The Regulatory Framework for Natural Gas in the U.S. and Massachusetts

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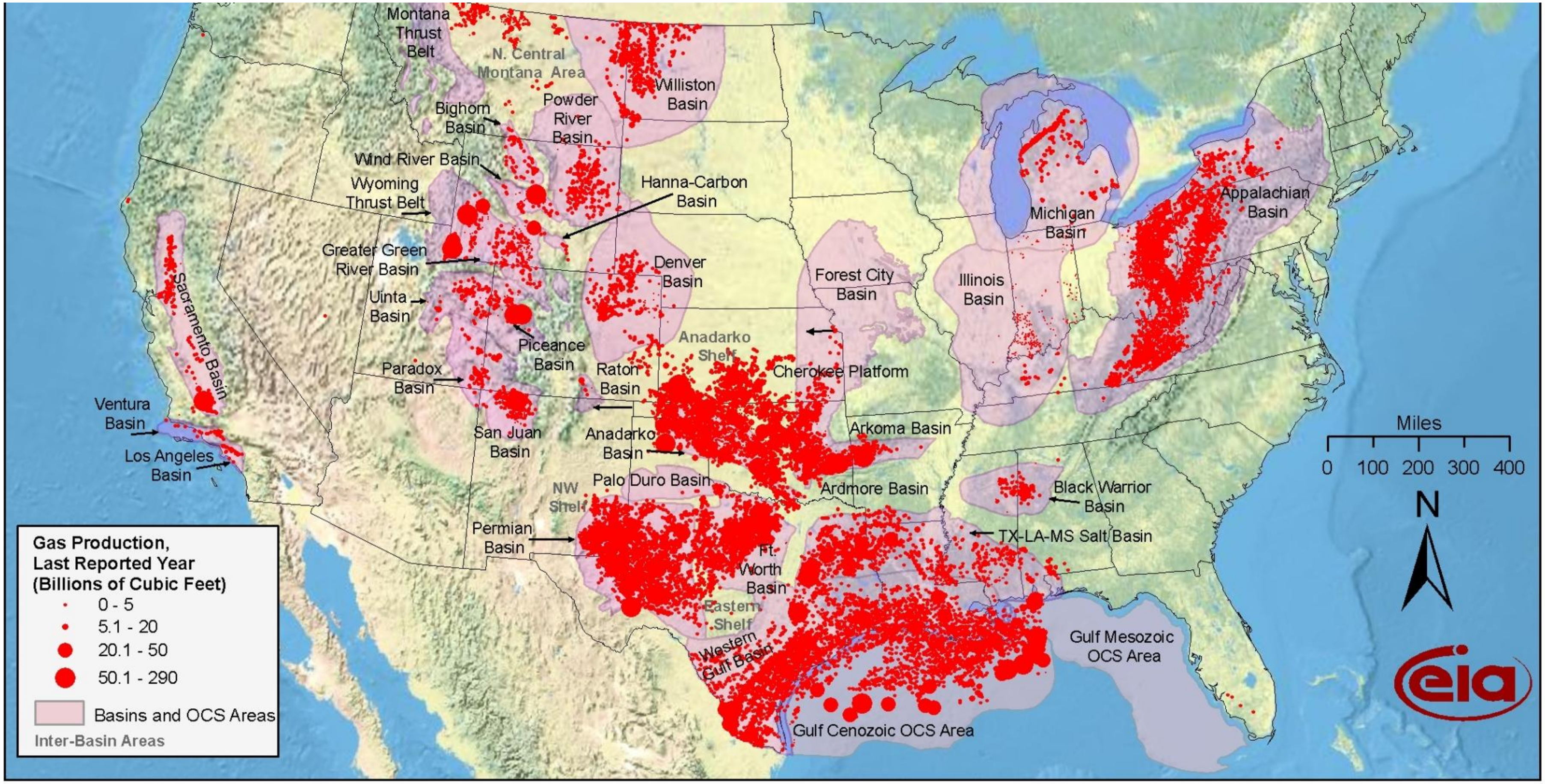
Overview

- The natural gas sector at a glance
- 100 years of regulation evolution
- Current regulatory landscape
  - Federal - State
- The case in Massachusetts

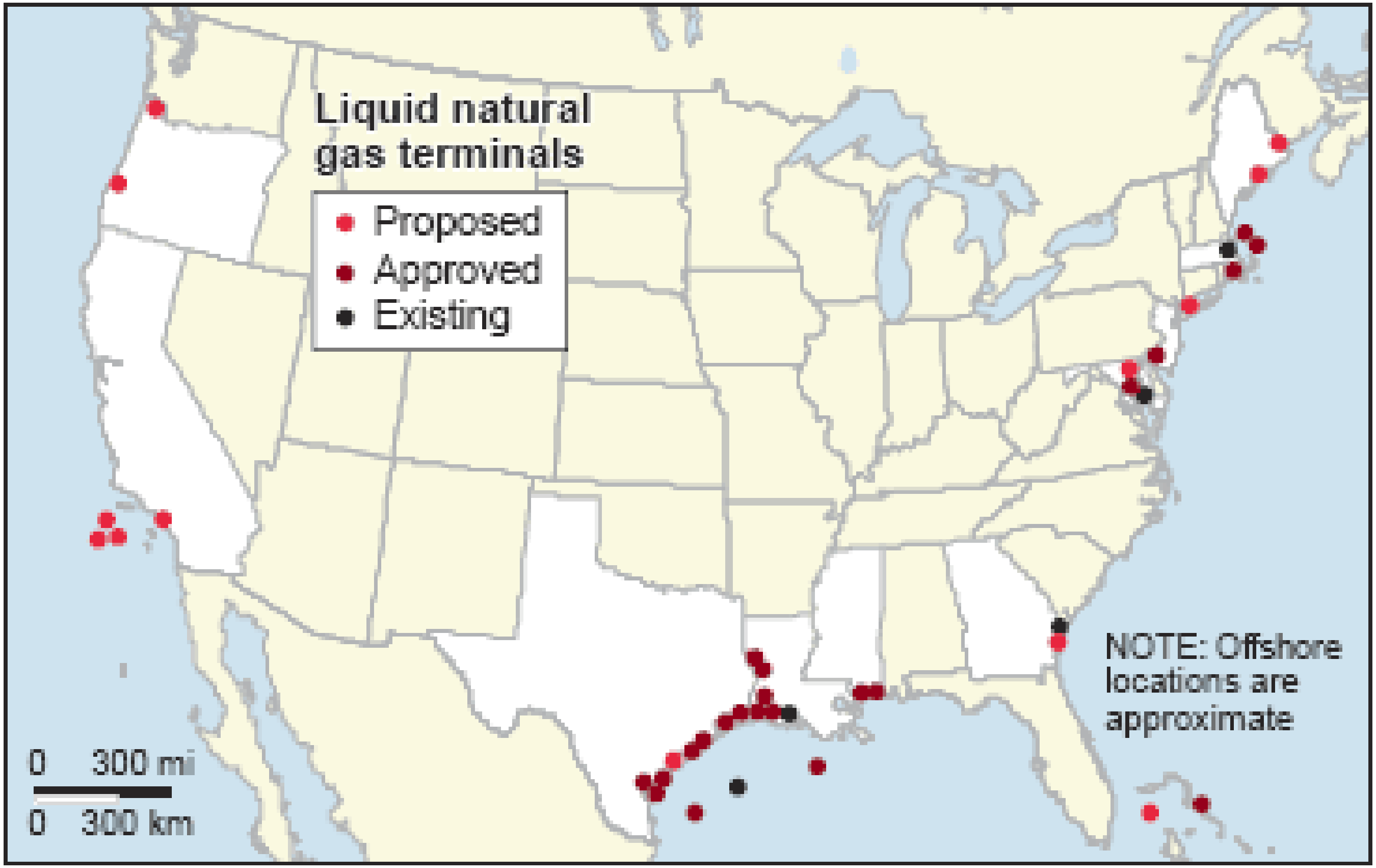
The Natural Gas Sector

- >500,000 natural gas wells
- > 300,000 miles (>480,000 km) of transmission pipeline
- >1,500 local distribution companies (LDCs)
- >100 LNG facilities
- 30% of electricity in US is from NG; (16% in 2003)
- Wholesale price is characterized by volatility

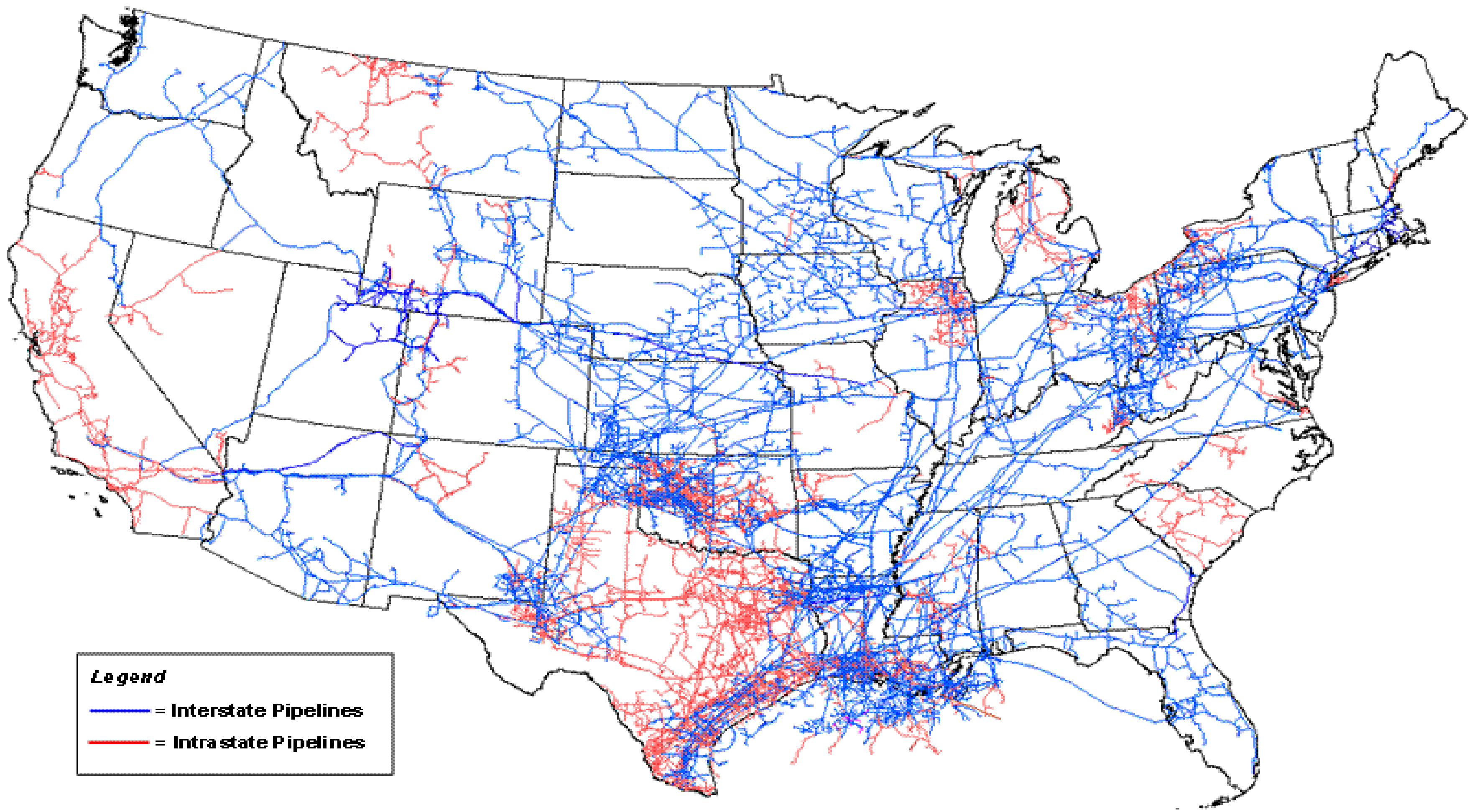


Source: Energy Information Administration based on data from HPDI, IN Geological Survey, USGS
Updated: April 8, 2009

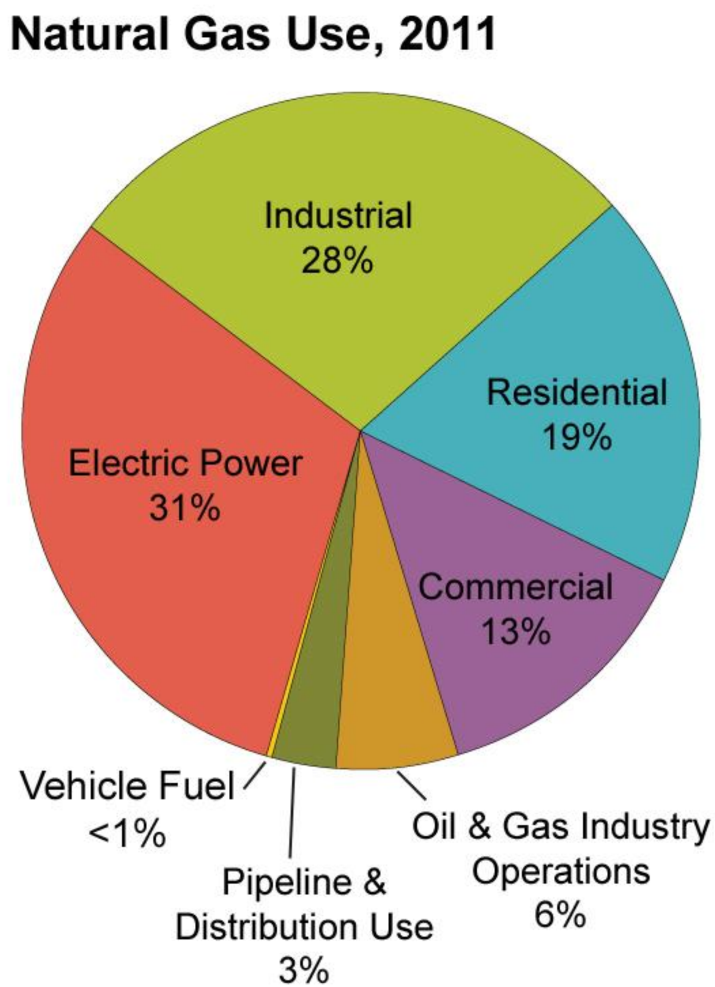
National Association of Regulatory Utility Commissioners



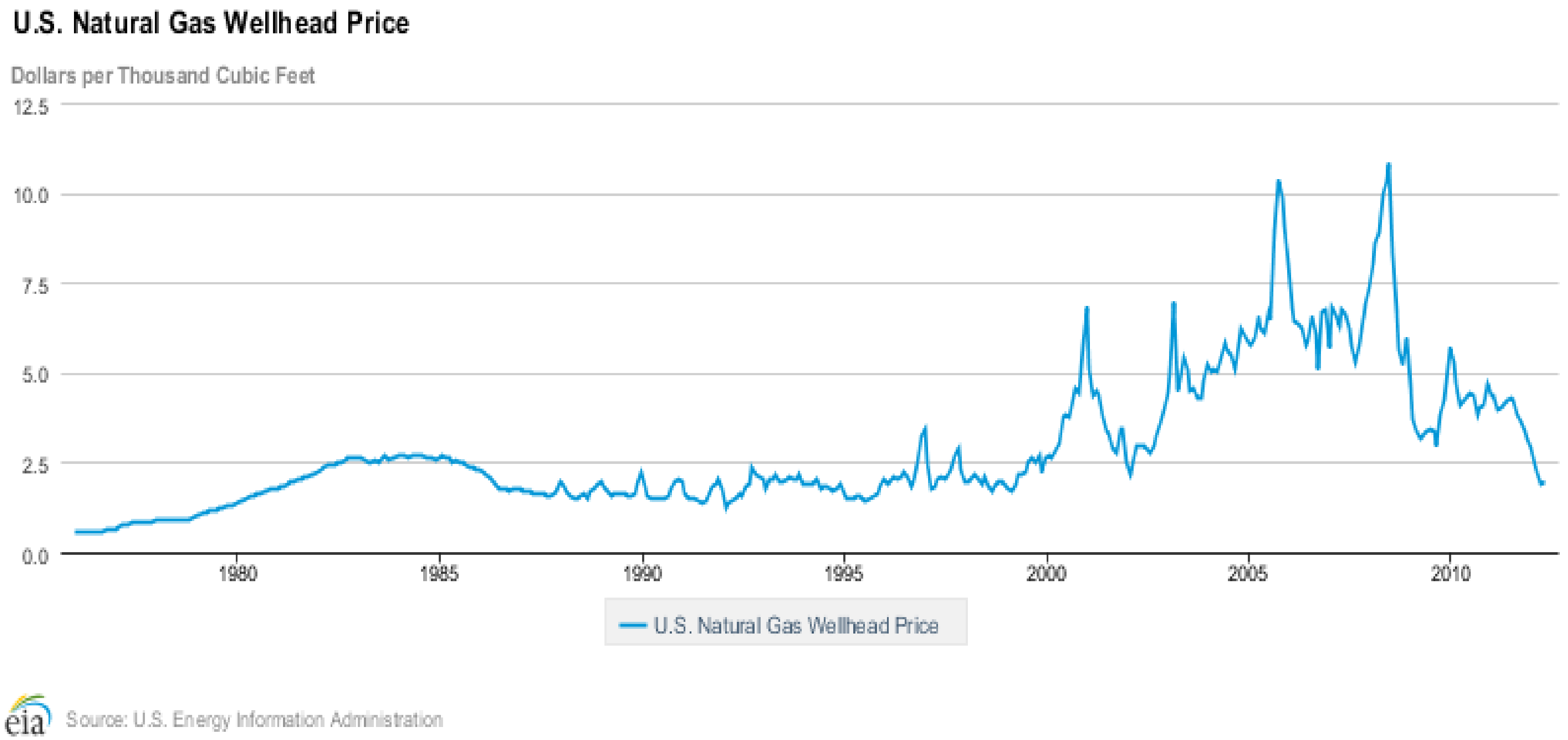
SOURCES: Federal Energy Regulatory Commission; ESRI AP



Source: Energy Information Administration, Office of Oil & Gas, Natural Gas Division, Gas Transportation Information System



Source: U.S. Energy Information Administration, *Natural Gas Monthly* (April 2012).



U.S. Natural Gas Wellhead Price
Dollars per Thousand Cubic Feet
12.5
10.0
7.5
5.0
2.5
0.0
1980
1985
1990
1995
2000
2005
2010
U.S. Natural Gas Wellhead Price
eia
Source: U.S. Energy Information Administration

History of Regulation

Balancing:

incentives for investment, exploration, innovation, and revenue <=> costs for consumers (and more recently with public interest, e.g., environmental issues.)

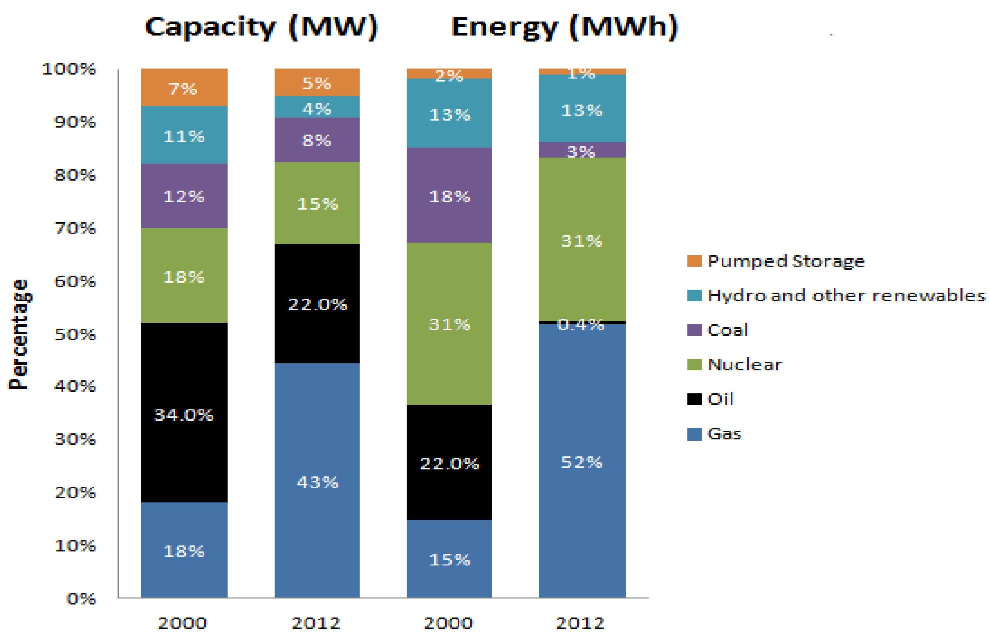
- 1910-1950 – Rapid growth and development, regulation of monopolies
- 1950s-1970s – Narrow regulation
- 1970s-1980s – Significant regulatory inefficiencies
- 1980s-present – Deregulation, and greater dependence on competition and markets, but with regulatory oversight by federal and state governments

Current Regulatory Status: Different Roles for State and Federal Governments

- State – Public Utilities Commission:
  - Regulates intrastate pipelines
  - Regulates local distribution utilities (rates, service, safety)
- Federal - Federal Energy Regulatory Commission (FERC) :
  - Regulates interstate pipelines (rates, construction, safety, environmental impact)
- Regional – Independent System Operator (ISO), for electric:
  - Creates market rules; balances supply/demand; regional planning (under federal jurisdiction)

Natural Gas in Massachusetts

- No natural gas resource
- Pipeline constraints into the region
- Recent over-dependence on natural gas for electricity



Natural Gas in Massachusetts

- Gas (thermal)-Electric interactions
- Who would pay for new pipeline? And how?
- Seek to better integrate regulatory regimes between gas and electric