

Ensuring Adequate Energy Supplies in a Volatile Environment

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Institute for Regulatory Policy Studies Workshop

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Discussion Outline

- Company overview
- Historical perspective
- Natural Gas Market Overview
 - Supply / Demand / Prices
- End User response to gas price signals
- Procurement / contracting trends
- Do we need new market policies?

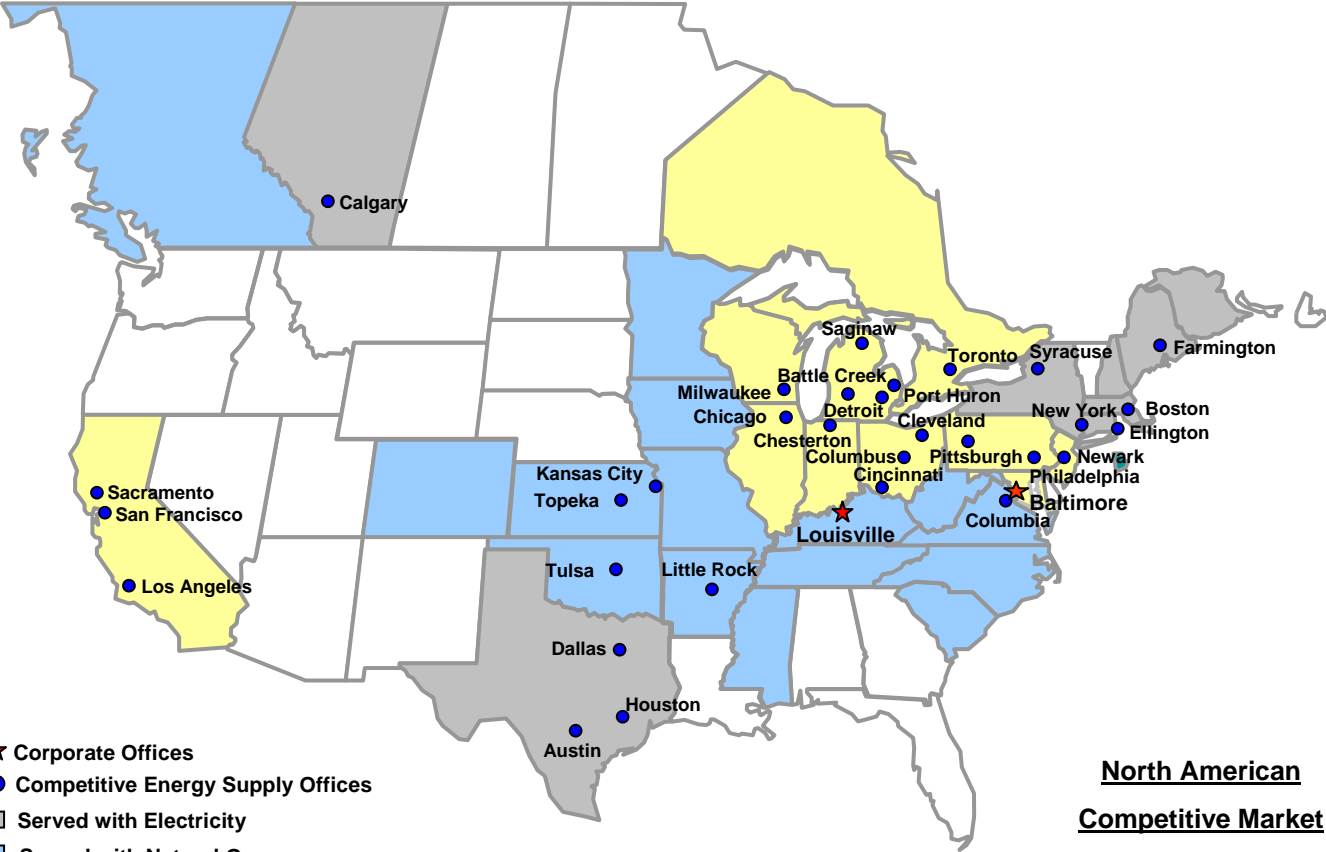
Company Overview

- Constellation Energy ~ www.constellation.com
 - **Fortune** 200 Company ~ 9,500 employees
 - Strong balance sheet / Investment Grade Ratings
 - North America's leading supplier of competitive energy
 - Regulated & unregulated assets include
 - Baltimore Gas & Electric ~ Regulated Utility in Maryland
 - Generation ~ 12,500 MW Peak capacity, 100+ units
 - Competitive Supply Businesses ~ International Reach
 - Constellation NewEnergy (Power & Gas) – C&I markets
 - Constellation Commodities Group – wholesale focused
 - Consulting Services
 - » Fellon-McCord & Associates
 - » Constellation Projects & Services

CNE Gas Division

- 200 Employees, Division HQ in Louisville, Ky.
 - 11 Regional offices, including Illinois
- Provide 300 Billion Cubic Feet of gas annually
- \$2.5 Billion in annual revenue
- North American reach (US & Canada)
 - Physical supplier, provide financial execution services
 - Over 3,000 facilities served / Deliver gas to over 100 LDC's
- Commercial & Industrial customers
 - Manufacturing & Assembly
 - Institutional & Education
 - Health Care & Commercial Real Estate
 - Municipal & Government Agencies

Constellation – North American Presence



- ★ Corporate Offices
- Competitive Energy Supply Offices
- Served with Electricity
- Served with Natural Gas
- Served with Electricity and Natural Gas

Note: Fellon-McCord serves all of U.S., Canada and Mexico

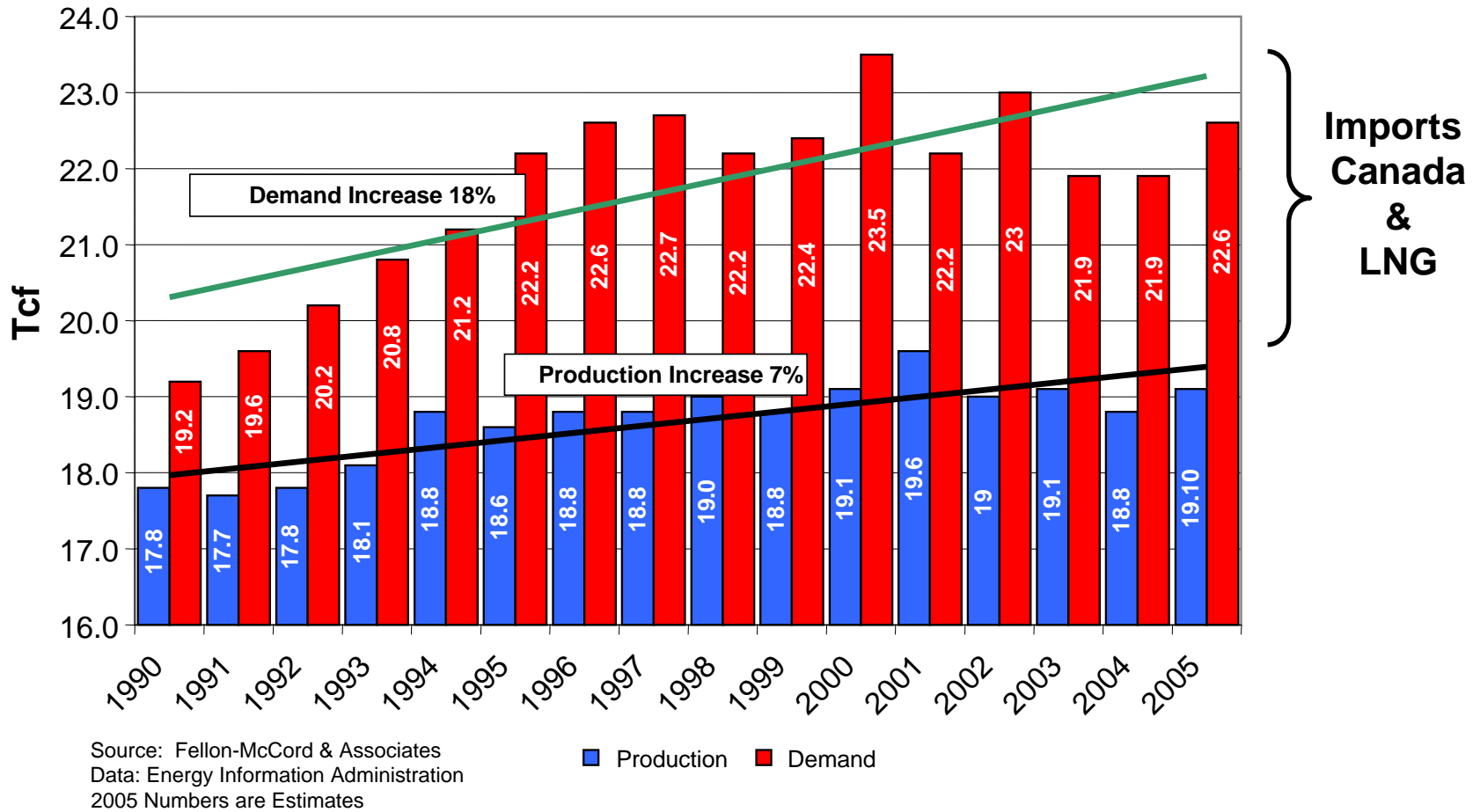
North American
Competitive Market
 Natural Gas - 300 Bcf
 Electricity – 14,000 MW

Historical Perspective

- Natural gas supply exceeded demand in 1980's & early 1990's
 - Conditions have shifted to short supply scenario
- Demand is rising faster than supply sources
 - Electric generation largest growth sector last 15 years
 - Clean Air Act of 1990 encouraged gas in new plants
- Economics 101 ~ Results include:
 - Higher commodity prices (demand > supply)
 - Gas increases also drive wholesale electric rates
 - Increased volatility as demand/supply balance shifts
 - Threat to overall US economy near and long term
 - Decrease in exports & Increase in trade deficits (oil & LNG)

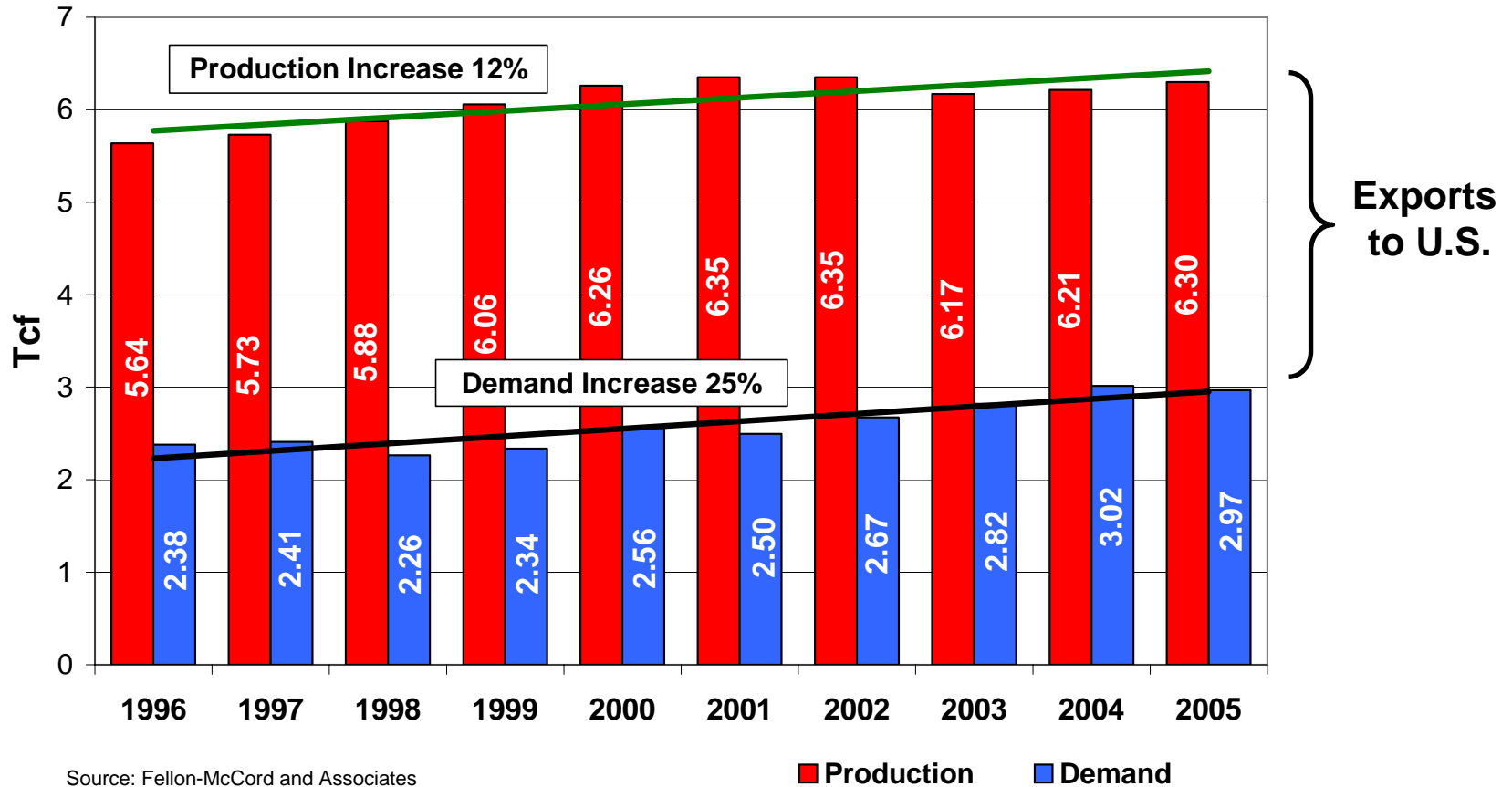
Natural Gas Market Overview

U.S. Natural Gas Production vs. Demand



Natural Gas Market Overview

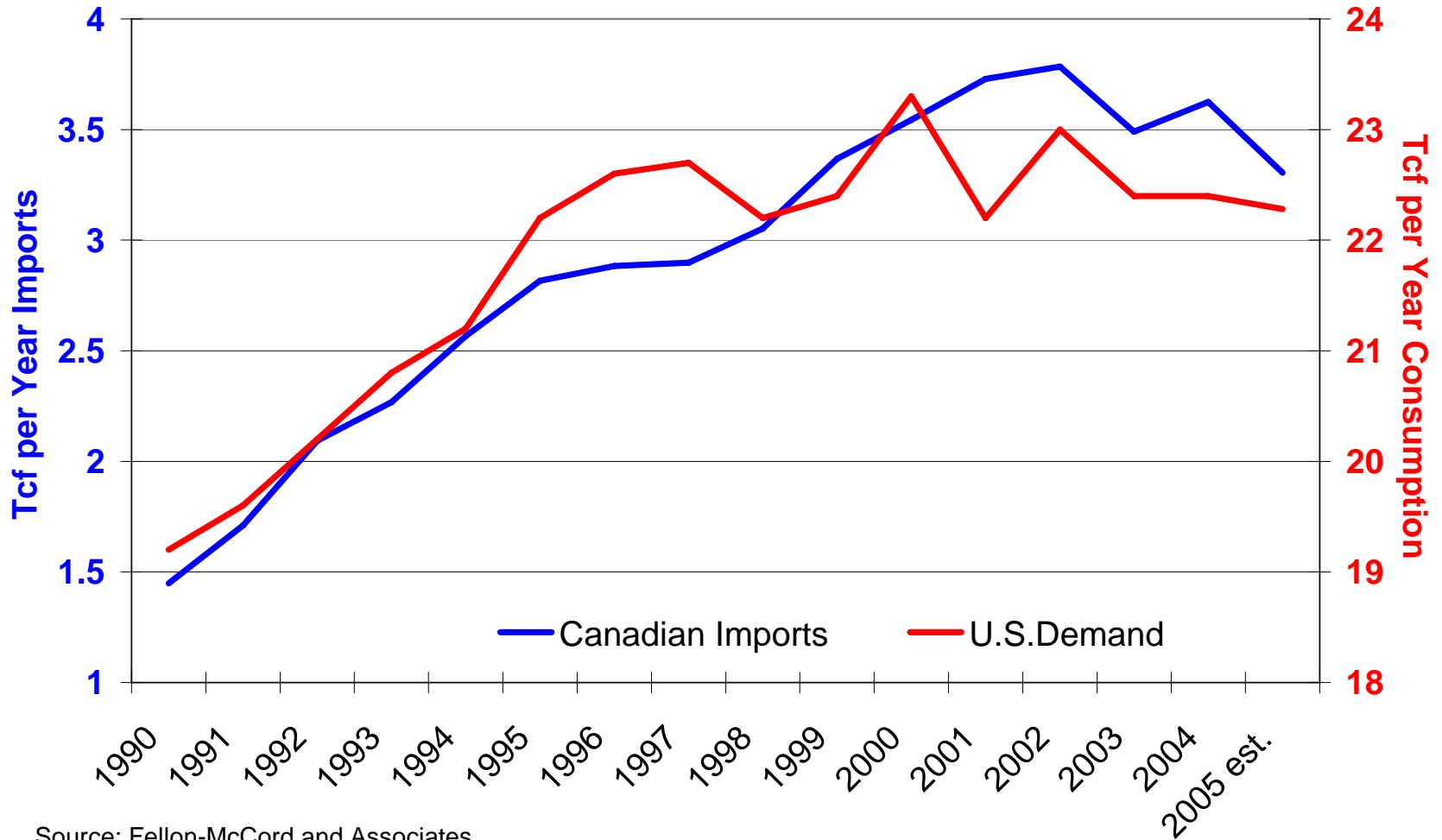
Canadian Natural Gas Production vs. Demand



Source: Fellon-McCord and Associates
Data: Canadian Association of Petroleum Producers and CERA
2005 Numbers are Estimates

Natural Gas Market Overview

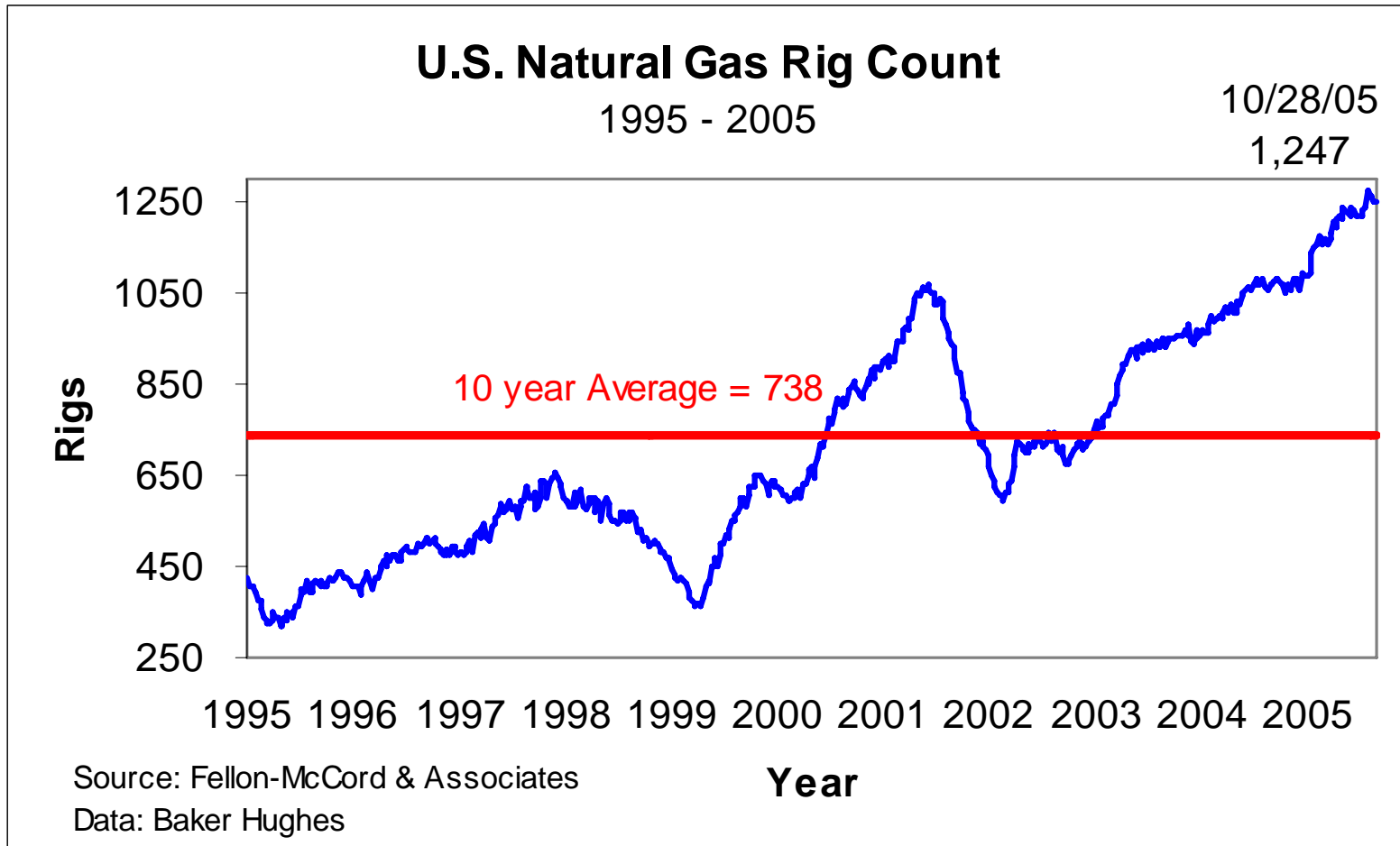
Historic Canada Imports vs. U.S. Demand



Source: Fellon-McCord and Associates
Data: Energy Information Administration

Natural Gas Market Overview

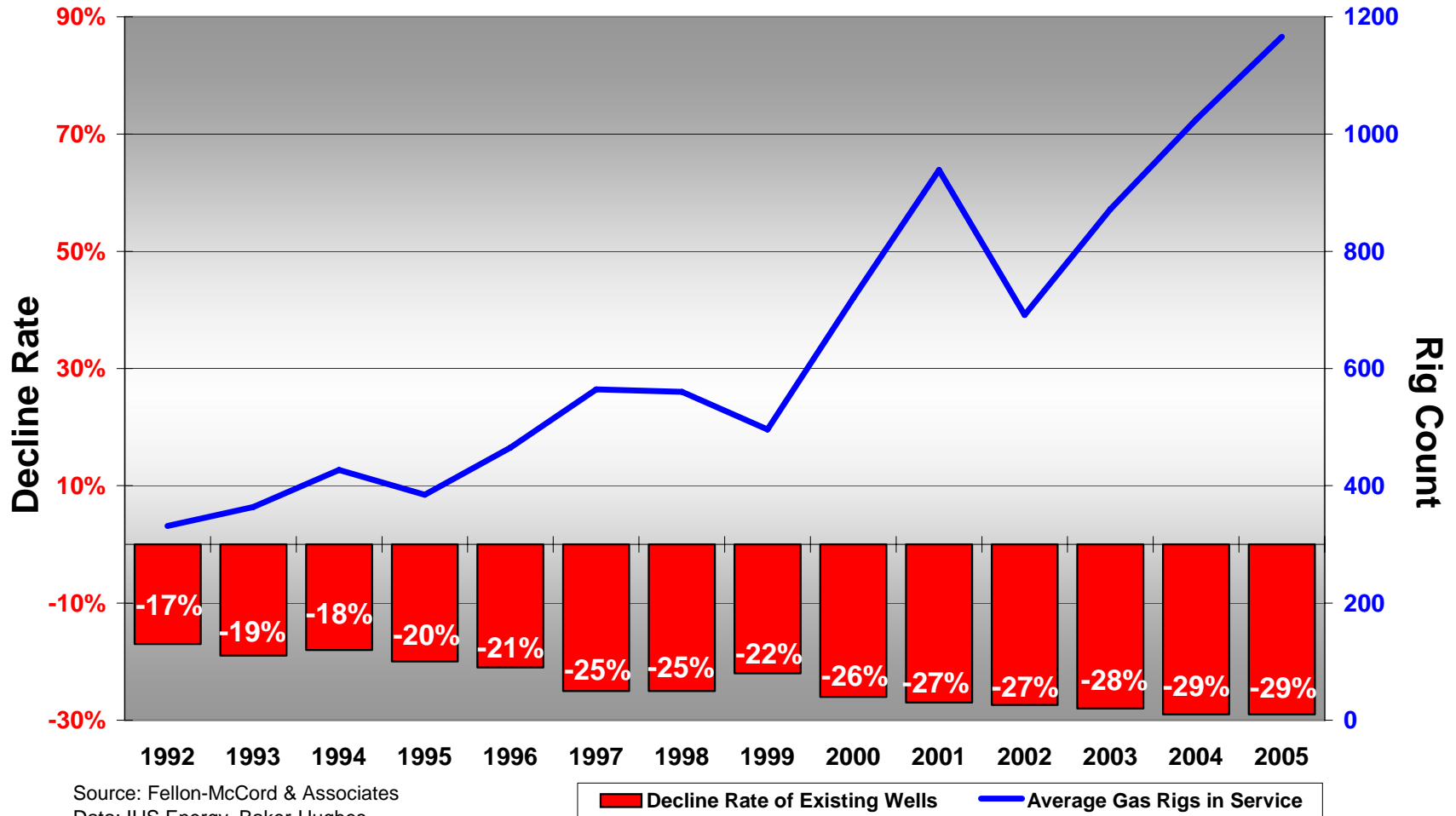
U.S. Rig Count



Natural Gas Market Overview

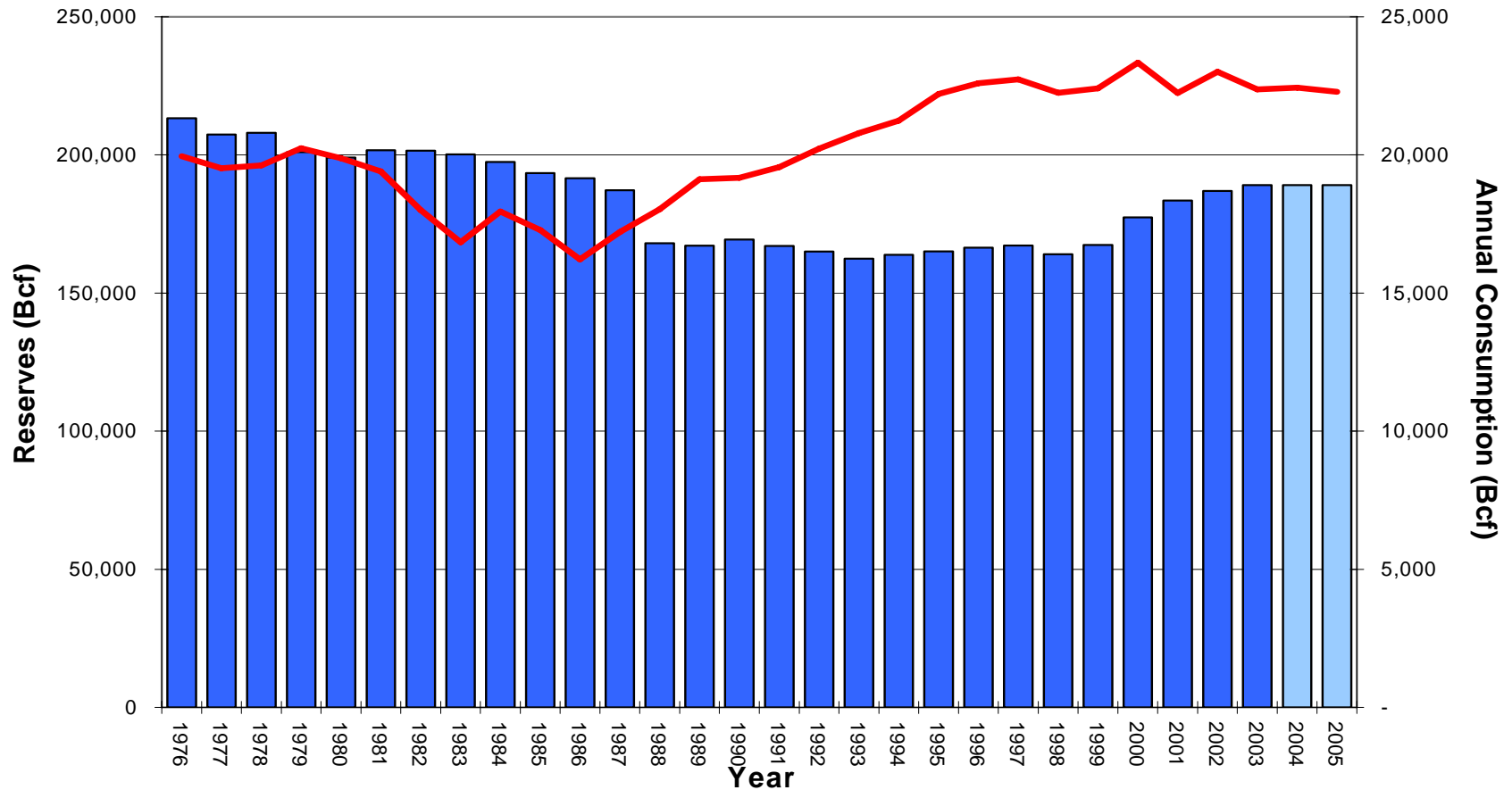
U.S. Production From Existing Wells

Decline Rate vs. Rig Count



Natural Gas Market Overview

U.S. Proved Reserves vs. Demand



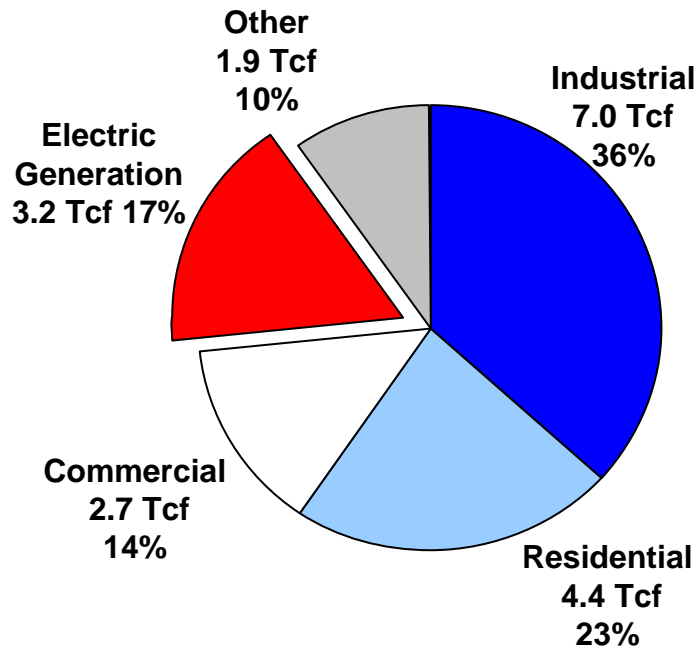
Source: Fellon-McCord & Associates
 Data: Energy Information Administration

■ U.S. Proved Reserves of Dry Natural Gas on 12/31 (Bcf)
 — Annual Consumption (Bcf)

Natural Gas Market Overview

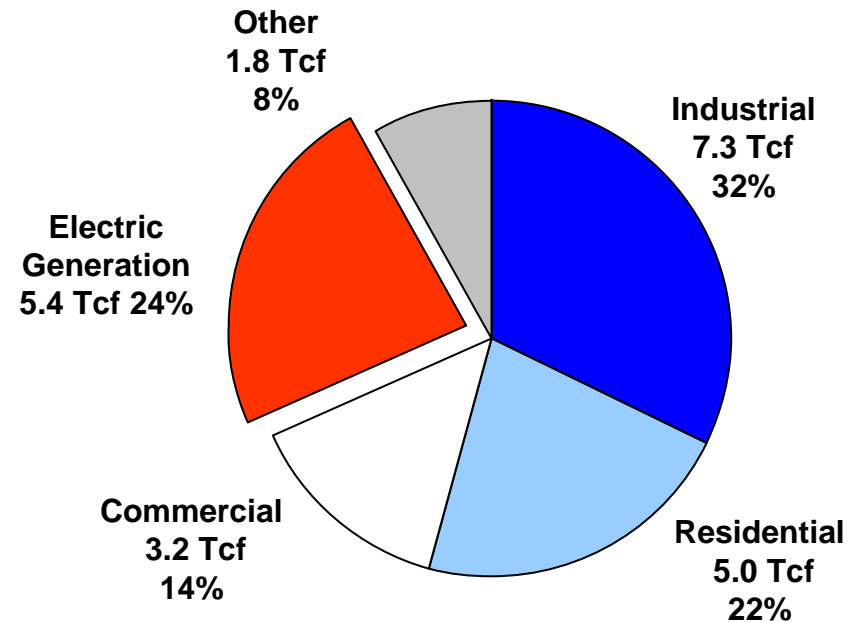
U.S. Natural Gas Demand by Sector

1990 Actual



1990 Total Tcf = 19.2

2005 Forecast



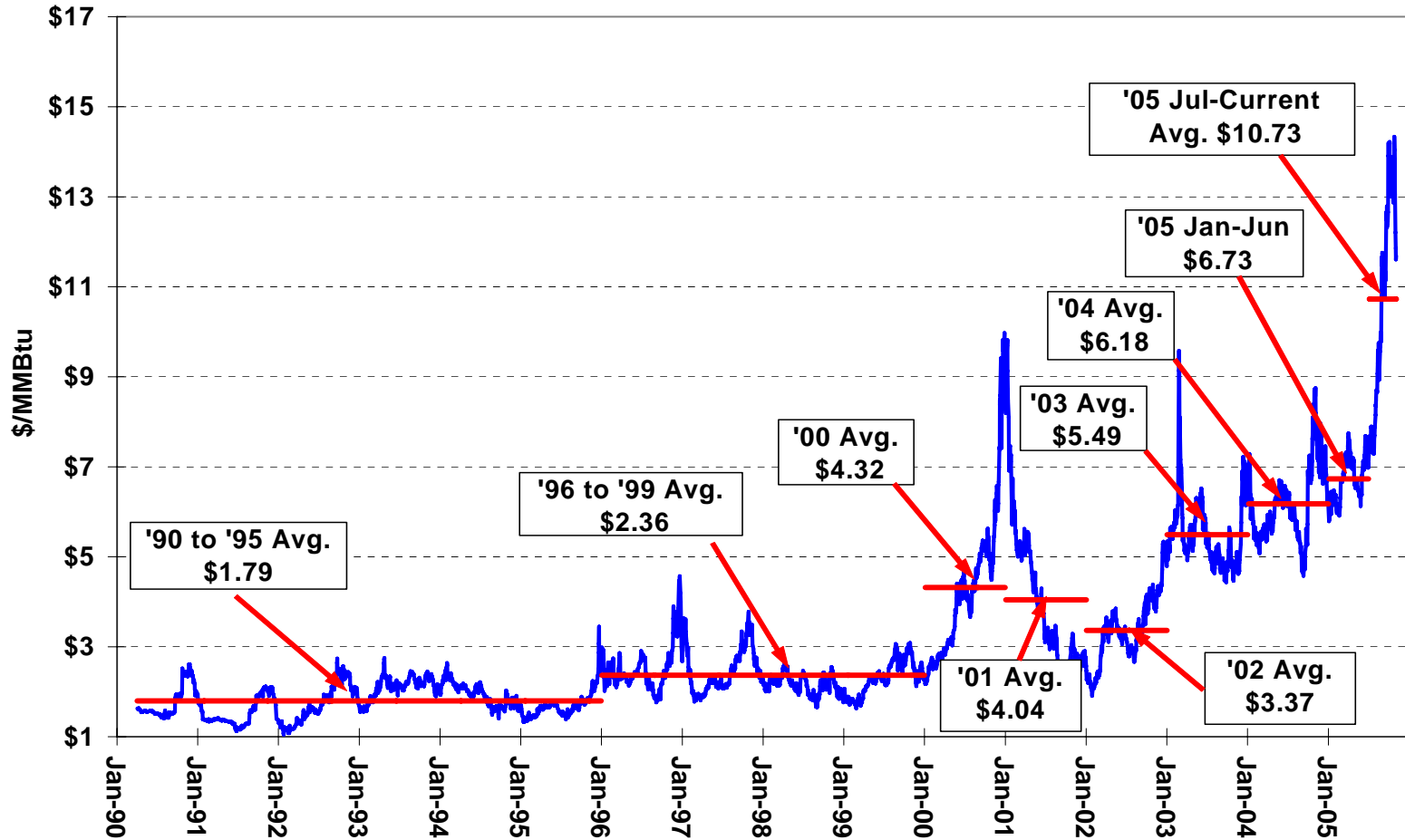
2005 Total Tcf = 22.6

Source: Fellon-McCord & Associates
Data: Energy Information Administration

Natural Gas Market Overview

Daily NYMEX Natural Gas Futures Price History

NYMEX Natural Gas Daily Settlement

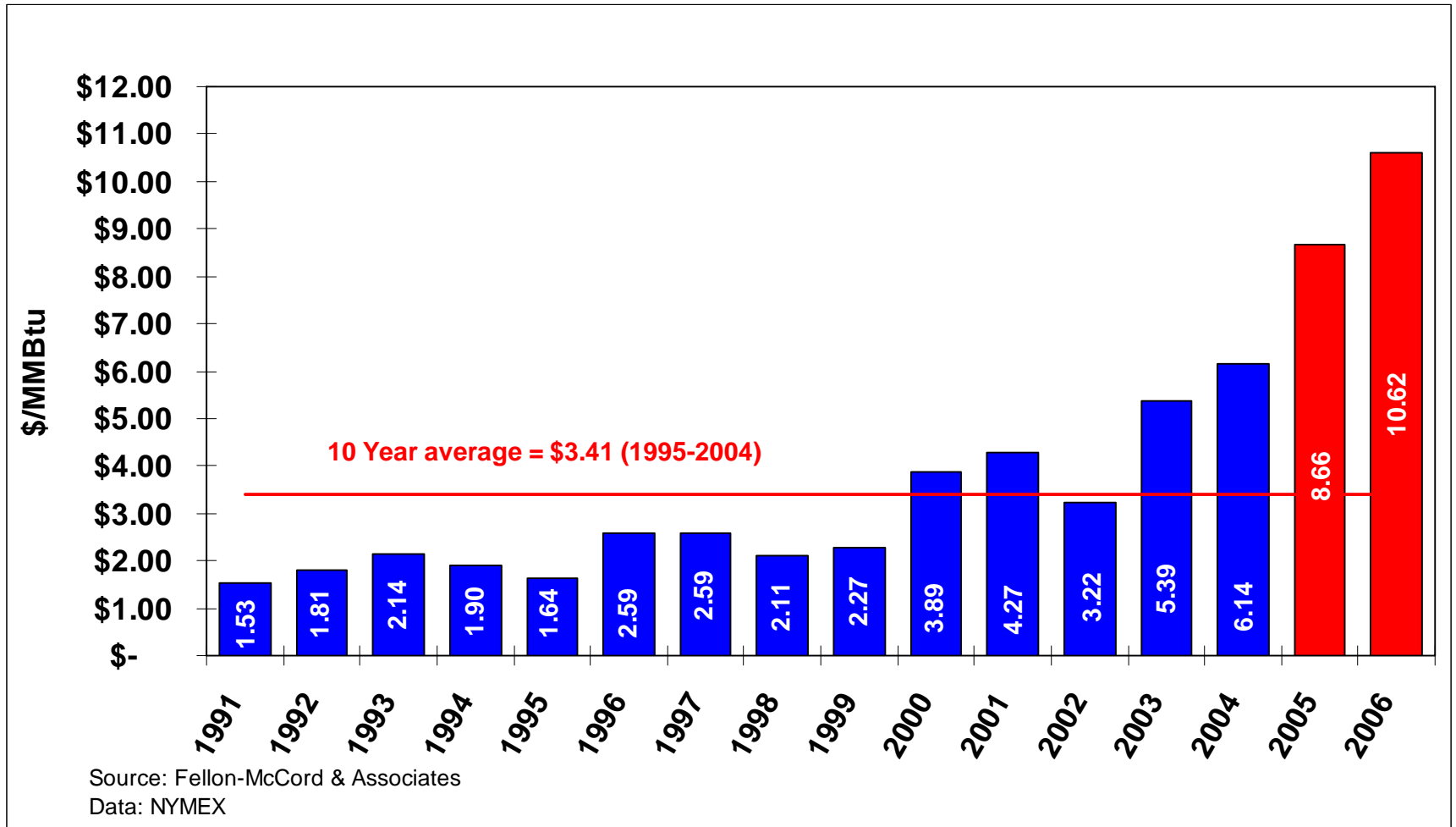


Data Source: NYMEX

Prepared by: Fellon McCord and Associates

Natural Gas Market Overview and Outlook

Average Natural Gas and Forward Prices



End User Responses

- Learning to be better price risk managers
 - Increase in gas hedging activity by customers
 - Ability to mitigate volatility in price swings
- Seeking options to reduce gas consumption requirements through efficiency
 - Classic demand response to high supply prices
 - DSM projects becoming cost effective
 - Move production to cost competitive locations
- Market structure is working
 - Proper signals being sent to the consumer

Procurement / Contracting Trends

- Material shift in end user gas procurement activity over past five years
 - From monthly “spot” and “seasonal” purchases to term supply agreements 1 to 3 years in length
- Increased emphasis on quality of information provided by suppliers to assist customers in decision making process
 - When & how much to hedge, implied volatility analysis
- Risk execution services highly valued
- Credit quality of supplier significant issue post Enron bankruptcy
 - Will the supplier’s gas be there, and at what price?

Do we need new Policies?

- Competitive markets are needed long term
 - Functional power markets promote the most cost efficient dispatching of generation
- Encourage fuel diversity in new power generation projects
 - Nuclear & coal gasification development
- Encourage additional gas supply sources
 - Increase drilling activity to enhance supply diversity
 - Promote LNG import capacity in North America
- National problem – Federal action required in the short run to avoid significant potential long term economic impacts