>
<td>90,000</td>
<td>CFE Bid Awarded</td>
</tr>
<tr>
<td>City of Rosarito</td>
<td>AES</td>
<td>500</td>
<td>85,000</td>
<td>Proposed</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>40,000</td>
<td>Sempra current supplier</td>
</tr>
</tbody>
</table>

Total: 305,000
### Incremental Southern California Loads

South of Los Angeles

<table>
<thead>
<tr>
<th>Project</th>
<th>Company</th>
<th>MW</th>
<th>Regulatory Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Desert</td>
<td>Constellation</td>
<td>350</td>
<td>Approved</td>
</tr>
<tr>
<td>Nueva Azalea</td>
<td>Sunlaw Partners</td>
<td>800</td>
<td>Pending</td>
</tr>
<tr>
<td>Otay Mesa</td>
<td>PG&amp;E Generation</td>
<td>510</td>
<td>Pending</td>
</tr>
<tr>
<td>Blythe</td>
<td>Summit Energy</td>
<td>520</td>
<td>Pending</td>
</tr>
<tr>
<td>Mountain View</td>
<td>Thermo Ecotek</td>
<td>1,034</td>
<td>Pending</td>
</tr>
<tr>
<td>Teayawa</td>
<td>Calpine</td>
<td>600</td>
<td>Pending</td>
</tr>
<tr>
<td>Long Beach</td>
<td></td>
<td>500</td>
<td>Not filed</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>4,314</strong></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>800–900,000 MMBtu/d required</td>
</tr>
</tbody>
</table>
Potential Natural Gas Customers

- California
- SoCal
- SoCal Border (Blythe)
- EPNG
- Imperial Valley
- Otay Mesa
- Tijuana
- Otay Mesa Gen Co - 510 MW
- Tijuana Industrial Customers
- Calexico
- Mexican LDC (Sempra)
- InterGen IPP - 550 MW
- Rosarito
- CFE (Pres. Juarez) - 620 MW
- Conversion from Heavy Fuel Oil
- La Jovita
- AES Option Site
- Baja California

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LNG Regasification Terminal: Potential Gas Flows

North to SDG&E's System, Tijuana customers, and the Southern California Market
200 MMcf/d to 300 MMcf/d

East along NBPL to Mexicali LDC and Intergen
200 MMcf/d to 400 MMcf/d

Locally in Rosarito for CFE plant conversions and new facility construction/expansion
100 MMcf/d to 200 MMcf/d

Total market in excess of regasification terminal capacity is 500 MMcf/d

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To Improve Reliability and Lower Prices in California

- New supply must enter the state
- Additional infrastructure is required north and east of the state
- Primary constraints are intrastate infrastructure; this must be alleviated
- Adding supply and infrastructure west and south of the state “beefs up” existing infrastructure

LNG provides the right mix of attributes necessary to dramatically improve gas deliverability and reduce price volatility in California