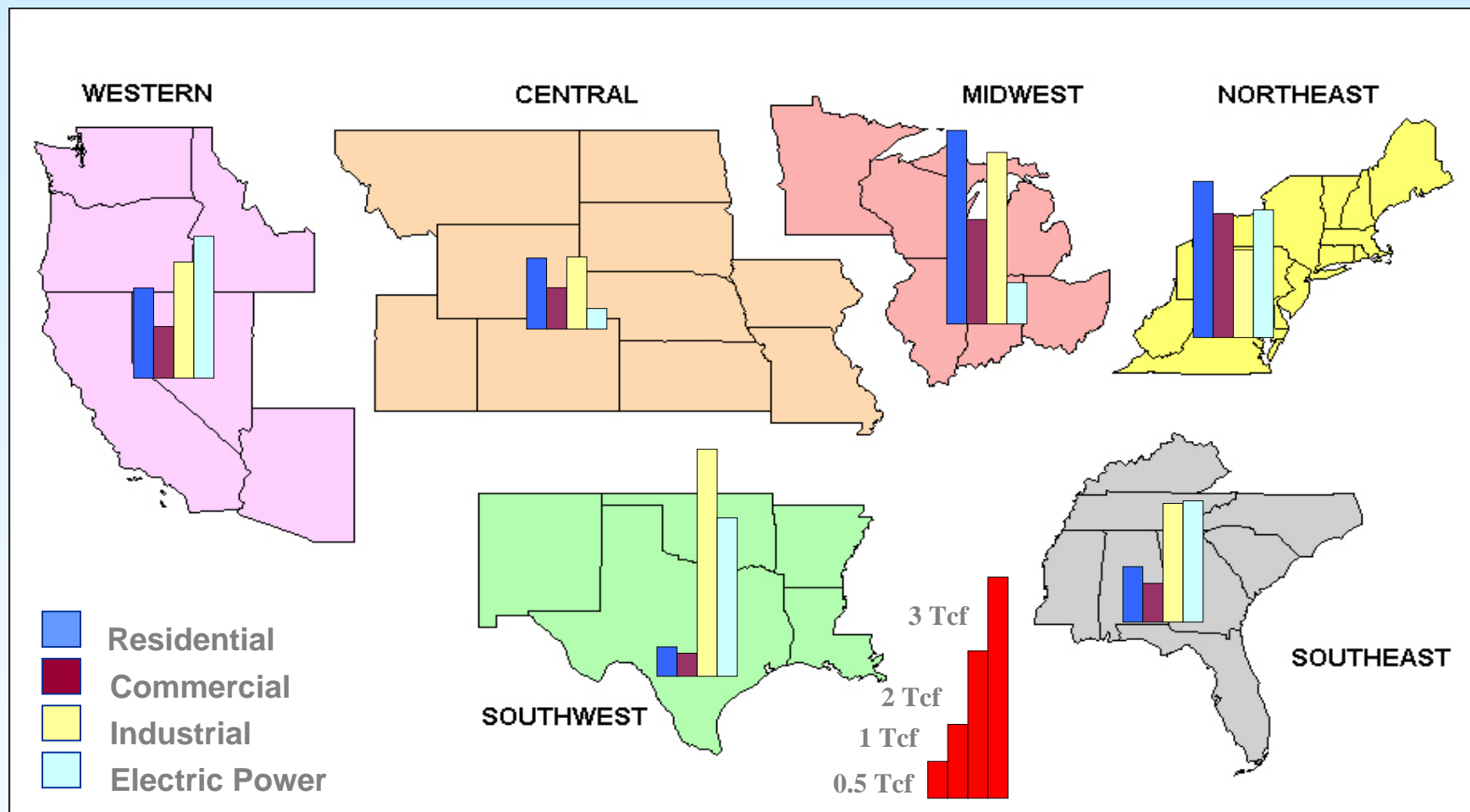


EIA's Natural Gas Outlook Through 2025

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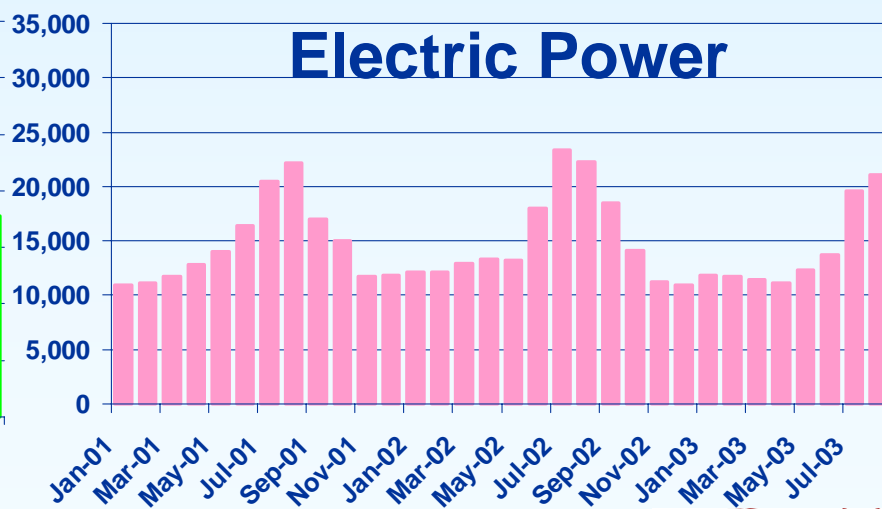
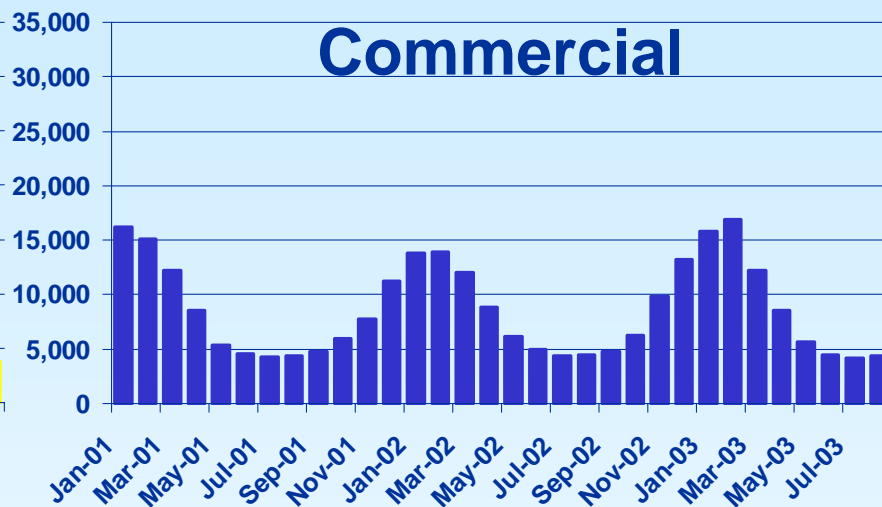
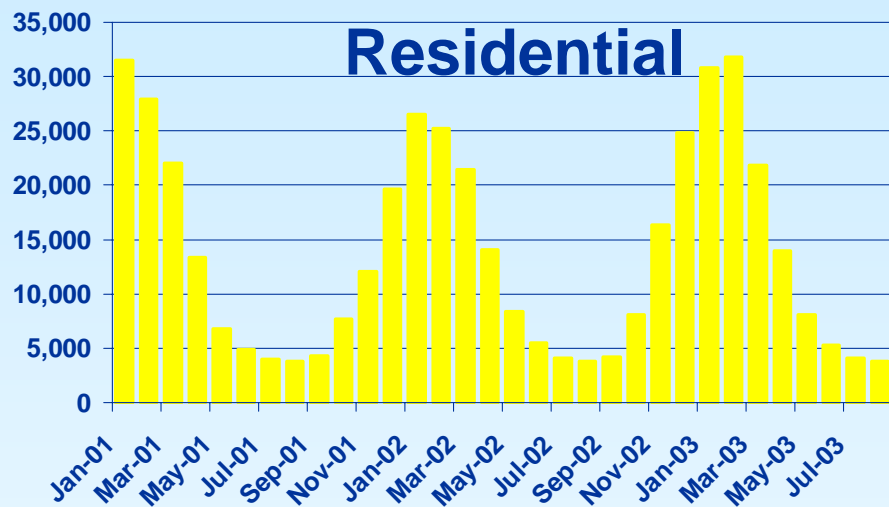
for
The Fertilizer Institute
Outlook Conference
October 26, 2004
Annapolis, MD

End-Use Consumption by Sector and Region, 2002



Source: *Natural Gas Annual*, 2002.

U.S. Seasonal Natural Gas Load Patterns By Sector (MMcfd)



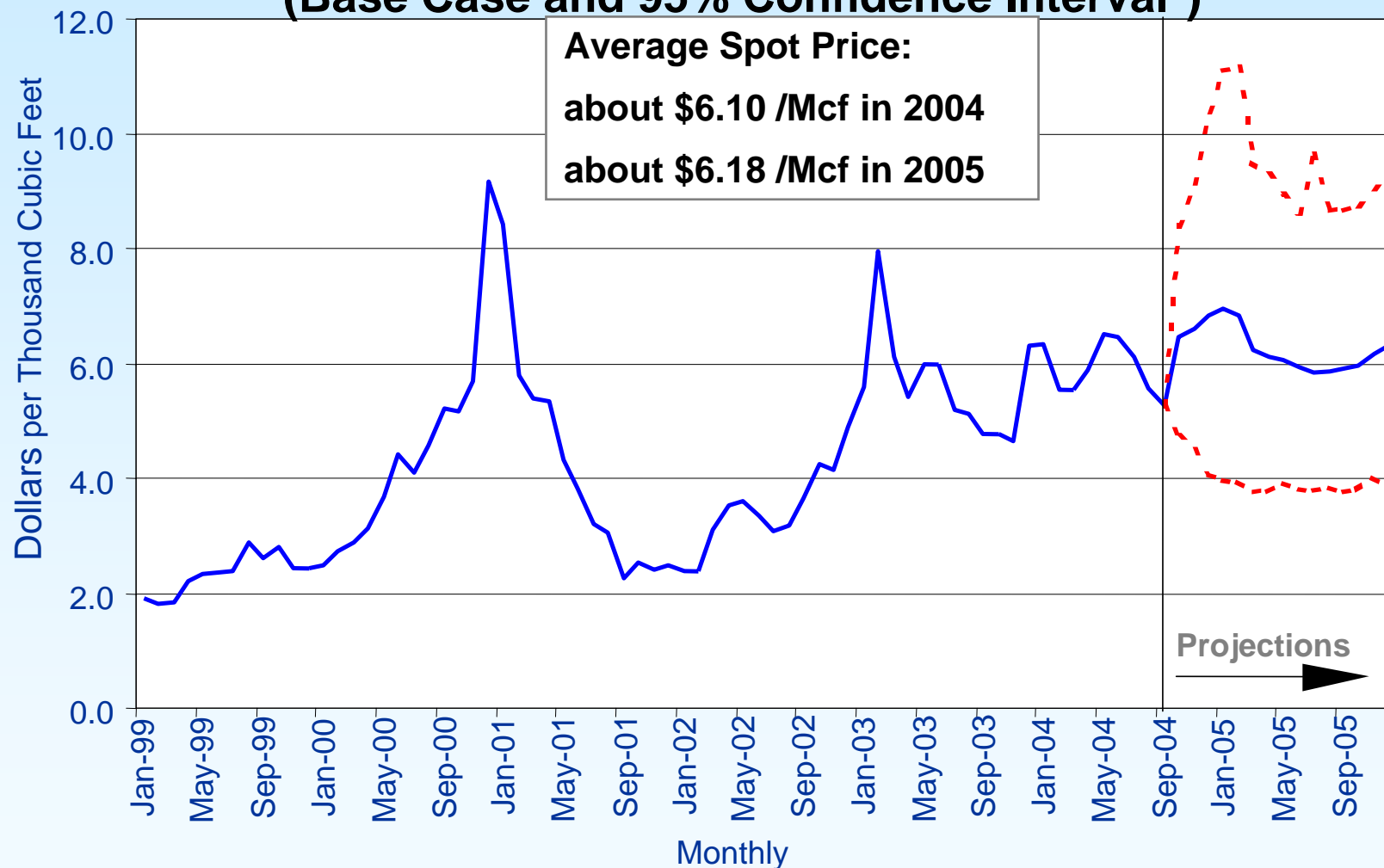
Source: EIA.

Short-Term Outlook for Natural Gas

- **WELLHEAD PRICE:** \$5.52 per Mcf in 2004; \$5.63 per Mcf in 2005
- **CONSUMER PRICES:** Higher than last winter; Prices (+11%)
Total Expenditures (+15%)
- **CONSUMPTION:** Increased demand this heating season, and in 2005
- **SUPPLY :** Growth in 2005
 - Current storage inventory about 8% higher than 5-year average
 - Production increase in 2005 after decline in 2004
 - New well completions remain high but production from existing wells is declining
 - Modest, but steady increases in LNG imports
- **CAVEAT:** Outlook incorporates NOAA weather forecast. Extremes in market or weather conditions could change this outlook.

Natural Gas Spot Prices Are Expected to Average \$6.10 This Year

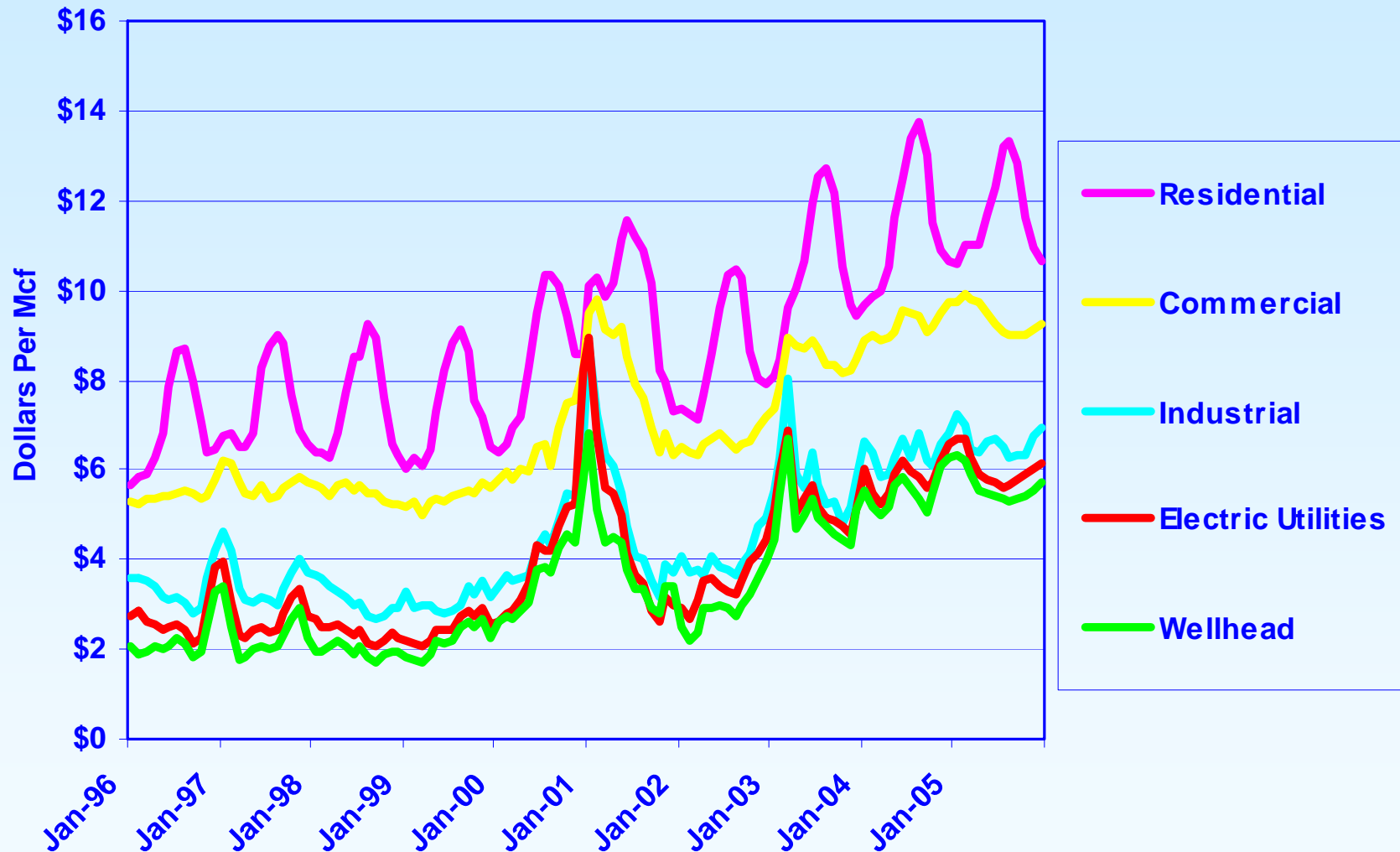
(Base Case and 95% Confidence Interval*)



**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.*

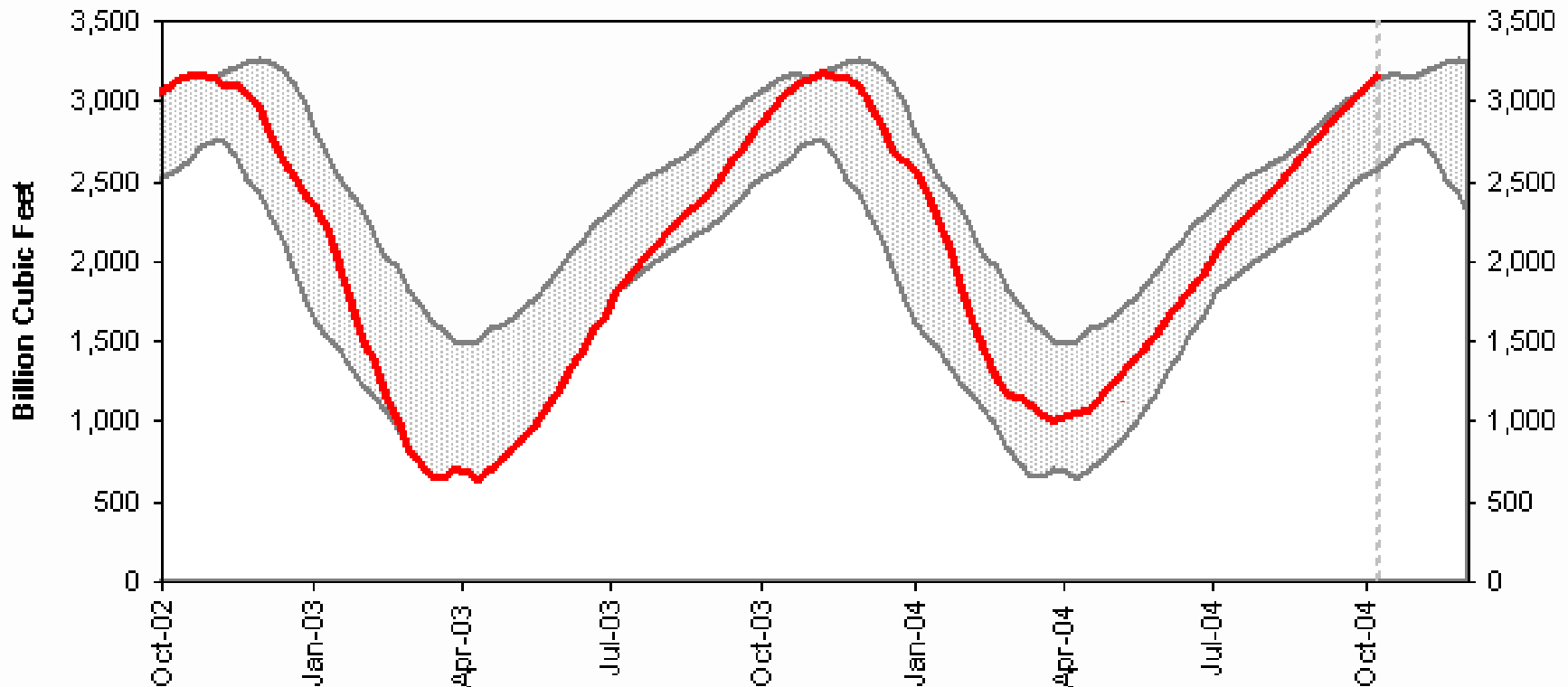
Sources: Short-Term Energy Outlook, October 2004.

U.S. Natural Gas Prices



Source: *Short-Term Energy Outlook*, October 2004.

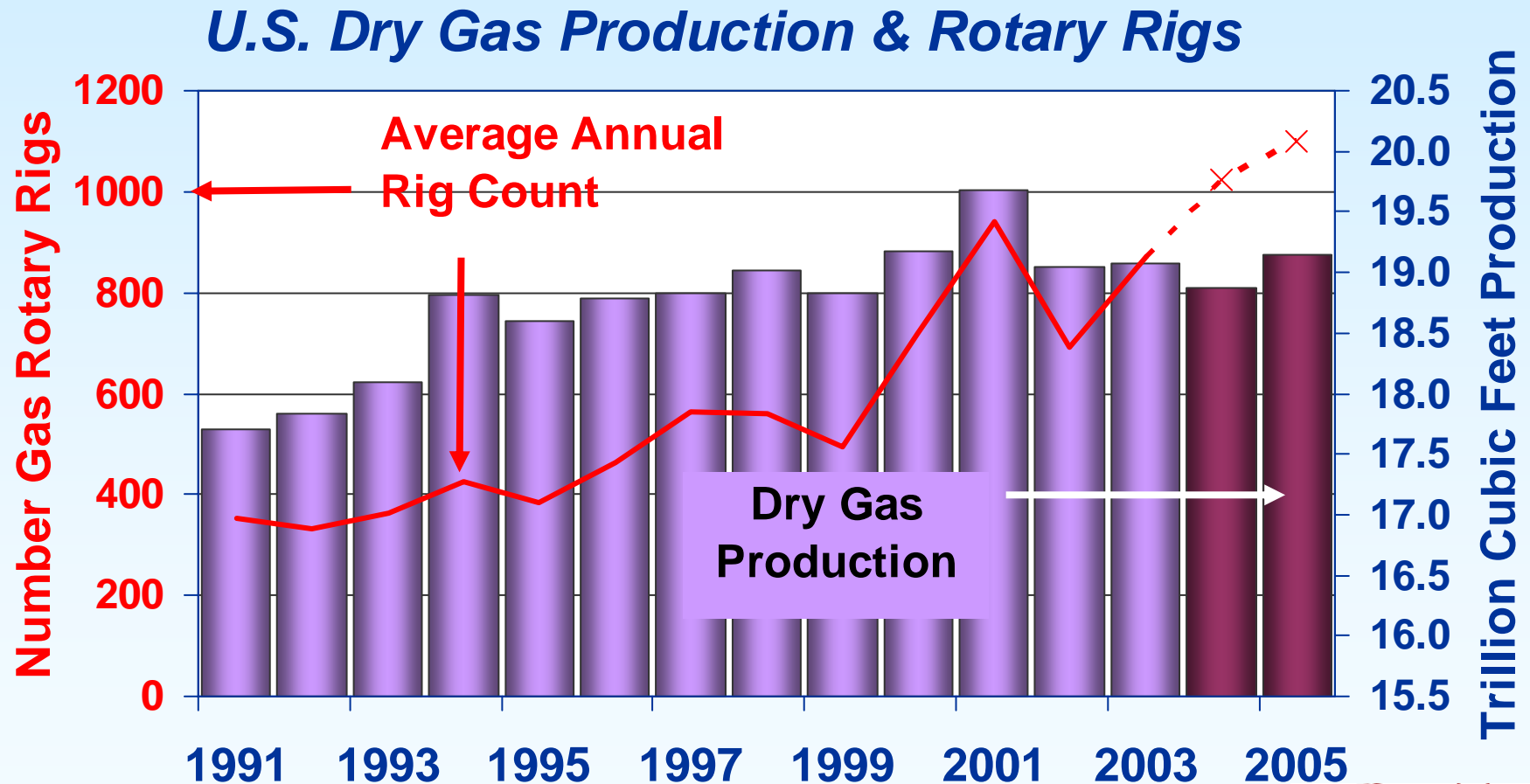
Working Gas in Underground Storage Is Above “Normal”



Notes: The shaded area indicates the range between the historical minimum and maximum values for the weekly series from 1999 through 2003.

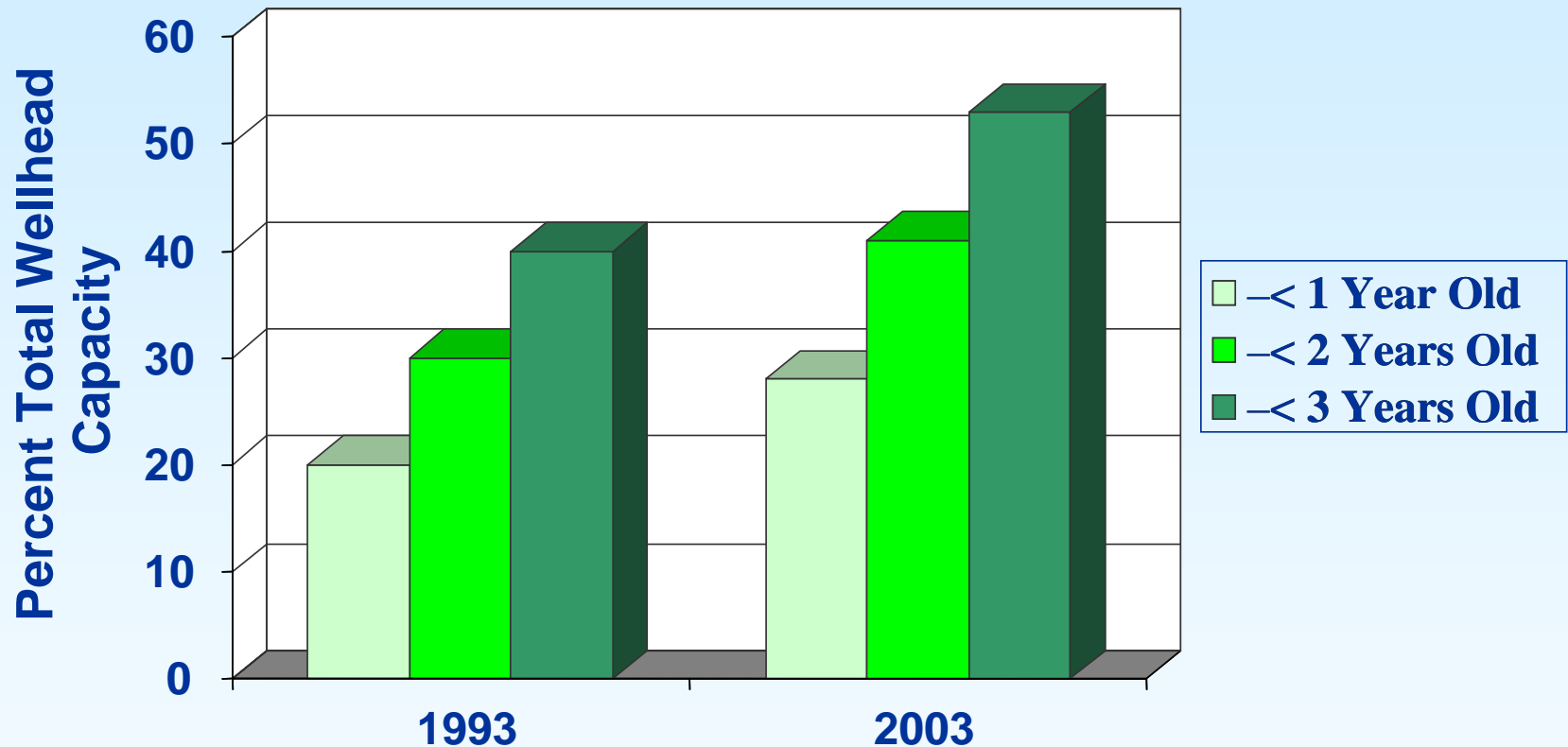
Source: Weekly storage values from March 15, 2002, to the present are from Form EIA-912, "Weekly Underground Natural Gas Storage Report." Values for earlier weeks are from the Historical Weekly Storage Estimates Database.

Active Rig Count Is Higher than Ever But Production Growth Is Limited



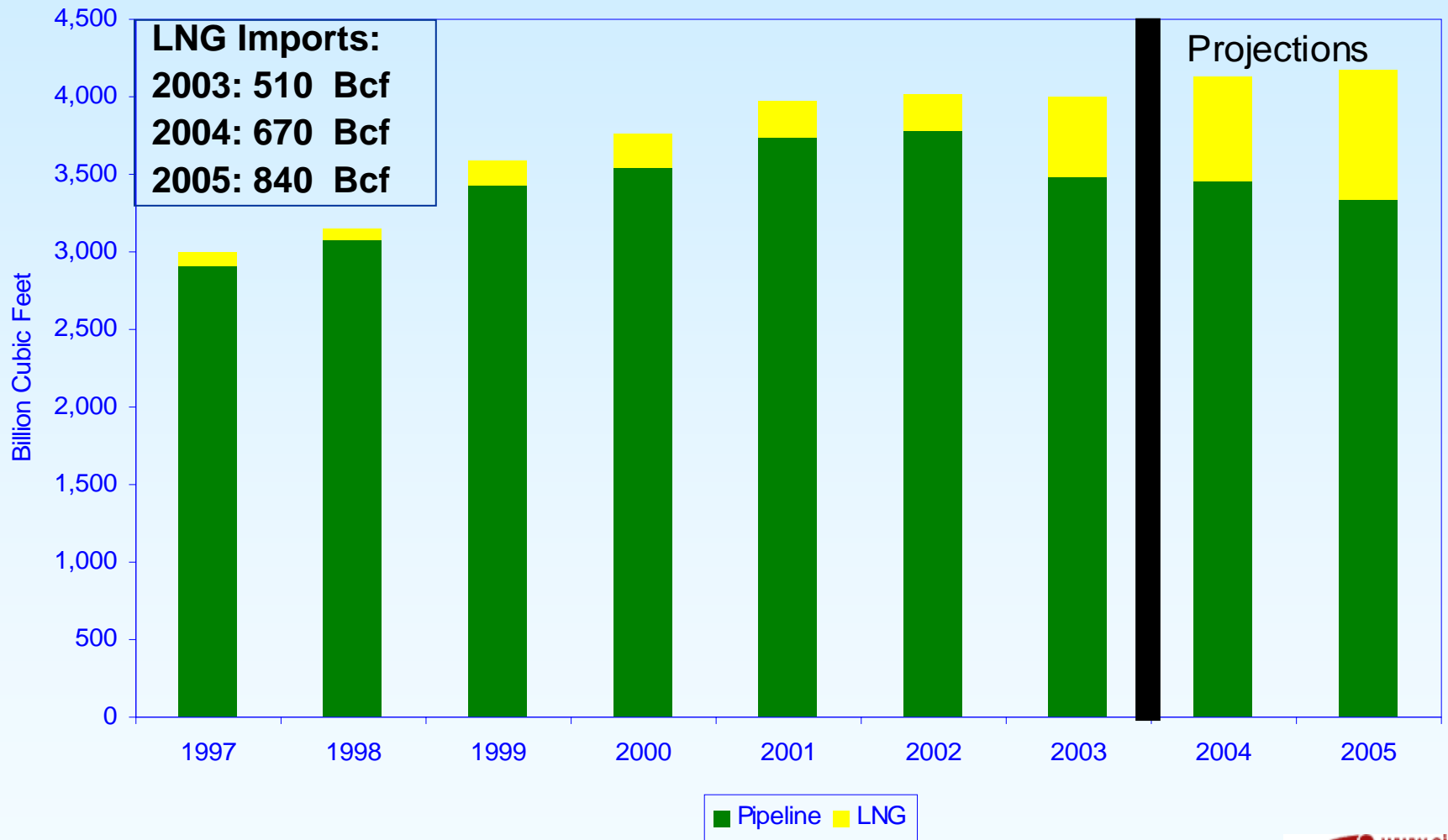
Sources: Baker Hughes Gas Rig Count, and
Short-Term Energy Outlook, October 2004

A Growing Percentage of Production Flows from Wells Three Years Old or Less



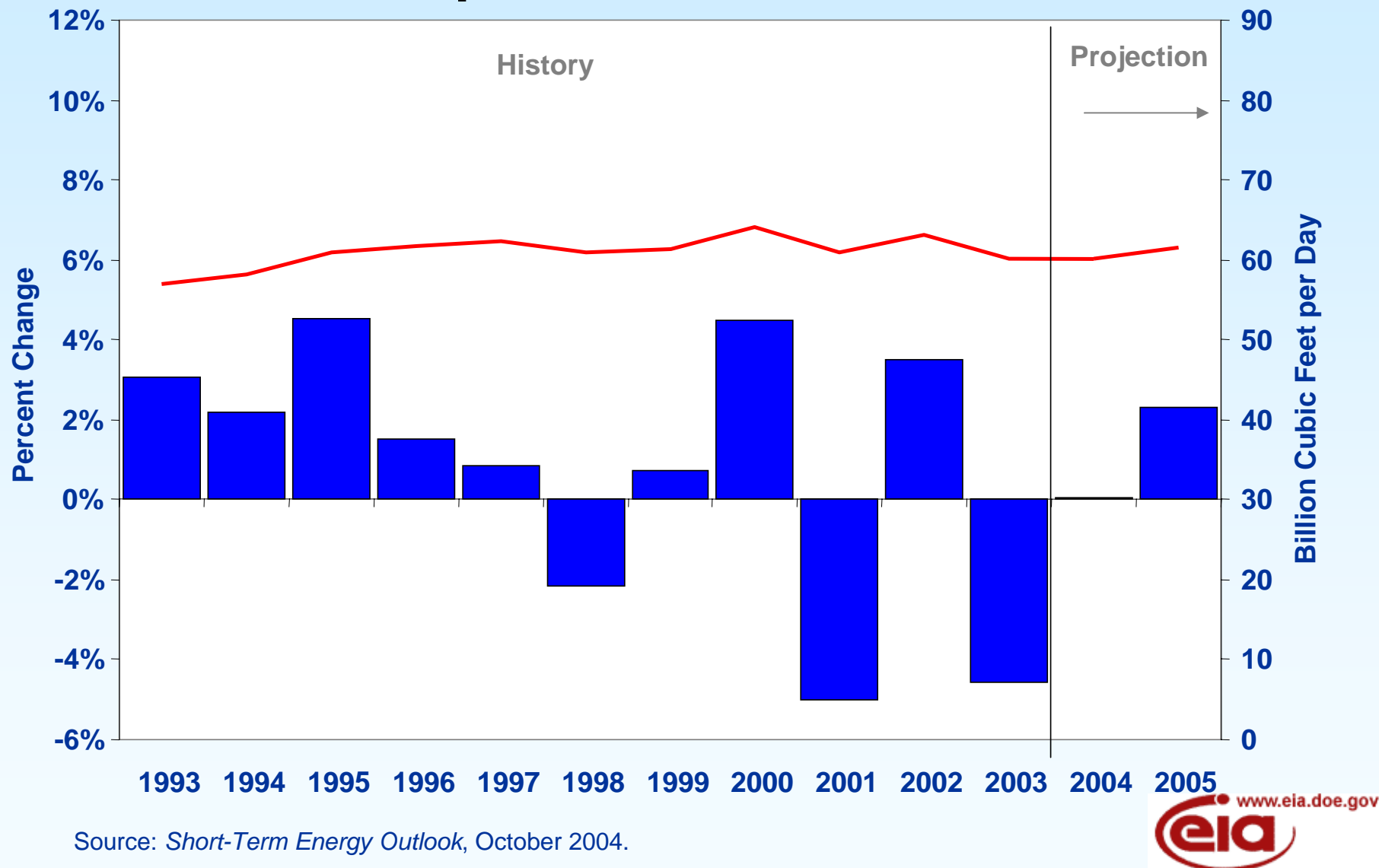
Source: EIA.

Pipeline Imports Decline as LNG Imports Increase



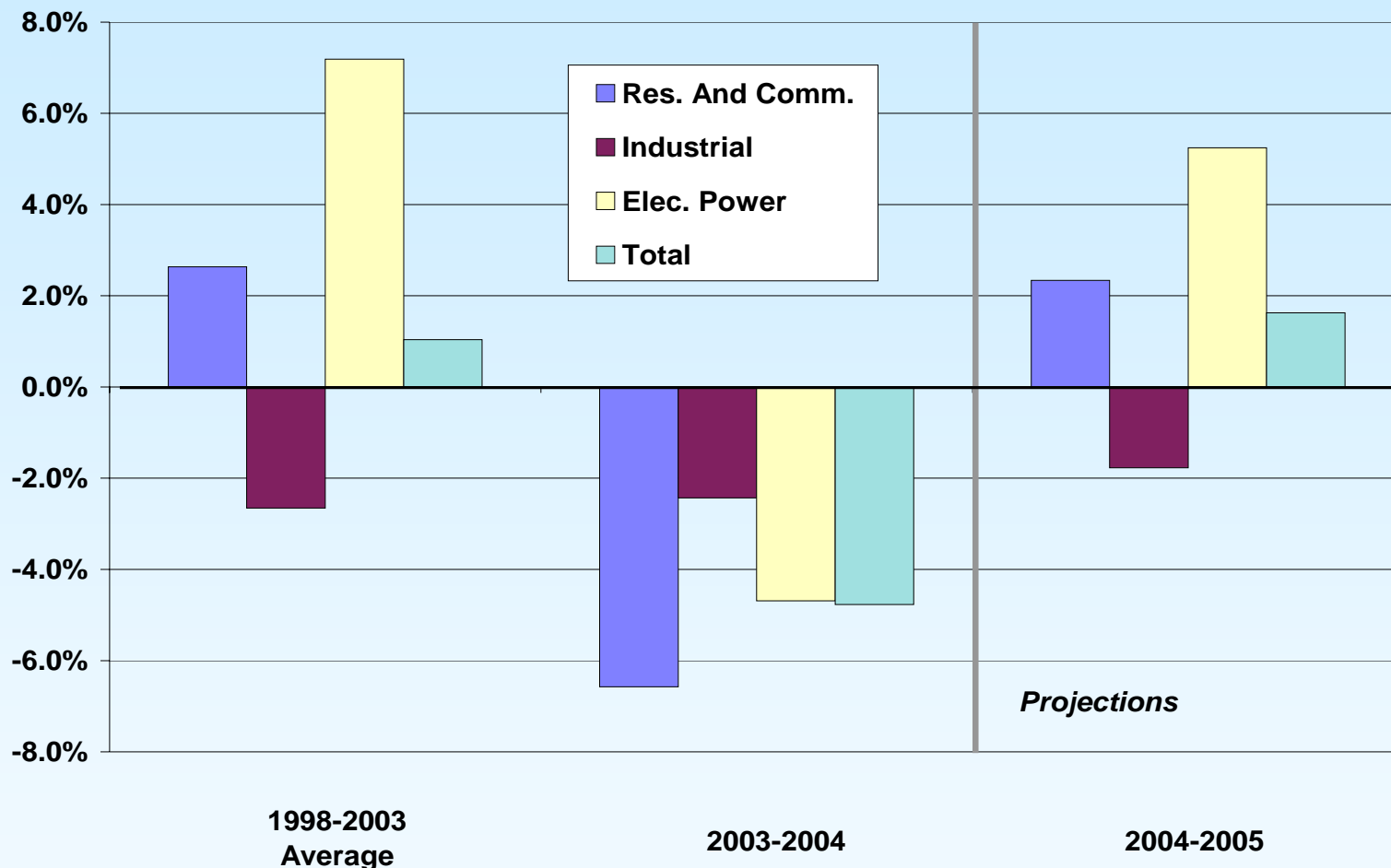
Source: *Short-Term Energy Outlook* October, 2004.

Increases in Annual Demand Are Not Expected Until 2005



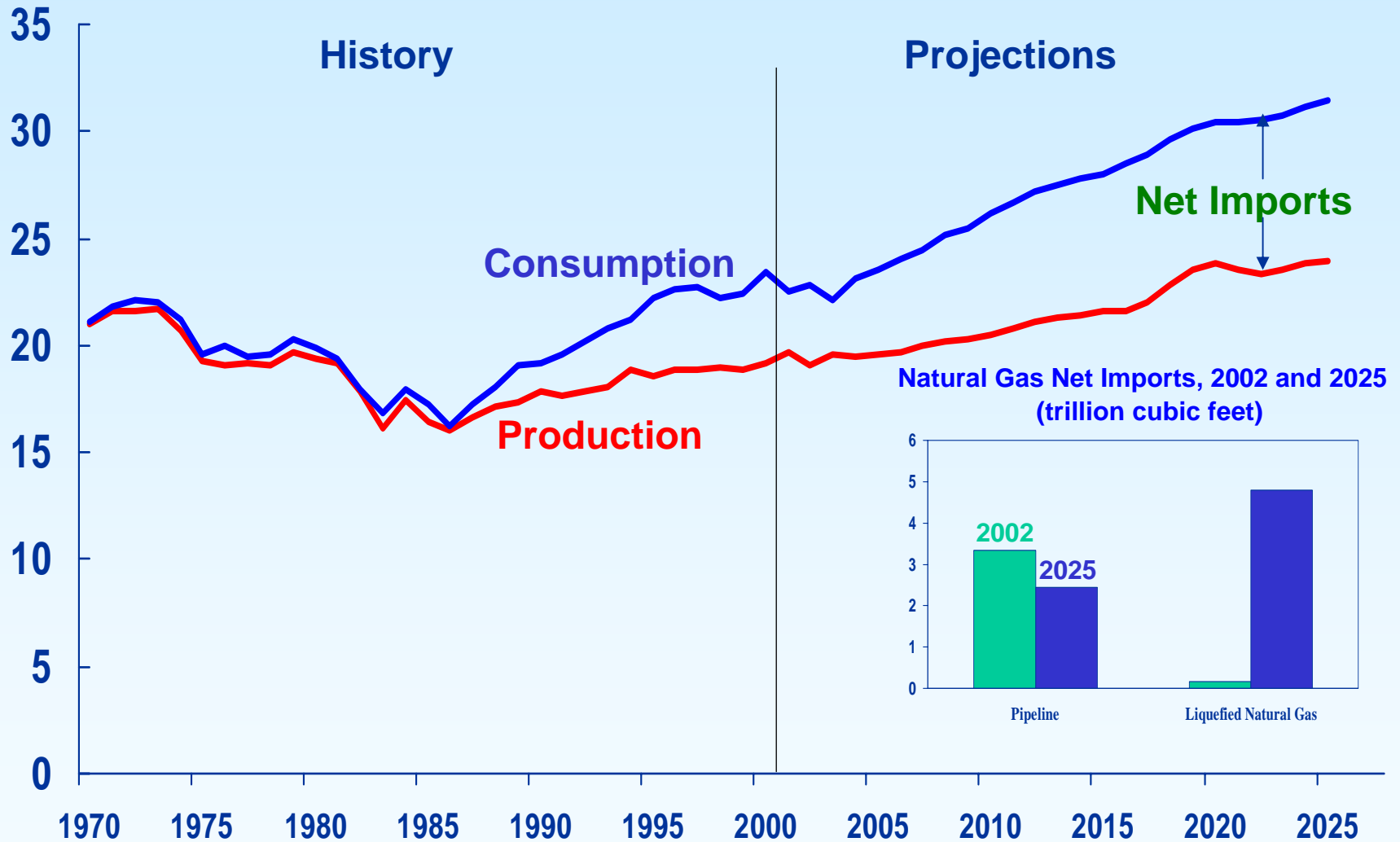
Source: *Short-Term Energy Outlook*, October 2004.

U.S. Winter Natural Gas Demand Growth



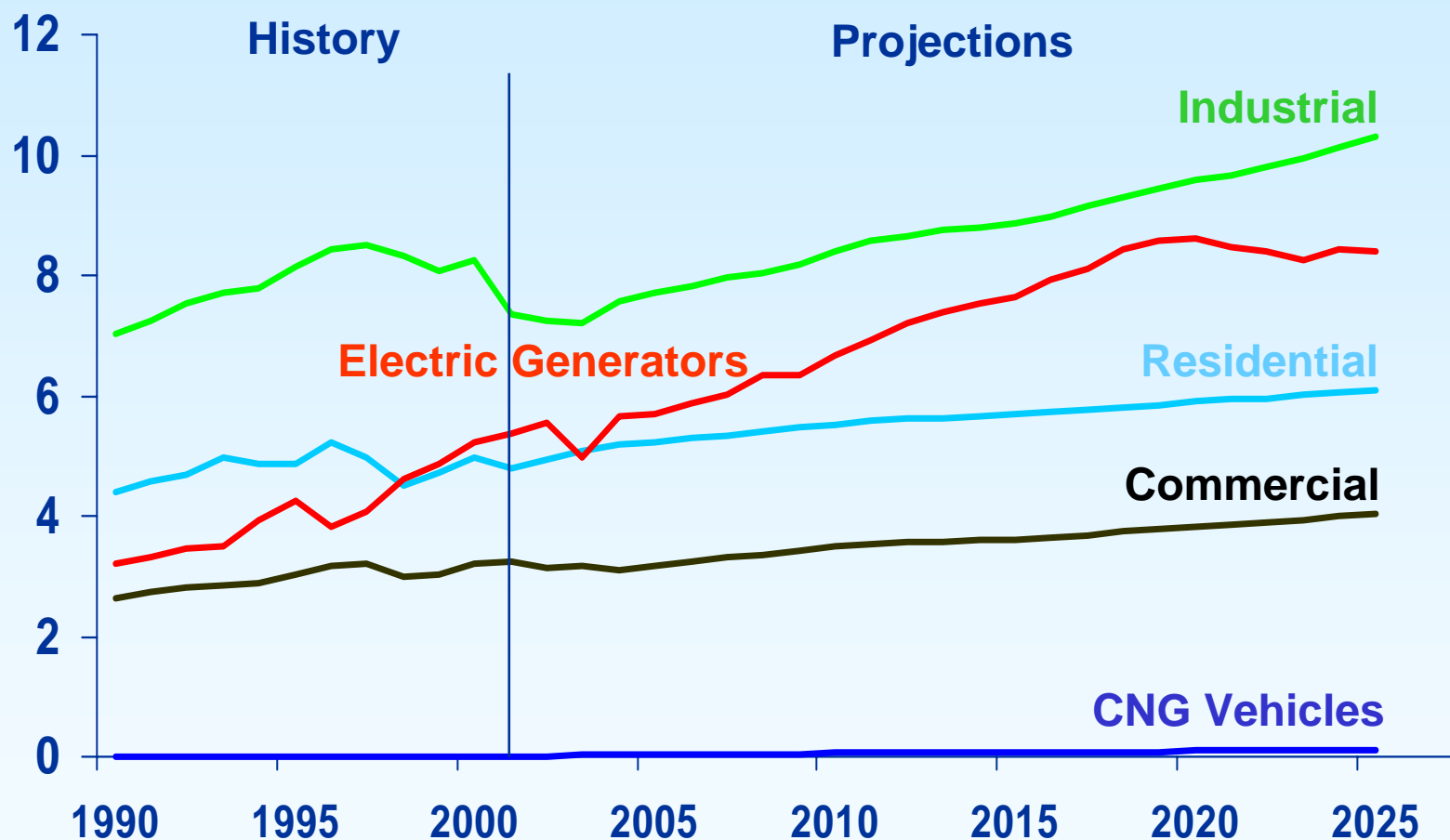
Weather, increased power sector demand drives winter gas demand

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



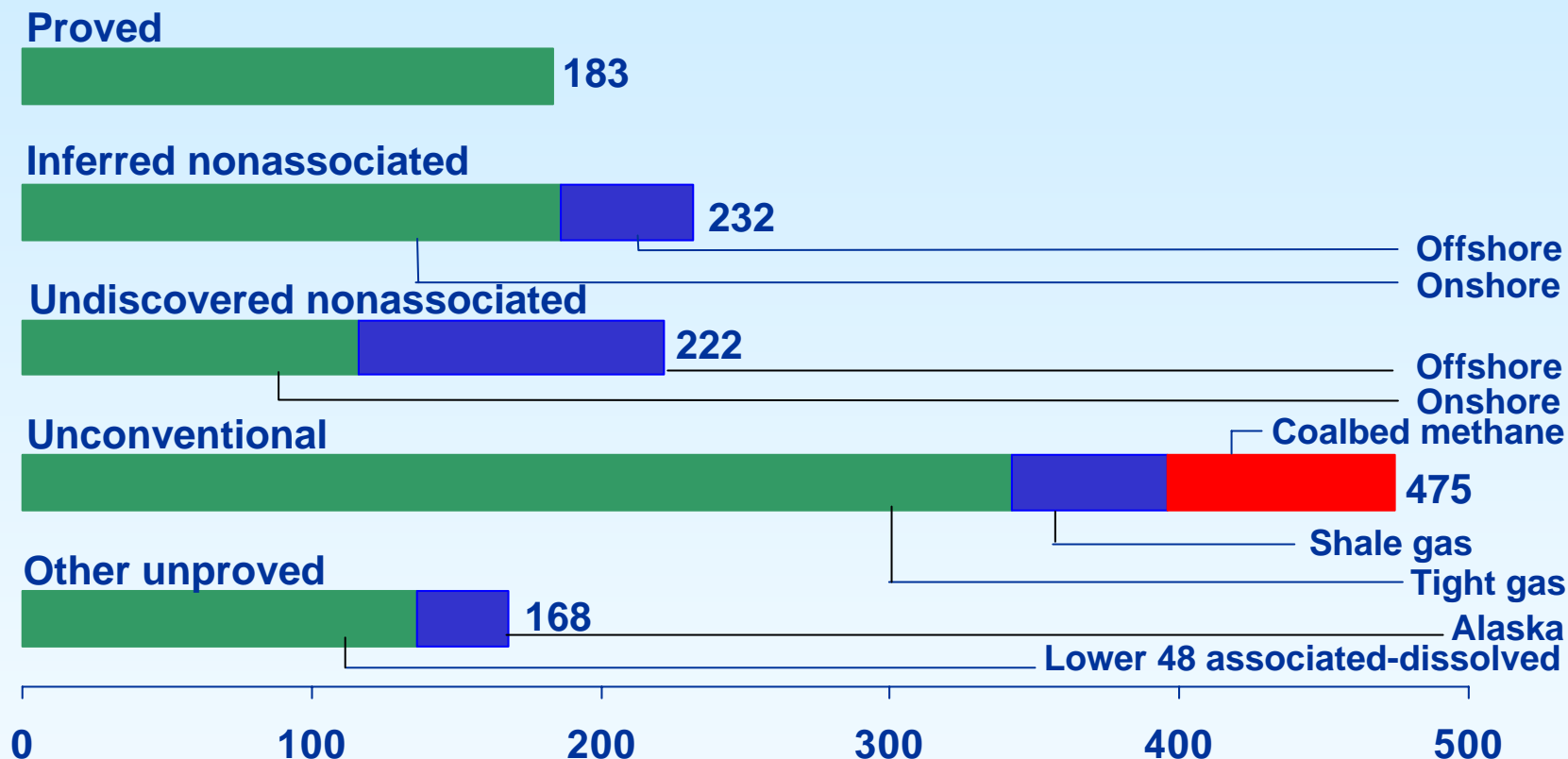
Source: EIA, 2004 *Annual Energy Outlook*.

U.S. Natural Gas Consumption by Sector, 1990-2025 (trillion cubic feet)



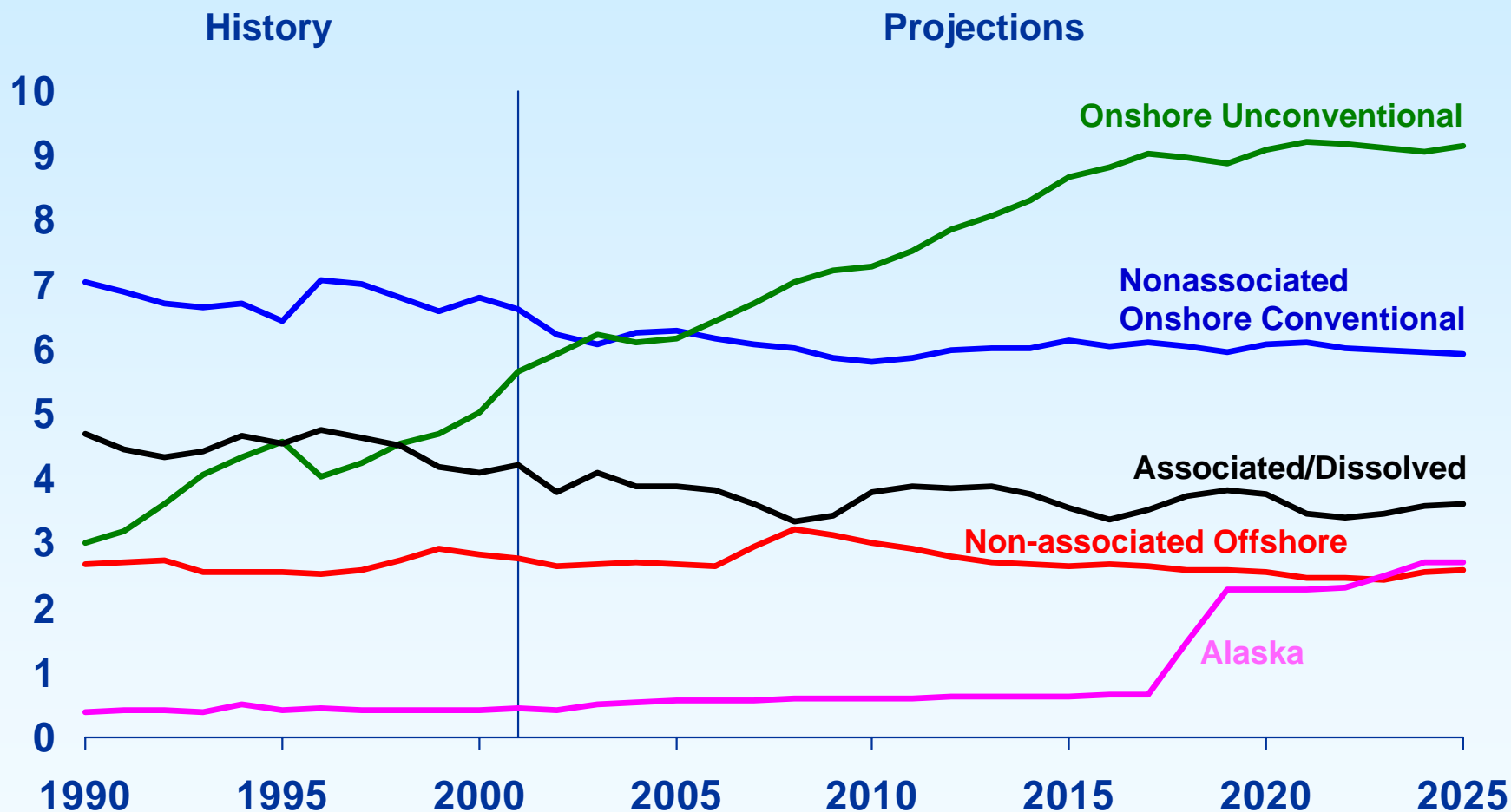
Source: EIA, 2004 *Annual Energy Outlook*.

Technically Recoverable U.S. Natural Gas Resources as of January 1, 2002 (trillion cubic feet)



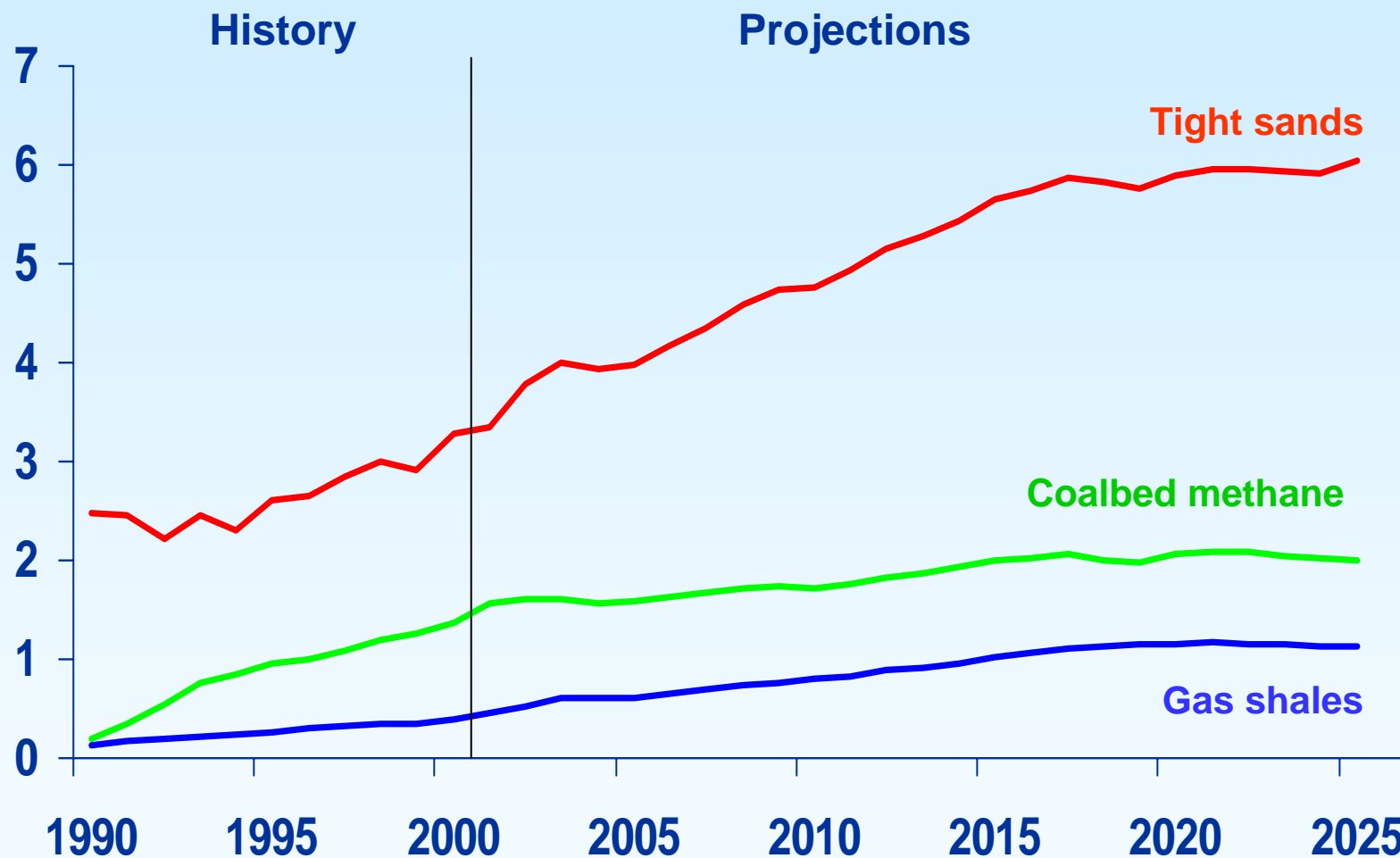
Total: 1,279 trillion cubic feet

U.S. Dry Natural Gas Production, 1990 - 2025 (trillion cubic feet)



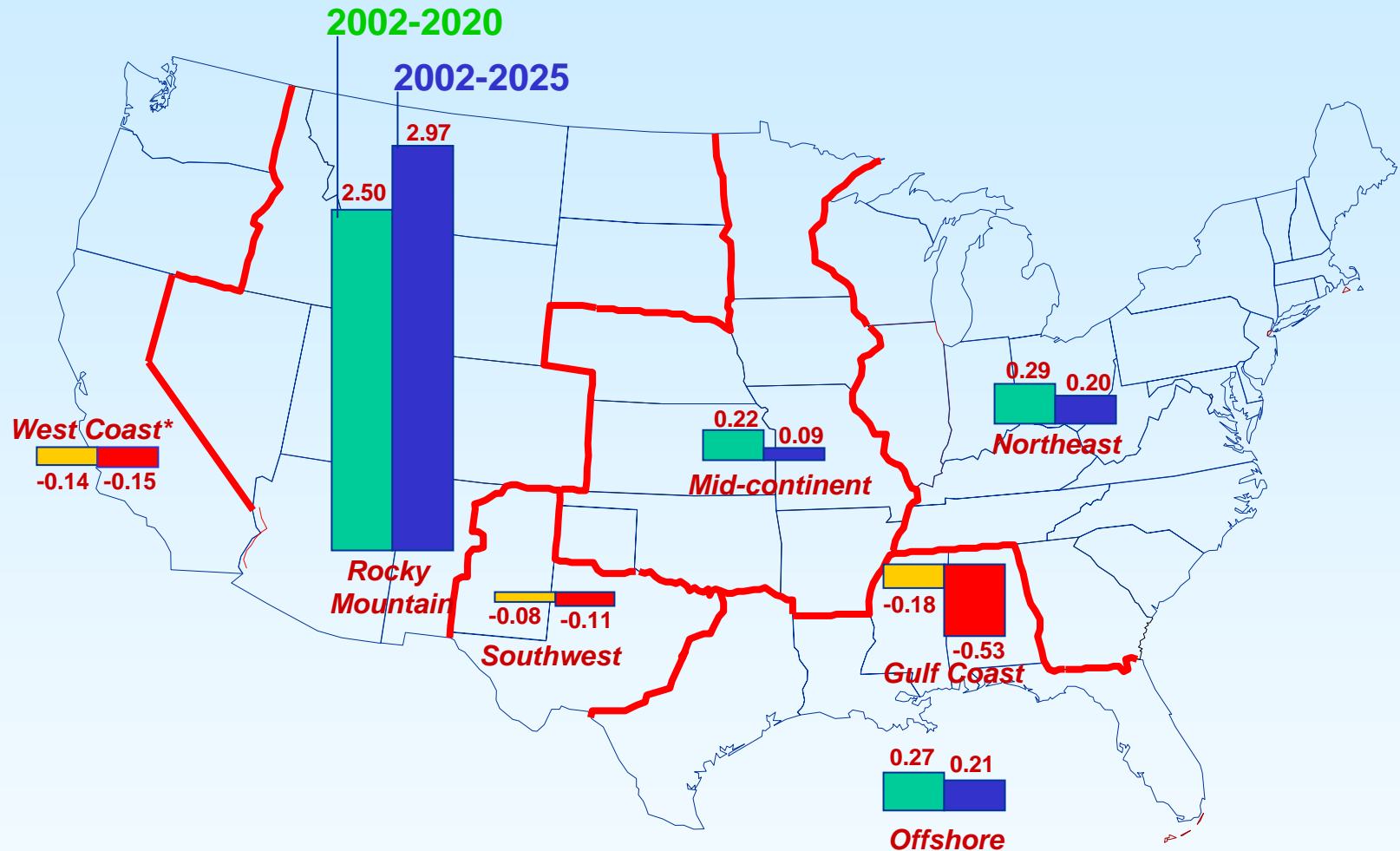
Source: 2004 Annual Energy Outlook

U.S. Unconventional Natural Gas Production, 1990-2025 (trillion cubic feet)



Source: 2004 Annual Energy Outlook

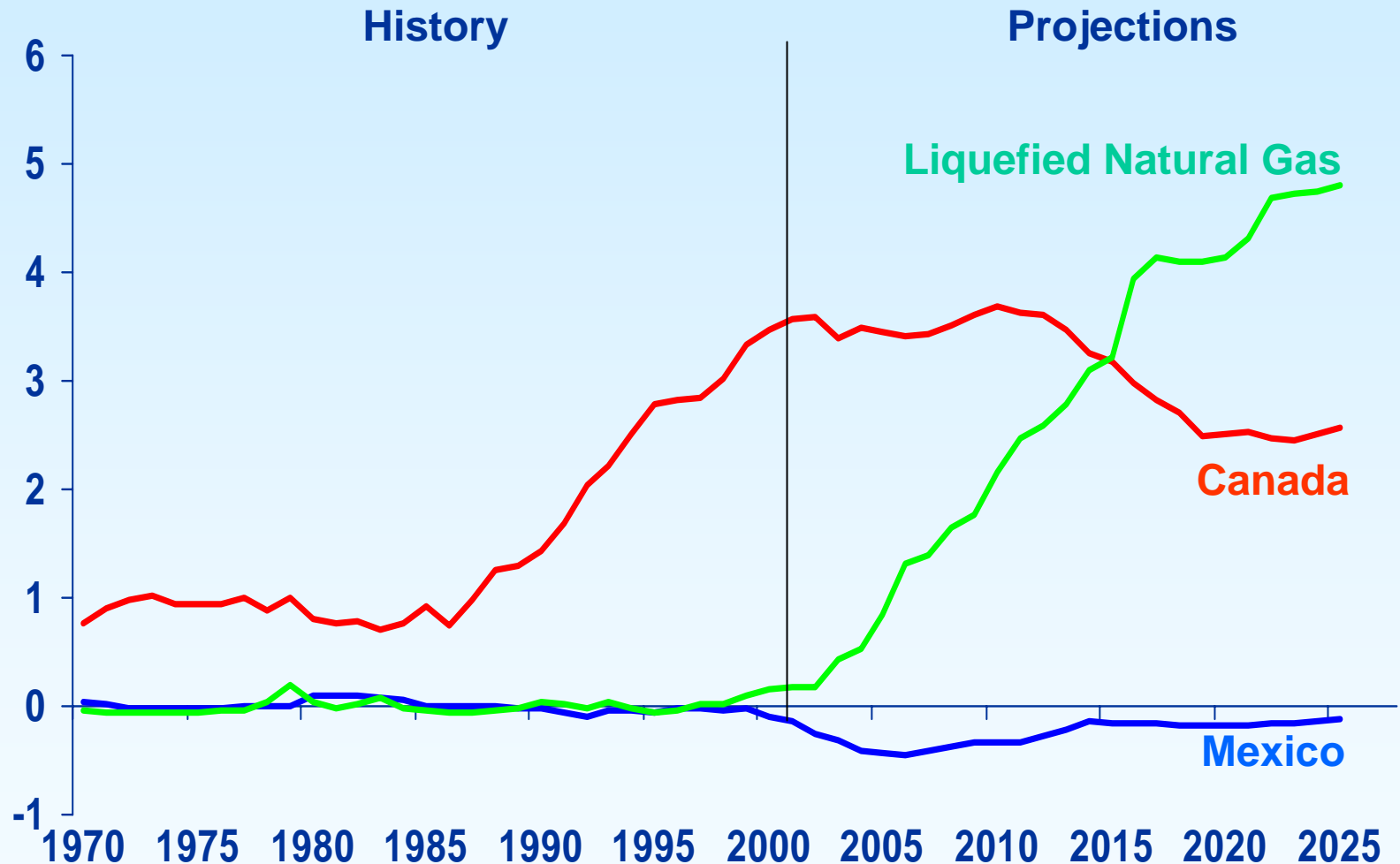
Incremental Natural Gas Production by Region, 2002-2020 and 2002-2025 (trillion cubic feet)



* Includes Offshore

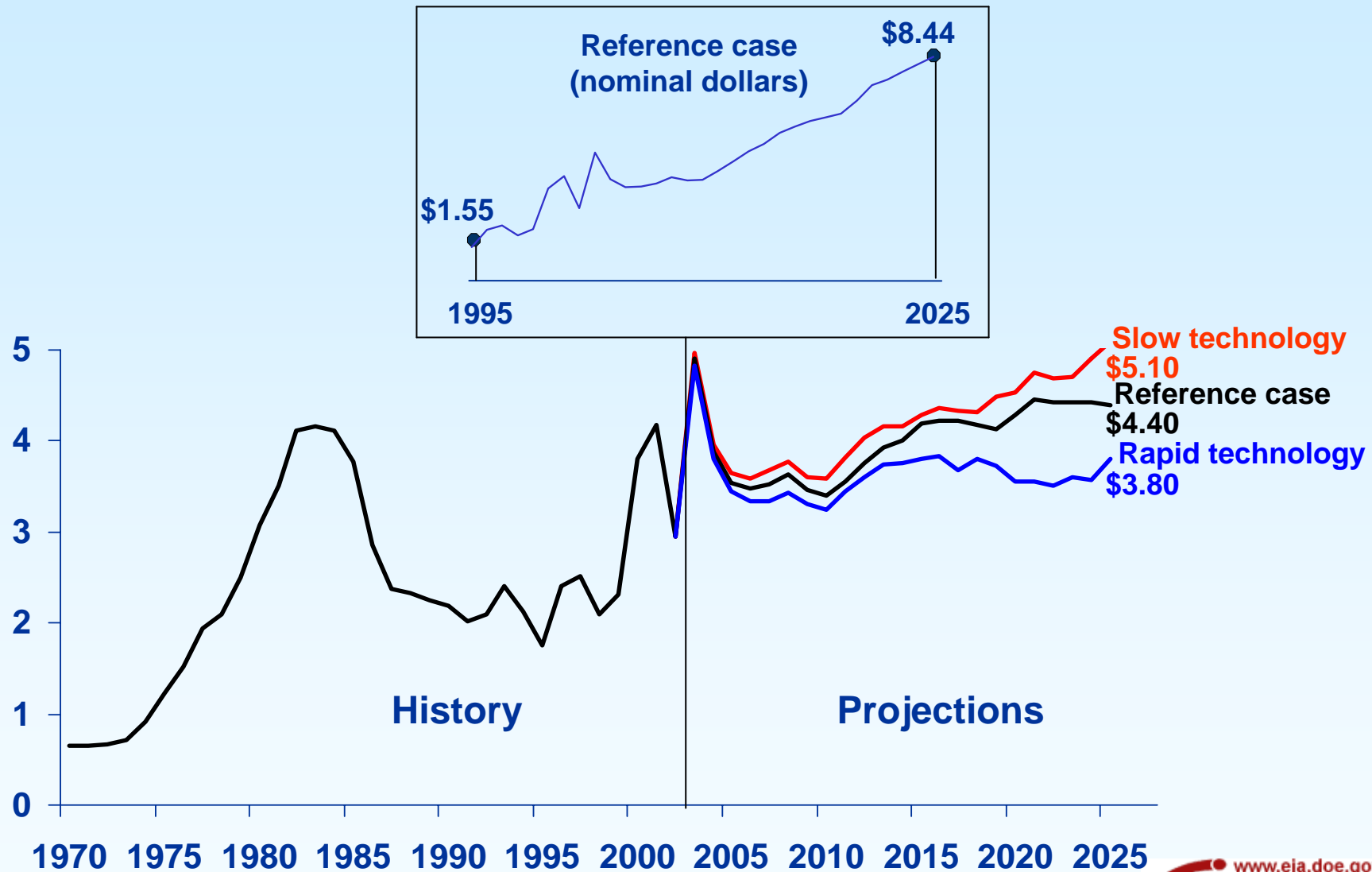
Source: 2004 Annual Energy Outlook

Net U.S. Imports of Natural Gas, 1970-2025 (trillion cubic feet)



Source: 2004 Annual Energy Outlook

Lower 48 Natural Gas Wellhead Prices, 1970-2025 (2002 dollars per thousand cubic feet)



Source: 2004 Annual Energy Outlook

KEY CHANGES IMPACTING NATURAL GAS MARKETS BETWEEN AEO2005 and AEO2004

CHANGE

- **DEMAND:**

- Lower capital costs for gas powered generation plants
 - Lowered growth in bulk chemical industry

- **SUPPLY:**

- Higher costs and resources

- Higher costs for onshore gas and lower finding rates

- Tax and loan incentives for Alaska gas pipeline

- Higher costs and lower domestic production only partially offset by increased LNG imports

- **IMPORTS/EXPORTS:**

- Reduced LNG costs, increased expansion potential

- CANADA: reduced coalbed methane production

IMPACT

More gas use for generation.

Less industrial gas use

Combined impact is mixed

Upward pressure on gas prices

Alaska pipeline available earlier

Higher natural gas prices

LNG more attractive

Lower exports to the U.S.

In Summary:

EIA's Natural Gas Outlook

Short-Term

- **Continued market tightness.**
- **Some demand recovery.**
- **Modest production increase.**
- **Imports: LNG increases, pipeline decreases.**

Long-Term

- **Technology advances and access to additional supply sources will moderate gas prices.**
- **U.S. LNG market is expected to grow .**
- **Electricity use of gas, coal and renewables expected to increase.**

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