



NORTHEAST ENERGY EFFICIENCY PARTNERSHIPS

Overview of the Regional Policy Landscape for Energy Efficiency

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NH Science Technology & Energy Committee

January 8, 2013

TOPICS WE WILL COVER



- Part 1: Intro to NEEP and our resources
- Part 2: Foundations of energy efficiency (EE) policy
- Part 3: Overview of the states - *Policy Snapshot*
- Part 4: Where New Hampshire stands
- Part 5: Resources from NEEP

NORTHEAST ENERGY EFFICIENCY PARTNERSHIPS

“Facilitating Partnerships to advance the efficient use of energy”



MISSION

Promote the efficient use of energy in homes, buildings and industry in the Northeast U.S.

ORGANIZATION

Regional nonprofit since 1996

PRIMARY AUDIENCES

- State policymakers
- Efficiency program administrators

APPROACH

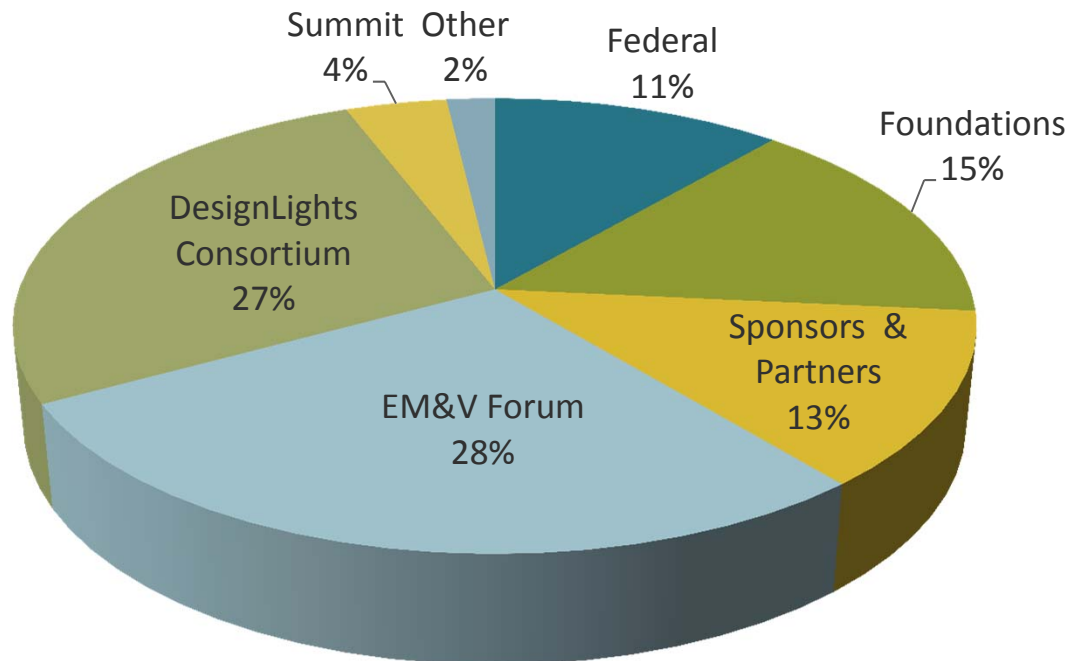
Overcome barriers to efficiency through *strategic regional collaboration* of public policies and programs



FUNDING: NEEP's BROAD BASE OF SUPPORT



2013 Projected Revenues



2012 Sponsors

- National Grid - RI, MA, NH, NY
- NSTAR Gas & Electric
- NYSERDA
- LIPA
- CL&P - CEEF
- UI-CEEF
- Yankee Gas - CEEF
- South. CT Gas - CEEF
- CT Natural Gas - CEEF
- CMEEC
- PSNH
- NHEC
- Efficiency Vermont
- WMECo
- Cape Light Compact
- Unitil - MA, NH
- DC SEU

2013 Grant Funders

- US DOE
- US EPA
- Merck Family Fund
- Energy Foundation
- Barr Foundation
- John Merck Fund

(DLC & Forum have separate funding)



NORTHEAST ENERGY EFFICIENCY PARTNERSHIPS

PART TWO: Foundations of Energy Efficiency Policy

AN UNBEATABLE VALUE PROPOSITION



BENEFITS OF EFFICIENCY:

- Clean, affordable energy
- Economic driver/job creation
- Power system reliability
- Climate change strategy
- Protect New Hampshire's natural resources

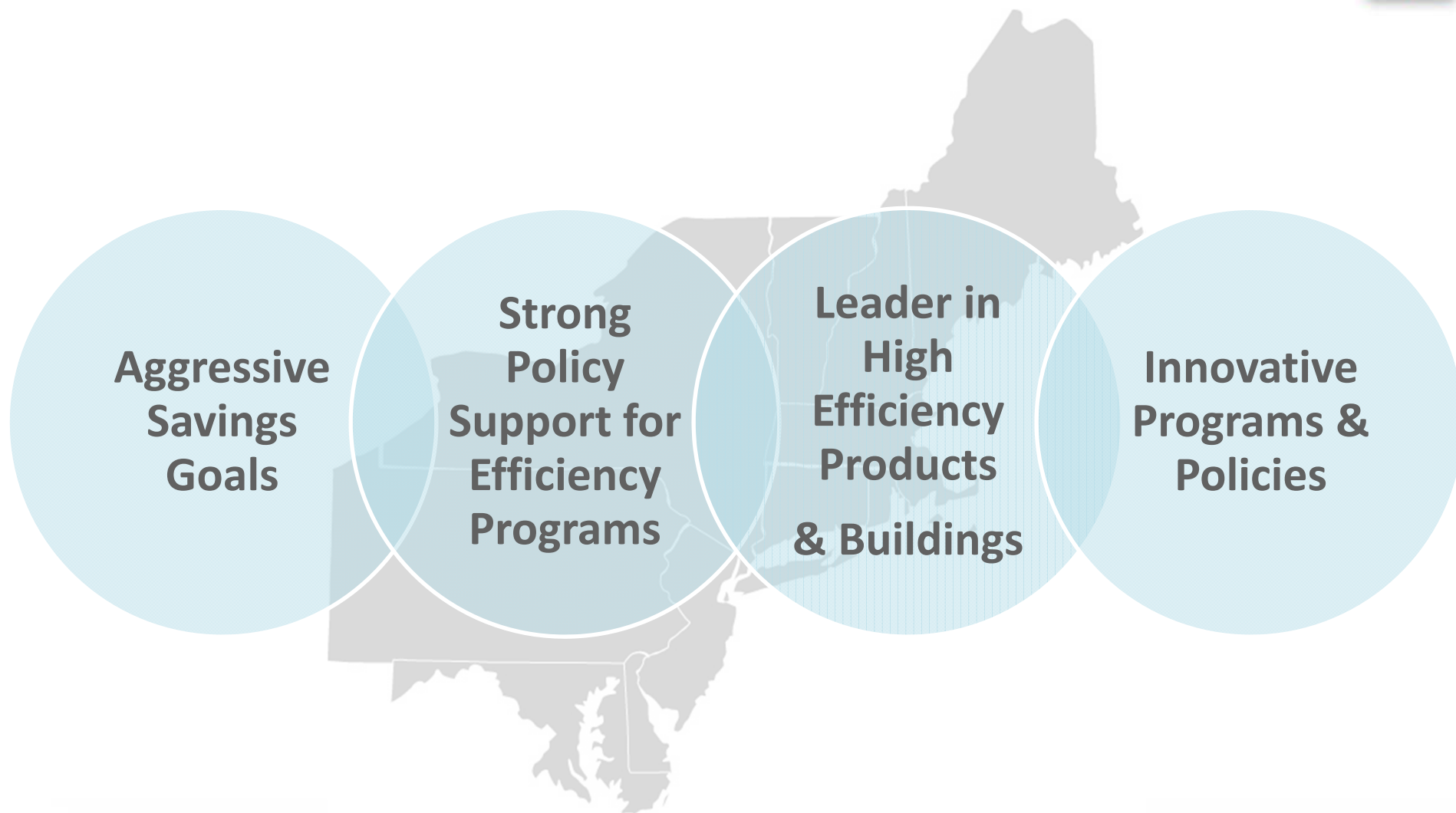
Investing in EE creates jobs today and supports jobs in the future.

In Massachusetts, clean energy jobs are up 11% over 2011, thanks to consistently supportive state policies.

ISO-NE reported that efficiency has cut the need for \$260M in transmission expenses

Energy Efficiency is THE most cost-effective way of meeting demand

THE NORTHEAST AS AN EFFICIENCY LEADER



MAKING EFFICIENCY WORK



Three key ingredients to effective implementation:

1. POLICY - building the framework
2. REGULATORY - getting the details right
3. PROGRAM STRATEGY - getting it done

Today we will focus on policy. Good legislation is the foundation of success.



KEY POLICY ELEMENTS IN LEADING STATES



1. A DEFINED POLICY DIRECTIVE

- Nine states in the region have legislative directives to:
 - Capture “all cost-effective energy efficiency” (MA, CT, ME, RI, VT) or,
 - Meet defined energy efficiency savings targets, i.e. EE Portfolio Standard (MD, PA, NY, DE)

2. SUFFICIENT *AND* STABLE FUNDING

- Most states in region ramping up funding, though some are still capped (NH, ME, PA, DE, NJ, DC)
 - Instability hurts consumer and vendor confidence
 - Could pay too much for expensive generation

KEY POLICY ELEMENTS



3. STAKEHOLDER ADVISORY FRAMEWORK

- Advisory councils in MA, CT, RI, ME
 - Broad representation with expert consultants
 - Work out issues before getting to regulators
- Integrated and comprehensive view of energy efficiency program planning and policies
- **EESE Board does not have authority over CORE programs - but could evolve this way**

KEY POLICY ELEMENTS



4. COMPLEMENTARY POLICIES

“Help lock in” savings and foster progress on energy efficient technologies and practices. Building energy rating helps the market value efficiency. Other policies include:



Building energy codes – target new buildings; training and compliance are key.



Appliance standards – remove least-efficient products from the market; preserve choices.



High performance building programs - improve overall energy and environmental performance for new and existing buildings.



NORTHEAST ENERGY EFFICIENCY PARTNERSHIPS

PART THREE:
Northeast Energy Efficiency Snapshot
Energy Efficiency Policy By the Numbers

Updated January 2013

AN OVERVIEW OF ENERGY EFFICIENCY POLICY IN THE NORTHEAST STATES



The Snapshot is a brief overview of energy efficiency policy by the numbers in New England, New York, and the Mid-Atlantic regions. It includes charts on:

- State Energy Efficiency Policies and Savings Goals
- Region-wide Energy Efficiency Expenditures, 2007-2013
- Energy Efficiency Expenditures by State: 2010-2013
- Electric Energy Savings vs. Goals, 2010-2013
- Natural Gas Savings, 2010-2013
- ISO-New England Energy Efficiency Forecast & Transmission Costs

HOW STATES FUND EFFICIENCY



State	Funding Mechanism		
	Ratepayer Funding	RGGI Auction Used to Supplement Efficiency Budgets	Capacity Market Payments
CT	SBC of 3 mills/kWh, new Conservation Adjustment Mechanism to take effect	Regulations set at 69.5%	ISO-New England
MA	SBC of 2.5 mills/kWh + Efficiency Reconciliation Factor (EERF)	Statute sets at 80%	ISO-New England
ME	SBC of 1.5 mills/kWh	Statutes set at 100%	ISO-New England
NH	SBC of 1.8 mills/kWh	HB 1490 cut funding in half, diverting \$ from EE	ISO-New England
RI	SBC of 3.2 mills/kWh	Regulations set at 100%	ISO-New England
VT	Set annually according to 3-Year Efficiency Budget Natural gas programs are set by Vermont Gas System rates	Statutes set at 100%	ISO-New England

EFFICIENCY POLICIES—NEW ENGLAND



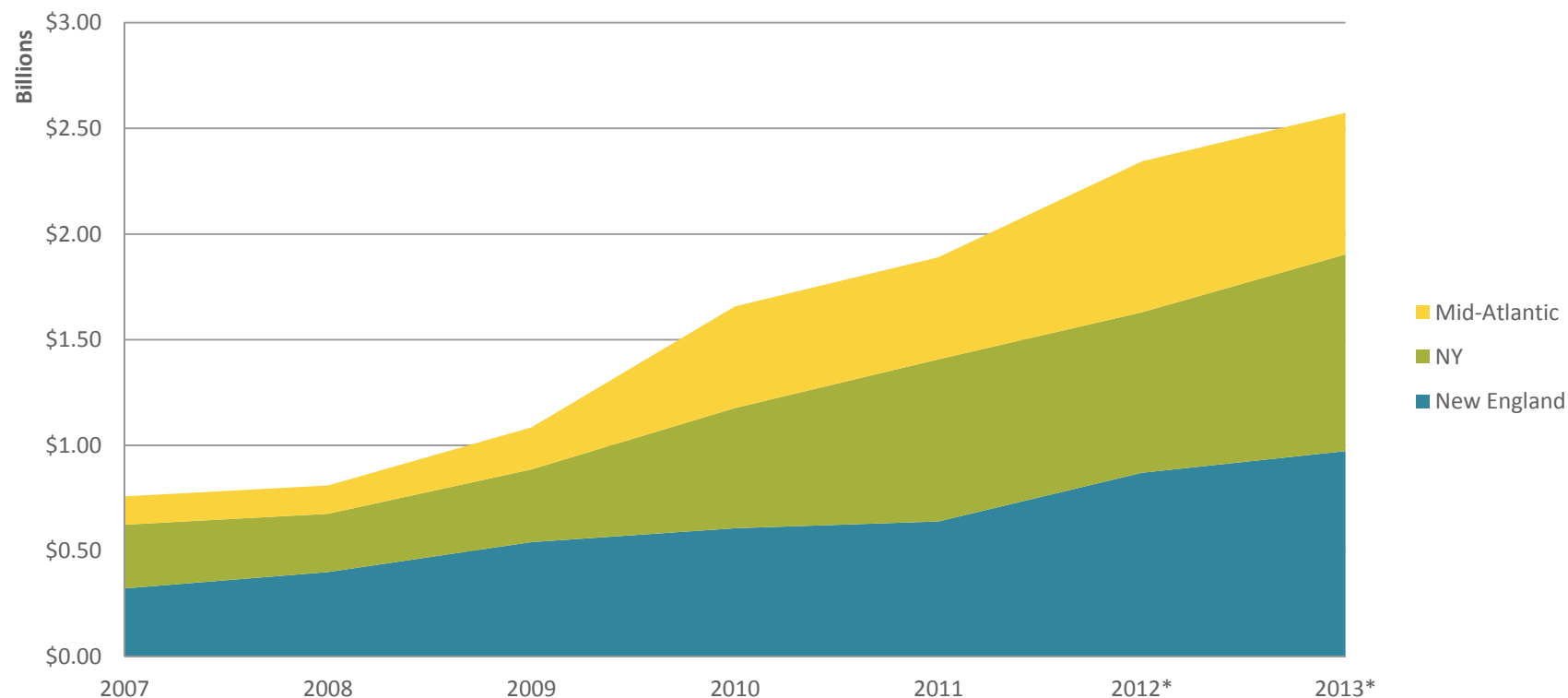
State	Policy Type	Program Administrator	Energy Savings Goals
<u>Connecticut</u>	<u>All Cost-Effective Energy Efficiency</u>	Utilities	<i>In process</i>
<u>Maine</u>	<u>All Cost-Effective Energy Efficiency</u> <i>Funding Capped</i>	Efficiency Maine	1.4% of electric sales annually by 2013
<u>Massachusetts</u>	<u>All Cost-Effective Energy Efficiency</u>	Utilities	2.6% of electric & 1.14% of natural gas sales annually by 2015
<u>New Hampshire</u>	<i>Program Funding Only - no EE policy framework</i>	Utilities	<i>No mandated savings goals</i>
<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>Vermont</u>	<u>All Cost-Effective Energy Efficiency</u>	Efficiency Vermont	2% of electric sales annually

EFFICIENCY POLICIES—NY AND MID-ATLANTIC



State	Policy Type	Program Administrator	Energy Savings Goals
<u>Delaware</u>	<u>Energy Efficiency Resource Standard</u> <i>Not Yet Implemented</i>	Sustainable Energy Utility	<i>15% of electric & natural gas sales by 2015</i>
<u>District of Columbia</u>	<i>Efficiency Funding Only</i>	Sustainable Energy Utility	<i>No mandated savings goals</i>
<u>Maryland</u>	<u>Energy Efficiency Resource Standard</u>	Electric Utilities	15% of per capita electric use by 2015
<u>New Jersey</u>	<i>Efficiency Funding Only</i>	Office of Clean Energy + Utilities	<i>No mandated savings goals</i>
<u>New York</u>	<u>Energy Efficiency Portfolio Standard</u>	NYSERDA + Utilities	15% of electric & natural gas sales by 2015
<u>Pennsylvania</u>	<u>Energy Efficiency Resource Standard</u> <i>Funding Capped</i>	Utilities	0.75% of annual electric sales through 2015

ENERGY EFFICIENCY INVESTMENTS IN THE NORTHEAST REGION, 2007-2013*

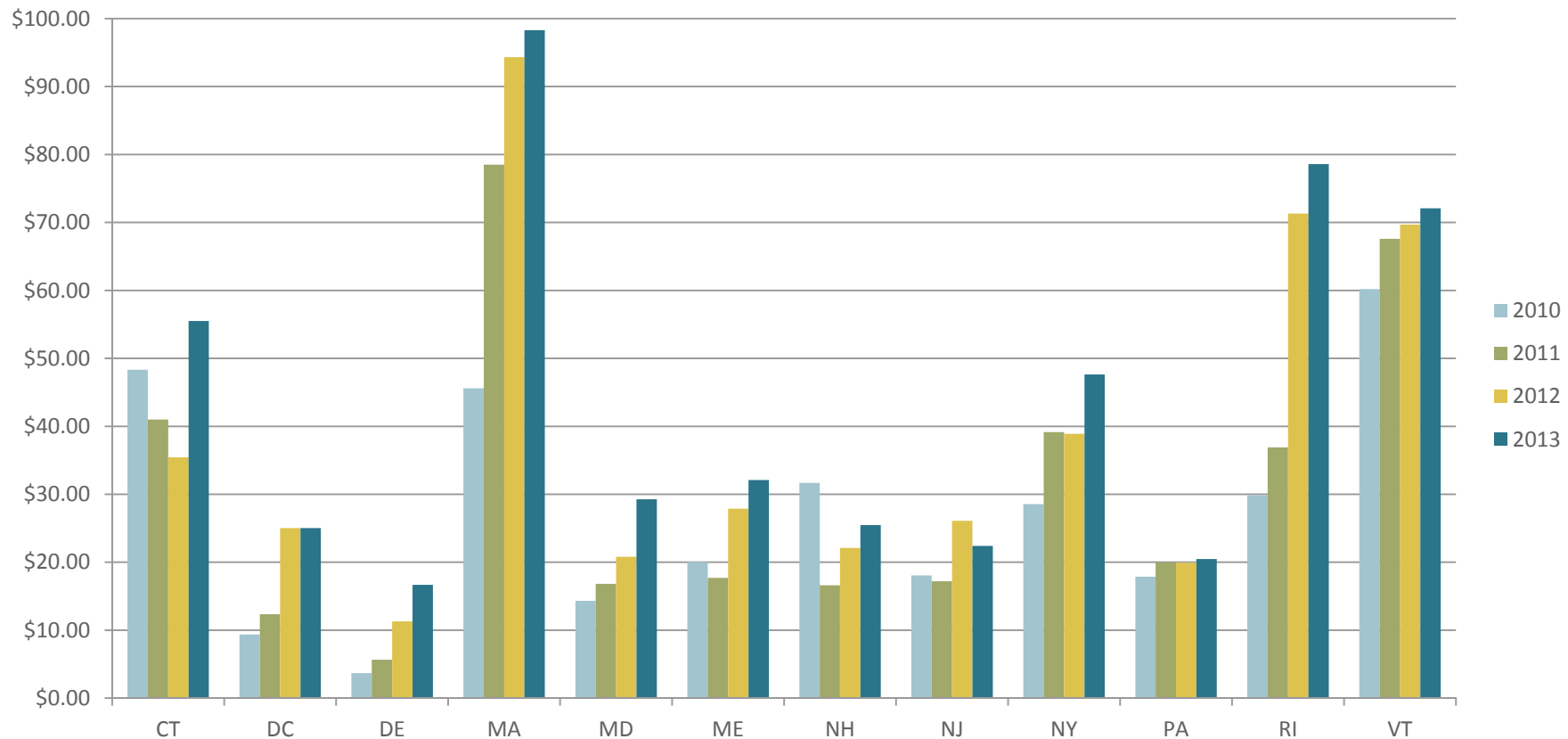


Expenditures on energy efficiency programs in New England, New York, and the Mid-Atlantic states is expected to climb to nearly \$2.5 billion this year, tripling investment levels from five years ago.

Expenditures include all electric and natural gas ratepayer funding and funding from RGGI and wholesale markets like the Forward Capacity Market. It does not include federal funding from the American Recovery and Reinvestment Act (ARRA) and the Weatherization Assistance Program (WAP) or any customer contributions. Data is taken from state annual efficiency reports from 2007 to 2011 which are available through the [NEEP website](#). 2007 to 2011 are year-end reported data while 2012 and 2013 expenditures are forecasted data that are subject to change.

STATE SPENDING ON ENERGY EFFICIENCY

COMPARISON OF 2010 TO 2013 PER CAPITA PROGRAM SPENDING

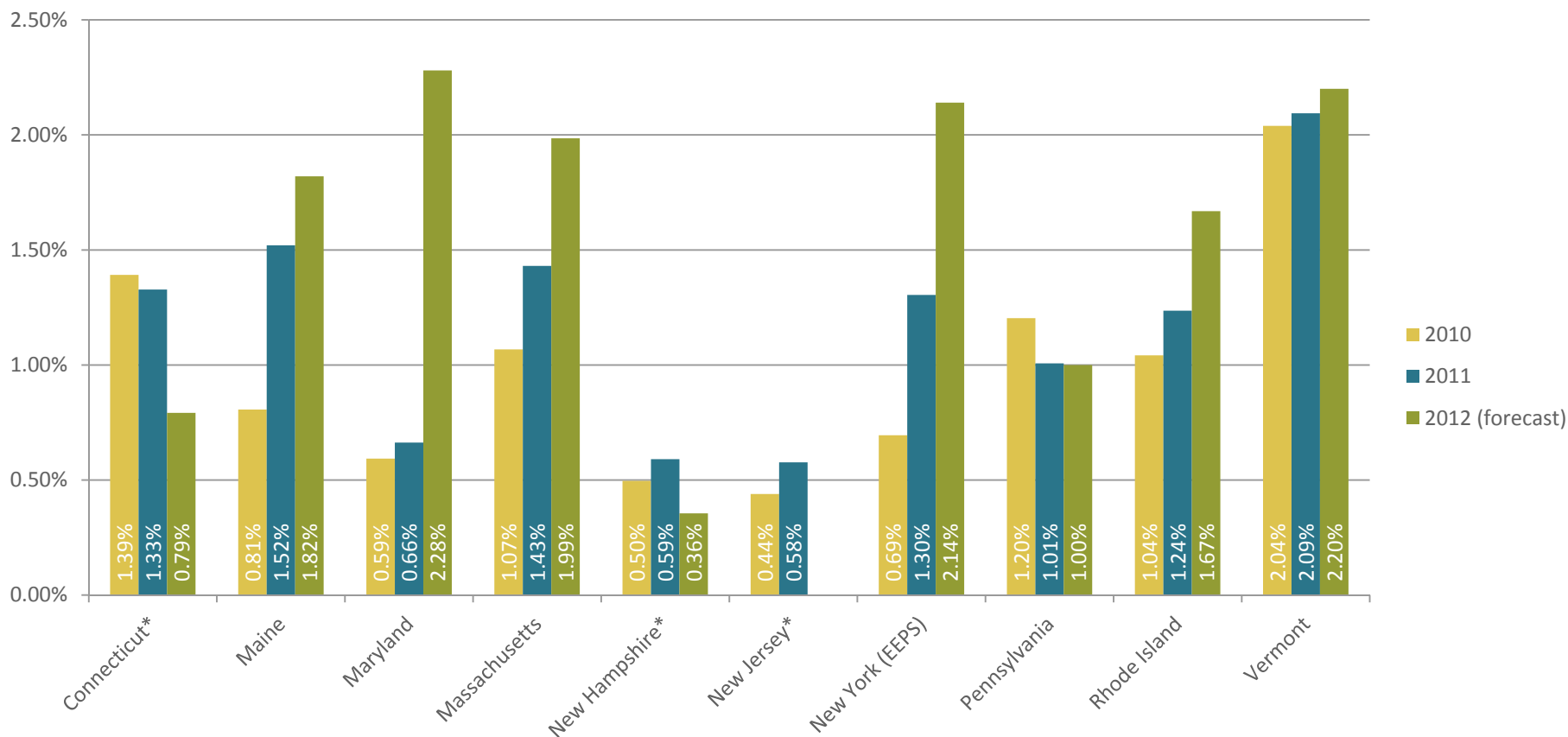


Efficiency investments are rising in many states in New England and in the Mid-Atlantic. 2012 continues the trend towards more robust investments in energy efficiency, with three states poised to spend over \$50 per capita next year.

Expenditures include all electric and natural gas ratepayer funding and funding from RGGI and wholesale markets like the Forward Capacity Market. It does not include federal funding from the American Recovery and Reinvestment Act (ARRA) and the Weatherization Assistance Program (WAP) or any customer contributions. Data is taken from state annual efficiency reports available through the [NEEP website](#). 2010 & 2011 are year-end reported data while 2012 and 2013 expenditures are forecasted data that are subject to change.

ELECTRIC SAVINGS, 2010-2012

ELECTRIC SAVINGS AS A PERCENTAGE OF STATE RETAIL ELECTRIC SALES

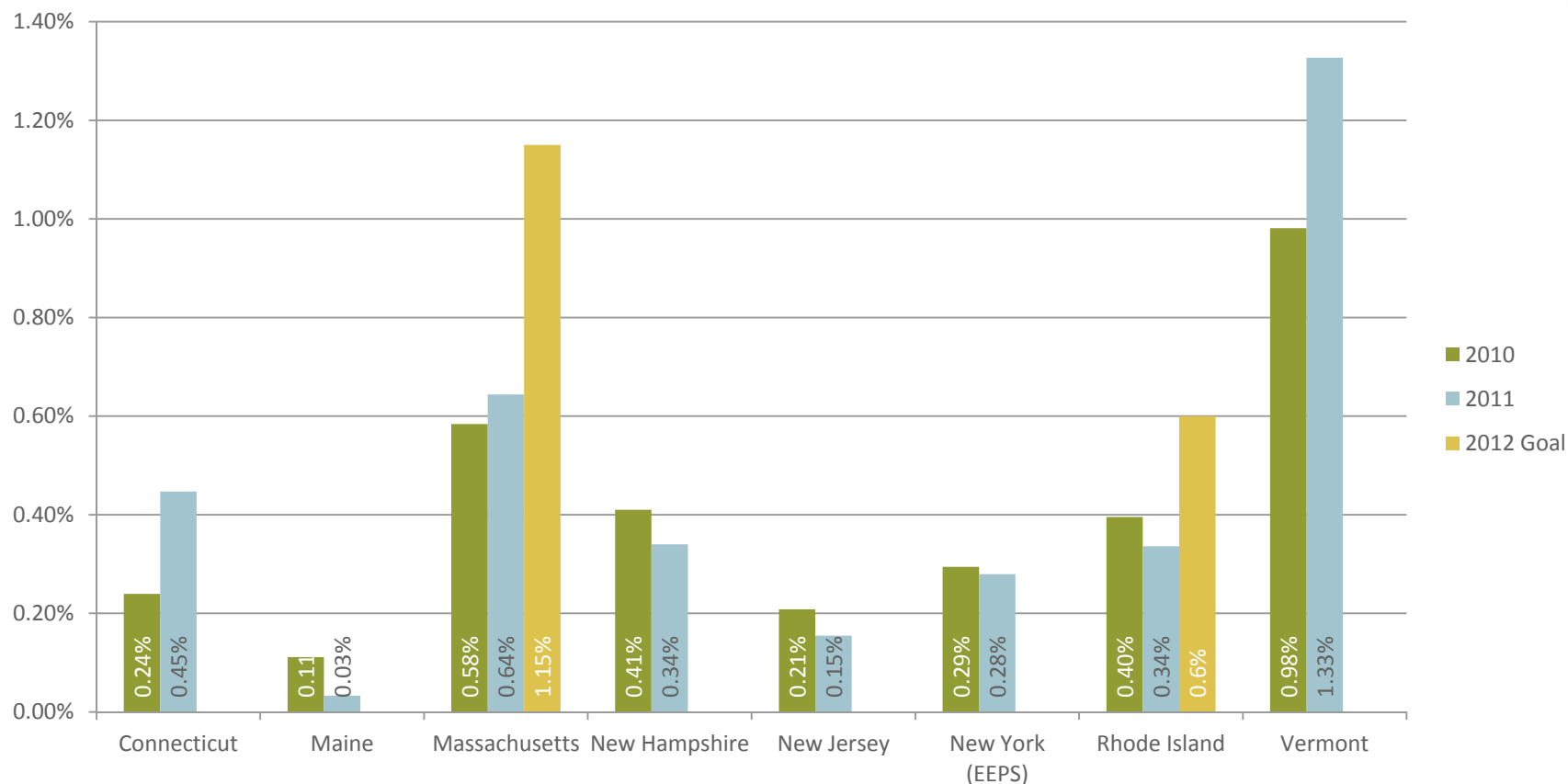


Policy has driven energy efficiency to make up a growing portion of our electricity demand, with leading states achieving savings of 1.5 to 2 percent of their annual electric sales. Maryland, Massachusetts, New York, and Vermont all aim to achieve electric savings of above 2 percent this year.

Electricity savings are taken from state annual efficiency reports from 2010 to 2012, available through the [NEEP website](#). States without reported savings data for particular years are left blank. Electricity sales data are taken from the [EIA's State Electricity Profiles website](#). Connecticut, New Hampshire, and New Jersey do not have binding savings goals for 2012.

NATURAL GAS SAVINGS, 2010-2012

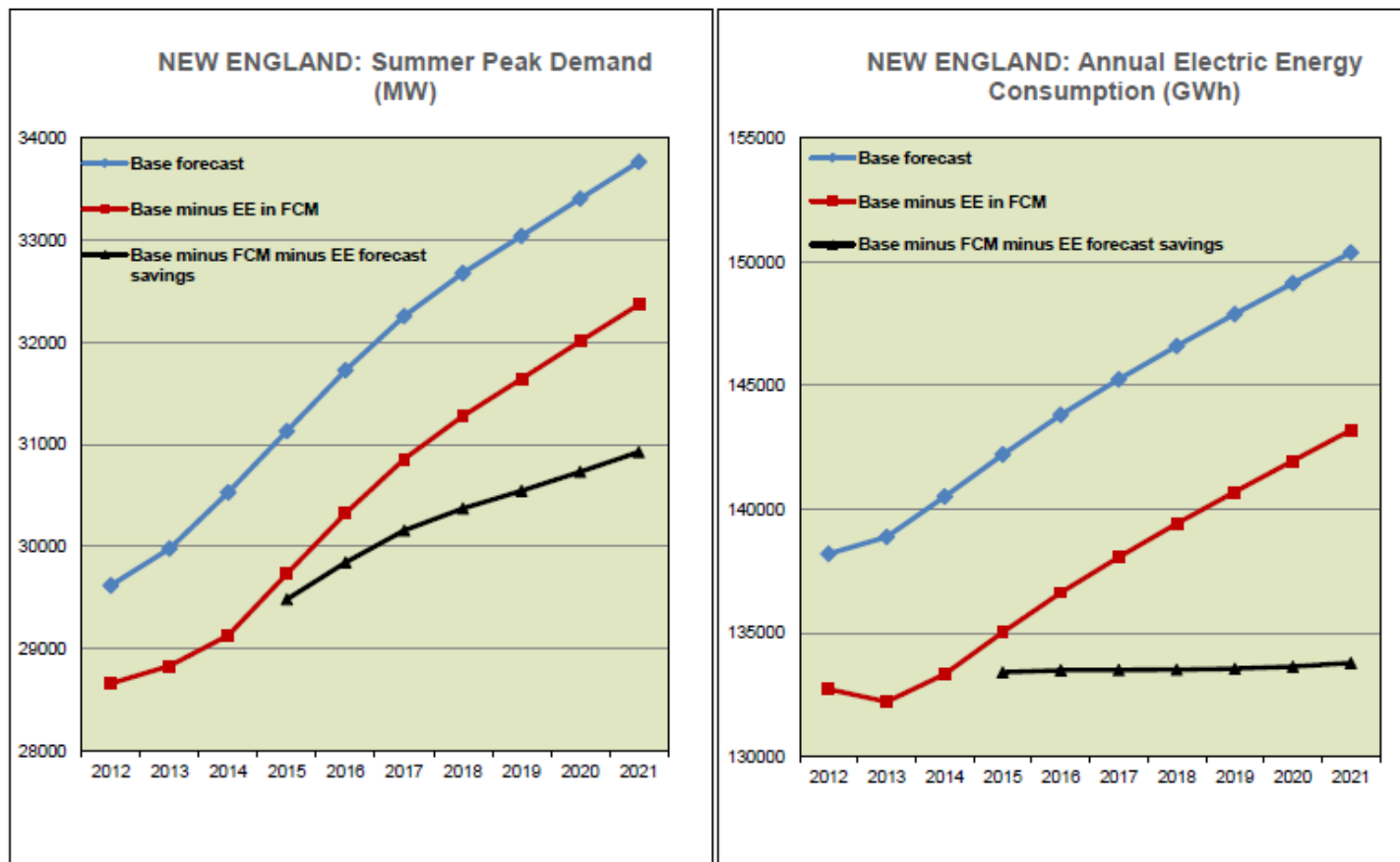
GAS SAVINGS AS A PERCENTAGE OF STATE NATURAL GAS SALES



While natural gas programs are more modest, states aim to meet an increasing portion of their gas needs through energy efficiency as well. Leading states require program administrators to achieve savings of 1 percent of gas sales or greater each year.

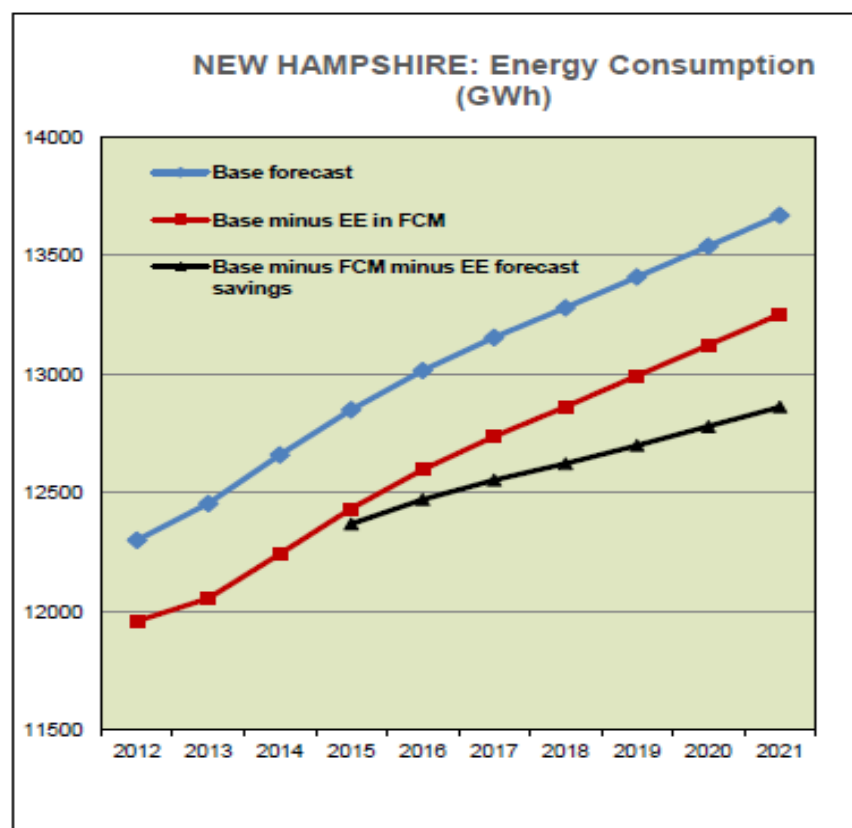
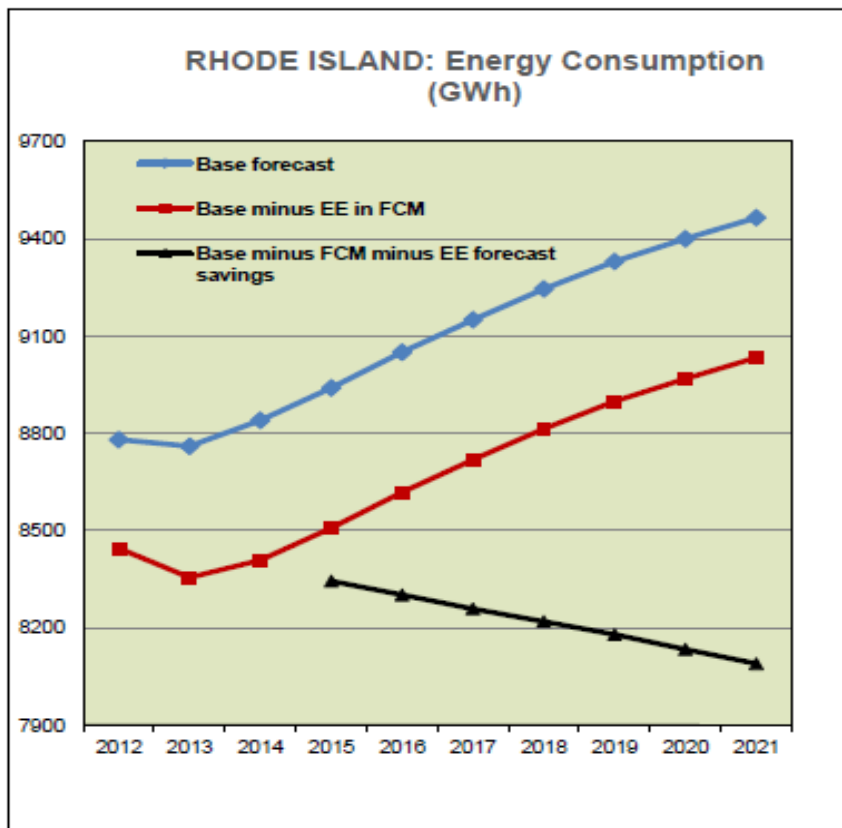
States that have natural energy efficiency programs are included in this chart. Natural savings are taken from state annual efficiency reports from 2010 to 2012 available through the [NEEP website](#). Natural gas sales are taken from the [EIA Natural Gas Consumption by End Use site](#). Data included are final sales for 2010 (2010 data are use for 2011 sales).

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.

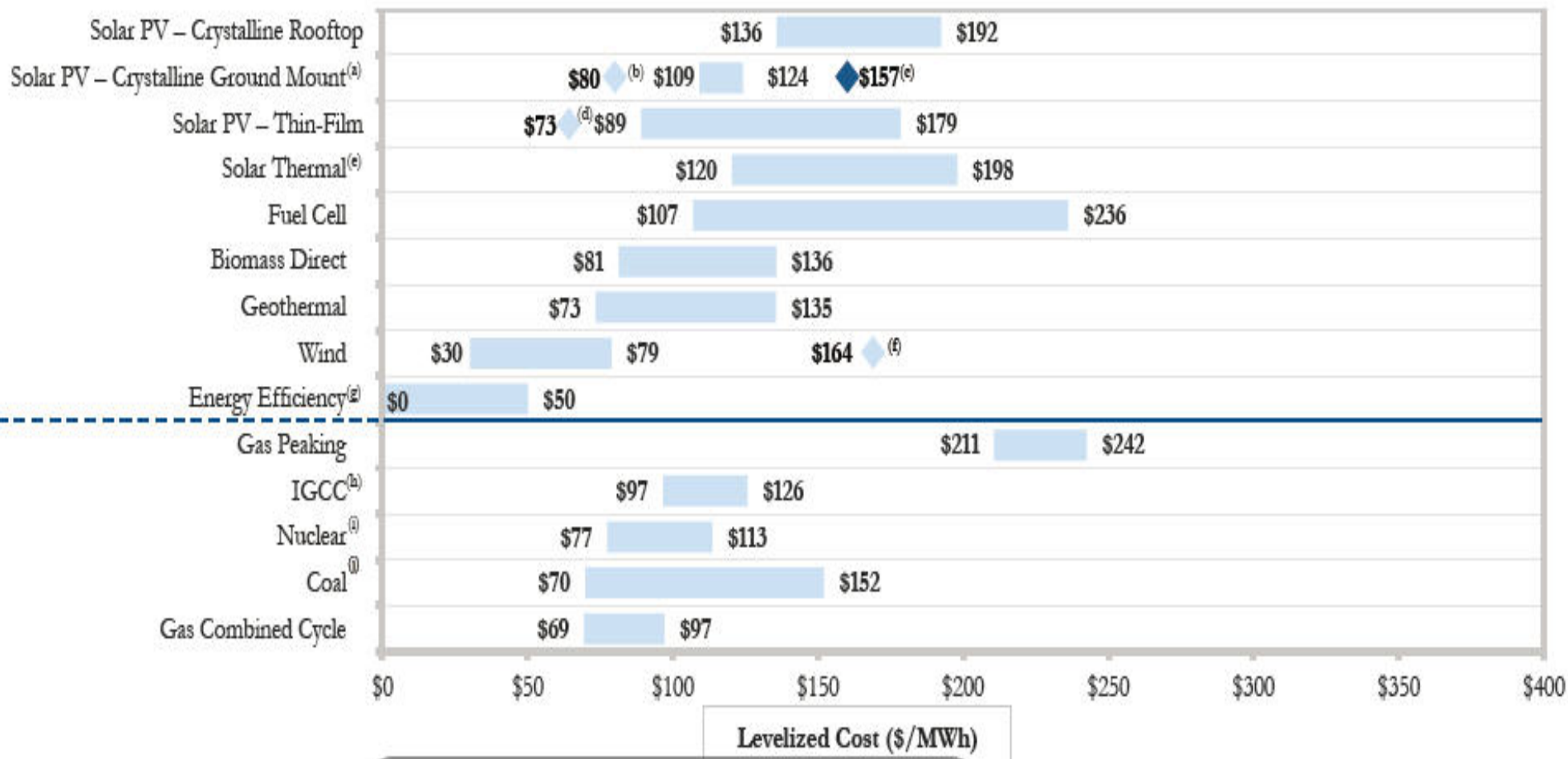
...BUT NOT ALL STATES WILL BENEFIT EQUALLY



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

ENERGY EFFICIENCY: THE CHEAPEST ENERGY RESOURCE



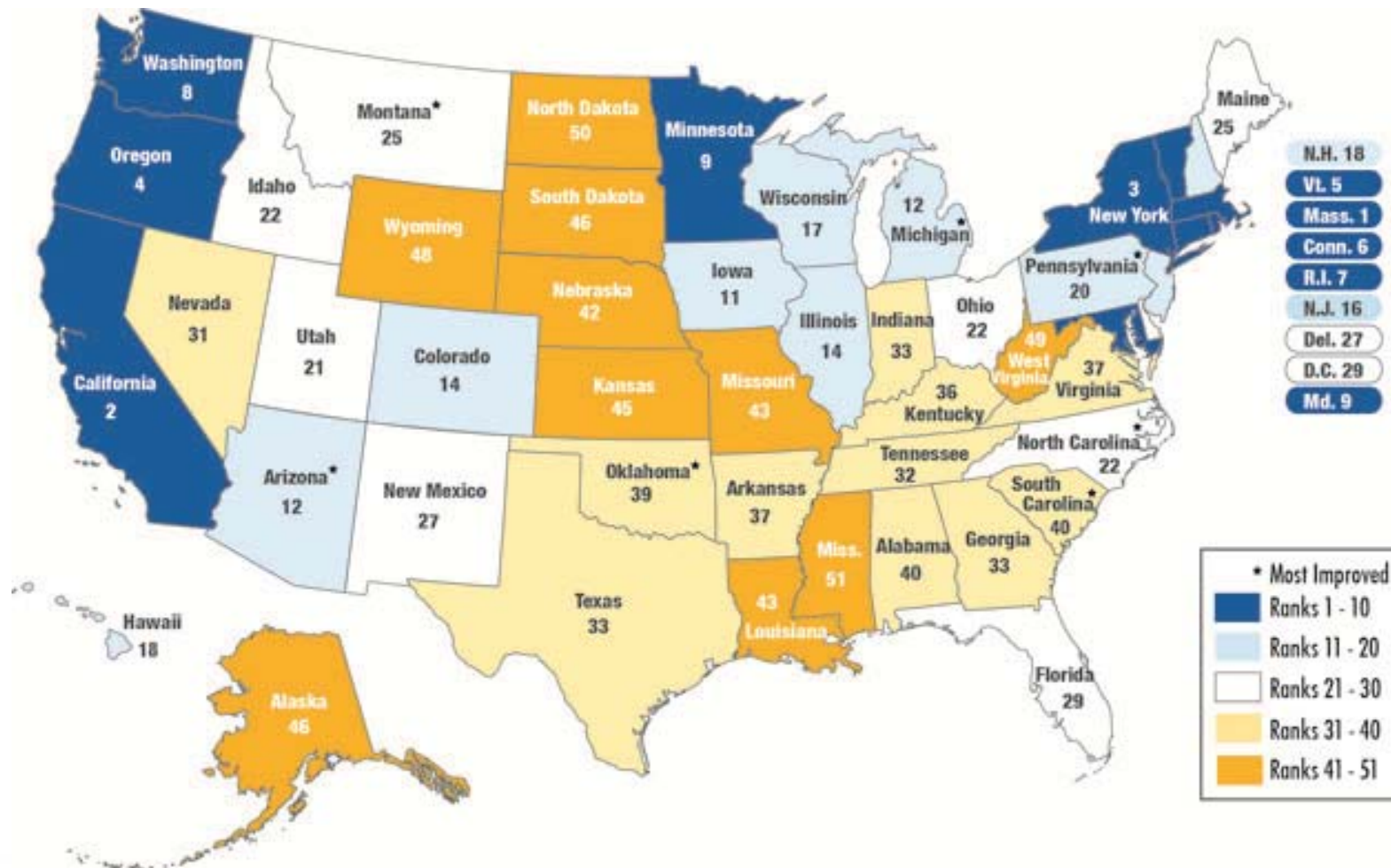
source: Lazard, 2011



NORTHEAST ENERGY EFFICIENCY PARTNERSHIPS

PART FOUR: WHERE NEW HAMPSHIRE STANDS

NEW HAMPSHIRE HAS IMPROVED SOMEWHAT IN NATIONAL RANKINGS



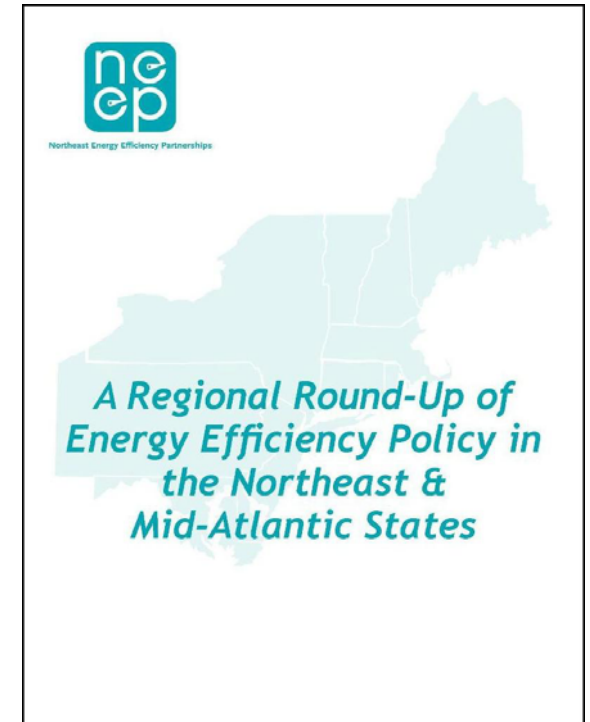
NH Ranks 18th in the American Council for an Energy Efficiency Economy's Annual State Scorecard.

www.aceee.org

NEEP'S *REGIONAL ROUNDUP*



- In our fall 2012 report, we listed New Hampshire as “Falling Behind.”
- Compared to neighboring states, NH has not kept pace with EE investment levels and policy innovations.
- While the EESE board has a lot of enthusiasm, it has no authority.
- The CORE efficiency programs should be commended for collaboration and efforts to serve thermal efficiency needs.
- Bills that undercut RGGI and school construction were a step backwards



THE TABLE HAS BEEN SET

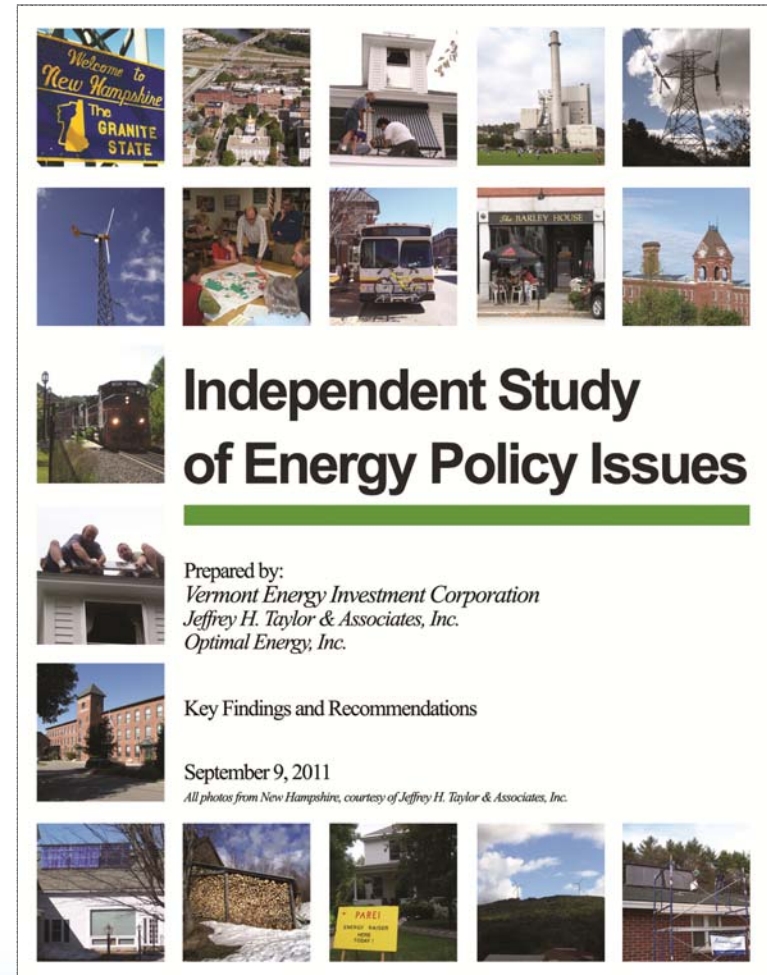


A SHARED VISION FOR ENERGY EFFICIENCY IN NEW HAMPSHIRE



A diverse set of state leaders, including policymakers, utility executives, businesses and environmental non-profits worked hard to inform the development of the Independent of Energy Policy [Study](#) per SB 323.

With its [report](#) to the legislature, the Energy Efficiency and Sustainable Energy (EESE) Board strongly recommends a state energy policy that puts efficiency first.



EMPHASIS ON EFFICIENCY

“THE NEW HAMPSHIRE WAY”



- Long history of environmental stewardship
- Importance of community, local self-reliance
- Proud tradition of frugality
 - Efficiency is the least expensive energy resource available to meet New Hampshire’s energy needs, at about 4¢ vs. 11¢kWh
- **Jobs and economic development** are high priorities
 - Growing the clean energy economy means thousands of good, local jobs that can’t be outsourced
- **It’s patriotic**
 - Efficiency invests New Hampshire’s dollars in New Hampshire, and not in foreign or out-of-state energy sources

A SHARED VALUE



It's not 'red' or 'blue'
...it's 'green!'



FUTURE IS BRIGHT FOR GRANITE STATE



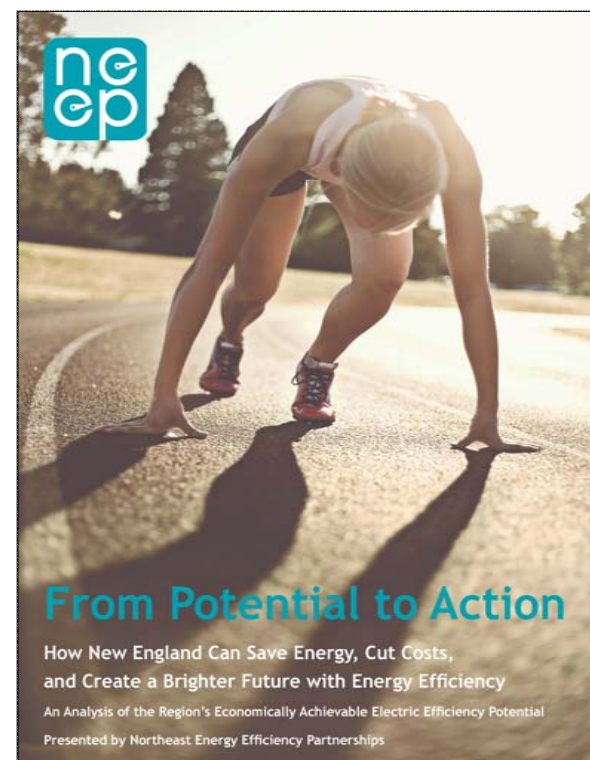
- Shared goal and political will to increase investments in efficiency.
- Potential to triple or quadruple the amount invested in utility efficiency programs to help meet state's energy demand.
- Costs roughly 1/3 as much to meet electricity demand through energy efficiency vs. new power generation.
- Efficiency is non-emitting, creates local jobs, keeps customer energy dollars in-state.

GREAT POTENTIAL REMAINS



“While New Hampshire still has a long way to go to capture all cost-effective efficiency, the state has made important strides in terms of our energy policies in recent years. We see efficiency as central to building a more sustainable economy in the Granite State, advancing toward our climate goals, creating green jobs and helping to control energy costs for our residents and businesses. NEEP’s report on New Hampshire’s energy efficiency potential will certainly help guide the state as we move forward.”

- Senator Martha Fuller Clark, Nov. 2010



New Hampshire could cost-effectively reduce electric consumption by about 20% according to our analysis.

POSITIVE ECONOMIC IMPACTS - REGION



According to the most recent Regional Energy Efficiency Potential Study, investing in efficiency at the level of potential estimated would, over the life of the measures:

- Increase gross state product by \$54.6 billion
- Increase employment by about 422,000 job years throughout the region.
- Result in positive net societal benefits of \$19.6 billion.
- NH is roughly 10% of the region's total potential

POSITIVE ENVIRONMENTAL IMPACTS



Reducing NE's power generation by 31,800 GWh would:

- Cut CO₂ emissions by nearly 80 million metric tons, equal to the annual emissions of 3 million passenger vehicles.
- Cut annual emissions of sulfur dioxide (SO₂) and nitrogen oxides (NO_x) by 8,500 and 5,000 metric tons in 2018, respectively.
- Energy that could be saved is equivalent to the energy output of about four large coal-fired power plants.



NORTHEAST ENERGY EFFICIENCY PARTNERSHIPS

PART FIVE: RESOURCES AND CONTACT INFO

RESOURCES FROM NEEP



We have an abundance of news and policy resources on our website, www.neep.org. These include:

- [*Highlights*](#), a bi-monthly policy news and analysis e-newsletter
- [*Policy Tracking Brief*](#), monthly round-up of legislative and regulatory happenings
- [*Energy Efficiency Matters*](#), our blog
- [*The Efficiency Policy Snapshot*](#) - the states “by the numbers”
- [*The Regional Roundup*](#), Annual comparison of states’ progress on EE policies
- [*The Regional Evaluation, Measurement and Verification Forum*](#), which supports the development and use of common protocols to evaluate, measure, verify, and report the impacts of energy efficiency.
- Plus information on building science and technologies, efficiency programs, regional best-practices, regulatory guidance and [more](#).

If you don’t find what you need, or are looking for a contact in another state or specific organization, please call us. Partnerships are what we do!



THANK YOU FOR YOUR INTEREST!
PLEASE DON'T HESITATE TO CONTACT US WITH ANY QUESTIONS.

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