

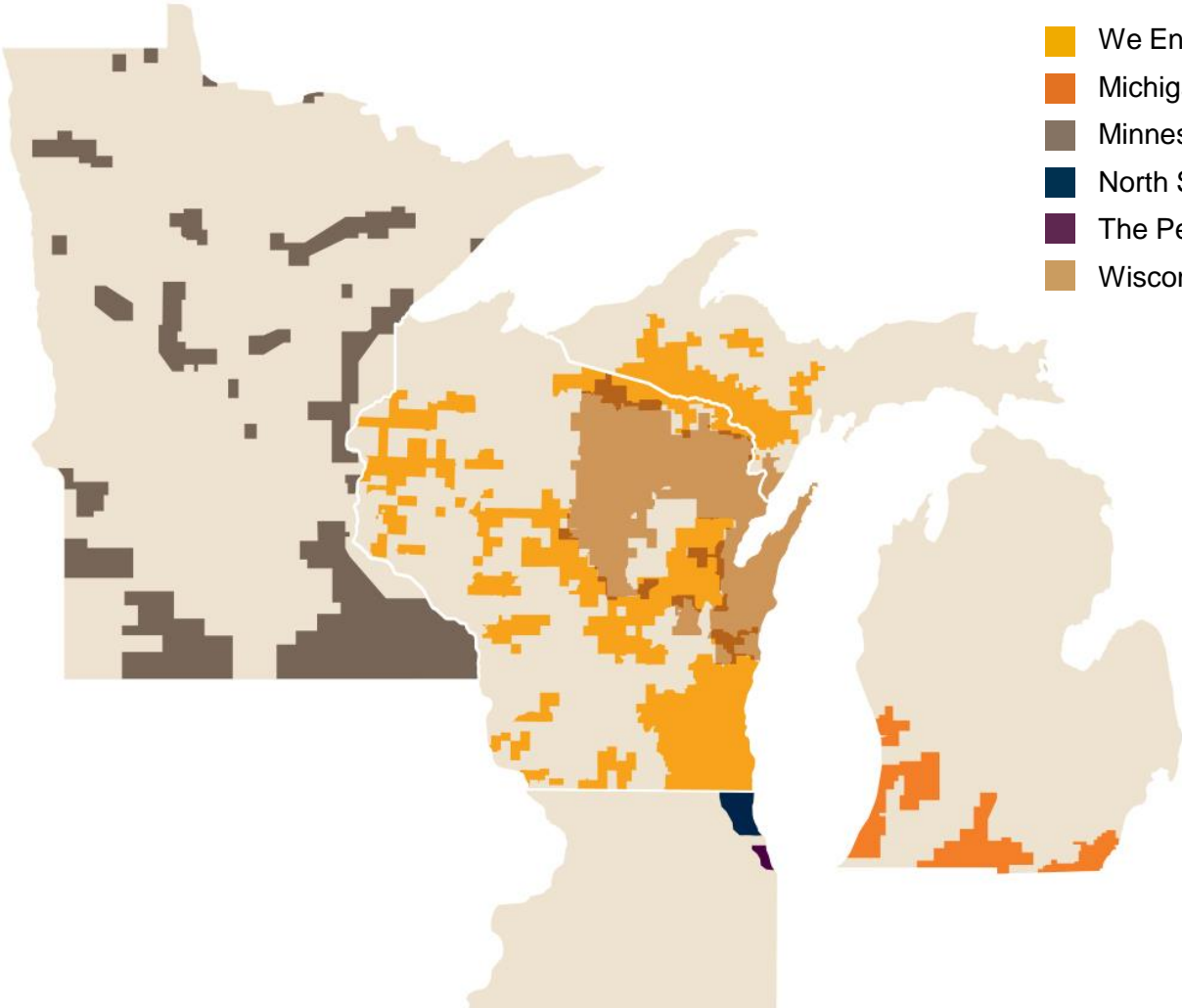


**2016 Minnesota Blue Flame Gas Association  
*Natural Gas Conservation Conference***

**September 20, 2016**

# WEC Energy Group

Serving the Region's Energy Needs

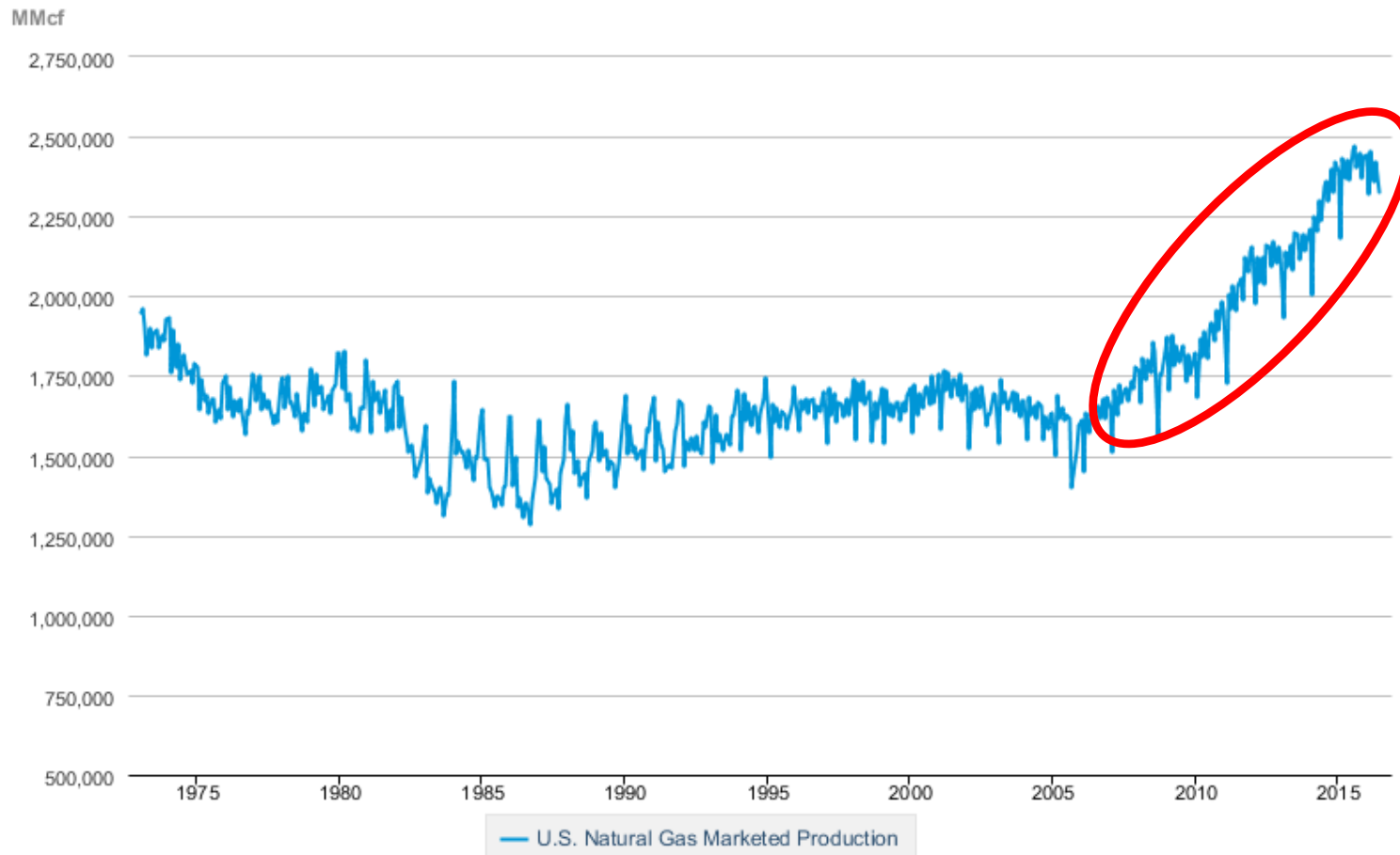


- We Energies
- Michigan Gas Utilities Corporation
- Minnesota Energy Resources Corporation
- North Shore Gas Company
- The Peoples Gas Light and Coke Company
- Wisconsin Public Service Corporation

# Natural Gas Market Conditions

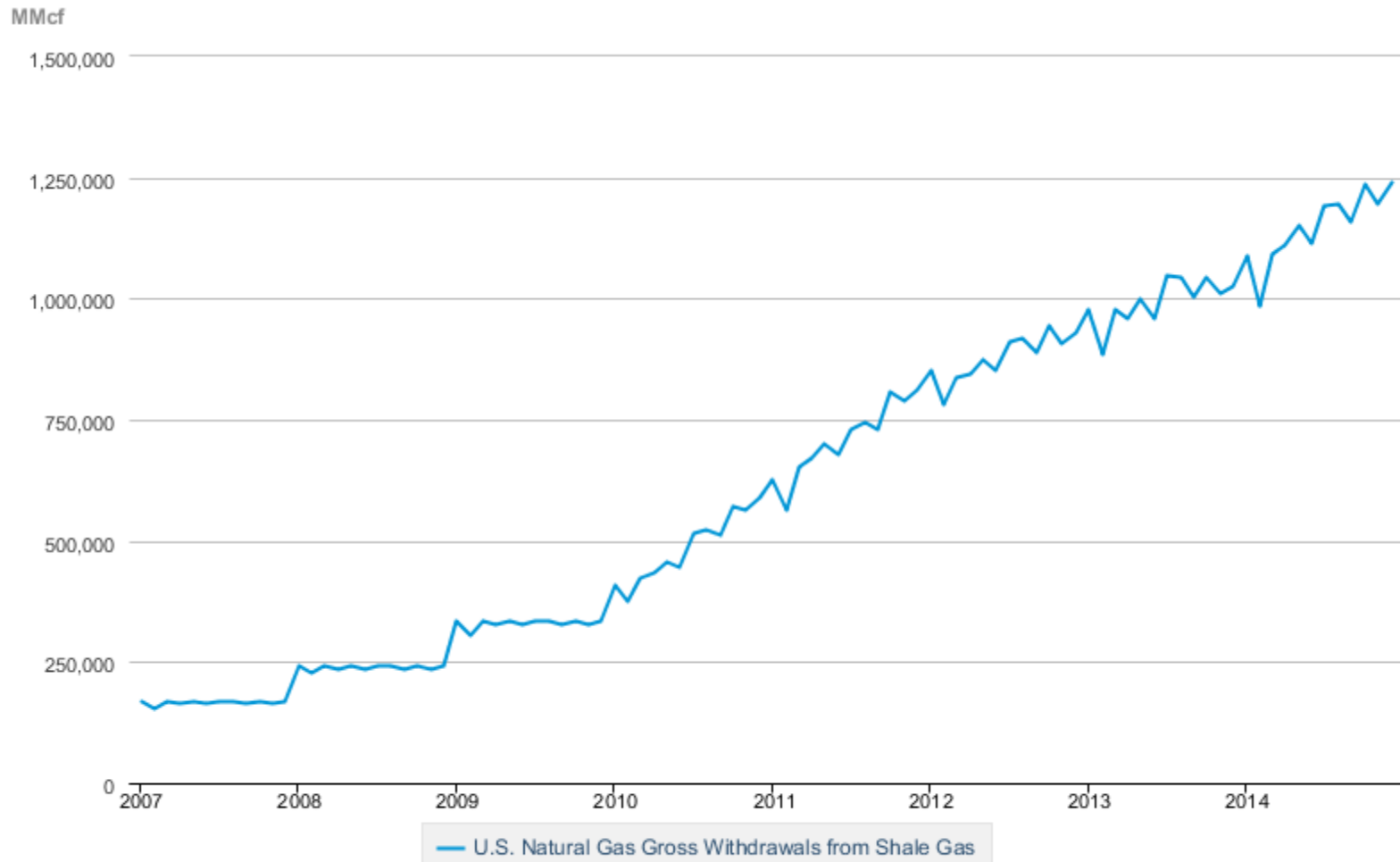
- Supply is strong
- Demand is increasing
- Prices are relatively low and stable
- What's next?

# Monthly US Natural Gas Production



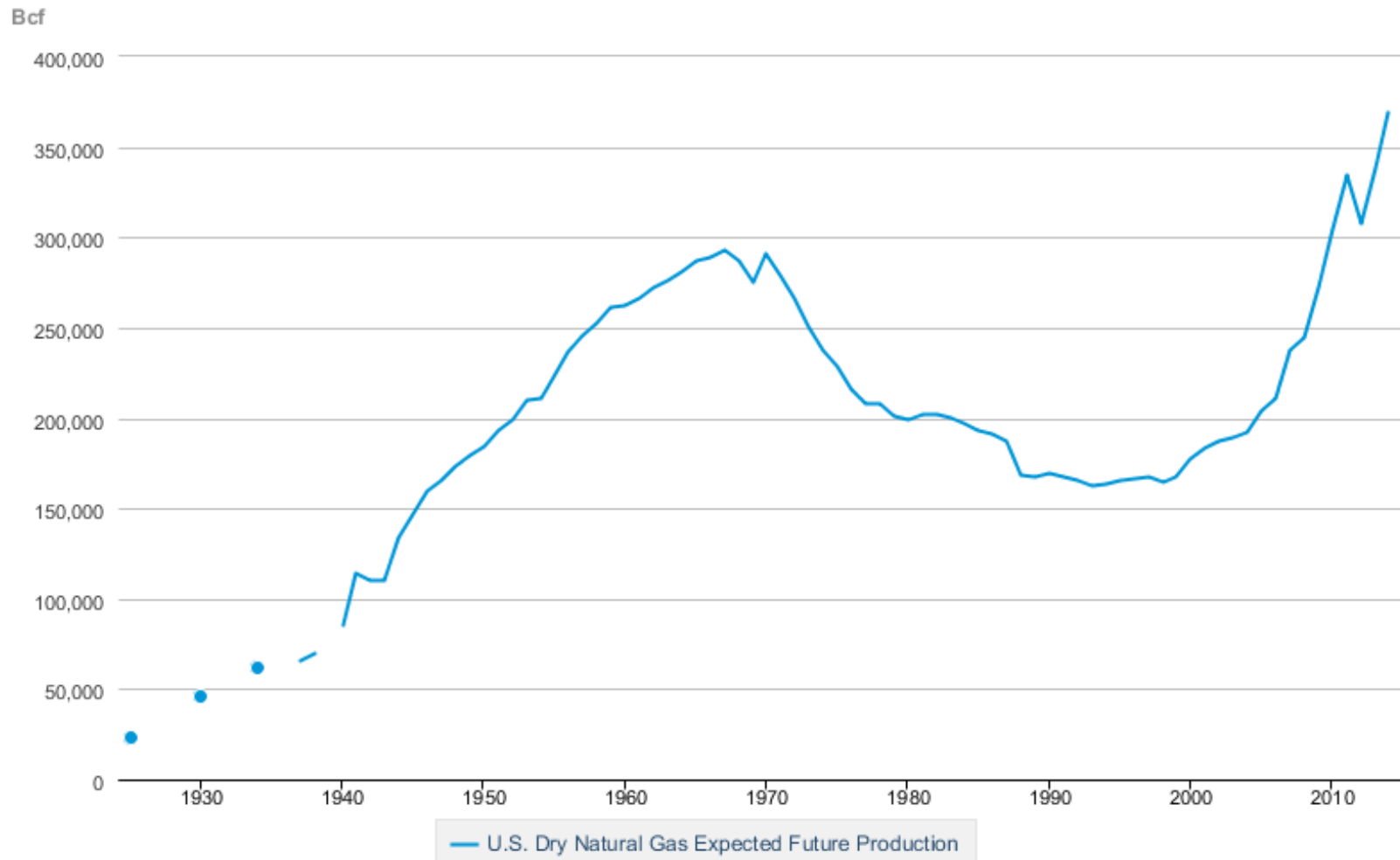
 Source: U.S. Energy Information Administration

# Monthly US Shale Gas Production



Source: U.S. Energy Information Administration

# Natural Gas Reserves

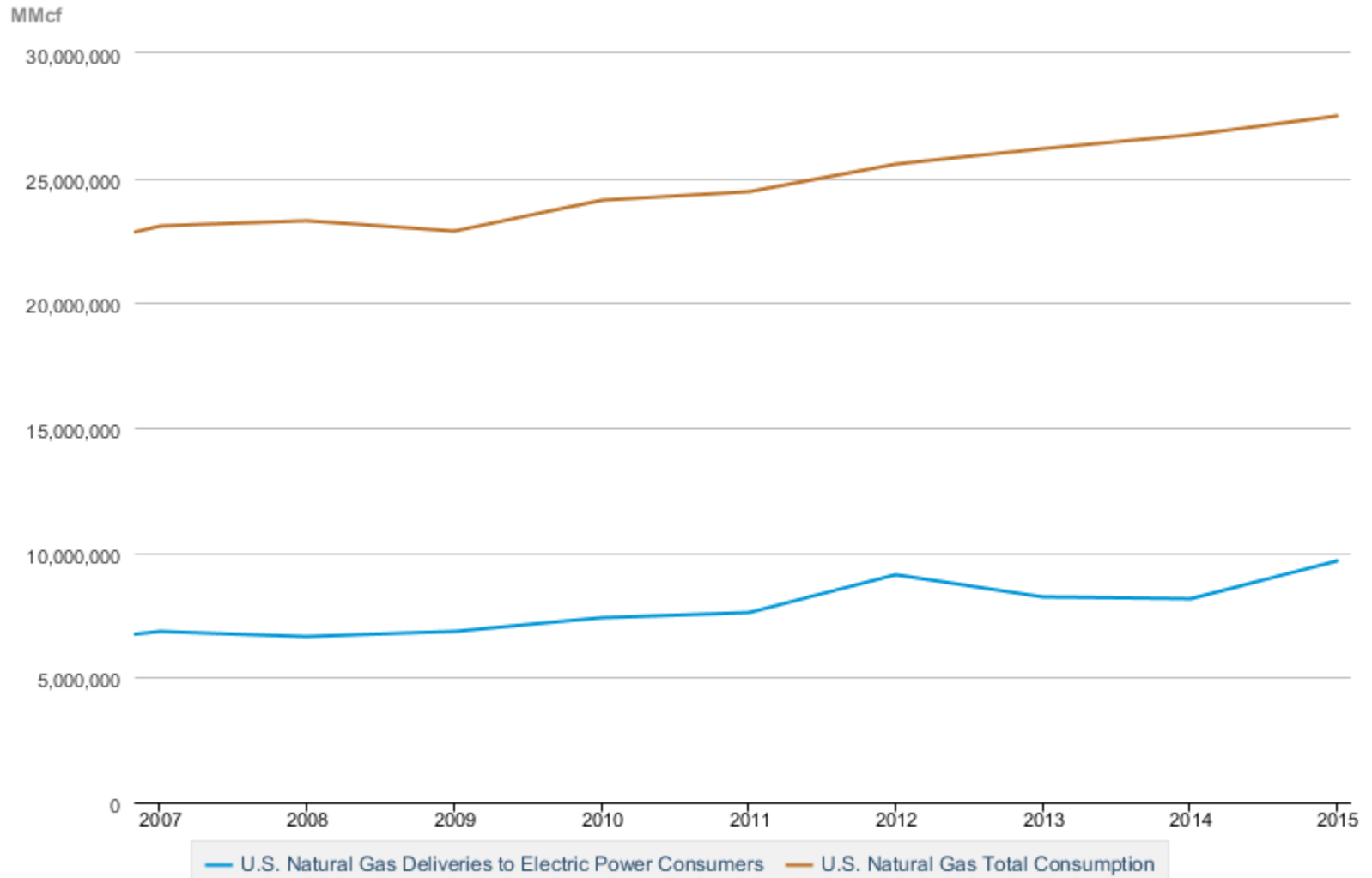


Source: U.S. Energy Information Administration

# Shale Gas Economics

- Shale drilling costs in 2007 = \$5/MMBtu
- Shale drilling costs in 2016 = \$1-2/MMBtu
- How?
  - Additional fracking stages
  - More horizontal wells at same drill site
  - Necessity

# Annual Natural Gas Consumption



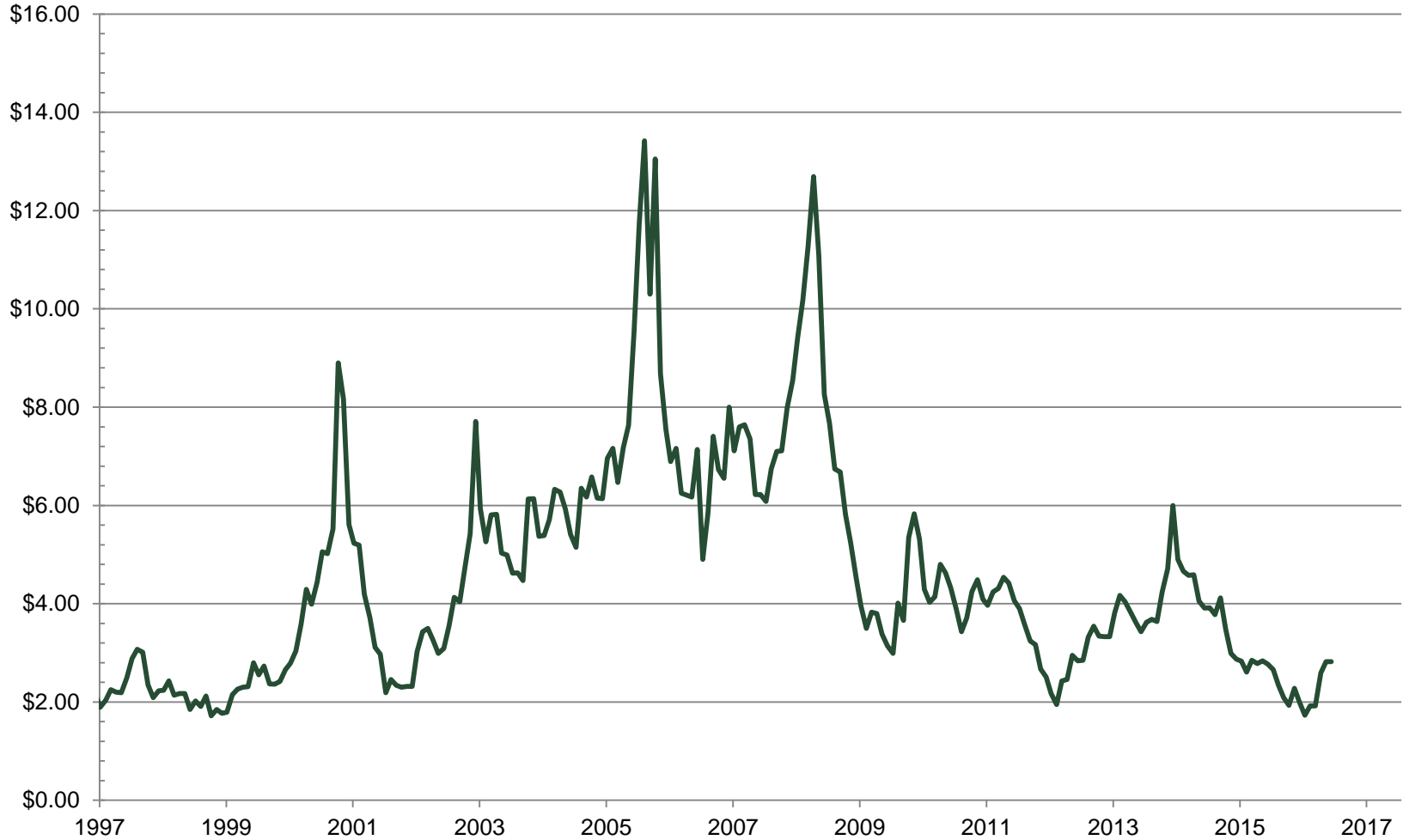
Source: U.S. Energy Information Administration



# Demand Increase: Gas Generation

- EPA regulations have and will continue to put pressure on coal facilities (especially older, small plants)
- Low gas prices and their impact on power economics
- Renewables need fossil-fueled generation backstop

# Henry Hub Natural Gas Prices



# Natural Gas Industry Challenges

- Aging infrastructure
  - 1950s vintage pipe and compressors will need repair/replacement
- Increased capacity to support electric generation
  - Projects take time
- Integrating additional generation into daily pipeline operations
  - Peak day scenario

# What's Next?

- Prices seem destined to stay below \$5-6/MMBtu over the next five years
- While commodity costs will remain relatively low, transport costs will begin to increase (currently 20-40% of total retail cost)
- The importance of natural gas as a fuel source will continue to grow