



NORTHEAST ENERGY EFFICIENCY PARTNERSHIPS

# Why Not New Hampshire? A Regional and State-level View of Energy Efficiency As a Resource

Presentation by Jim O'Reilly & Josh Craft  
to the  
NH Energy Efficiency & Sustainable Energy (EESE) Board  
February 21, 2014

# NORTHEAST ENERGY EFFICIENCY PARTNERSHIPS

*“Accelerating Energy Efficiency”*

## MISSION

Accelerate the efficient use of energy in the Northeast and Mid-Atlantic Regions

## APPROACH

Overcome barriers to efficiency through  
*Collaboration, Education & Advocacy*

## VISION

Transform the way we think about  
and use energy in the world around us.

One of six Regional Energy Efficiency Organizations (REEOs) designated by U.S. Dept. of Energy to work collaboratively with them in linking regions to DOE guidance, products



# THE NORTHEAST US: A LEADER IN ENERGY EFFICIENCY POLICY



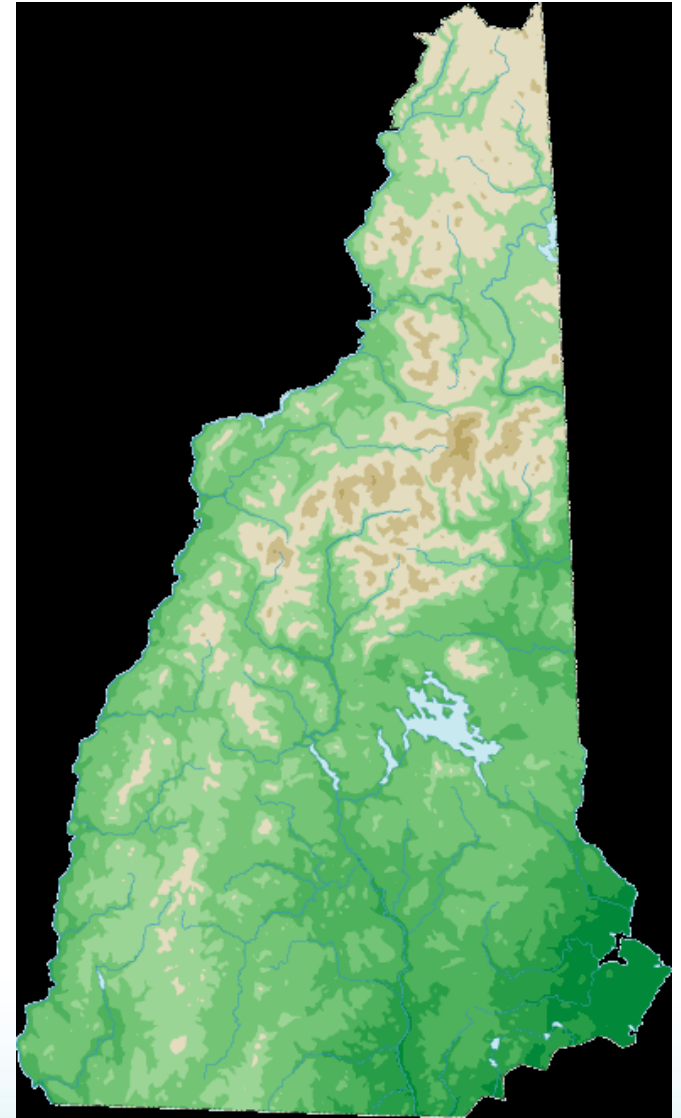
Six of top 10 states in 2013 ACEEE State Energy Efficiency Scorecard are in the Northeast, and four in New England



# WHAT ABOUT NEW HAMPSHIRE?



- Numerous studies confirm significant benefits to N.H. from expanding energy efficiency
- Similar utility structure and program delivery model
- Same regional electricity grid
- High cost of energy
- RGGI participation
- Long history of environmental protection efforts
- New England Governors Committed to EE as a Resource



# HOWEVER...



While the five other New England states have policies clearly identifying energy efficiency as their first order resource, New Hampshire does not.

*“The lack of a clearly articulated policy hampers efforts to have a sustained, coordinated, adequately-funded approach that results in full market development and steadily increasing consumer benefits.”*

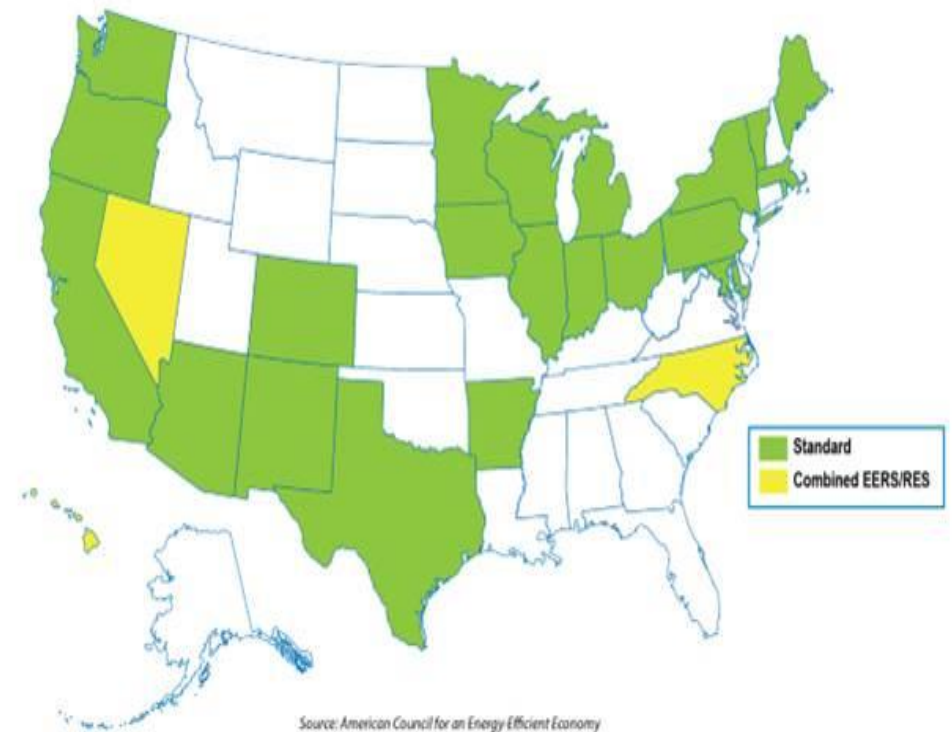
- N.H. Independent Study of Energy Policy (2012)

# POLICIES THAT VALUE ENERGY EFFICIENCY AS A RESOURCE



- 26 states treat energy efficiency as a resource
  - 9 in the Northeast: CT, DE, ME, MA, MD, NY, PA, RI, VT
- Focus on value of Energy Efficiency to Ratepayers
  - “All Cost-Effective” energy efficiency
  - Energy Efficiency Portfolio Standard (EEPS)

EERS Policy Approaches by State (As of July 2013)



# EE AS A RESOURCE POLICY EXAMPLES



State	Policy Type	Program Administrator	Energy Savings Goals
<u>Connecticut</u>	<u>All Cost-Effective Energy Efficiency</u>	Utilities	<i>In process</i>
<u>Maine</u>	<u>All Cost-Effective Energy Efficiency</u> (legislative cap lifted 2013)	Efficiency Maine	~1.5% of electric sales by 2016
<u>Massachusetts</u>	<u>All Cost-Effective Energy Efficiency</u>	Utilities + Cape Light Compact	2.6% of electric & 1.14% of natural gas sales annually by 2015
<u>Vermont</u>	<u>All Cost-Effective Energy Efficiency</u>	Efficiency Vermont + Utilities	2% of electric sales annually
<u>Rhode Island</u>	<u>All Cost-Effective Energy Efficiency</u>	Utilities	Estimated 2.4% of electric & 1.0% of natural gas sales by 2014
<u>New Hampshire</u>	<i>Program Funding Only</i>	Utilities	<i>No mandated savings goals</i>

# WHAT'S THE KEY?



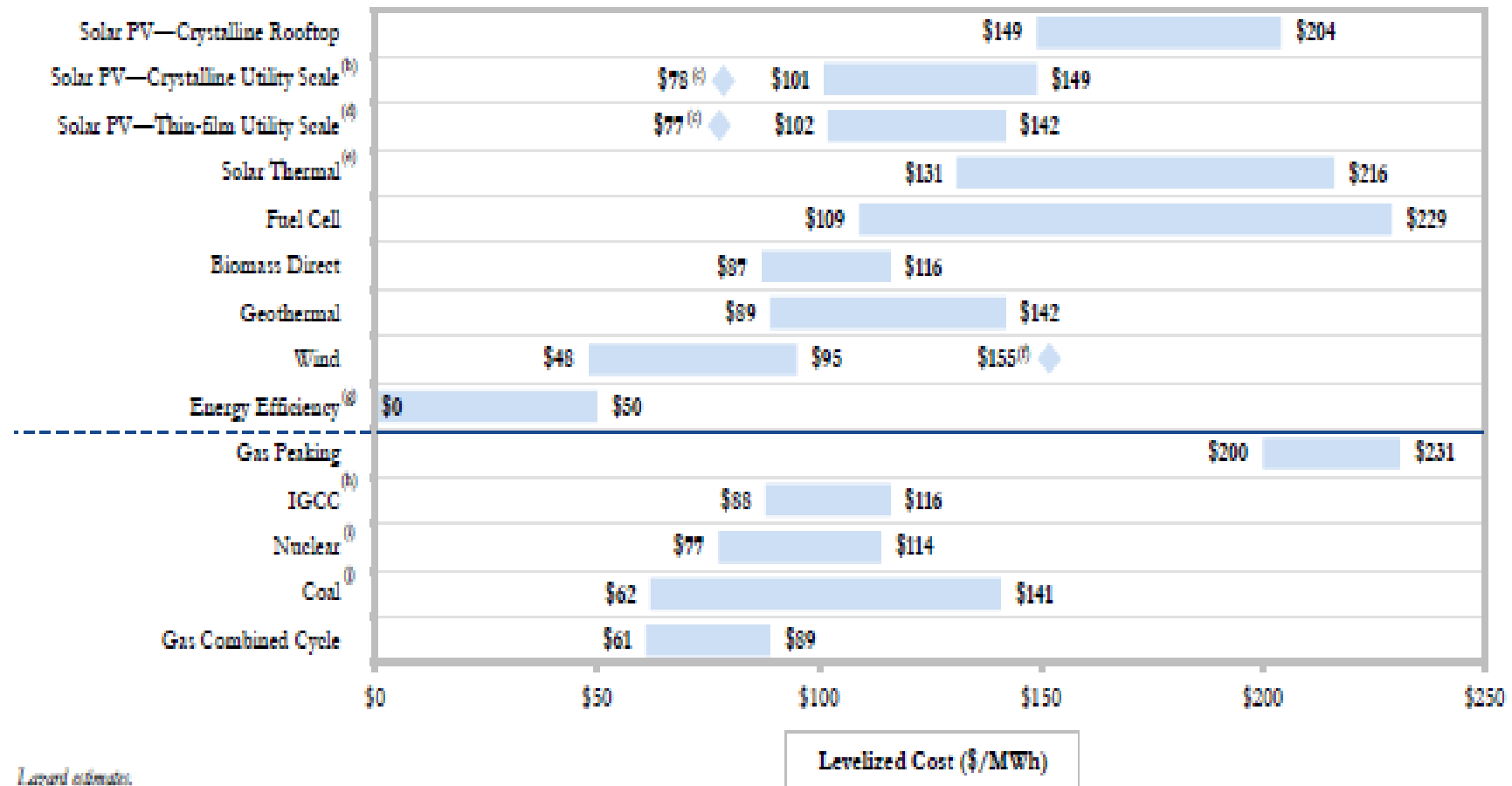
## SIMPLE POLICY DECLARATIONS:

“To mitigate capacity and energy costs for all customers, the department shall ensure that, subject to subsection (c) of section 19, electric and natural gas resource needs shall first be met through all available energy efficiency and demand reduction resources that are cost effective or less expensive than supply.” - *Green Communities Act of 2008, Massachusetts*

“Resource needs shall first be met through all available energy efficiency and demand reduction resources that are cost-effective, reliable and feasible.” - *CT Public Act 11-80 (2011)*



# ENERGY EFFICIENCY: THE CHEAPEST ENERGY RESOURCE

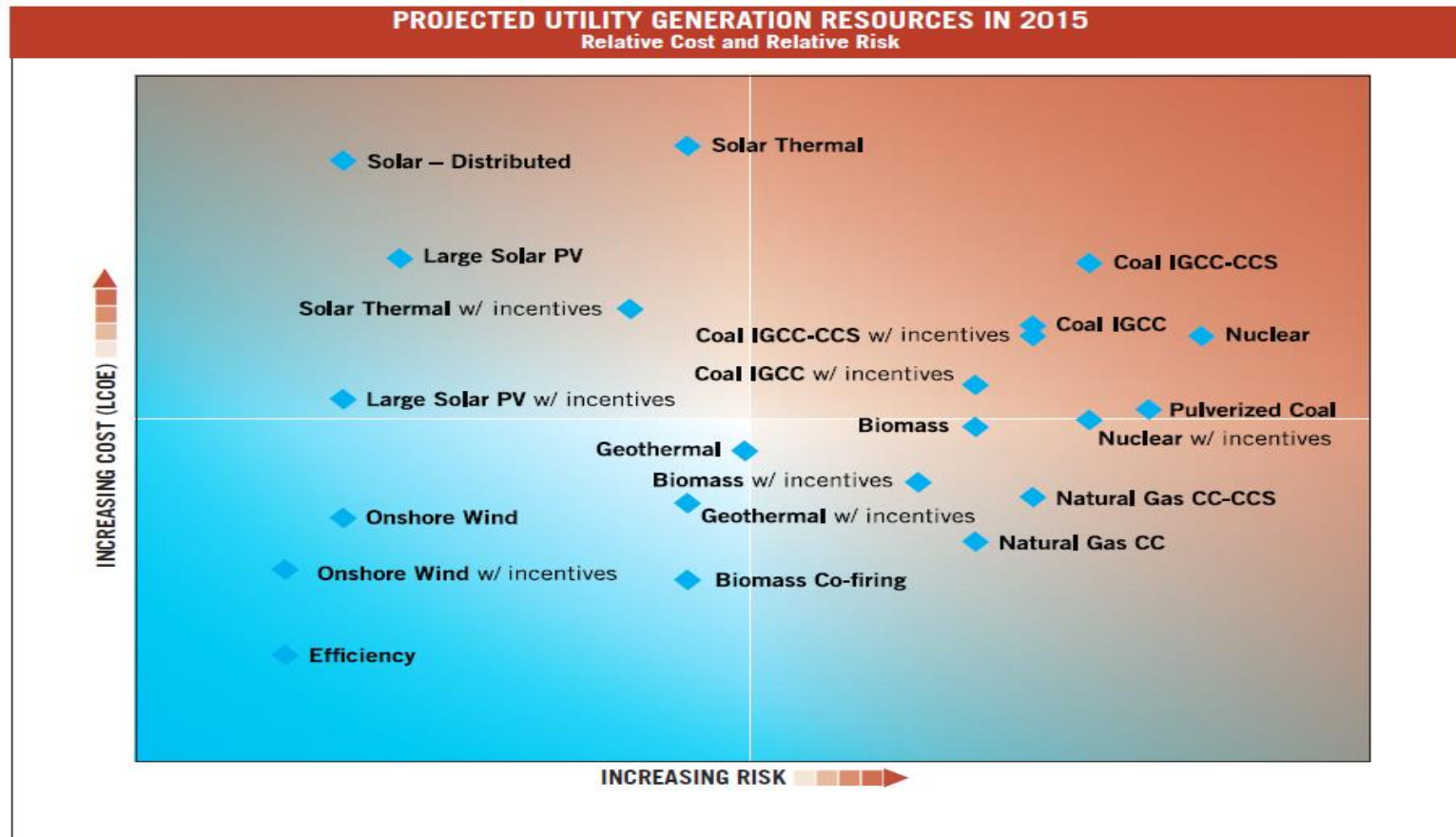


source: Lazard, 2012

# ENERGY EFFICIENCY: LEAST COST & RISK



Figure ES-4

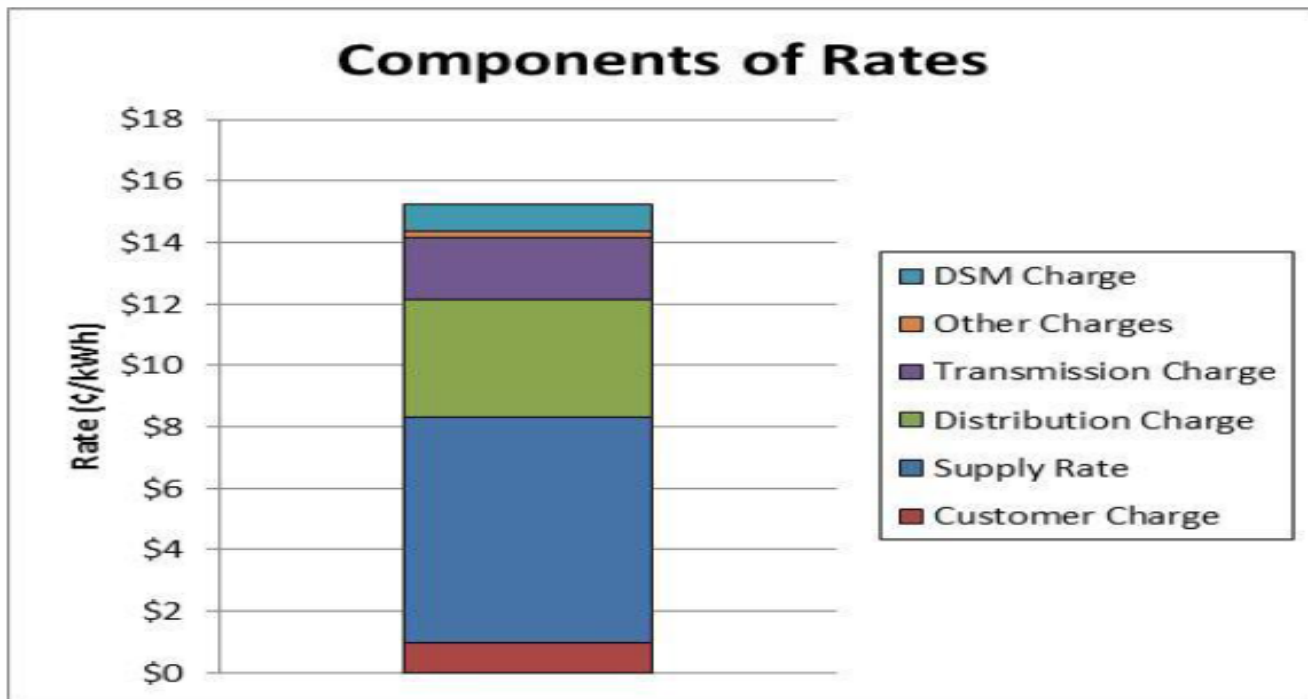


- *Still* Lowest Cost Energy Resource—including capital & operational costs
- Lifetime Costs from REED
  - 3-4 cents/kwh
  - ~40 cents/therm

# SAVINGS TO CUSTOMERS



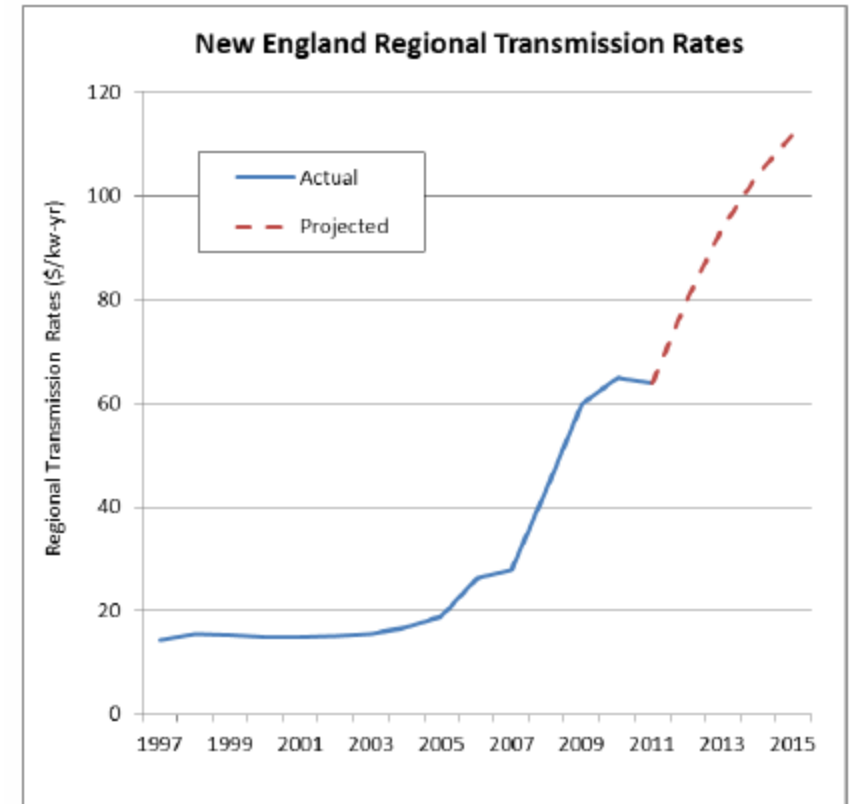
- One portion of customer energy costs that state regulators *can* control
- Energy efficiency helps manage supply/fuel costs, transmission charge, and distribution charge



# ENERGY EFFICIENCY BENEFITS ALL CUSTOMERS (even non-participants)



- Transmission and distribution benefits
  - Transmission costs on the rise
- Reduce the price of wholesale energy and capacity markets in New England
- Avoided future environmental compliance costs
  - EPA regulations on CO<sub>2</sub> & Air pollution



# ECONOMIC BENEFITS

## *Economic Savings from Energy Savings*



- Energy efficiency is an indigenous energy resource - keeping energy dollars in-state
  - Money for oil, natural gas, propane, nuclear fuel, coal all go out of state
  - 2011, NH customers spent \$6 billion on energy; of that, \$3.9 billion (65 %) left the state immediately for imported fuels
- Recent results from other states
  - Maine: \$142.4 million in lifetime benefits, 3.2 benefit-cost ratio ([Efficiency Maine, 2013](#))
  - Rhode Island: \$140.1 million in lifetime benefits, 2.2 benefit cost-ratio ([National Grid RI, 2012](#))
  - Efficiency Vermont: \$118.4 million in lifetime benefits, 3.3 benefit-cost ratio ([Efficiency Vermont, 2012](#))

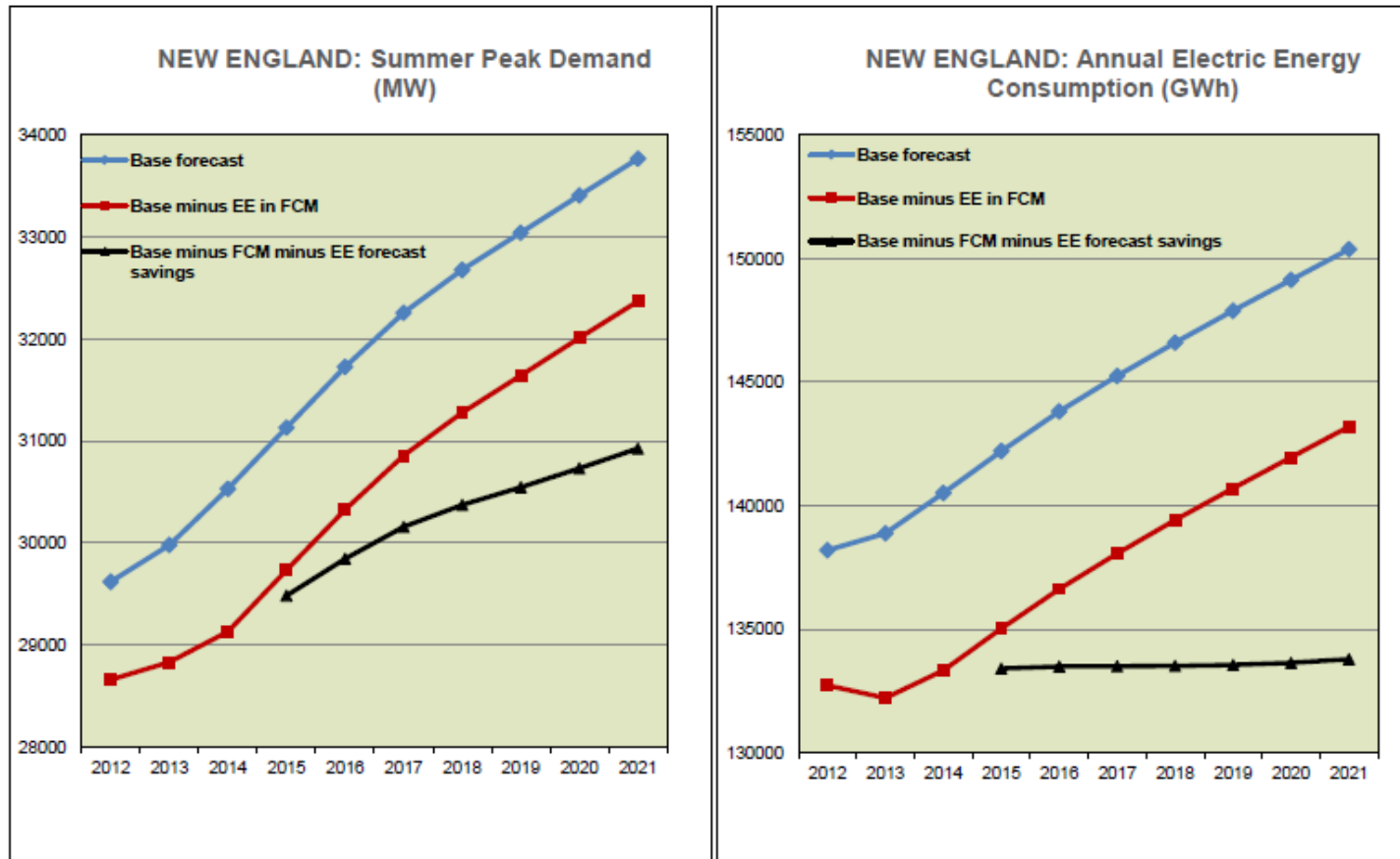
# ECONOMIC BENEFITS

## *Macroeconomic benefits & job growth*



- Reinvestment of energy savings creates significant macro-economic benefits
  - NH EERS Study by VEIC estimates \$160 million added to gross state product (GSP) and over 2,300 new jobs annually by 2017
  - VT DPS/Optimal Study found \$5 increase in GSP for each dollar spent on EE ([2011](#))
  
- Jobs in the new clean, green economy
  - Energy efficiency more labor-intensive than traditional energy industries
  - Energy efficiency investments support plumbers, carpenters, repairmen and other tradesman, as well as new energy efficiency companies

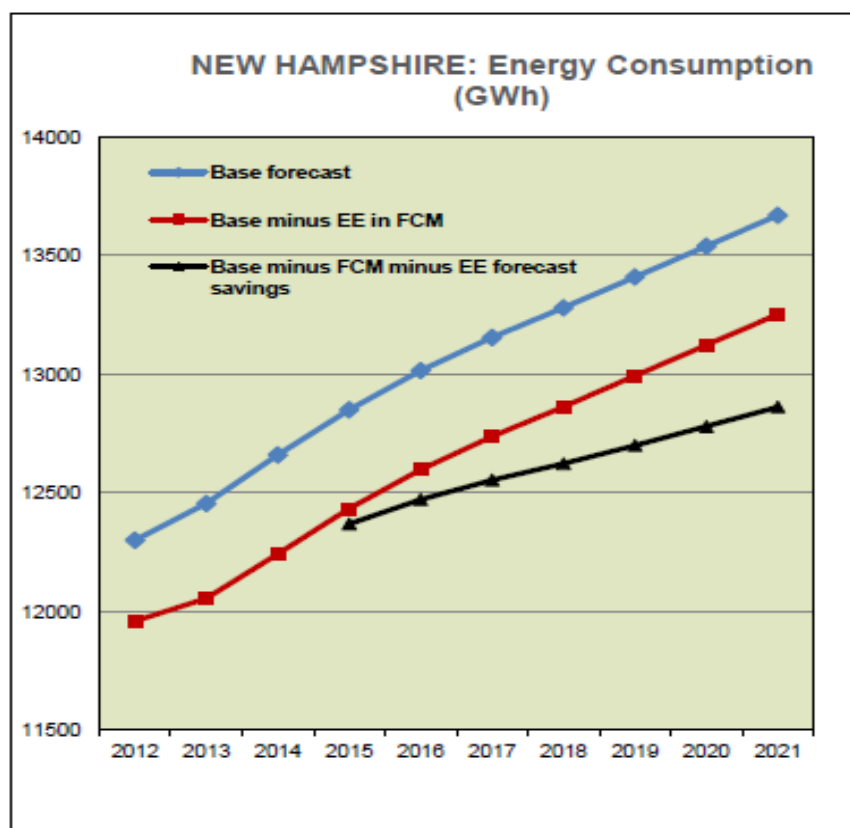
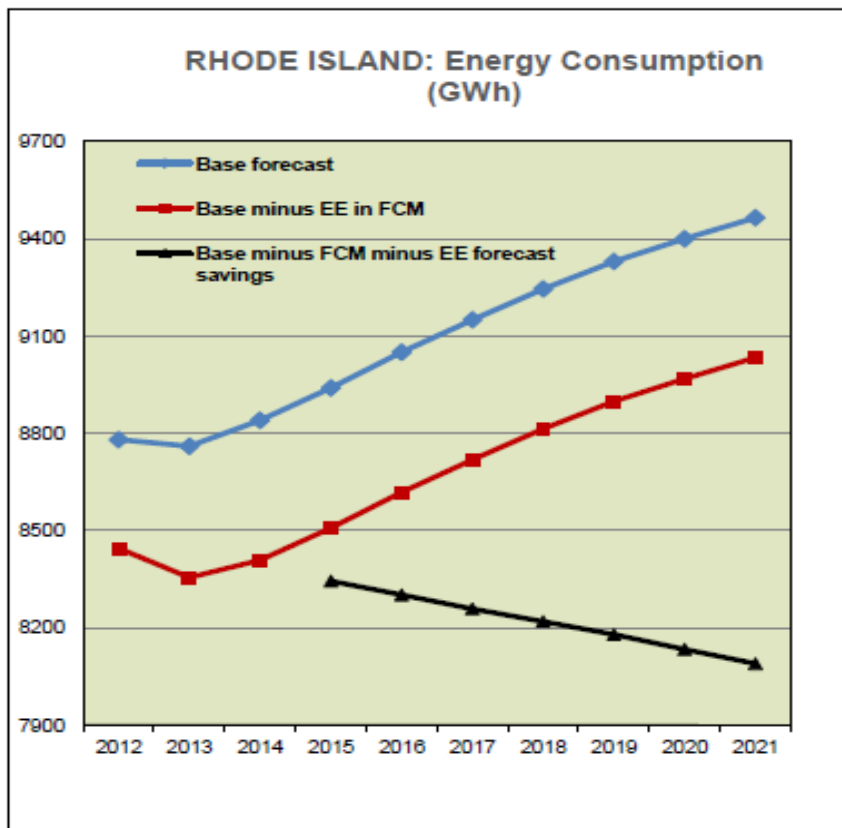
# ENERGY EFFICIENCY WILL SIGNIFICANTLY REDUCE TRANSMISSION AND SYSTEM COSTS...



According to ISO-New England, the nearly \$6 billion in planned investments in energy efficiency will significantly curb peak demand and keep electric load growth flat through 2021. These reductions resulted in \$260 million savings from deferred transmission upgrades.

ISO New-England, "ISO on Background: Energy-Efficiency Forecast," December 14, 2012: [http://www.iso-ne.com/nwsiss/pr/2012/ee\\_forecast\\_final\\_12122012\\_post.pdf](http://www.iso-ne.com/nwsiss/pr/2012/ee_forecast_final_12122012_post.pdf)

# ...BUT NOT ALL STATES WILL BENEFIT EQUALLY



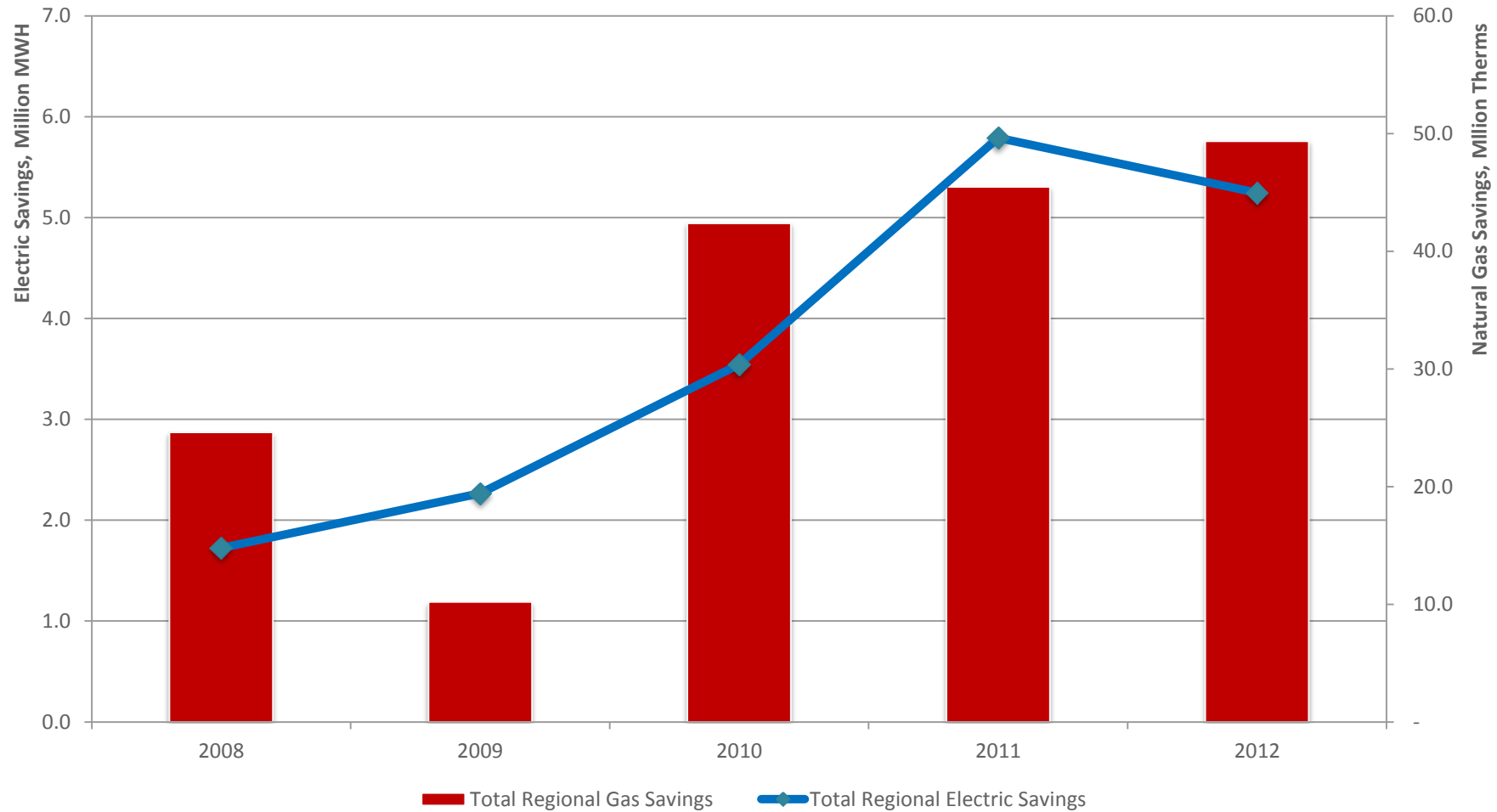
The forecast finds that states that plan to aggressively pursue energy efficiency, like Rhode Island, will see their electricity loads fall significantly, while states with lower levels of investment, like New Hampshire, will not benefit as greatly.

ISO New-England, "ISO on Background: Energy-Efficiency Forecast," December 14, 2012: [http://www.iso-ne.com/nwsiss/pr/2012/ee\\_forecast\\_final\\_12122012\\_post.pdf](http://www.iso-ne.com/nwsiss/pr/2012/ee_forecast_final_12122012_post.pdf)



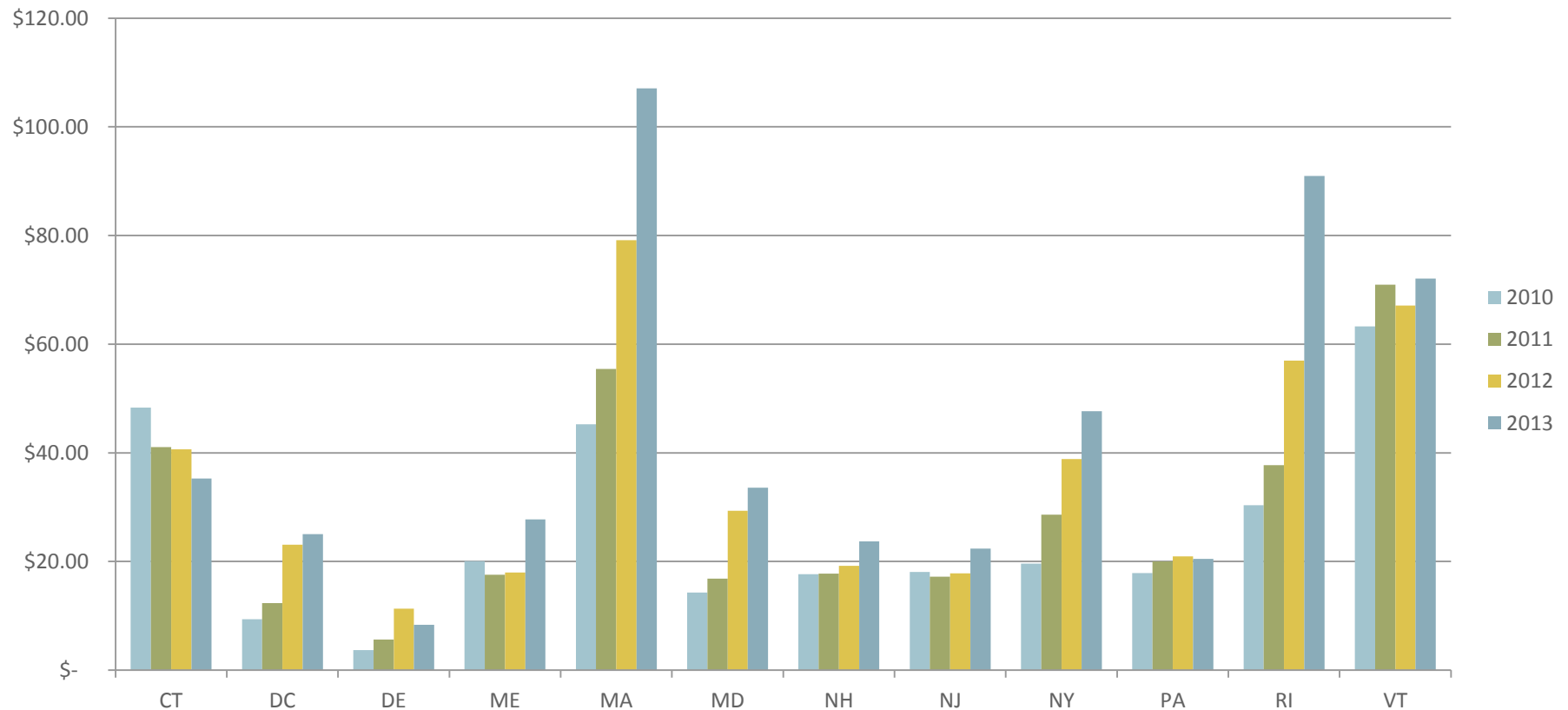
# POLICY COMMITMENTS MATTER

## REGIONAL ENERGY SAVINGS, 2008-2012



# STATE SPENDING ON ENERGY EFFICIENCY

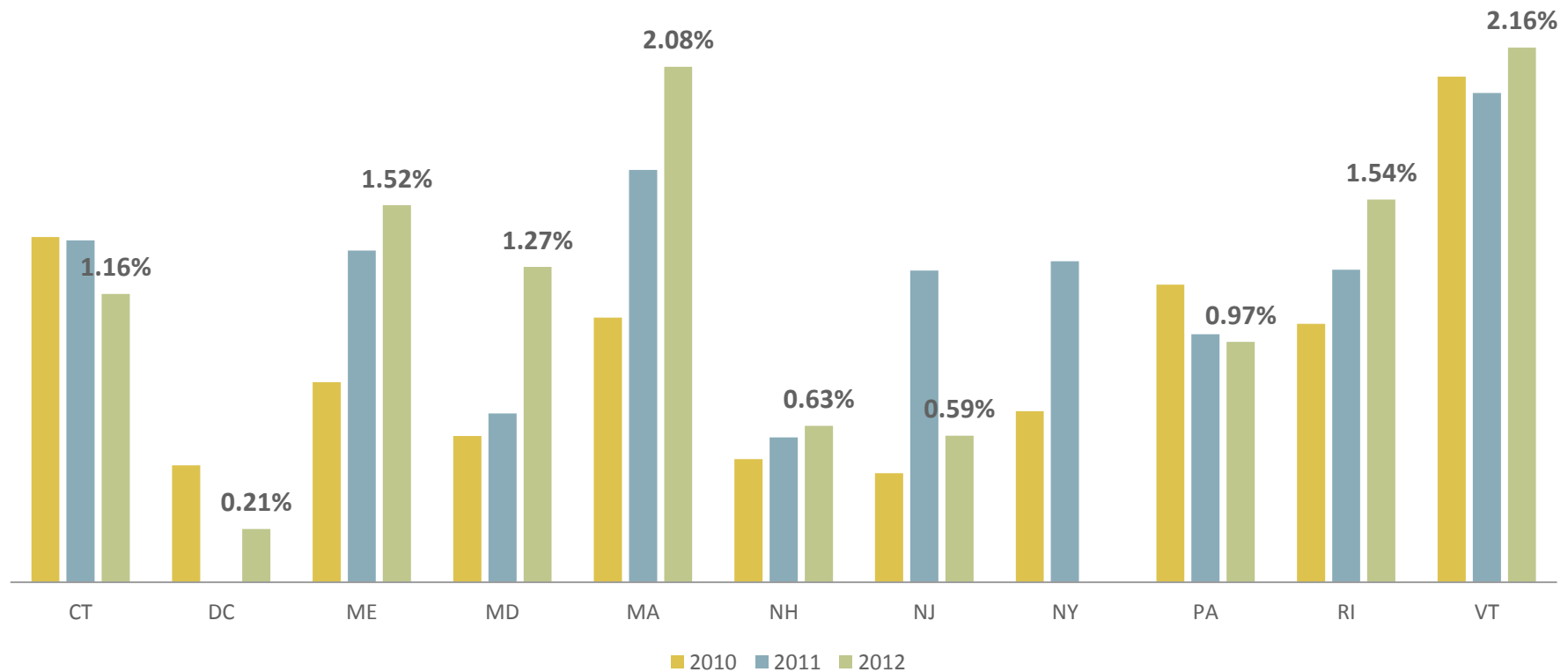
COMPARISON OF 2010 TO 2013 PER CAPITA PROGRAM SPENDING



Efficiency investments are rising in many states in New England and in the Mid-Atlantic. 2013 continues the trend towards more robust investments in energy efficiency. The region average has growth to over \$40 per person.

# POLICY COMMITMENTS MATTER

## STATES WITH EERS ACHIEVE HIGHER SAVINGS

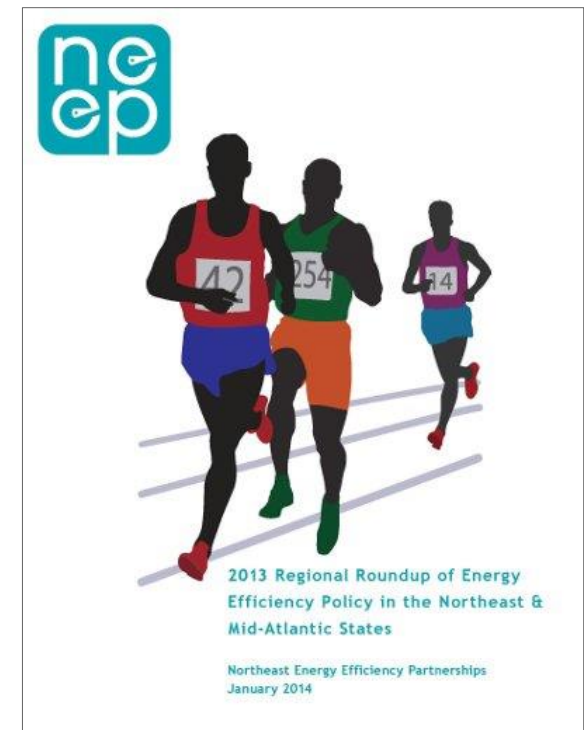


Policy has driven energy efficiency to make up a growing portion of our electricity demand, with leading states achieving savings of 1.5 to 2 percent of their annual electric sales. Maryland, Massachusetts, New York, and Vermont all aim to achieve electric savings of above 2 percent in 2012.

# NEEP'S REGIONAL ROUNDUP



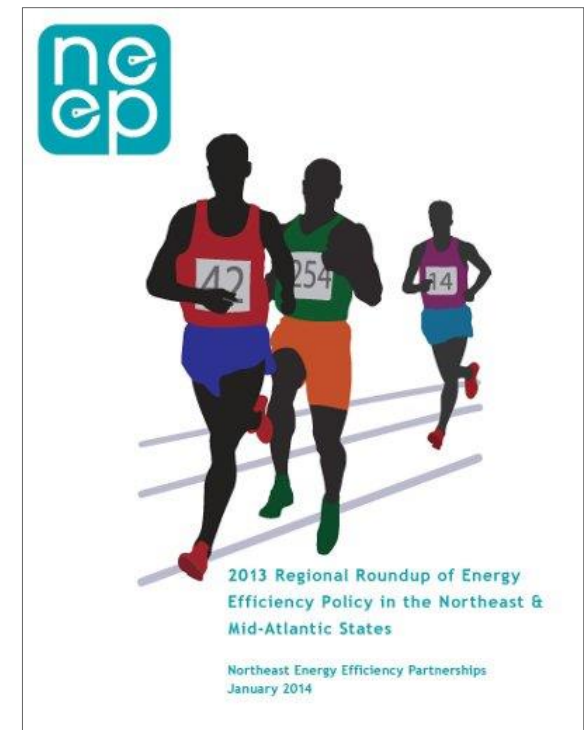
- A comparative view of building energy efficiency policies and programs across the Northeast in 2013
- Five categories:
  - *Still in the Starting Blocks*
  - *Falling Behind*
  - *Keeping Pace*
  - *Moving Ahead*
  - *Leading the Pack*
- N.H. graded as “Falling Behind”
- Compared to neighbors, N.H. has not kept pace with EE investment levels and policy innovations
- While the EESE board has a lot of enthusiasm, it has no authority.



# HOW CAN THAT CHANGE?



1. Direct utilities to **capture all cost-effective efficiency**, and link efficiency to broader public policy goals.
2. Integrate efficiency into long-range state energy and air quality **planning**.
3. Ensure **adequate, stable, long-term funding** for efficiency programs.
4. Foster a **supportive and flexible regulatory framework** on issues such as cost-effectiveness.
5. Support **complementary public policies** such as building energy codes, building energy rating and disclosure, and appliance efficiency standards.





# SO... WHY NOT NEW HAMPSHIRE?

THANK YOU!

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