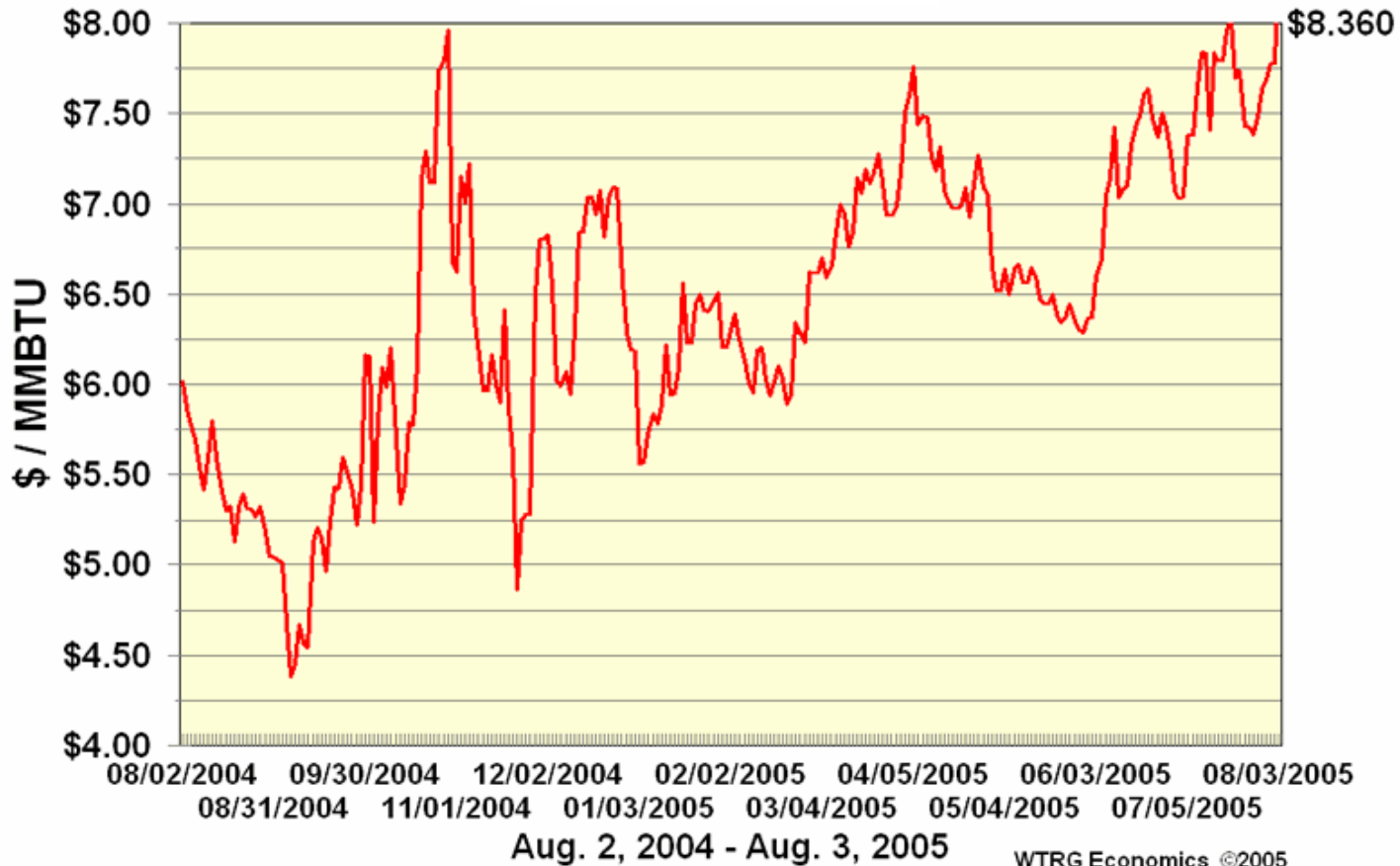


Henry Hub Natural Gas Spot Price



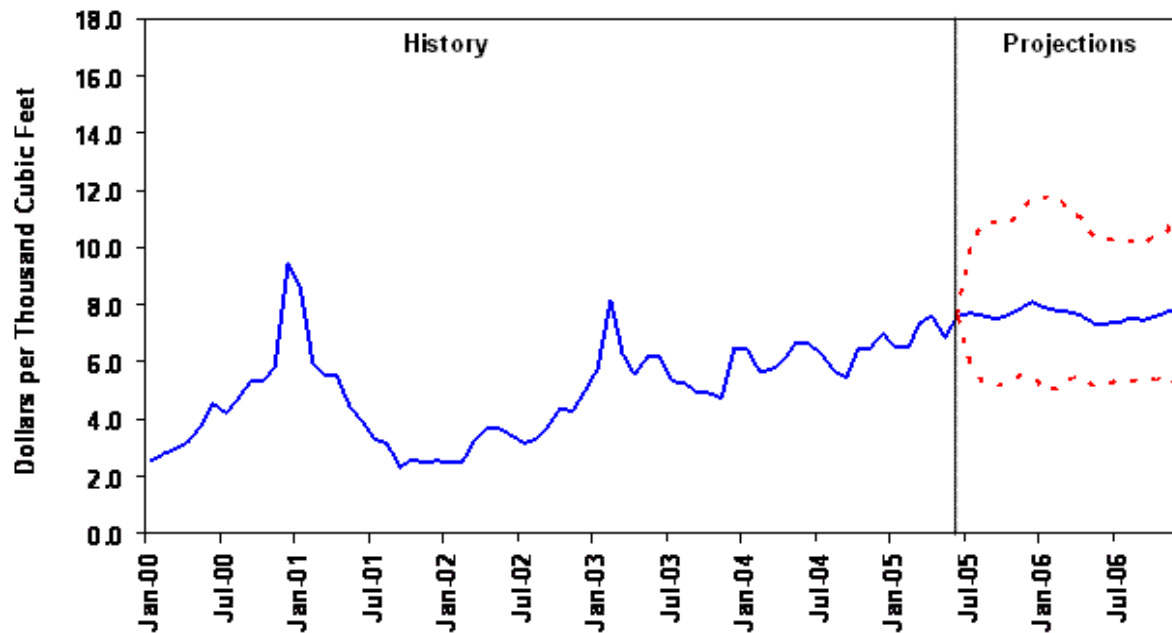
Source: WTRG Economics, 2005

— Close

WTRG Economics ©2005
www.wtrg.com
(479) 293-4081

Natural Gas Price Trend Will Continue

**Figure 9. U.S. Natural Gas Spot Prices
(Base Case and 95% Confidence Interval*)**



*The confidence intervals show ± 2 standard errors based on the properties of the model. The ranges do not include the effects of major supply disruptions.

Source: EIA, Short-Term Energy Outlook 2005

Natural Gas Prices

➤ Cambridge Energy Research Associates (CERA) July 2004 Study

- Industry in crisis until LNG import terminals come online – earliest 2007
- Forecasts, assuming normal weather patterns:
 - 2003: \$5.47
 - 2004: \$5.83
 - 2005: ~~\$6.02~~ — \$7.00? \$8.00? \$9.00? \$10.00?
 - 2006: \$6.40
 - 2007: \$6.62
- Severe weather could further spike prices

Solution for Meeting Energy Demand

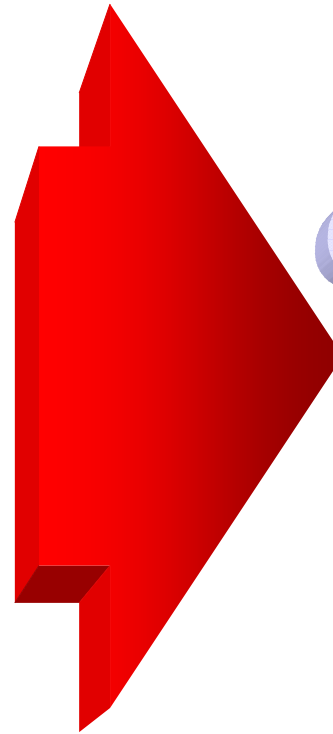
Nuclear

Natural Gas

Coal

Hydropower

Efficiency/Conservation



**Sufficient
Energy
Supplies**

Natural Gas – Just Use It!



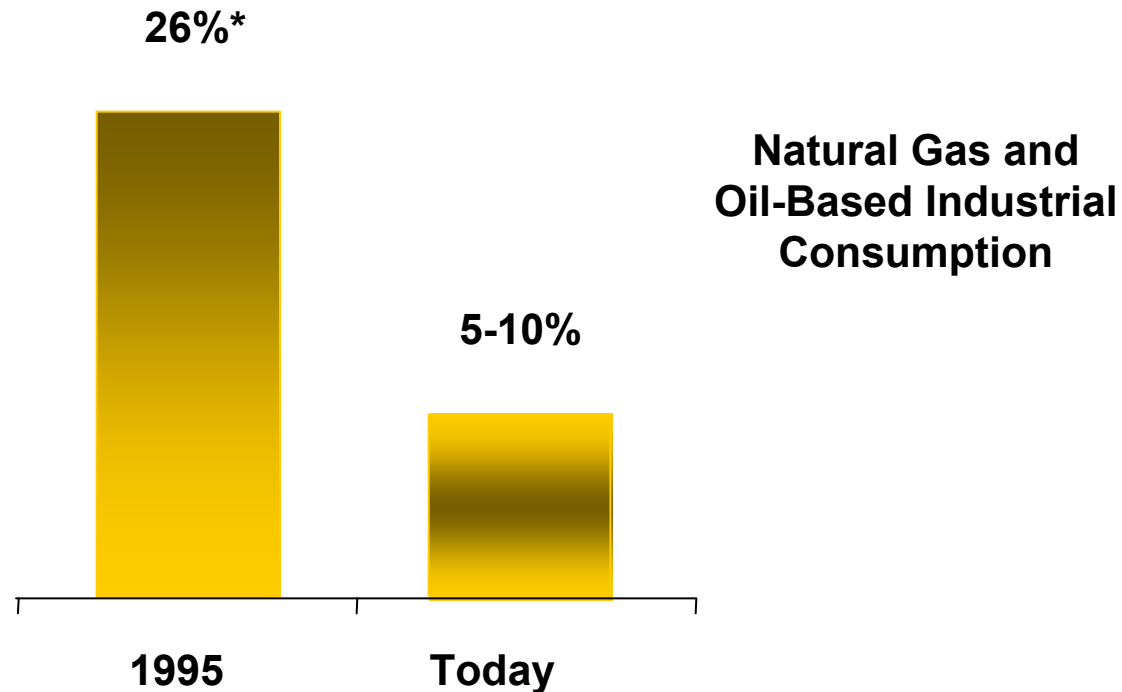
Policies that promote use of natural gas

Policies that limit use of other fuels, such as coal, nuclear, hydropower

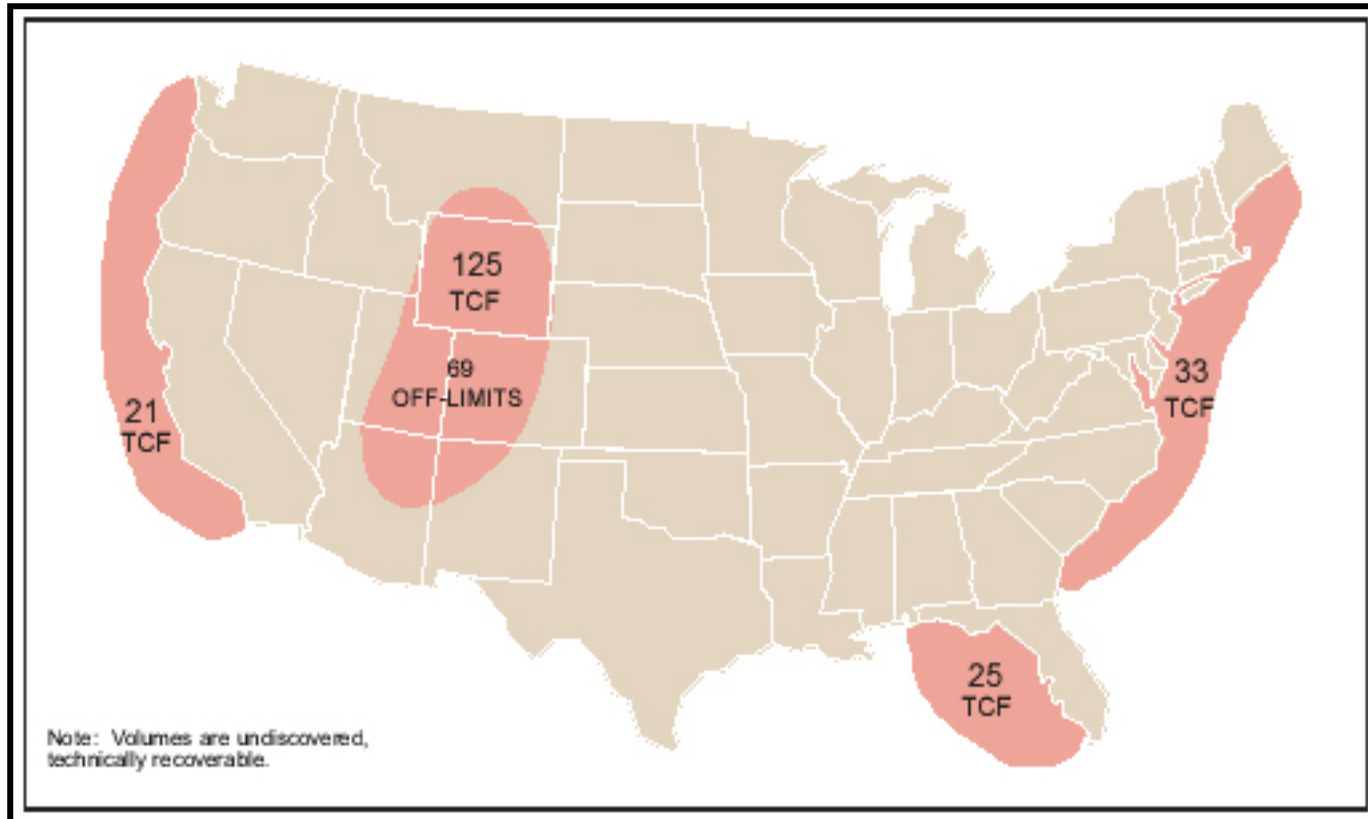
Policies that inhibit domestic exploration and development of natural gas resources

Fuel Substitution Capability

- Public information presents optimistic view on fuel switching capability
- Fuel switching inhibited by local siting restrictions and State/Federal air standards, *multiple examples cited by range of industries*



Resource Restrictions



Source: National Petroleum Council

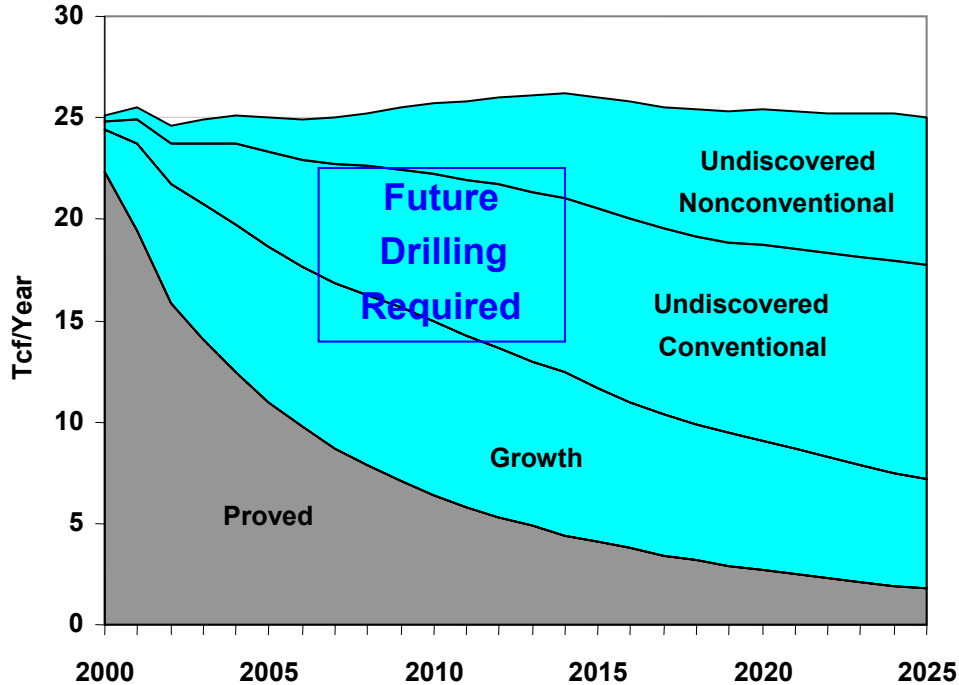
Camel's Nose Under the Tent



Senator Bill Nelson (D-FL), one of the more outspoken opponents of the OCS inventory provision, said “[w]hat [this inventory provision] is is the first step to drilling. It is the proverbial camel’s nose under the tent. Once he gets his nose under the tent, the tent, is going to collapse, and there is going to be drilling all off the coast of Florida, all off the eastern seaboard and all off the western Pacific coastline.”



Production by Resource Category



Running Faster to Stay Even

- Proved reserves from existing wells declining at 25-30% per year
- New wells required to develop non-proved resource
- All segments critical to outlook

Source: National Petroleum Council

Supply Elements of the Solution for Meeting Natural Gas Demand

**Domestic Onshore
Supplies**

Arctic Gas

Canadian Gas

OCS

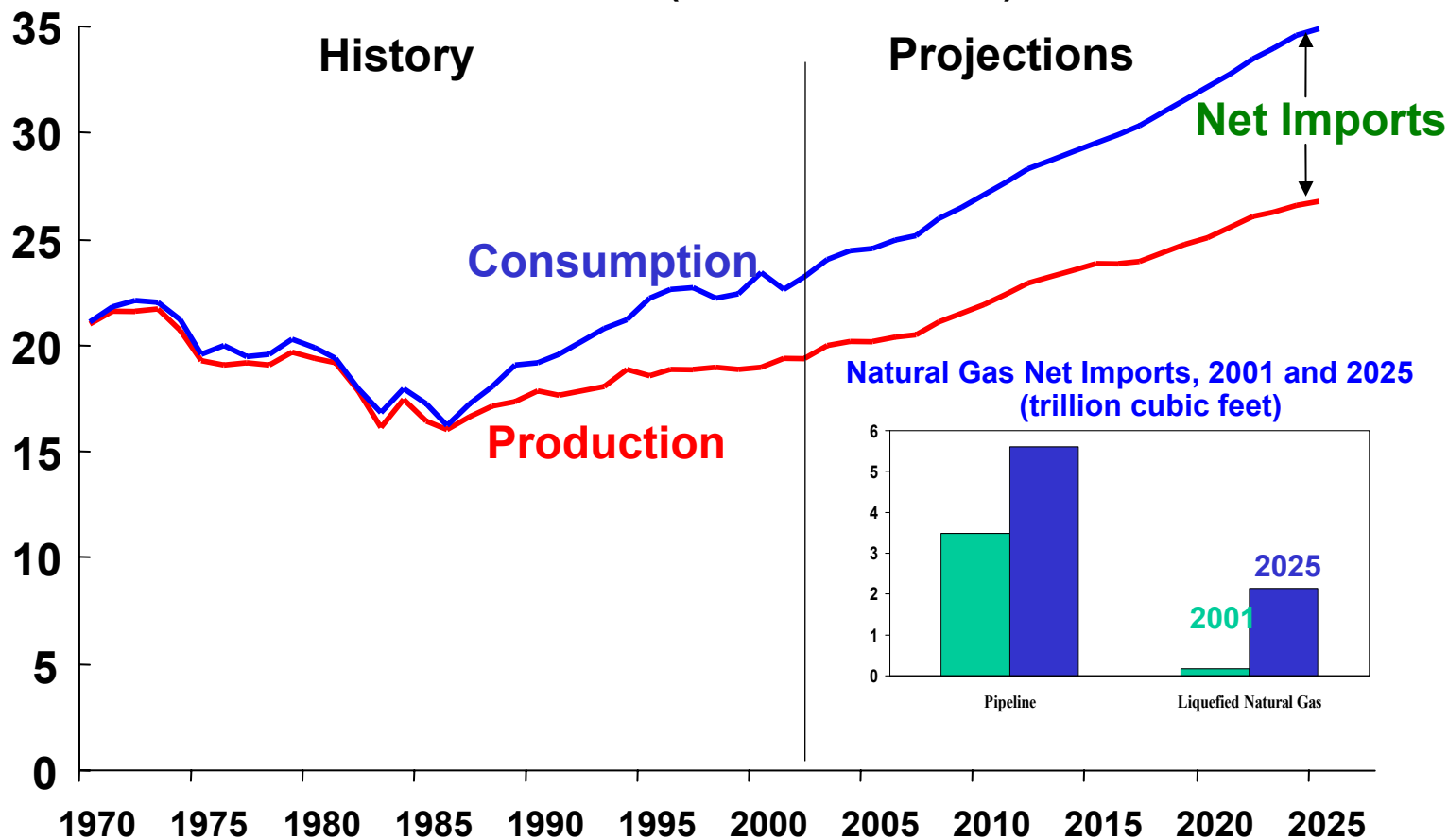
LNG



**Competitive
Natural Gas
Prices**

U.S. Natural Gas Consumption Outpacing Production

Natural Gas Production, Consumption and Imports
 1970-2025 (trillion cubic feet)



Source: Energy Information Administration





“Today’s tight natural gas markets have been a long time in coming, and distant futures prices suggest we are not apt to return to earlier periods of relative abundance and low prices anytime soon.”

“As the technology of LNG liquefaction and shipping has improved, and as safety considerations have lessened, a major expansion of U.S. import capability appears to be under way. These movements bode well for widespread natural gas availability in North America in the years ahead.”

- Alan Greenspan

The LNG Industry is Hot

“This is an exciting time for the LNG industry. We are in the midst of a monumental economic transition from isolated markets scattered around the globe to a worldwide natural gas market.... That worldwide market, giving American consumers access to natural gas reserves all over the globe, will go a long way toward helping to secure our nation’s energy position.”

- Secretary of Energy Samuel Bodman
World Energy, Vol. 8 No. 2 (2005).



LNG: Poised To Fill The Gap

Average Cost Per Unit of Gas for Each Element of LNG Supply Chain

Exploration & Production	\$0.50 to \$1.25/MMBtu
Liquefaction	\$0.80 to \$1.20/MMBtu
Shipping	\$0.40 to \$1.00/MMBtu
Storage & Regasification	\$0.30 to \$0.50/MMBtu
Total	\$2.00 to \$3.95/MMBtu

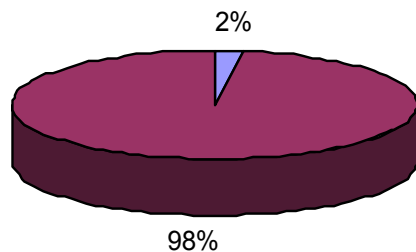
Source: Institute for Energy, Law and Enterprise, University of Houston, 2005

- **Spending on LNG infrastructure through 2010 expected to grow annually by 11.3% to 12.1 Tcf/year valued at \$73.6 billion**
- **Current U.S. LNG imports are approximately 2 Bcf/d**
- **Energy Ventures Analysis estimates that by 2010, there may be enough regasification capacity in the U.S. for 19.5 Bcf/d, although actual operation around 13.8 Bcf/d**

LNG Expected to Capture Substantial Market Share

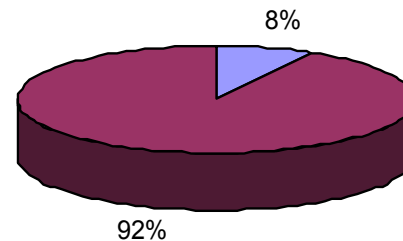
2003

LNG Imports Total U.S. Consumption



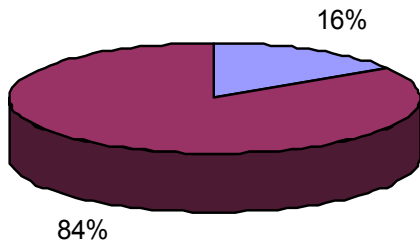
2010

LNG Imports Total U.S. Consumption



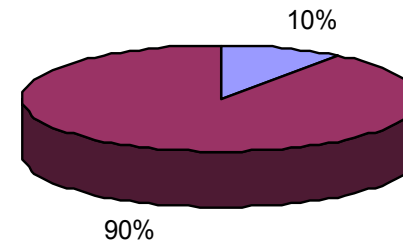
2025, slow technology

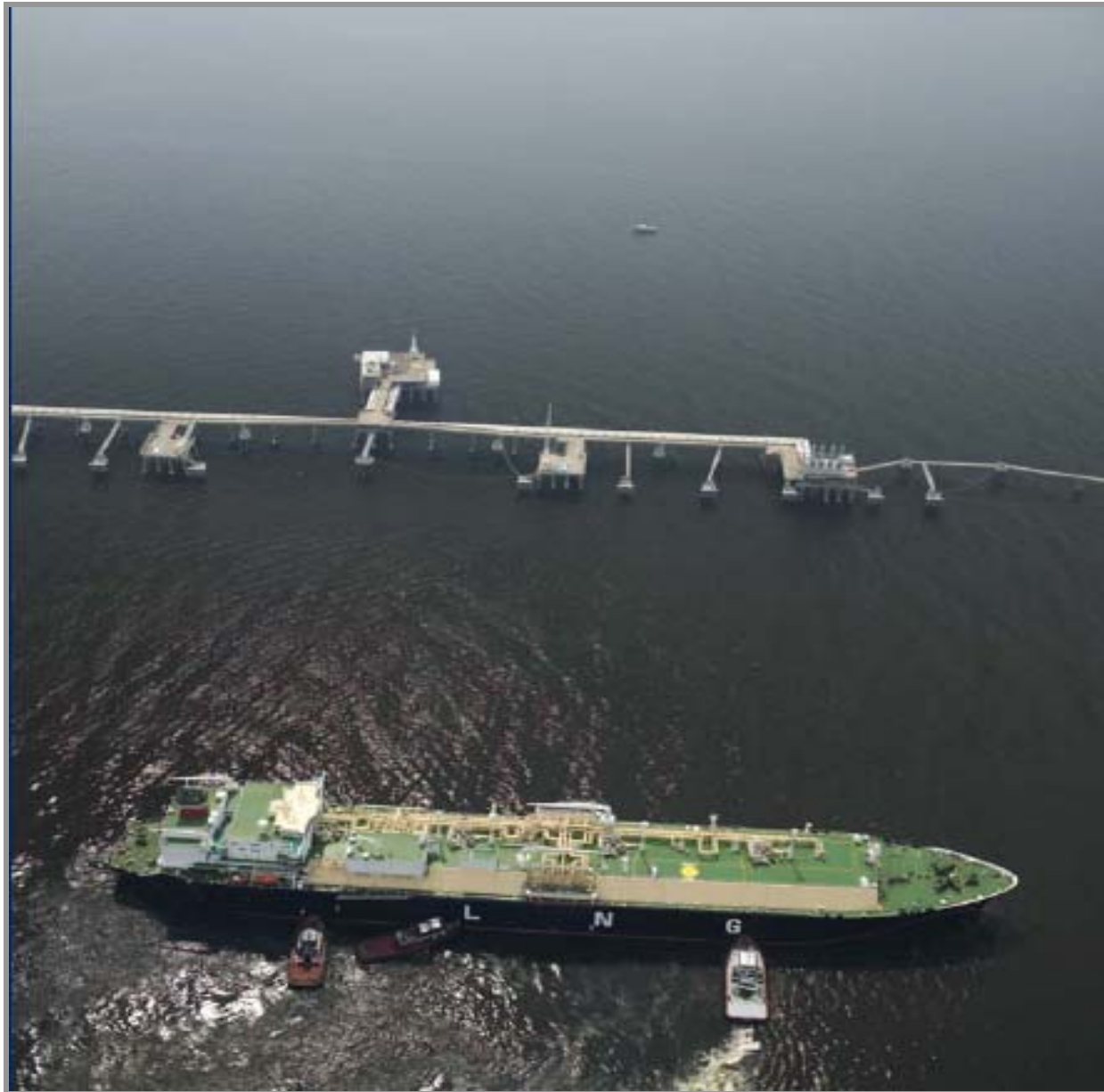
LNG Imports Total U.S. Consumption



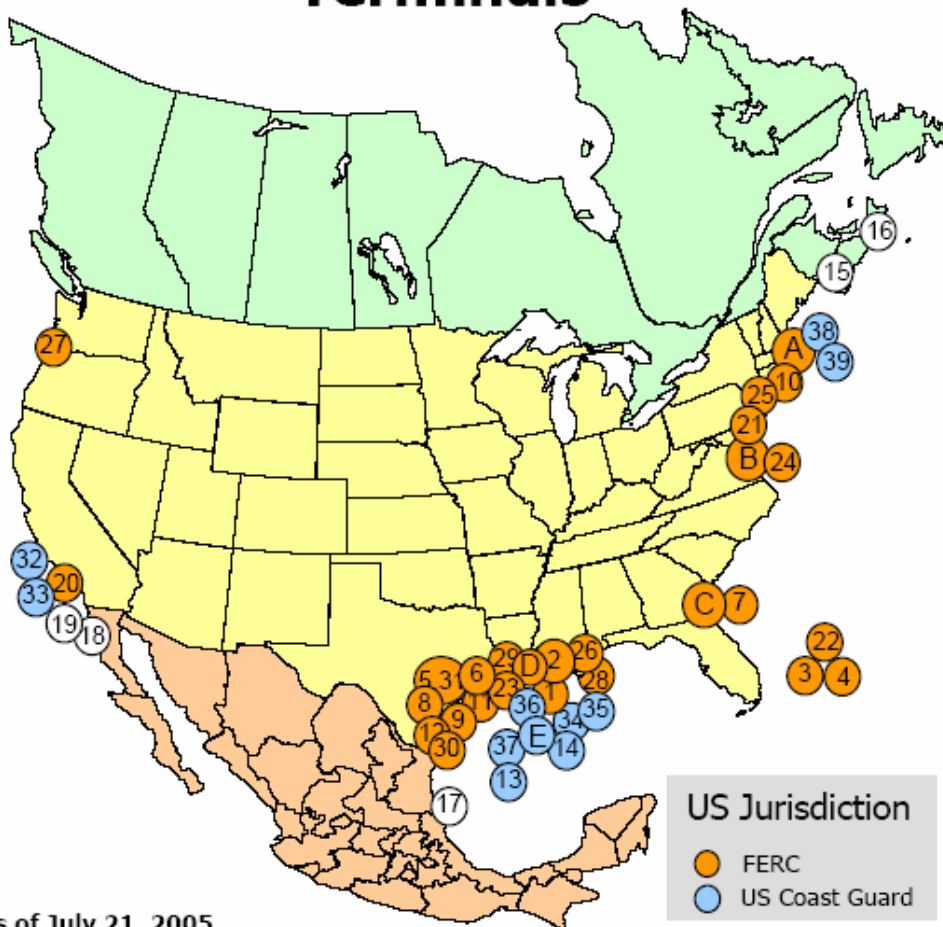
2025, rapid technology

LNG Imports Total U.S. Consumption





Existing and Proposed North American LNG Terminals



As of July 21, 2005

* US pipeline approved; LNG terminal pending in Bahamas

CONSTRUCTED

- A. Everett, MA : 1.035 Bcf/d (Tractebel - DOMAC)
- B. Cove Point, MD : 1.0 Bcf/d (Dominion - Cove Point LNG)
- C. Elba Island, GA : 0.68 Bcf/d (El Paso - Southern LNG)
- D. Lake Charles, LA : 1.0 Bcf/d (Southern Union - Trunkline LNG)
- E. Gulf of Mexico: 0.5 Bcf/d, (Gulf Gateway Energy Bridge - Excelerate Energy)

APPROVED BY FERC

- 1. Lake Charles, LA: 1.1 Bcf/d (Southern Union - Trunkline LNG)
- 2. Hackberry, LA : 1.5 Bcf/d, (Sempra Energy)
- 3. Bahamas : 0.84 Bcf/d, (AES Ocean Express)*
- 4. Bahamas : 0.83 Bcf/d, (Calypso Tractebel)*
- 5. Freeport, TX : 1.5 Bcf/d, (Cheniere/Freeport LNG Dev.)
- 6. Sabine, LA : 2.6 Bcf/d (Cheniere LNG)
- 7. Elba Island, GA: 0.54 Bcf/d (El Paso - Southern LNG)
- 8. Corpus Christi, TX: 2.6 Bcf/d, (Cheniere LNG)
- 9. Corpus Christi, TX : 1.0 Bcf/d (Vista Del Sol - ExxonMobil)
- 10. Fall River, MA : 0.8 Bcf/d, (Weaver's Cove Energy/Hess LNG)
- 11. Sabine, TX : 1.0 Bcf/d (Golden Pass - ExxonMobil)
- 12. Corpus Christi, TX: 1.0 Bcf/d (Ingleside Energy - Occidental Energy Ventures)

APPROVED BY MARAD/COAST GUARD

- 13. Port Pelican: 1.6 Bcf/d, (Chevron Texaco)
- 14. Louisiana Offshore : 1.0 Bcf/d (Gulf Landing - Shell)

CANADIAN APPROVED TERMINALS

- 15. St. John, NB : 1.0 Bcf/d, (Canaport - Irving Oil)
- 16. Point Tupper, NS 1.0 Bcf/d (Bear Head LNG - Anadarko)

MEXICAN APPROVED TERMINALS

- 17. Altamira, Tamulipas : 0.7 Bcf/d, (Shell/Total/Mitsui)
- 18. Baja California, MX : 1.0 Bcf/d, (Sempra)
- 19. Baja California - Offshore : 1.4 Bcf/d, (Chevron Texaco)

PROPOSED TO FERC

- 20. Long Beach, CA : 0.7 Bcf/d, (Mitsubishi/ConocoPhillips - Sound Energy Solutions)
- 21. Logan Township, NJ : 1.2 Bcf/d (Crown Landing LNG - BP)
- 22. Bahamas : 0.5 Bcf/d, (Seafarer - El Paso/FPL)
- 23. Port Arthur, TX: 1.5 Bcf/d (Sempra)
- 24. Cove Point, MD : 0.8 Bcf/d (Dominion)
- 25. LI Sound, NY: 1.0 Bcf/d (Broadwater Energy - TransCanada/Shell)
- 26. Pascagoula, MS: 1.0 Bcf/d (Gulf LNG Energy LLC)
- 27. Bradwood, OR: 1.0 Bcf/d (Northern Star LNG - Northern Star Natural Gas LLC)
- 28. Pascagoula, MS: 1.3 Bcf/d (Casotte Landing - ChevronTexaco)
- 29. Cameron, LA: 3.3 Bcf/d (Creole Trail LNG - Cheniere LNG)
- 30. Port Lavaca, TX: 1.0 Bcf/d (Calhoun LNG - Gulf Coast LNG Partners)
- 31. Freeport, TX: 2.5 Bcf/d, (Cheniere/Freeport LNG Dev. - Expansion)

PROPOSED TO MARAD/COAST GUARD

- 32. California Offshore: 1.5 Bcf/d (Cabrillo Port - BHP Billiton)
- 33. So. California Offshore : 0.5 Bcf/d, (Crystal Energy)
- 34. Louisiana Offshore : 1.0 Bcf/d (Main Pass McMoran Exp.)
- 35. Gulf of Mexico: 1.0 Bcf/d (Compass Port - ConocoPhillips)
- 36. Gulf of Mexico: 2.8 Bcf/d (Pearl Crossing - ExxonMobil)
- 37. Gulf of Mexico: 1.5 Bcf/d (Beacon Port Clean Energy Terminal - ConocoPhillips)
- 38. Offshore Boston, MA: 0.4 Bcf/d (Neptune LNG - Tractebel)
- 39. Offshore Boston, MA: 0.8 Bcf/d (Northeast Gateway - Excelerate Energy)

Source: Federal Energy Regulatory Commission, Office of Energy Projects,
<http://www.ferc.gov/industries/lng/indus-act/exist-prop-lng.pdf>



Domenici-Barton Energy Policy Act of 2005



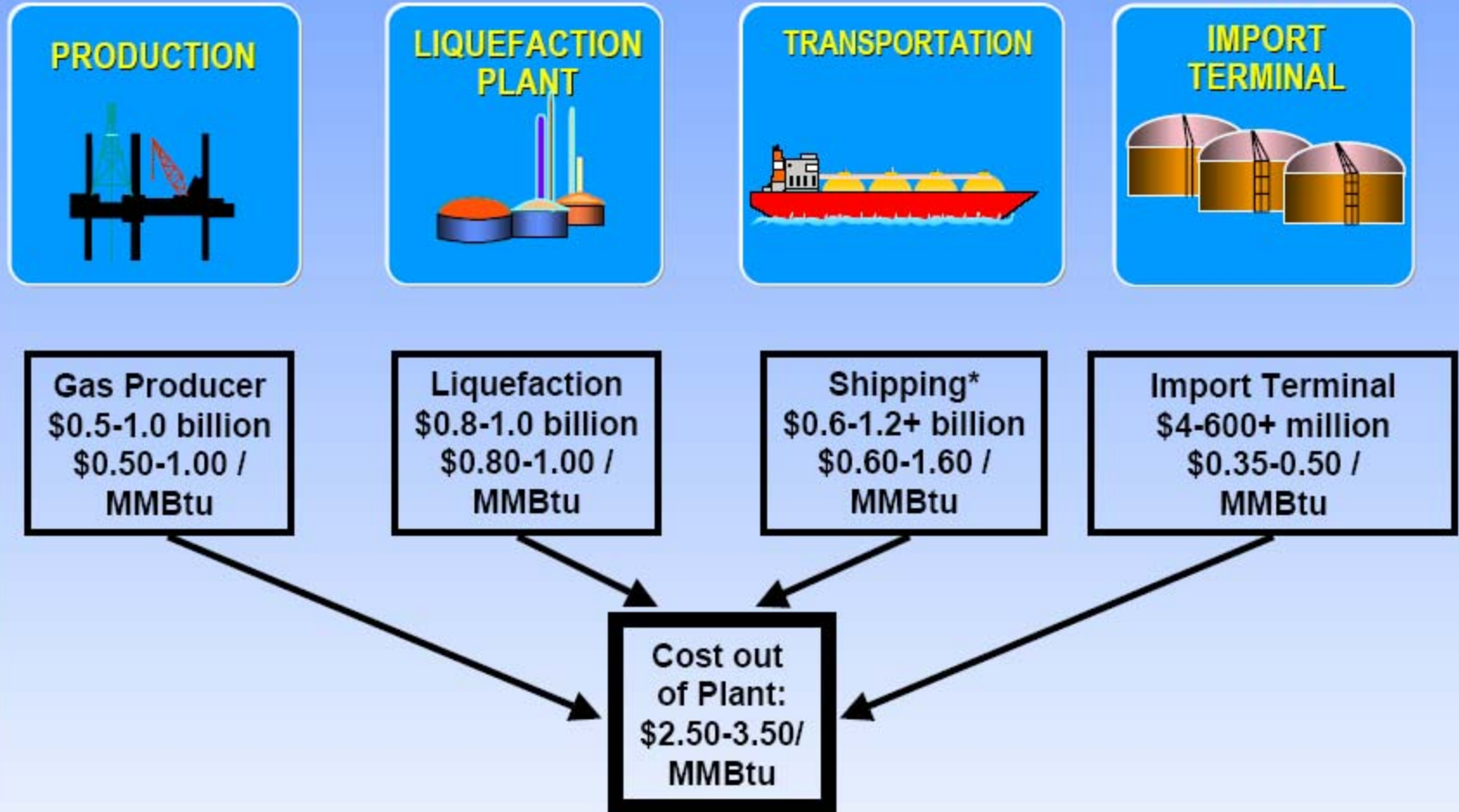
Domenici-Barton Energy Policy Act of 2005



FERC Chairman Joseph Kelliher

- **Significant LNG provisions**
 - **Affirm FERC's exclusive siting authority over LNG import terminals**
 - **Streamline regulatory review process**
 - Clarify appeals process for decisions by state and local cooperating agencies
 - Impose reasonable timelines for cooperating state and local agencies to act on terminal applications
 - **Ensure lighter-handed regulation**
 - More privacy for commercial elements of terminal development
 - **Provide states with role in annually reviewing operational safety of import terminal**
 - **Authorizes 3 DOE-sponsored regional forums on LNG development to educate public**

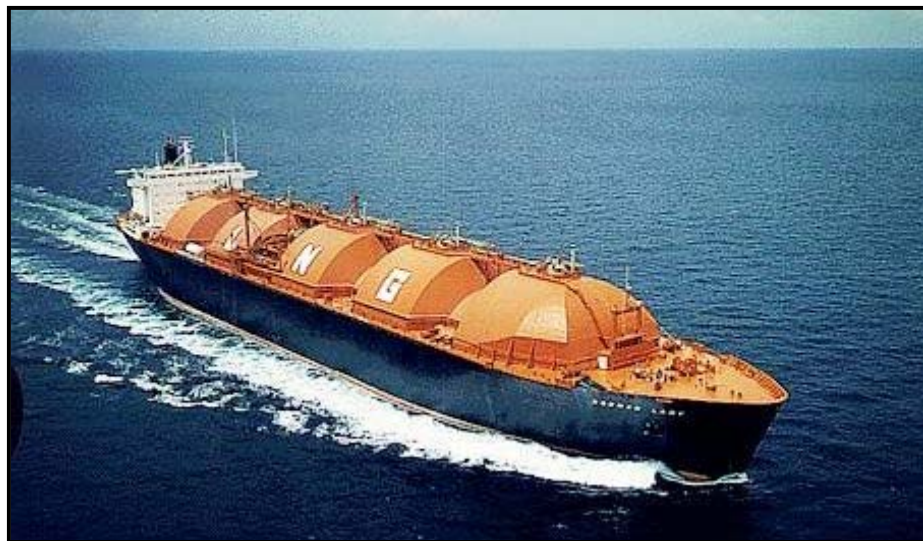
Capital Intensive “Value Chain”



Exploration and Production



Transportation



Discharge at Import Terminal



Vaporization and Sendout



Traditional Regulation of LNG

- Until 2002, FERC regulated LNG facilities as if they were natural gas pipelines, including:
 - Siting
 - Construction
 - Environmental
 - Access
 - Rates
 - Terms of Service

Hackberry

- **In December 2002, FERC approved the proposed Hackberry (now Cameron) LNG terminal, stating that it may approve, *on case-by-case basis*, privately negotiated LNG terminal deals, including:**
 - **Access to capacity**
 - **Use**
 - **Rates**
 - **Certain terms and conditions**
- **Applies only to terminal and terminalling service – adjacent onshore pipelines still subject to NGA Section 7 approach and requirements**
- **Approach designed to be a “less intrusive degree of regulation” over LNG import facilities – not requiring:**
 - **Open access for terminalling service**
 - **Publicly filed tariff and rate schedule**
 - **Cost-based rates**

- Hackberry does not mean “deregulated”
 - FERC still approves terminal siting, construction and operation
 - FERC **emphasized that it keeps jurisdiction** and will issue supplemental orders if necessary to deal with complaints of undue discrimination or other anti-competitive behavior
 - Domenici-Barton codifies Hackberry – removes regulatory uncertainty.

The Future of LNG?





The Shifting Sands of U.S. Legislative and Regulatory Policy: Implications for Natural Gas Supplies from Foreign Sources

**25th Annual North American Conference
of the USAEE/IAEE
Denver, Colorado
September 19, 2005**

**Dena E. Wiggins
Sutherland Asbill & Brennan LLP**