Offshore LNG Receiving Terminals

…the New Frontier

Richard A. Lammons
ChevronTexaco

AAPL OCS Workshop
January 22, 2004
“Our company’s large worldwide natural gas resource base and strong position in North America provides us with a unique opportunity to create and grow an integrated global gas business…

The eventual scope of our global gas business will encompass the full gas value chain…

In the Atlantic Basin [we] will pursue LNG initiatives looking to develop multi-supply and multi-market access positioning, with the initial focus in North America and Western Africa.”

Dave O’Reilly    Chairman    ChevronTexaco
ChevronTexaco Global Gas – A Natural Gas Value Chain

Multi-billion Dollar Investments Are Required to Develop and Construct a Value Chain to deliver LNG to US Markets

Securing enough firm terminal capacity at the market end of the LNG value chain has historically been a problem in approving investment in new gas supply projects.
Port Pelican…First to open the New Frontier for safe, large scale US LNG import terminals

- Expandable LNG Facility
- Accesses existing gas pipelines, revitalizing infrastructure in line with National Energy Strategy
- Connected to ChevronTexaco owned ‘Henry Hub’ to market gas through major US gas distribution networks
North American LNG Receiving Terminals: Existing

Currently only four active US LNG terminals

Historically, LNG Small Contributor

Annual New Production

Pre-1990

EIA

Post-2000 Forecast

Imports

Demand

Supply

Opportunity

US Gas Production is in steep decline

Historically, LNG Small Contributor

Annual New Production

Pre-1990

EIA

Post-2000 Forecast

Imports

Demand

Supply

Opportunity

US Gas Production is in steep decline

Currently only four active US LNG terminals

AAPL OCS Workshop
January 22, 2004
New Terminal Proposals

The Need for Increased Capacity is Undeniable

Port Pelican will be the first licensed US offshore terminal

It is yet to be seen how the approval process progresses

Proposals include offshore and onshore terminals

The Need for Increased Capacity is Undeniable

Port Pelican will be the first licensed US offshore terminal

It is yet to be seen how the approval process progresses

Proposals include offshore and onshore terminals

existing terminals

Port Pelican

proposed locations

The Need for Increased Capacity is Undeniable

Port Pelican will be the first licensed US offshore terminal

It is yet to be seen how the approval process progresses

Proposals include offshore and onshore terminals

existing terminals

Port Pelican

proposed locations
Proposals are growing...

Most proposals face significant hurdles to their development.
Port Site Selection Criteria

- **Optimal Marine Operability**
  - Direct approach, departure & emergency exit corridors
  - Water depth to accommodate super large LNG carriers
  - Adequate anchorage area
  - Minimal congestion
  - Avoids seabed hazards
  - Acceptable year-round metocean conditions

- **Minimal Environmental Impact**
  - Avoid geotechnical hazards
  - Evaluate impacts to physical & human environment
  - Access existing pipeline infrastructure

- **Market Access & Commercial Viability**
  - Access existing pipeline infrastructure
  - Maximize LNG offloading capacity
  - Optimized project costs
Gravity Based Structure
Selected design for Port Pelican

- LNG Berthing & Unloading-Large ships
- LNG Storage
- LNG Re-gasification Facilities
- Gas Metering and Pipeline
- Emergency Flare System
- Control Center
- Power Generation
- Potable Water/Sanitary Systems
- Fire and Leak Detection System
- Emergency Evacuation Systems
- Helicopter Facilities
- Crew Quarters
Deepwater Port License
Port Pelican’s Progress

November 1, 2002:
Business Entities Formed
- Port Pelican LLC
- Pelican Marketing & Trading LLC
  (100% ChevronTexaco companies)

November 25, 2002: Port Pelican Permit Application Submitted
- First U.S. LNG Offshore Terminal submitted to USCG under DWPA, including managed access
- Demonstrates ChevronTexaco’s commitment to expand the U.S. LNG business
- US Coast Guard managed Port Pelican’s Regulatory Process

November 14, 2003
- Maritime Administration (MARAD) issues Record of Decision to grant a License with conditions to Port Pelican LLC
  - License Issued January 21, 2004
Managed Access - Pelican Marketing & Trading controls 1.6 BCFD capacity under the revised Deep Water Port Act

Developed Infrastructure – Connects to Henry Hub through ChevronTexaco’s gas pipeline infrastructure

Location – Prime Gulf of Mexico location for shipping access & security of pipeline off-take

Value Chain Linkage - Enable upstream projects to deliver LNG supply to the US gas market

Timing – Aligned to LNG supply

Environmental Stewardship – Significantly reduced fuel & emissions compared to onshore terminals

Credibility – First to submit Deep Water Port application for natural gas and the continued Corporate support
Commentary

The US needs imported natural gas to meet future demand

Locating an LNG receiving terminal offshore is an ideal way to address near-shore terminal concerns

- Permitting
- Public Perception
- Availability of appropriate sites
- NIMBY
- Post 9/11 security concerns

The LNG industry has an enviable safety record with no major incidents involving LNG tankers, however, we have an opportunity to continue pro-active education in the US especially with the recent Algeria incident.

Just as GBS oil platforms in the North Sea opened new frontiers for E&P activities in the 1970’s, offshore LNG terminals will open new opportunities for global E&P activities to economically supply gas to US Markets using super large LNG carriers
Market Pull for Upstream Success

**Port Pelican**
- **Credibility**
- First to license

**Henry Hub**
- Liquidity & connectivity

**Existing Infrastructure**
- Delivery to US gas markets

**Location**
- Security & access

**Environmental Stewardship**
- Significantly reduced fuel & emissions

**Pelican Marketing & Trading LLC**
- Managed Access
  - 1.6 BCFD capacity

*a ChevronTexaco Company*

**ChevronTexaco**

AAPL OCS Workshop
January 22, 2004
Port Pelican…the New Frontier

Thank you