

# **A Review of Electricity Industry Restructuring in New England**

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**Business & Industry Association of New Hampshire**

**January 9, 2007**



## **The New England Energy Alliance is an Advocacy Group for Infrastructure Development**

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- ❑ Membership includes a dozen energy companies and industry associations
- ❑ Created in 2005 to advocate for availability, reliability and affordability of energy supplies
- ❑ Mission is to ensure energy supply decisions are made with full and balanced consideration of the region's energy and economic needs
- ❑ Issues white papers and surveys, writes op-eds, reaches out to policymakers, serves a resource
- ❑ Comprehensive and informative Web site – [www.newenglandenergyalliance.org](http://www.newenglandenergyalliance.org)

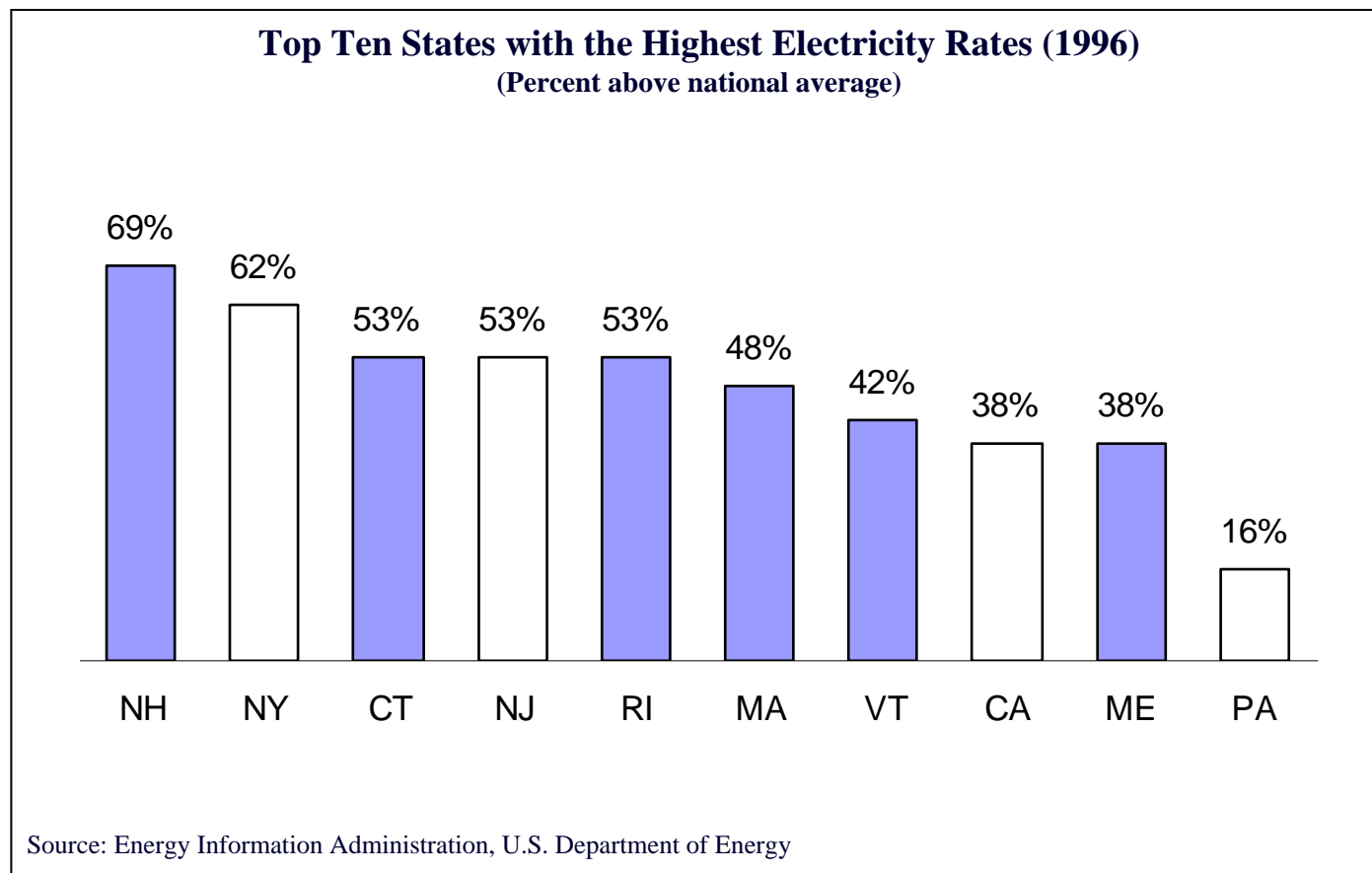


# First Integrated Review of Electricity Restructuring in New England

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- Three-fold purpose:
  - Assess performance of regional wholesale market
  - Review and compare individual state retail markets
  - Assess the impact of restructuring on generation and fuel source infrastructure
  
- Represents a static snapshot assessment of restructuring through 2005 based on three public expectations:
  - Creation of consumer economic savings
  - Consumer choice of suppliers
  - Enhancement of environmental benefits

# Key Catalyst for Restructuring was High Cost of Electricity



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## Initiated at Federal and State Levels to Create Competition in Wholesale and Retail Markets

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- Competitive wholesale marketplace launched in 1999 by ISO New England under FERC oversight through initiation of new market procedures, rules, systems to support competition
  
- All New England states except Vermont initiated electric industry restructuring at the retail level beginning in the late 1990s:
  - Divestiture of generation assets (NH partial)
  - Allowance of transition costs into rates
  - Retail choice of power supplier or standard offer service
  - Mandated rate reductions (except Maine)
  - Consumer-funded programs for energy efficiency or renewables or both

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## **Competitive Wholesale Markets have Improved Generation Performance Saving Consumers Money**

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- ❑ More than 280 companies eligible to participate in \$11.2 billion marketplace
- ❑ Unprecedented 10,000 Megawatts of new generation added in first six years of restructuring, increasing supply by 30%
- ❑ Average power plant availability has increased 8%, avoiding the construction of up to five, 400 Megawatt generating facilities
- ❑ Nuclear power plant license renewal/uprates accomplished
- ❑ Lower wholesale electricity prices – after adjusting for fuel costs, wholesale market prices are between 2 and 6% lower than 2000
- ❑ However, these savings tempered by 47% increase in wholesale costs during 2005 due to unprecedented high price of natural gas
- ❑ More recently, plans for new power plants stalled due to market uncertainties

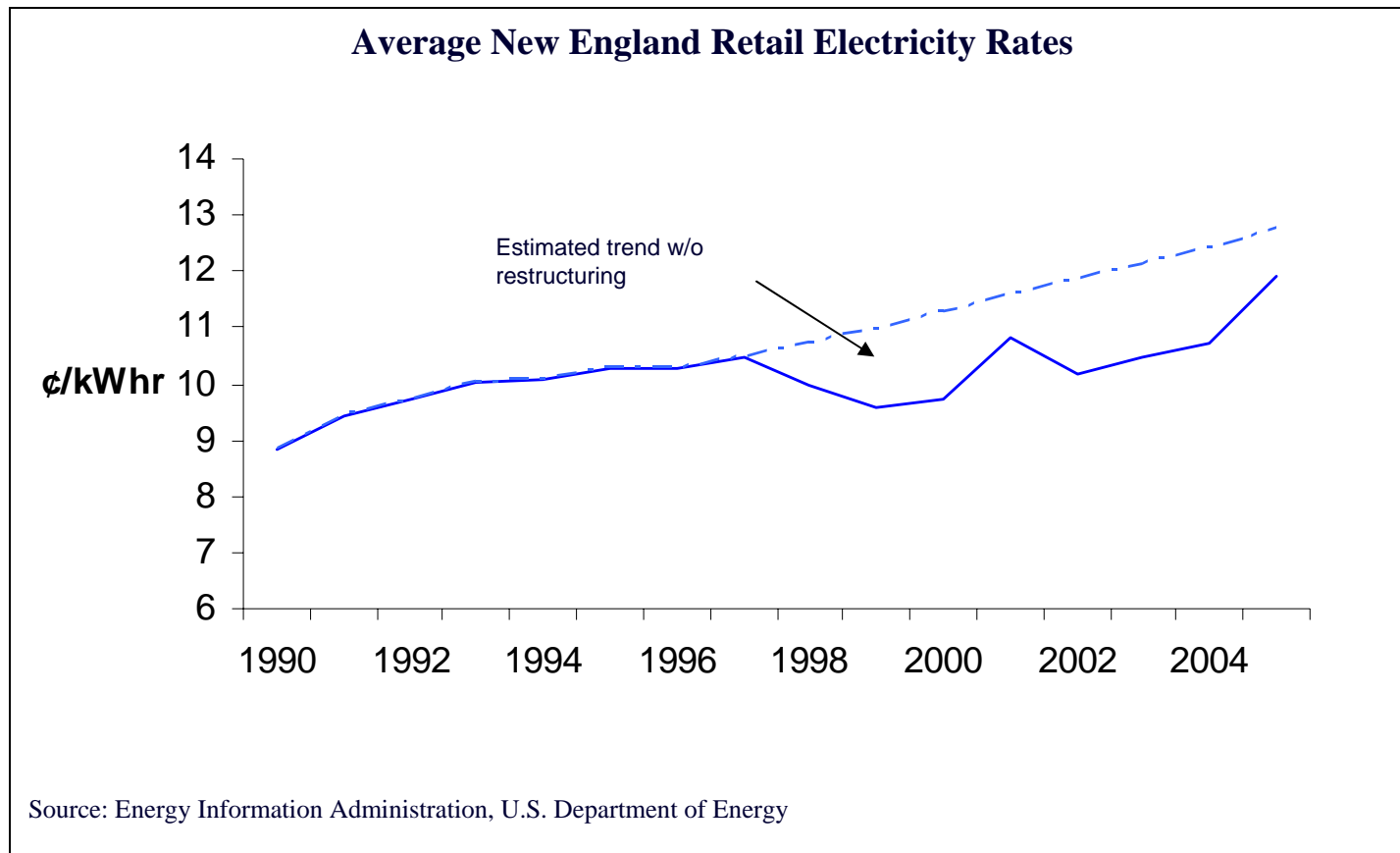
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## Competitive Markets have Benefited the Environment Through New and More Efficient Generation

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- While electricity generation increased 25% between 1998 and 2004, emission rates decreased:
  - Sulfur dioxide by 56%
  - Nitrogen oxide by 57%
  - Carbon dioxide by 22%
  
- Reductions attributed to:
  - Construction of new generating capacity (natural gas)
  - Better and more efficient plant performance by new power plant owners
  - The most stringent environmental regulations in the country

# Restructuring has Saved New England Consumers up to \$7.6 Billion Between '98 and '05



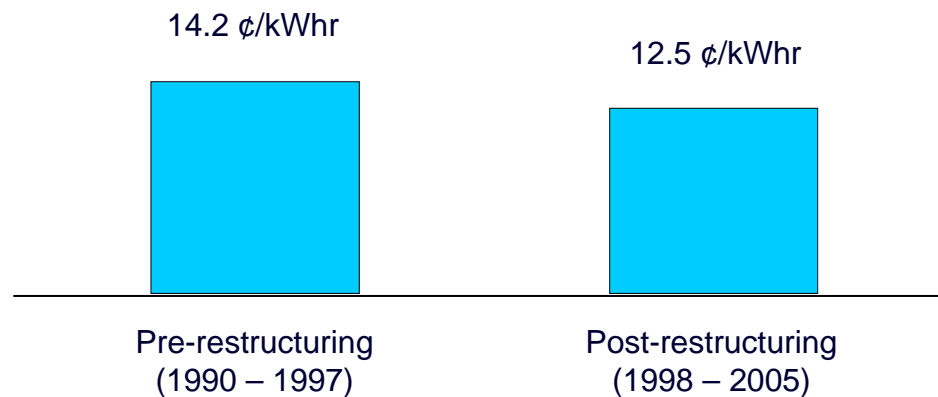
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## All States Have Realized Economic Savings from Wholesale and Retail Restructuring

State	Estimated Savings Since Restructuring
CT	\$700 million - \$1.5 billion (between 2000 and 2005)
MA	\$3.4 billion (between 1998 and 1995)
ME	About “break-even” (between 2000 and 2005)
NH	\$950 million (between 1998 and 2005)
RI	\$610 million (between 1998 and 2005)
VT	\$77 million (from wholesale market efficiencies)

# Adjusting for Inflation, New England Retail Electricity Rates Have Declined 7 to 18%

## New Hampshire Inflation Adjusted Average Retail Electricity Prices (12% reduction)



Source: Energy Information Administration, U.S. Department of Energy

## Retail Competition and Choice has Been Limited to Large Customers in Two States – Little Benefit at Residential Level

State	Percent of Retail Load on Competitive Supply			
	Residential	Commercial	Industrial	Total Load
<b>CT</b>	3%	3%		3%
<b>MA</b>	8%	34%	82%	43%
<b>ME</b>	1%	36%	80%	38%
<b>NH</b>	Limited, but increasing (no state tracking)			
<b>RI</b>	<1%	10%		10%

Source: State Department of Public Utilities Commissions

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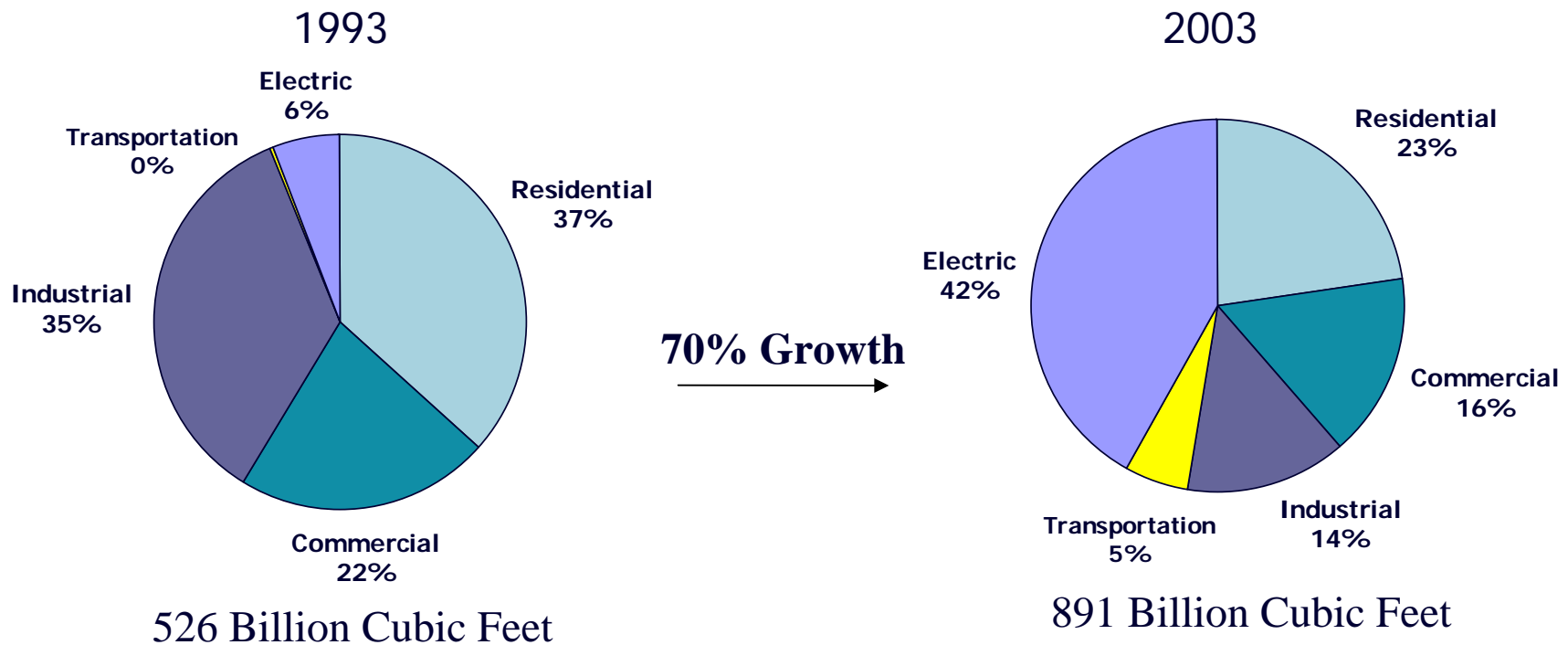
# Lack of Infrastructure Development is Diminishing Competitive Market Effectiveness

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- Transmission
  - 6 major 345 kV projects are underway – ~ \$3B investment
  - Over 200 additional projects estimated by ISO to be needed over the next ten years for reliability
  - Insufficient transmission capacity costing consumers hundreds of millions in congestion costs
  
- Generating Facilities
  - 10,000 MW of capacity added during initial years of restructuring, but since then investment has stalled and no construction of new generation
  - Due to financial difficulties, many plants operating under “Reliability Must Run” agreements, costing consumers about \$700 million annually
  - Early result from recently approved wholesale market c growing pipeline of projects – 35 totaling 4,000 MWs
  - But no shovels in the ground

# Dependence on Natural Gas is Increasing and Requires New Supply Infrastructure

## New England Natural Gas Consumption Trends





## Restructuring Remains a Work in Progress

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- Benefits achieved
  - Economic savings and environmental benefits
  - Retail choice of suppliers, but mostly in large customer segments
- Remaining Challenges
  - New generating facilities are not being built to keep pace with demand
  - New transmission needed to maintain reliability
  - Heavily dependent on natural gas for electricity generation without addition of new supply infrastructure. Additional LNG supplies needed
- Political Leadership Needed
  - Ensure proposed wholesale market changes lead to infrastructure development
  - Action to harmonize state policies to encourage infrastructure investment