Securing Our Natural Gas Future

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Houston, Texas
API Natural Gas STAR Partners

Anadarko
BP
Chevron
ConocoPhillips
Devon
Dominion
Enbridge
EnCana
Enterprise Products
Exxon Mobil

Hunt
Kinder Morgan
Marathon
Murphy
Noble
Occidental
Questar
Shell
Total
Williams
Natural Gas Star Is Profitable

84 opportunities and practices payback in less than one year

41 payback in one to three years
Figure 34. World Natural Gas Consumption by Region, 1990-2030

Trillion Cubic Feet

<table>
<thead>
<tr>
<th>Year</th>
<th>History</th>
<th>Projections</th>
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<td>2010</td>
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<td>2015</td>
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<tr>
<td>2020</td>
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<td>2025</td>
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<tr>
<td>2030</td>
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</tbody>
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Figure 37. World Natural Gas Reserves by Geographic Region as of January 1, 2006

- Middle East: 2,565 Trillion Cubic Feet
- Eurasia: 1,953 Trillion Cubic Feet
- Africa: 486 Trillion Cubic Feet
- Asia: 392 Trillion Cubic Feet
- North America: 265 Trillion Cubic Feet
- Central and South America: 251 Trillion Cubic Feet
- Europe: 201 Trillion Cubic Feet

World Total: 6,112 Trillion Cubic Feet

Undiscovered Technically Recoverable Natural Gas Reserves on Federal Lands

656 Tcf Natural gas = heat 60 million homes for 160 years
U.S. Natural Gas Production, Consumption, and Net Imports, 1960-2030 (trillion cubic feet)

- **History**
- **Consumption**
- **Production**
- **Net Imports**

Natural Gas Net Imports, 2004 and 2030 (trillion cubic feet)

- **2004**: Pipeline - 2.0, Liquefied Natural Gas - 1.2
- **2030**: Pipeline - 2.0, Liquefied Natural Gas - 0.6

- **Projections**
  - **21%**
  - **15%**

Annual Energy Outlook 2006
Daily Natural Gas Futures Prices

RECORD PRICE of $15.378 per MMBtu on December 13, 2005
Government Policies Limit Gas Supply

Lease moratoria on Atlantic OCS, Pacific OCS and Eastern Gulf
– Block access to 70+ Tcf natural gas resources
Lease restrictions in Rocky Mountain West,
– affect 36 percent of public lands
– and limit access to 15 Tcf additional natural gas
Many resource management plans for public lands are outdated
– limiting US BLM ability to lease these lands
Permit delays and backlogs common
OCS Legislation – Will Congress Reach Agreement?

House (H.R. 4761)
– No Moratoria 100 miles from coastline
– Access provisions – opt in; opt out for states
– Royalty conservation fee

Senate (S. 3711)
– Only opens up Sale 181 and South of Sale 181
– No leasing within 125 miles of Florida until 2022
MMS 5-Year Plan (2007-12)

Nov ‘05: 12,000 comments; 80% favorability
April ‘06: 39,000 comments; 70% favorability
Proposed Plan comments due Nov. 22
26 Public Hearings (Oct.-Nov.)
Comments – www.apialert.com
Figure 41. U.S. Natural Gas Supply by Source, 1990-2030

Trillion Cubic Feet

History

Projections

Overseas LNG

Canada

Mexico


GROWING GLOBAL LNG TRADING

LNG Demand in 2001 (GCFD)
Total ≈ 14 billion cubic feet per day

LNG Demand in 2020 (GCFD)
Total ≈ 55 billion cubic feet per day \( (4X \text{ increase}) \)
Bringing LNG to America: Import Terminal Status

In the Lower-48 U.S.
- Operating: 5
- Approved: 10
- Proposed: 19
- Potential: 13+

Source: FERC March 2006
“… When it comes to natural gas, rising demand and constrained supplies mean that North America can no longer be self-reliant, and so the United States is joining the new global market in natural gas that will link countries, continents, and prices together in an unprecedented way.”

Daniel Yergin
President
Cambridge Energy Research Associates
The Americas: 10% of global flaring (12 bcm)

Africa: 35% of global flaring (41 bcm)

Middle East: 24% of global flaring (29 bcm)

Russian Fed. & Central Asia: 21% of global flaring (25 bcm)
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American Petroleum Institute

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