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# **The North America Gas Market: Changing Face of Supply and Demand**

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President, BP Gas & Power North America  
Anchorage  
November 29, 2001**



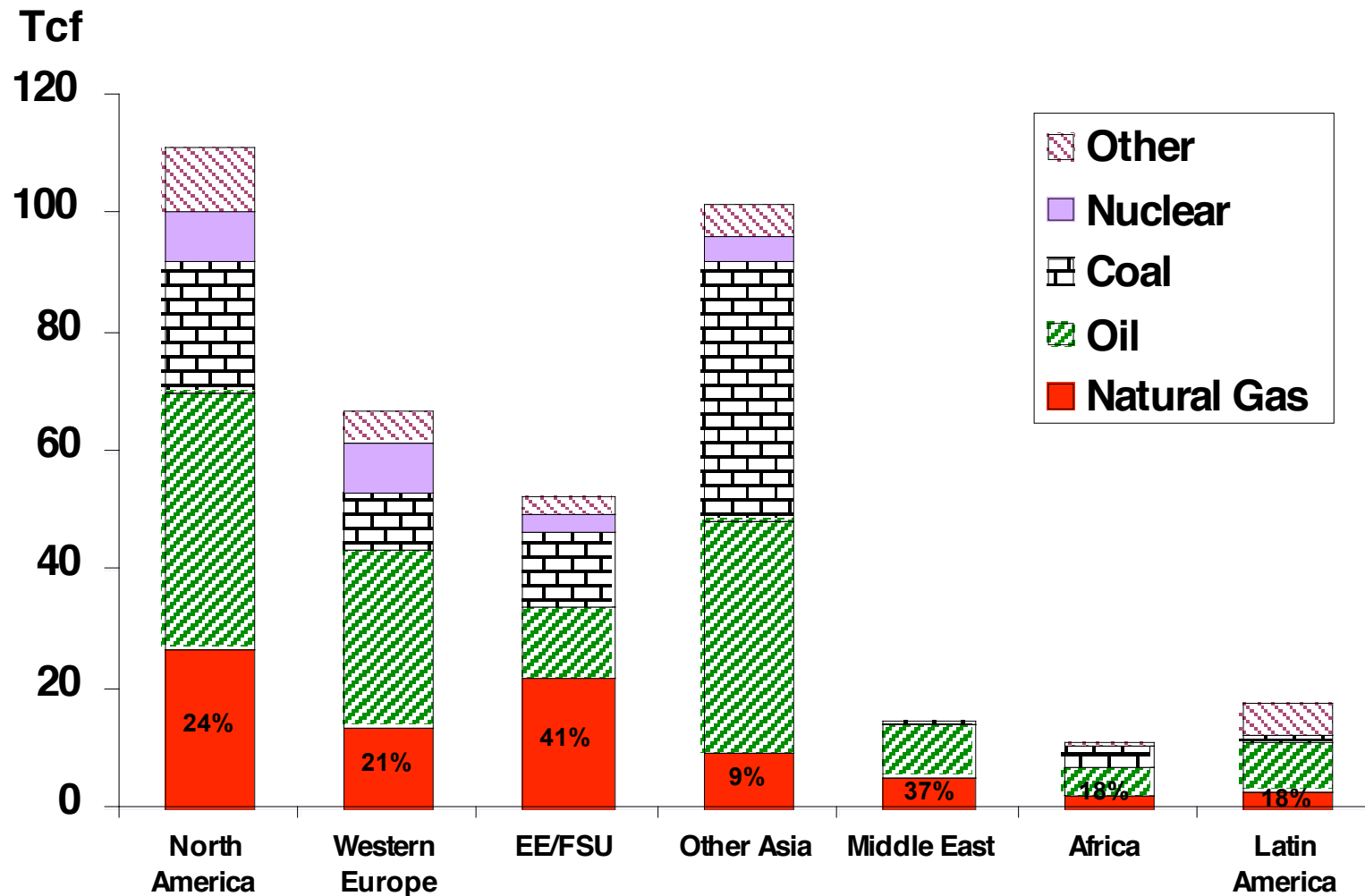
# Presentation Outline

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- ◆ **Characteristics of the market**
- ◆ **How it functions and the players**
- ◆ **Trends and issues**
- ◆ **The ‘Perfect Storm’**
- ◆ **Looking forward**



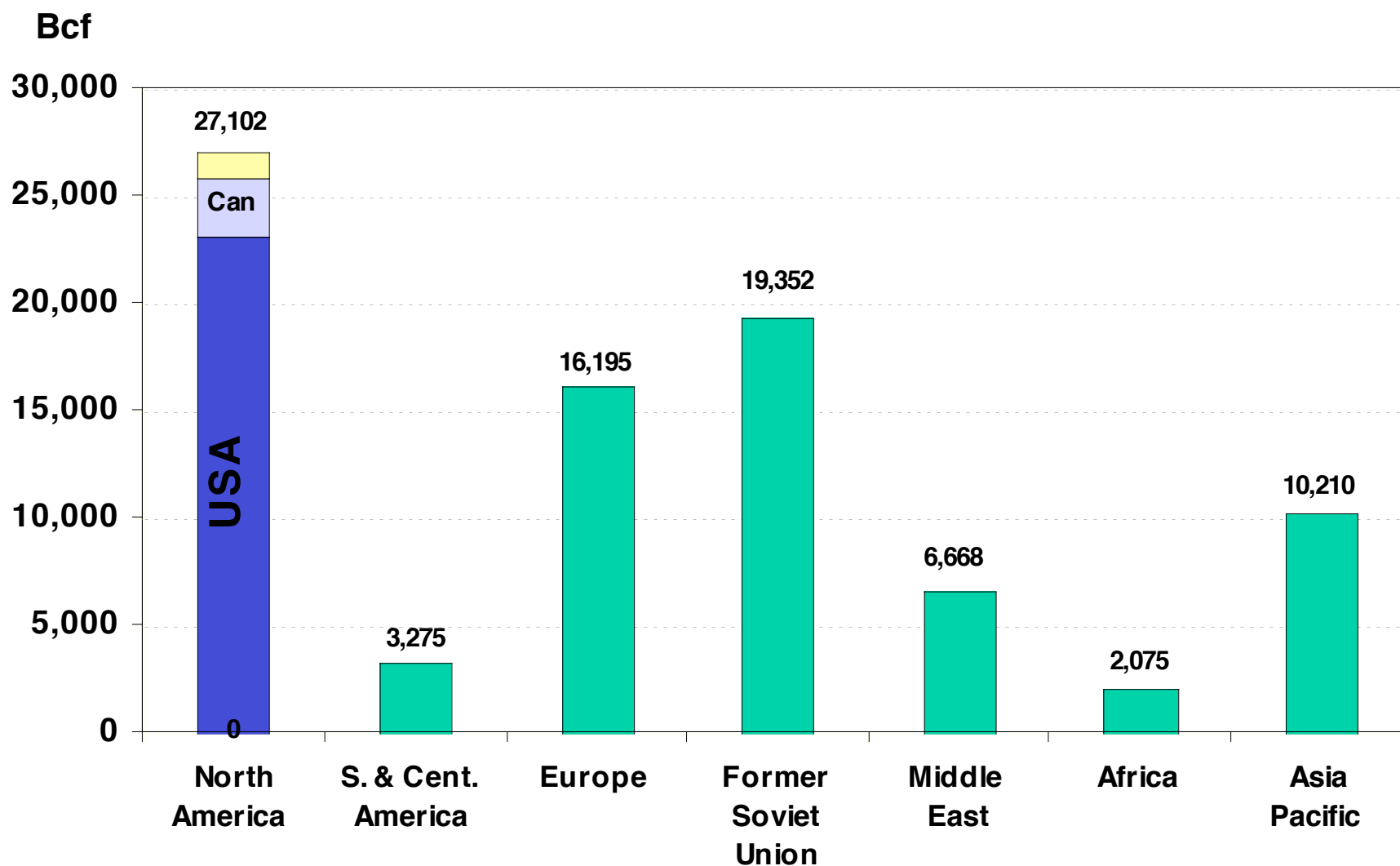
# Natural gas is the fuel of the future



Source: EIA



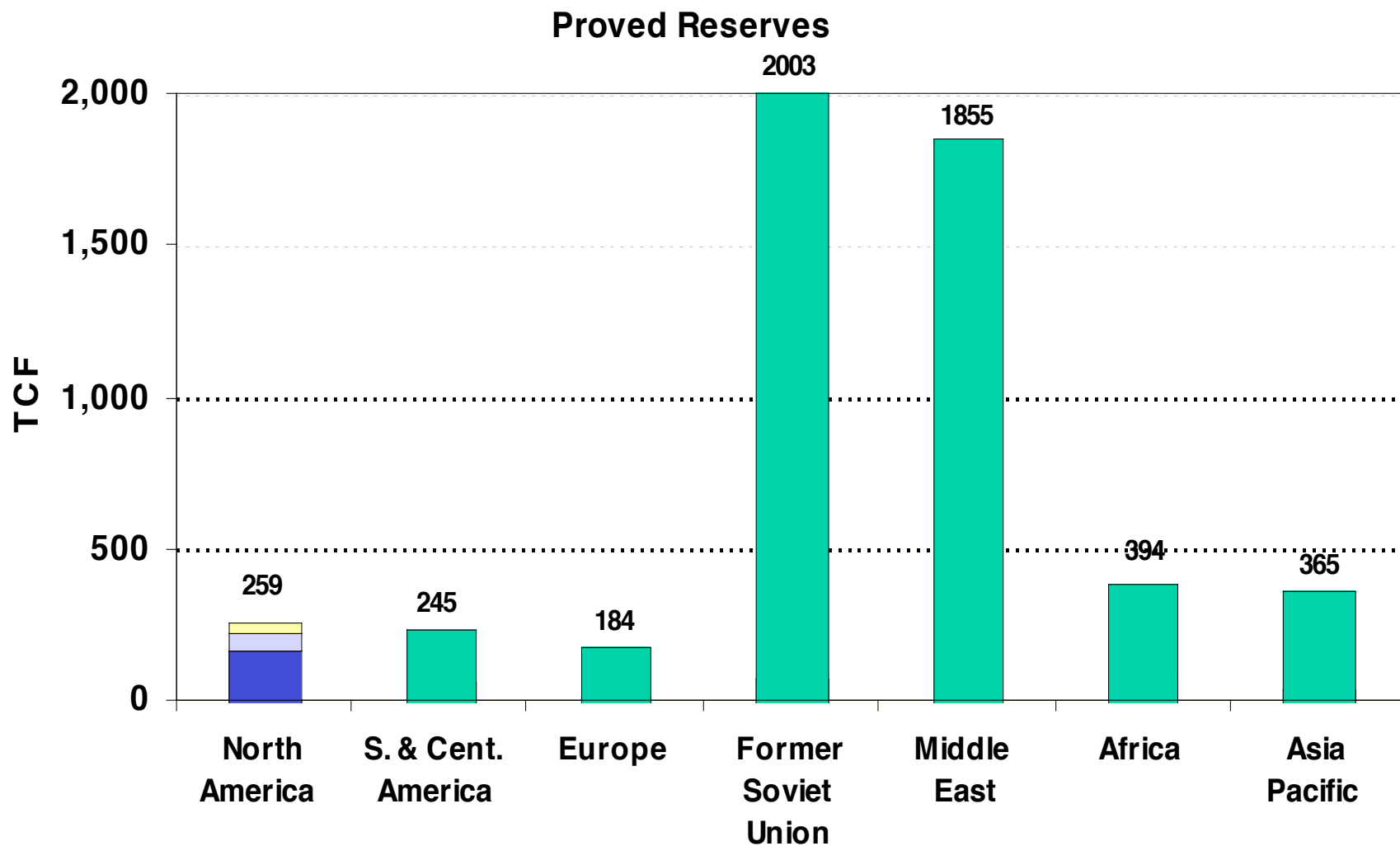
# North America – World's Largest Market



Source: BP Statistical Review



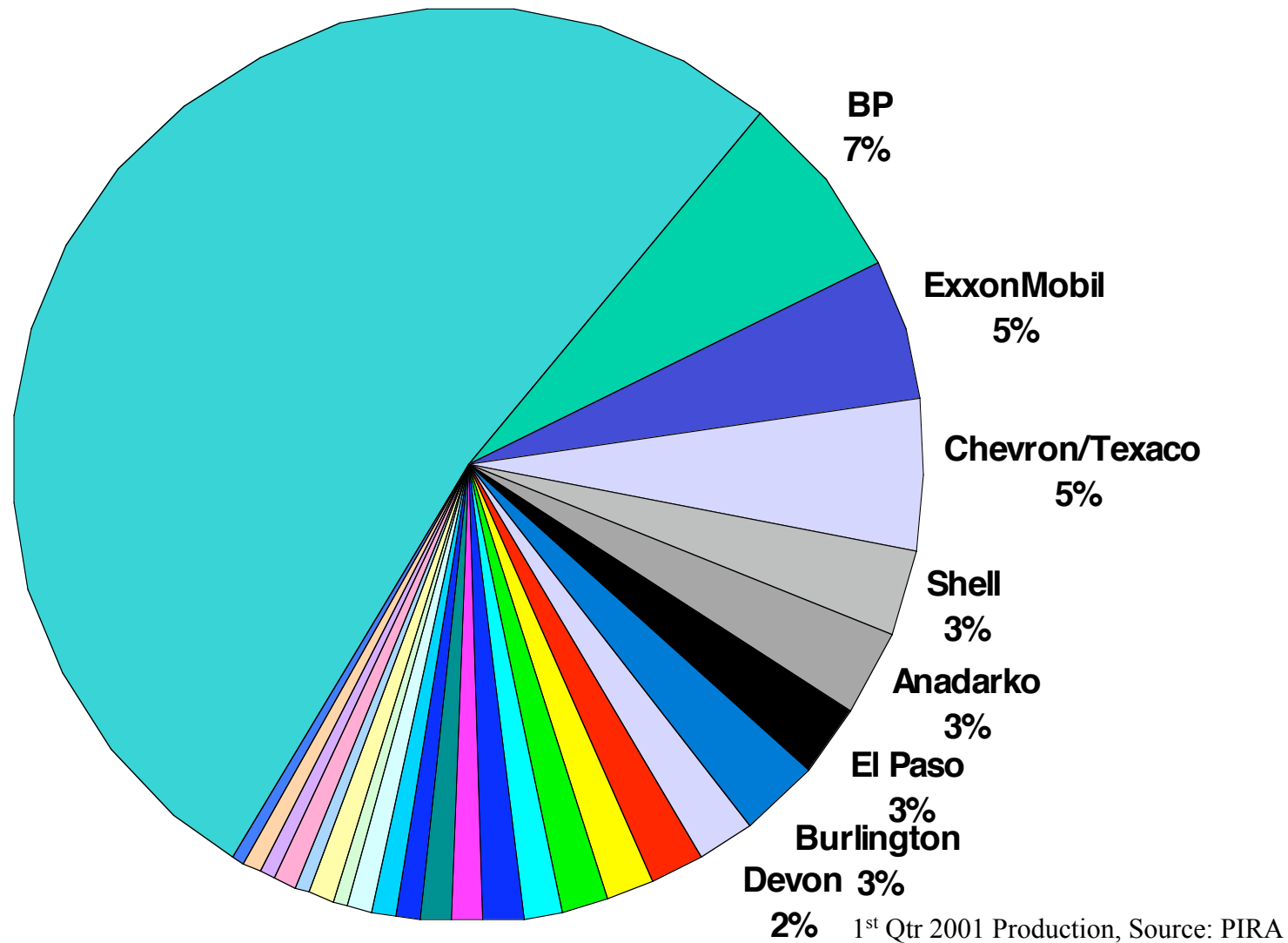
# North America – Lowest R/P



Source: BP Statistical Review



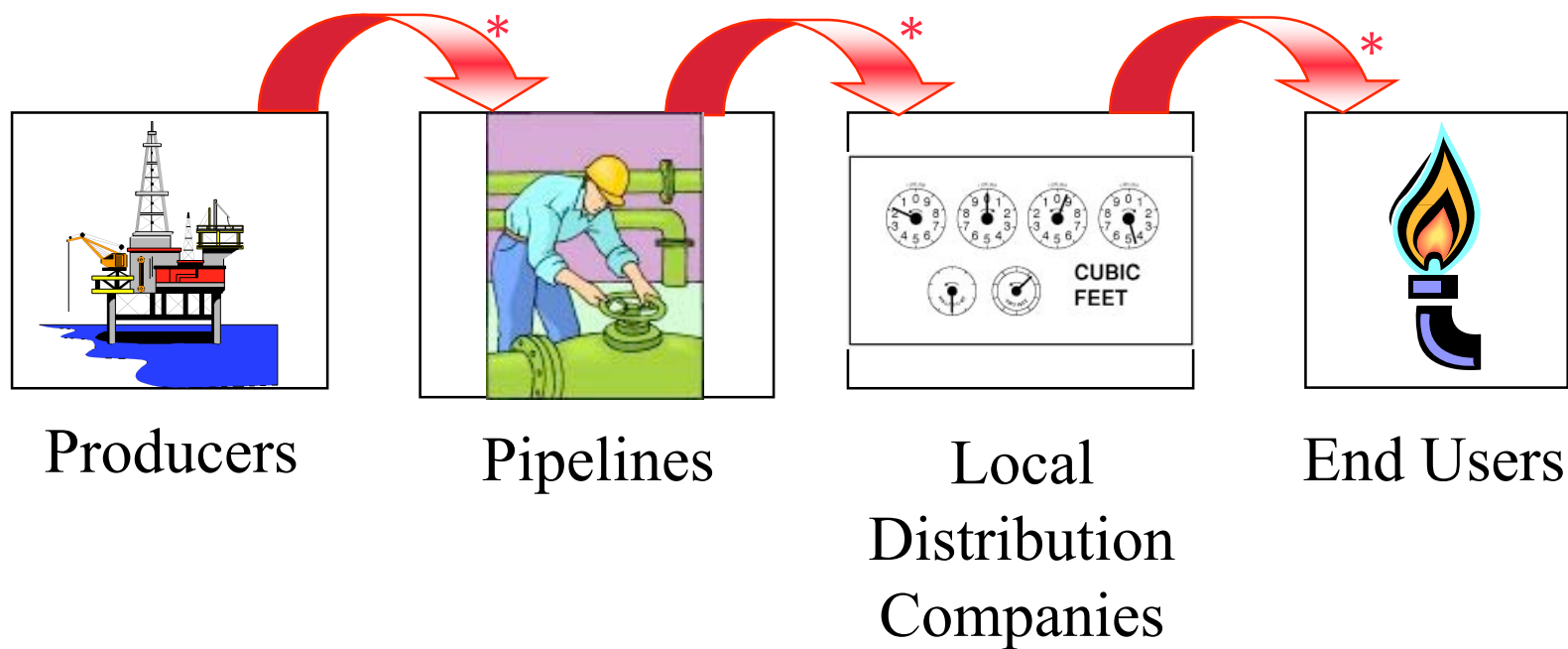
# US Producers – Diluted Market





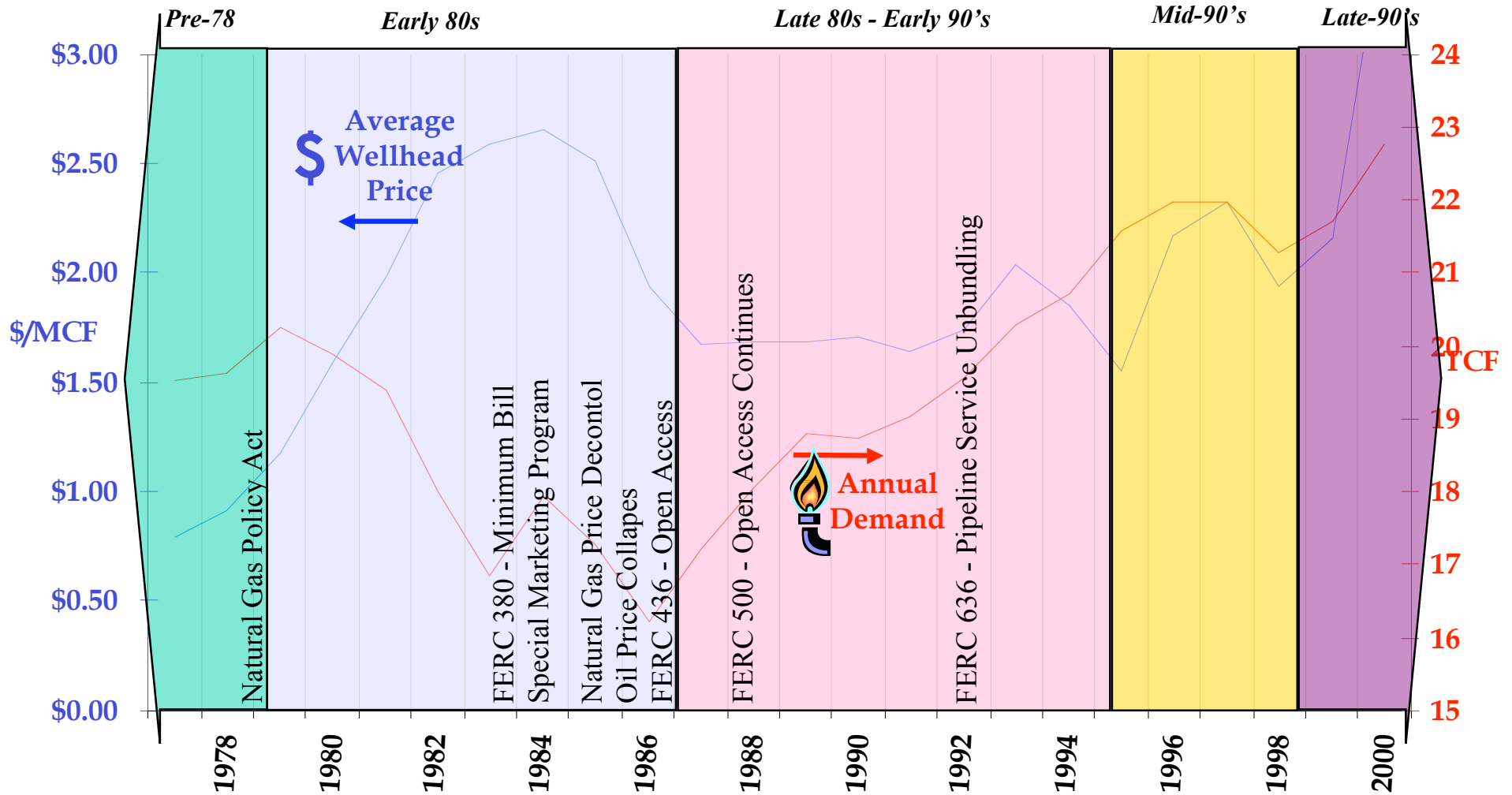
# US Natural Gas Markets

## Pre 1978 - Value Chain Regulation



\* Regulated Pricing

# Natural Gas Industry Restructuring Market Forces and Regulatory Change



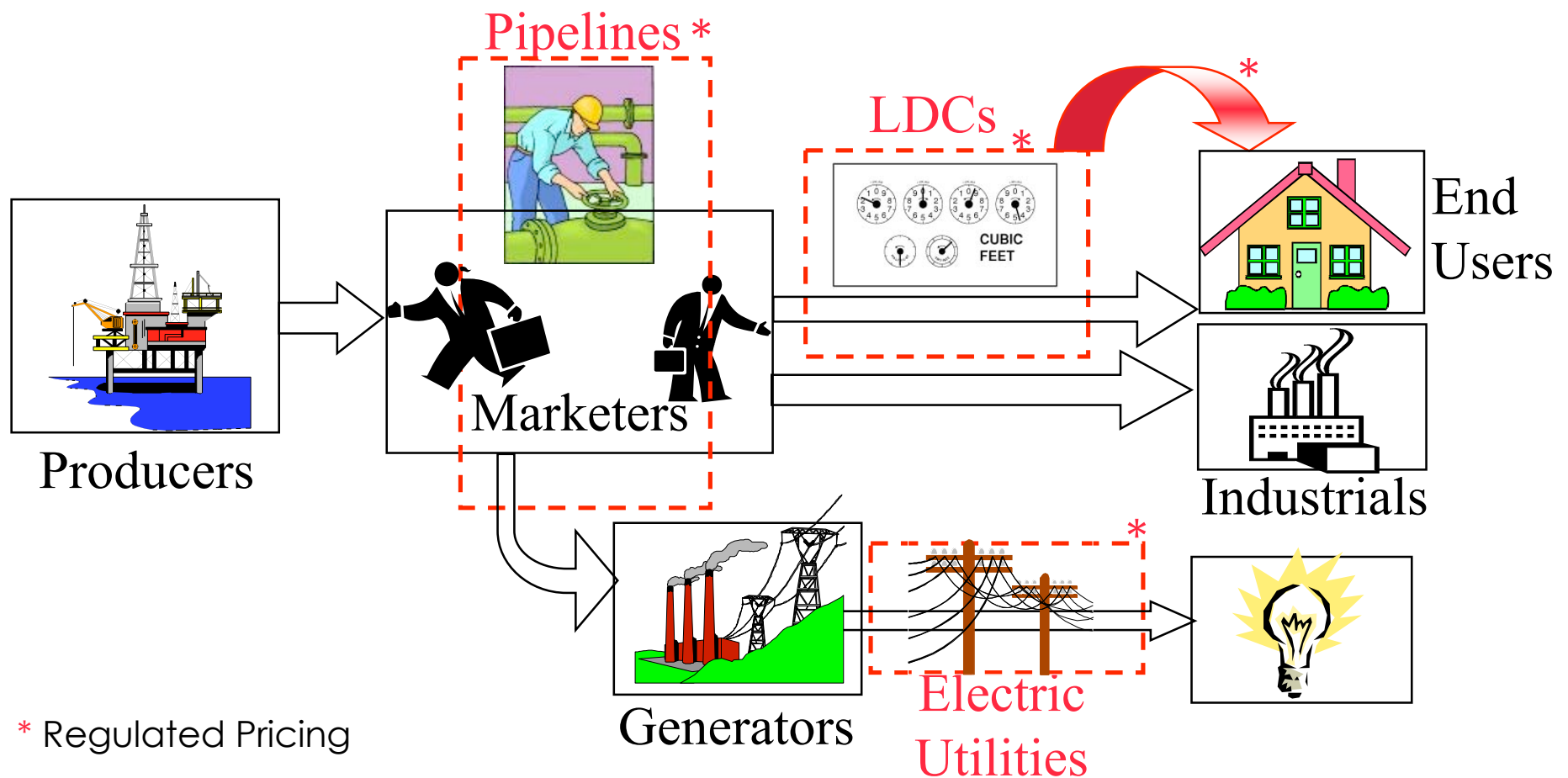
Source: EIA (Natural Gas Annual)





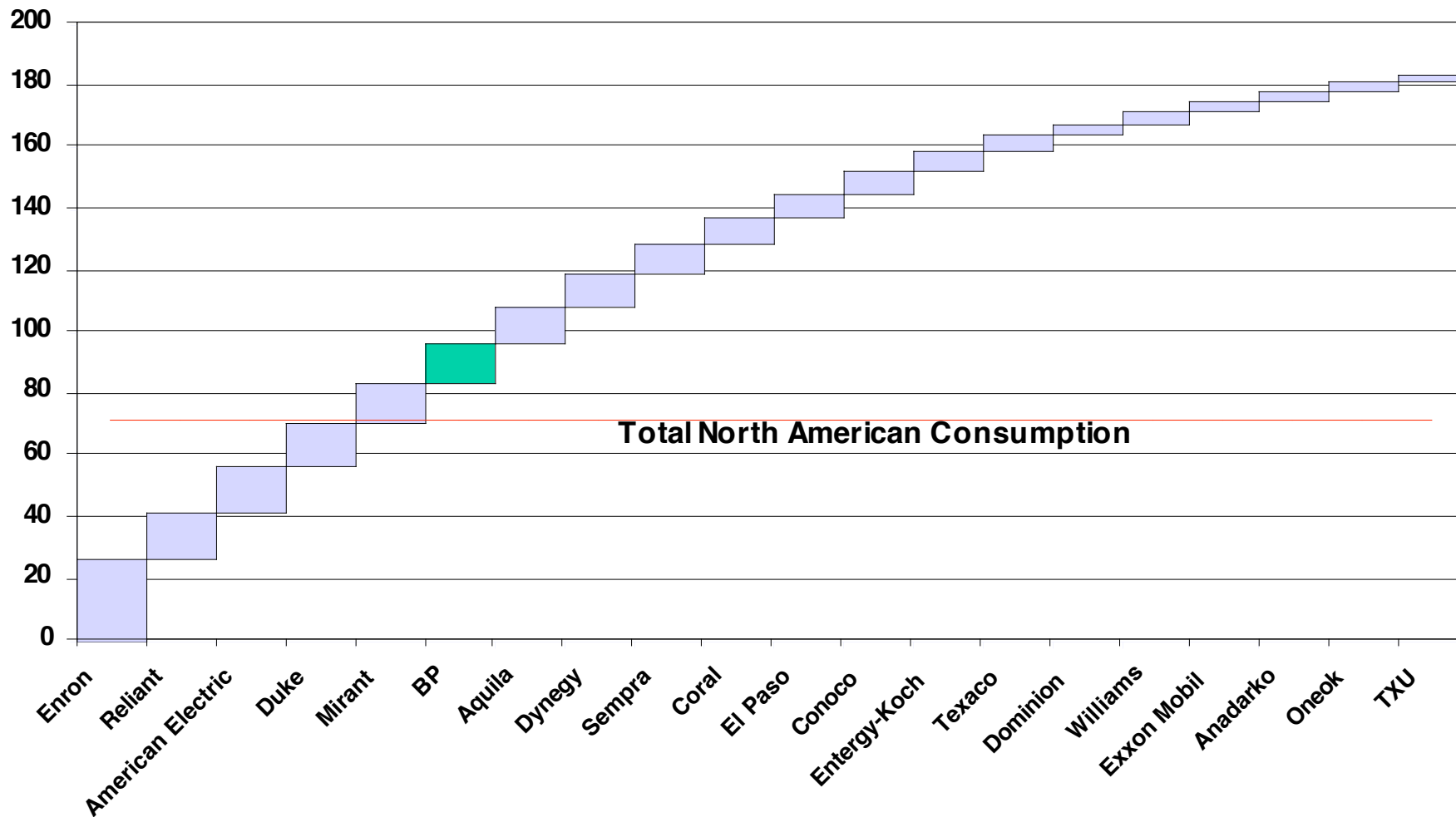
# US Natural Gas Markets

**Current** - Transportation, distribution and storage services unbundled.  
Emergence of wholesale marketers



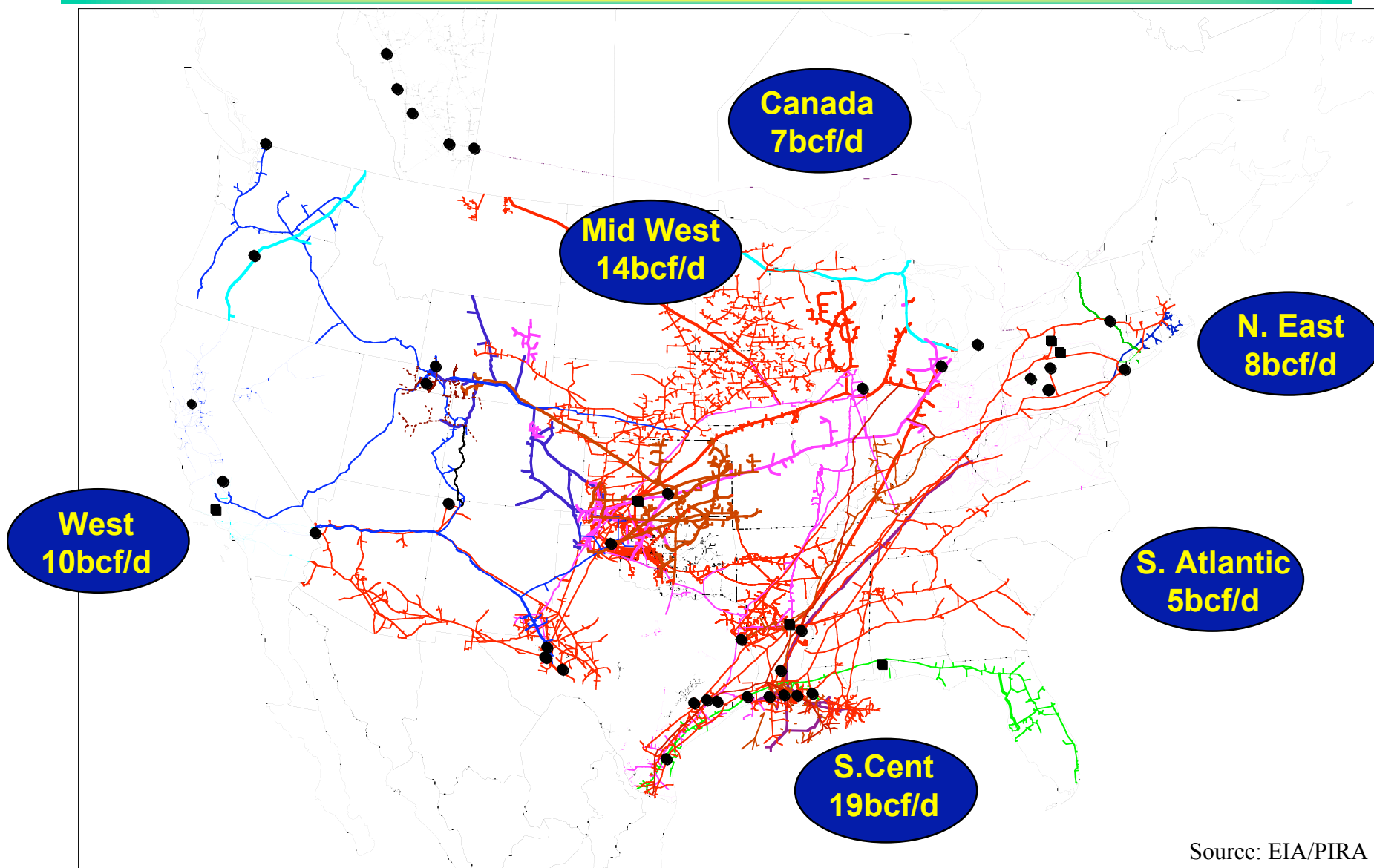


# North American Gas Sales By Marketer

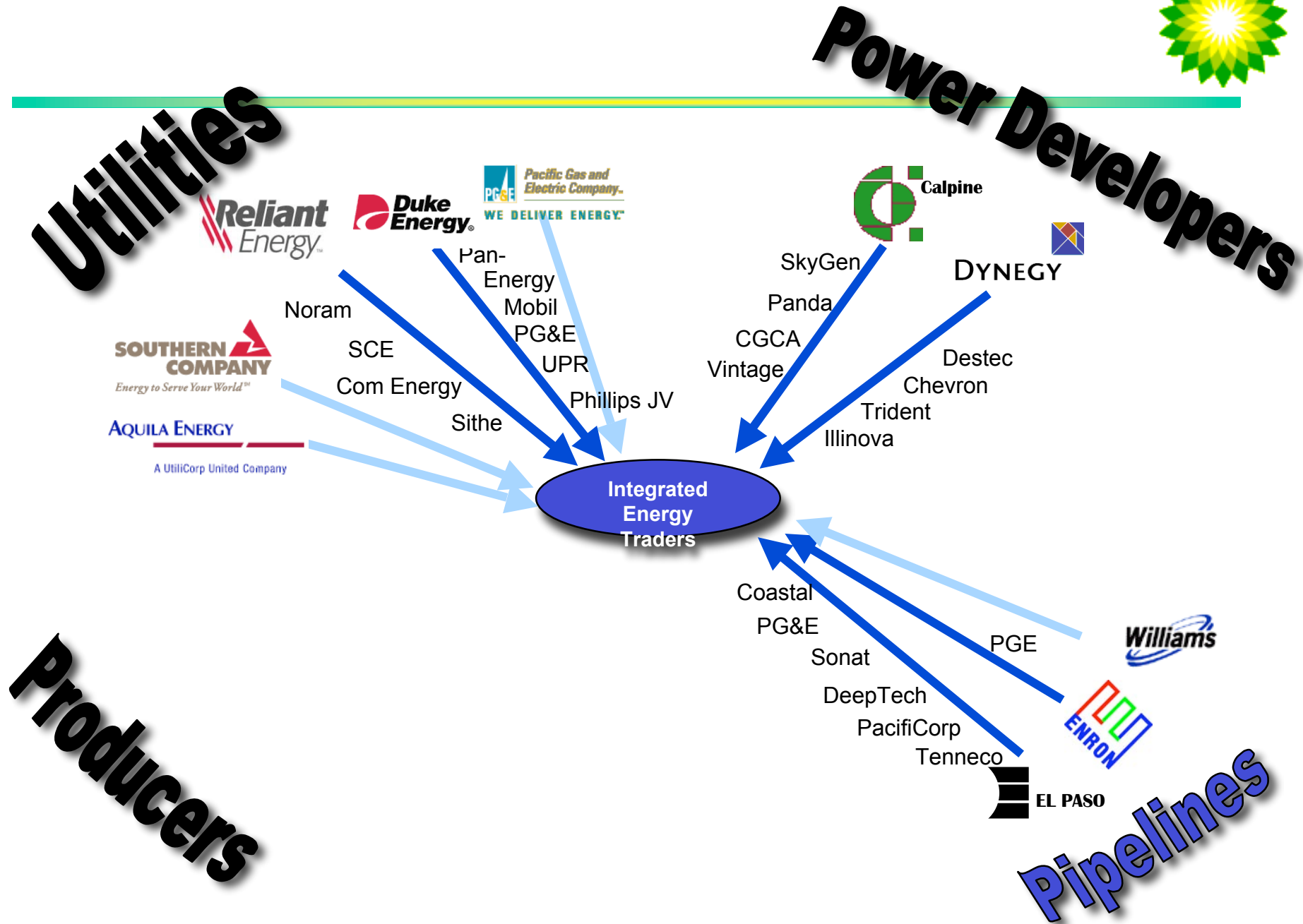




# Natural Gas – the major demand areas

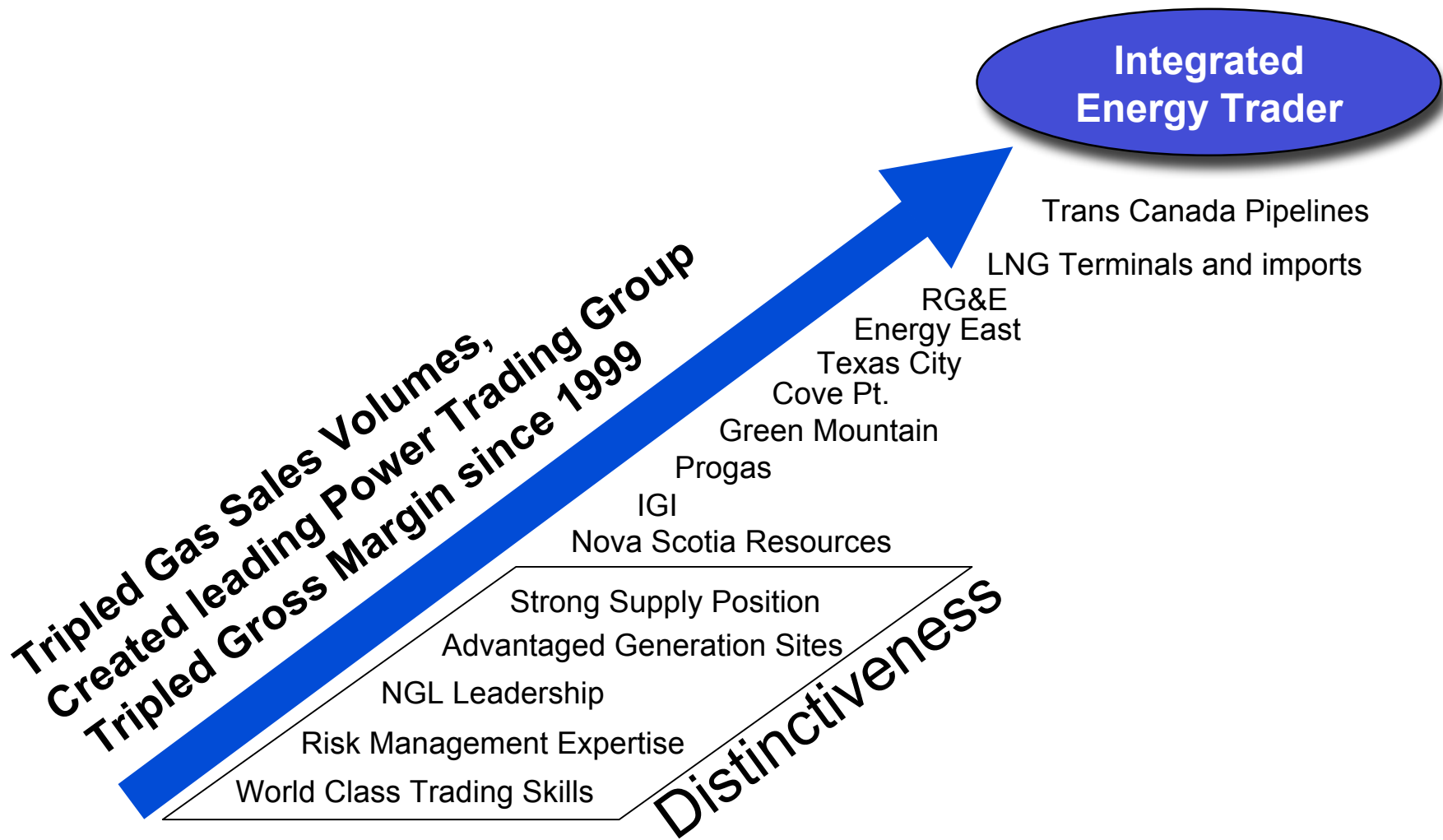


# Dynamic changes in competitive landscape





# BP differentiated position

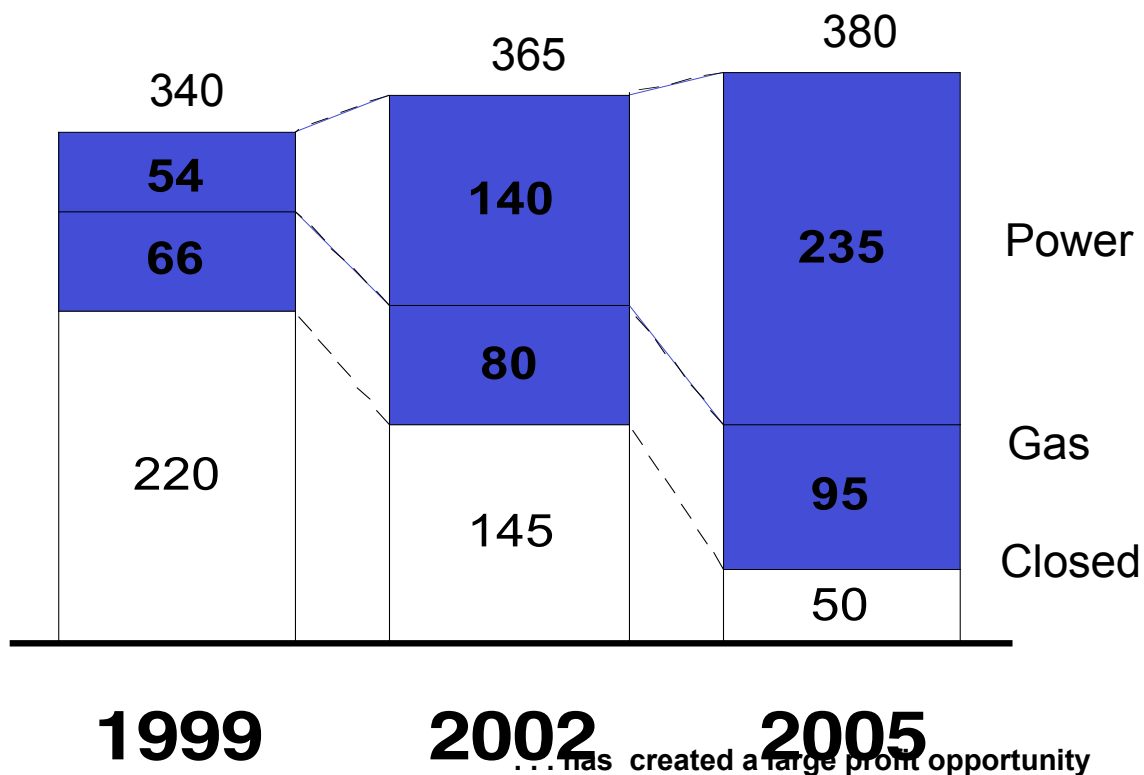




# Market changes creating opportunities

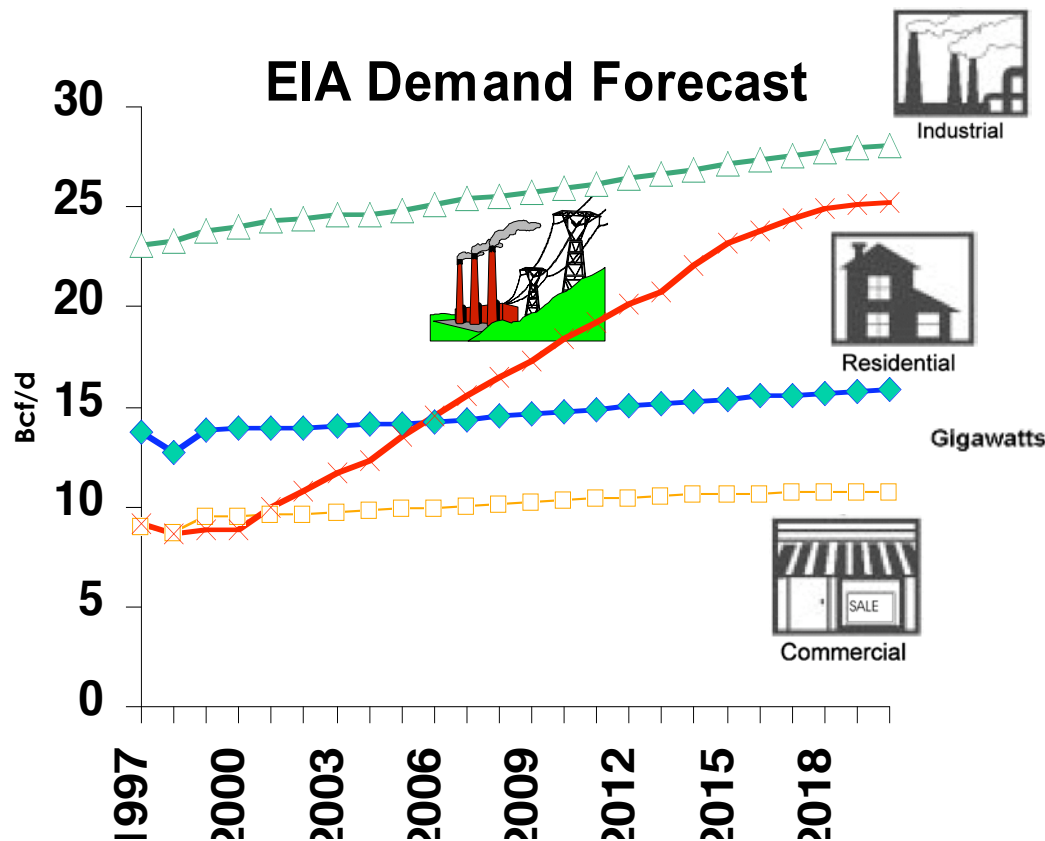
Size of open markets end use  
\$ Billions

Open competition

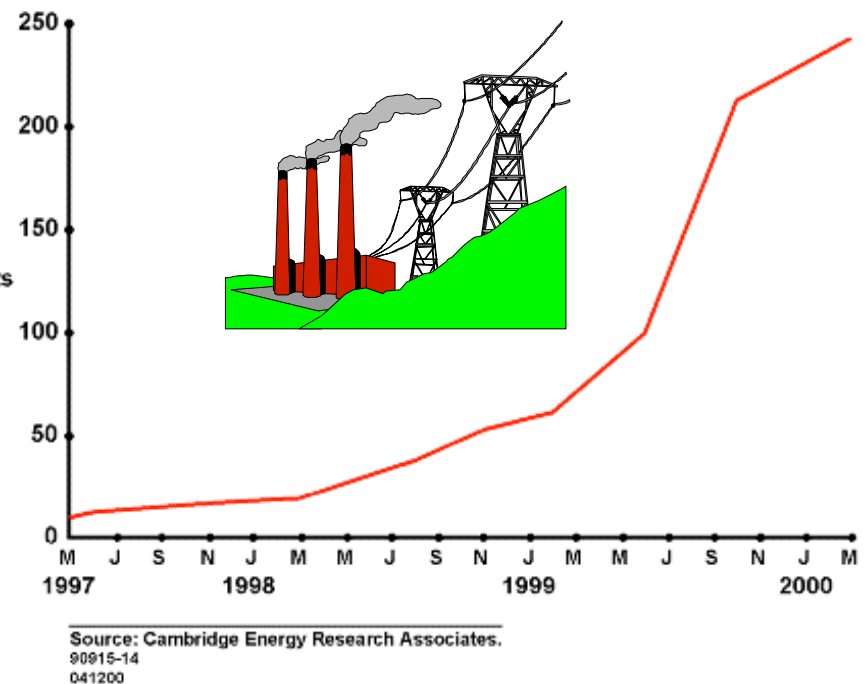




# Future Natural Gas Demand



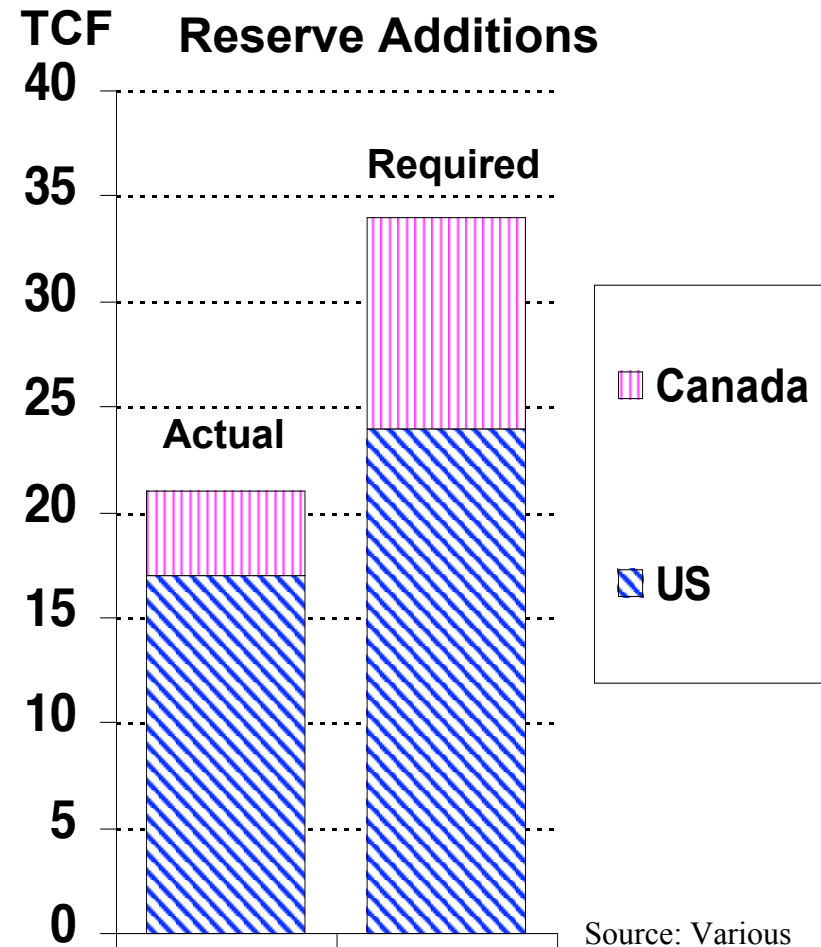
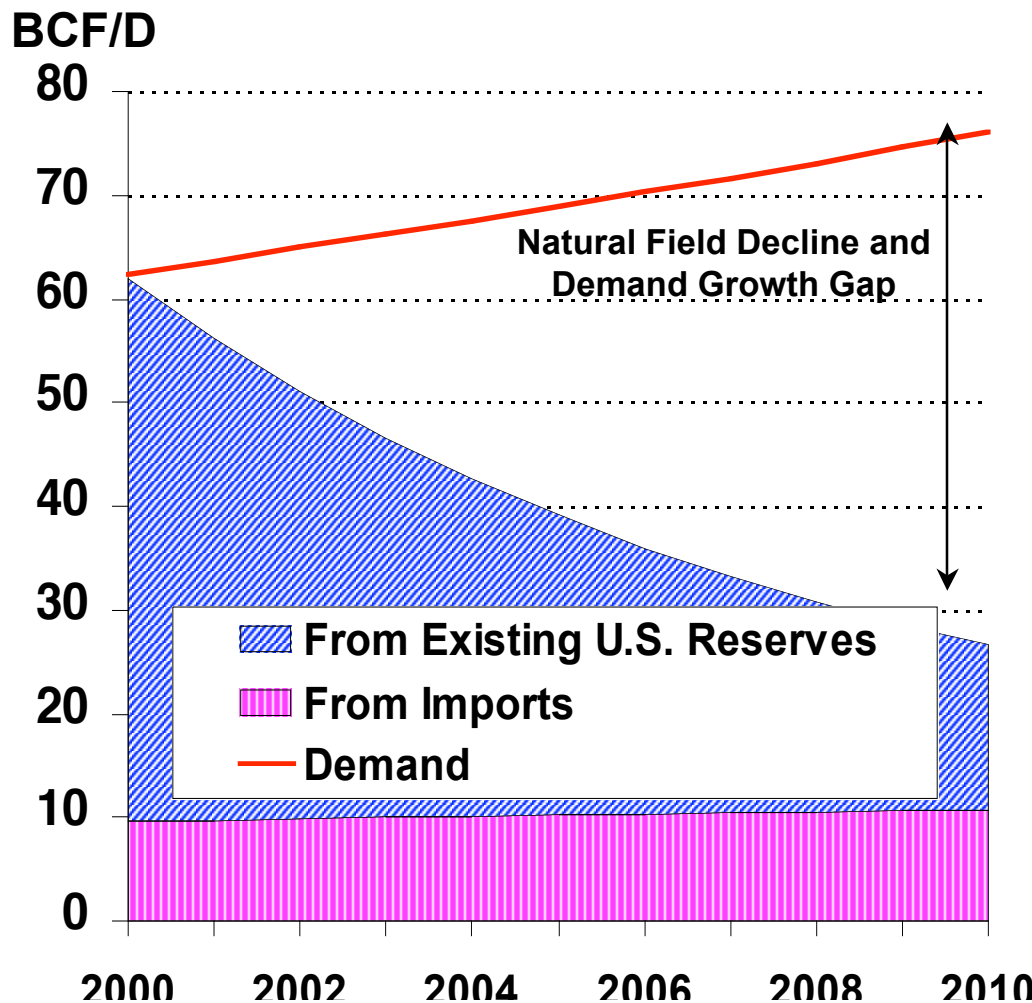
### North American Announced Generation Projects



- Demand for gas is expected to continue to grow led by power generation.
- Over 90% of new generation projects are gas-fired.



# U.S. Supply and Demand



Source: Various

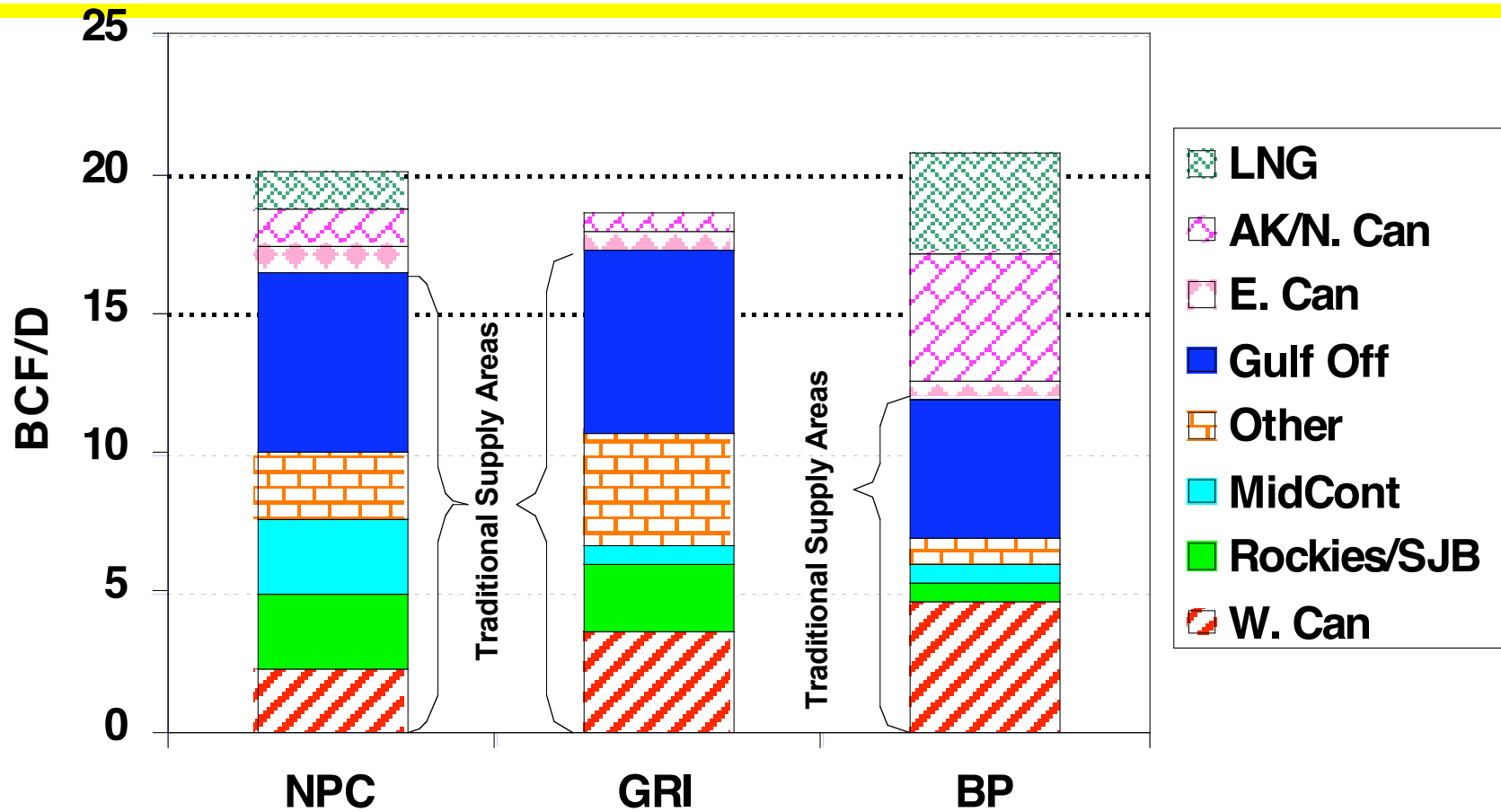
- Each year 7-8 bcf/d of deliverability must be added, 1 for demand growth, 6-7 to replace declines.
- At a constant R/P ratio, North America must replace 120% of production to meet a 2% demand growth.



# Supply Growth Forecasts



## 2000-2010 Growth - U.S.



*We believe the continent will need to rely on new supply areas.*

# Winter 2000-2001

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# Natural gas supply across U.S. reached an inflexion point

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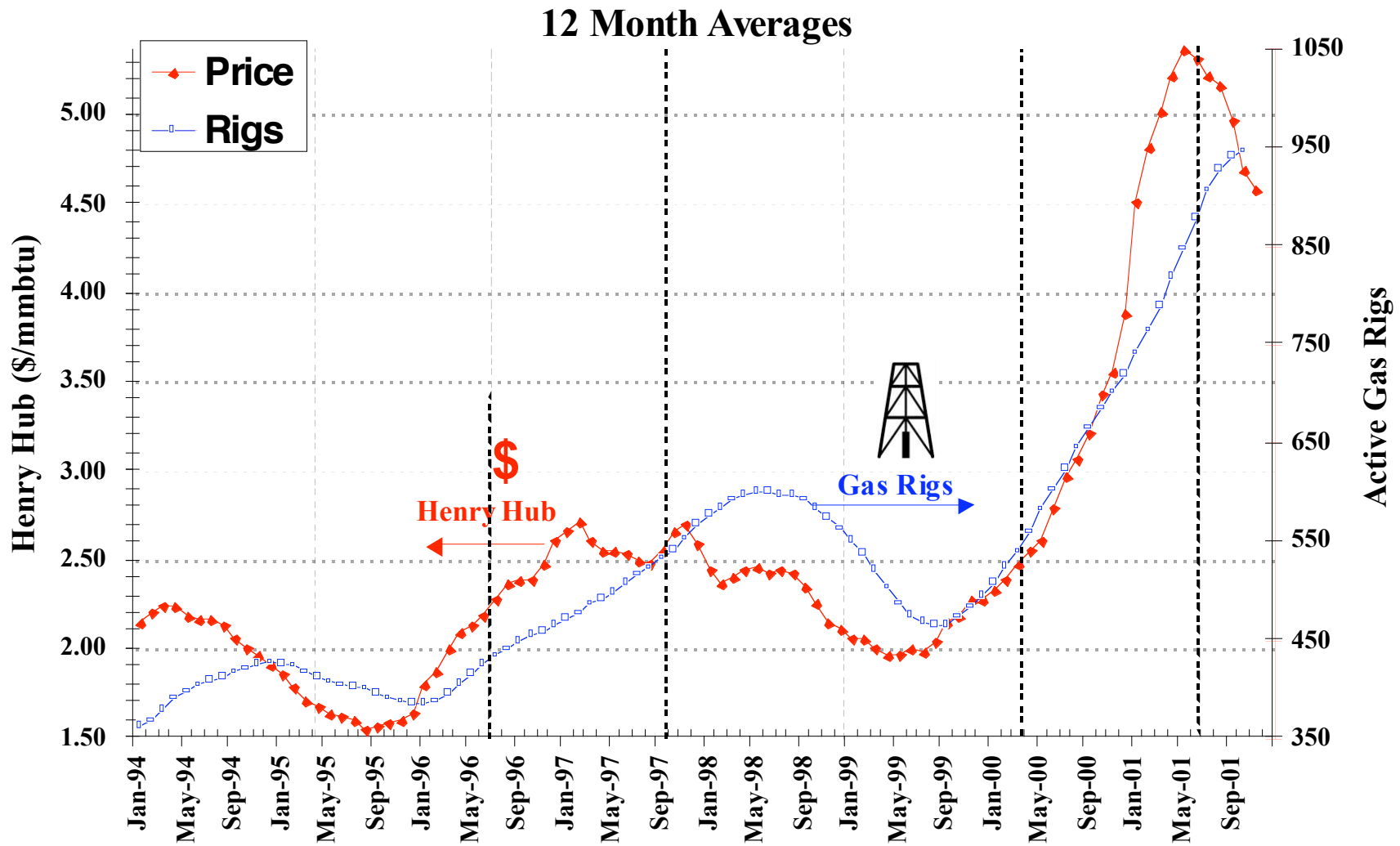
- **Short term deliverability constraints**
  - Prices discouraged drilling
  - Low returns for independent sector
- **Demand strong**
  - Strong economy
  - Natural gas is fuel of choice
  - State-by-state deregulation

**THE MARKET WORKED EFFICIENTLY**



# The Market Responds – Supply

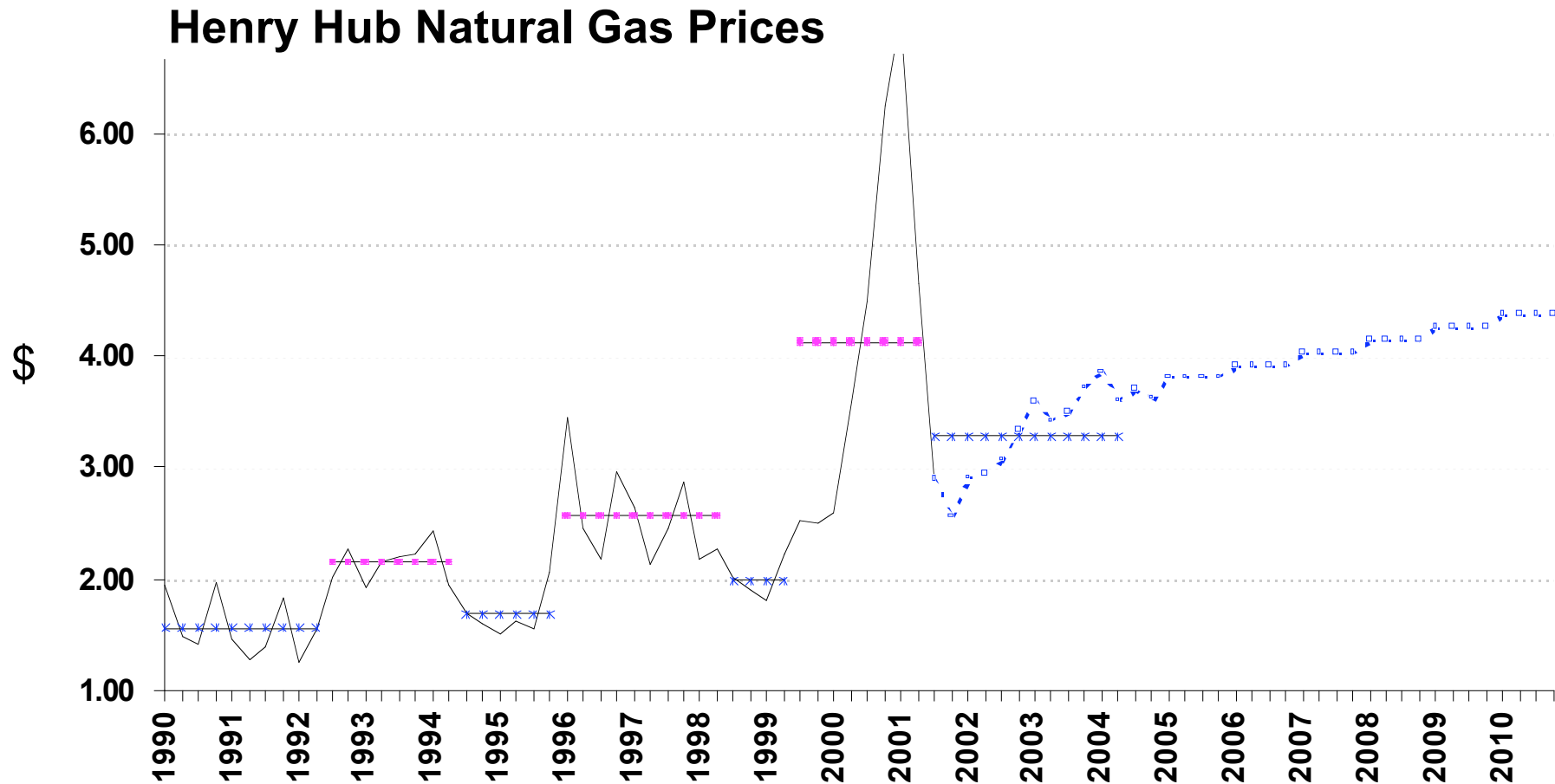
## US Drilling vs Prices



Source: IFERC/Baker Hughes



# Market Projects Response to Industry Actions

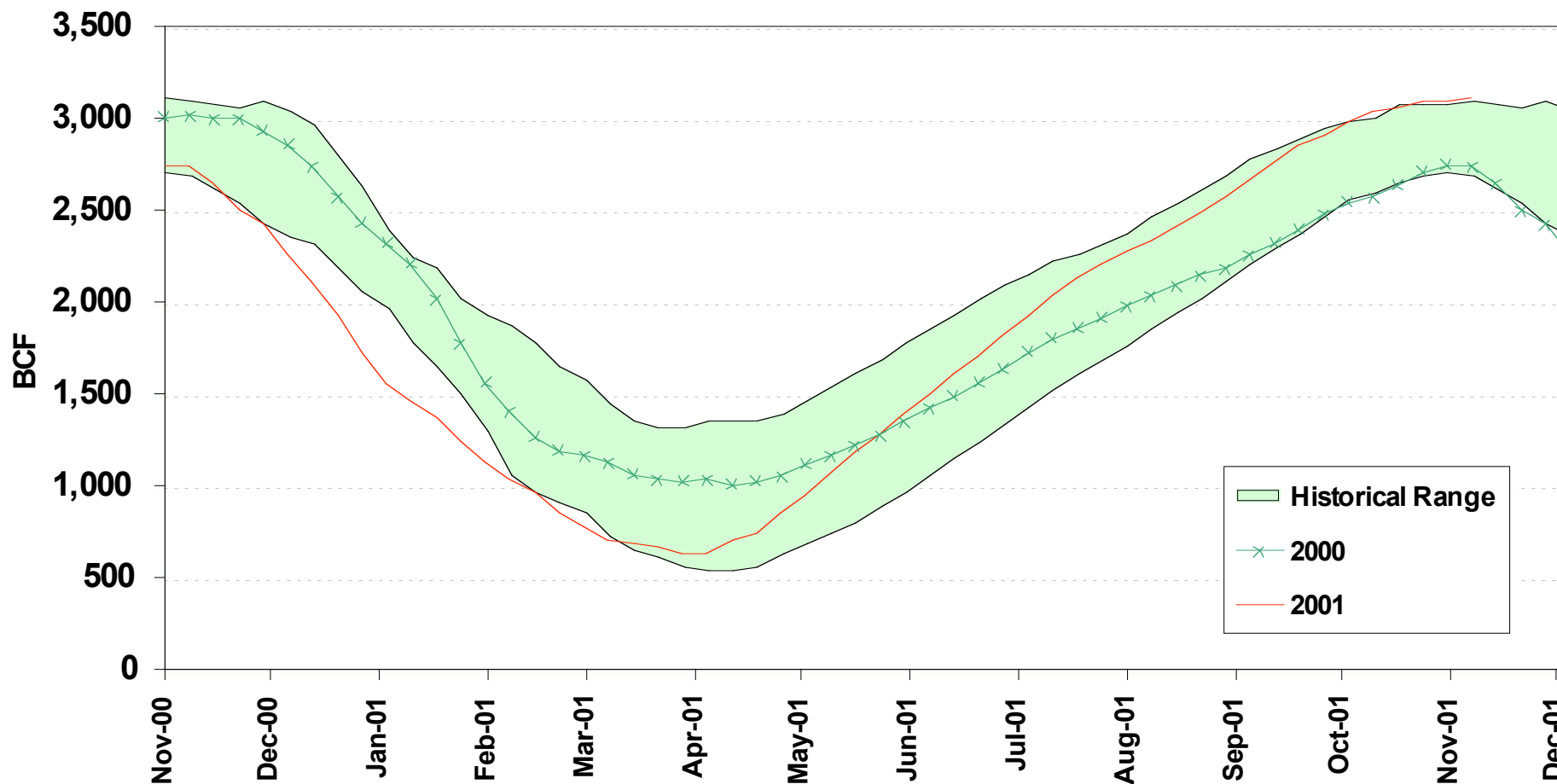


Source: NGW, Prophet – June 25, 2001



# Storage Levels are Rebounding

## US Storage Levels



Source: AGA



# Natural Gas outlook - Conclusions

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- ◆ Natural gas market in better position heading into winter heating season.
- ◆ Natural gas demand increasing.
- ◆ Future stability of market depends on producers overcoming some supply barriers.



# Post 9-11 issues

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- ◆ **The economy:**
  - Magnitude of downturn
  - Duration of downturn
- ◆ **Energy Policy moves to National Security**
- ◆ **LNG**
  - The need for education
- ◆ **Alaska**
  - Pipeline
  - ANWR
- ◆ **Decelerating deregulation**
- ◆ **Enron reverberations**
- ◆ **Coal Vs gas Vs nuclear**





# Frontier Areas Provide Longer Term Supplies





# Overall Project Scope

