2013 Regional Roundup of Energy Efficiency Policy in the Northeast & Mid-Atlantic States

Northeast Energy Efficiency Partnerships

January 2014

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NEEP verified the data in this report to the best of our ability. The assessment of state progress is purely our own, and does not reflect the opinions of NEEP's board of directors. We thank the following allies for their review of data and general insights: Libby Dodson, Mike Guerard, Christina Halfpenny, Taresa Lawrence, James McGarry, Jackson Morris, Tom Noyes, Tom Schuster, Joe Sherrick, Rachel Sholly, Jordan Stutt, George Twigg. In addition we thank NEEP's contributors and reviewers: Jim O'Reilly, Julie Michals, Cecily McChalicher, Carolyn Sarno, Kevin Rose, Lisa Cascio, Alicia Dunn and John Otterbein.

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About NEEP

Founded in 1996 as a non-profit, NEEP's mission is to serve the Northeast and Mid-Atlantic to accelerate energy efficiency in the building sector through public policy, program strategies and education. Our vision is that the region will fully embrace energy efficiency as a cornerstone of sustainable energy policy to help achieve a cleaner environment and a more reliable and affordable energy system. With an annual budget of $6 million, our work is supported by states, utilities, federal agencies, project fees and private foundations.

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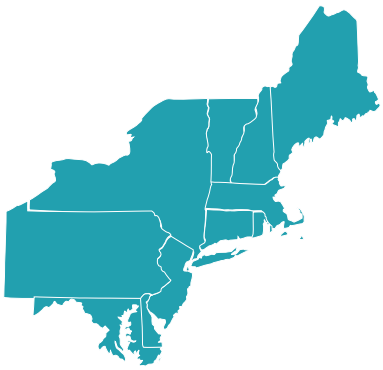
INTRODUCTION



Welcome to the *Regional Roundup of Energy Efficiency Policy in the Northeast and Mid-Atlantic States*.[1] This report is NEEP's annual assessment of the major policy developments of the last year, where we gauge states' progress toward capturing energy efficiency (EE) as a first-order resource. While looking at the region as a whole, we also provide summary and analysis of some of the biggest building energy efficiency successes and setbacks from Maine to Maryland — including significant energy efficiency legislation and regulations and changes in funding levels for energy efficiency programs.

The Roundup is intended to give policymakers, regulators, efficiency advocates, program administrators and other stakeholders a comparative view of efficiency progress across the region. Along with state-level highlights, the report reveals regional trends and shared challenges in harnessing the potential of energy efficiency to meet today's pressing energy and environmental challenges — controlling energy costs, improving system reliability, modernizing the electric grid, strengthening the economy, growing jobs, improving public health and curbing emissions of greenhouse gases and other pollutants.

Format

Along with key metrics such as efficiency investment and savings data for the most recent year available (2012), this report provides analyses of the major successes and hurdles states faced in 2013. Some definite trends emerge, and these are revealed in the Quick Take and the On the Horizon sections, with further information provided in the Appendices.

The Quick Take on the States calls out some of the most impactful developments in each of the NEEP states. A Look at the States examines what we see as some of the major issues and key data points from each state. The Appendices include information on the status of key policies and programs, and illustrations of where investments and savings stand across the region.

We have also attempted to provide an overview of results for energy efficiency programs in each state's "At a Glance" data box. These boxes show total annual program expenditures, per capita expenditures, net annual energy savings, and savings as compared to annual energy consumption. In order to provide for a more "apples to apples" comparison, the Roundup draws on the Regional Energy Efficiency Database (REED), a tool developed by the Regional Evaluation, Measurement, and Verification (EM&V) Forum to provide for greater

1 NEEP focuses our work in Vermont, New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, Pennsylvania, Delaware, Maryland and Washington, D.C.

transparency and consistency in state energy efficiency program data. REED is a complementary resource to the Roundup, providing 2011 and 2012 energy efficiency program results at the state, customer sector, and program levels.[2] REED uses electric program data gathered by ISO-New England for its forthcoming 2014 Energy Efficiency Forecast[3] for the New England states and gas data provided by states based upon their own reporting. Delaware, Maryland, and New York also provide data to REED for their electric and gas programs. For states in our region not providing data to REED, we used 2012 data from state and utility annual reports and research by partner organizations. We recognize that data collection and reporting varies from state to state, but we believe that the figures here provide useful estimates on how each state is performing and help to illustrate regional trends.

NEEP likes to think of the states as runners along a racecourse — a course where advances in technologies, programs and policies mean there is always further to go — and where states that aren't moving forward are falling behind their neighbors.

Leading the Pack | Moving Ahead | Keeping Pace | Falling Behind | Still In The Starting Blocks

These icons are meant to provide our take of the state's overall progress in terms of public policies to accelerate energy efficiency, as well as notable advances or setbacks in the state's recent history. While this review is in part comparative, we looked at the past year and evaluated each state on its individual progress, given the opportunities and challenges faced. Each state has experienced its bright spots and frustrations in the last year. When NEEP's Public Policy Outreach and Analysis team discussed how to assess each state, we acknowledged that the attitudes and leadership demonstrated by policymakers are as important as verified energy savings, especially for those that have more recently joined the cadre of states that are serious about energy efficiency.

While we have done our best to seek input from stakeholders in each of the states and to relate developments as we've described them in our narrative, these assessments are

2 See the Regional Energy Efficiency Database (REED) at http://neep-reed.org/. Connecticut, Delaware, Massachusetts, New Hampshire, New York, Rhode Island, Vermont, and Washington D.C. provide data to REED. Maine, New Jersey, and Pennsylvania do not currently provide data.

3 See ISO New England's 2014 Energy Efficiency Forecast materials at http://www.iso-ne.com/committees/comm_wkgrps/othr/enrgy_effncy_frcst/index.html

purely subjective. Overall, we are greatly encouraged by the region as a whole continuing to embrace the promise of energy efficiency, as evident by increasing savings targets and realized savings, as well as by the public support of governors, utility commissioners, administrative secretaries, legislative leaders and other policymakers across the Northeast and Mid-Atlantic.

Movement in the Pack

One new category we added to this year's Roundup is "Moving Ahead," in an effort to recognize states that have made substantial progress in the last year. In 2013, Maine and Maryland earned this distinction. While most states retained similar spots in our ratings as last year, with so many states ramping up their efficiency programs and policies, the ones that are not moving forward could be characterized as losing ground to the leaders.

The front-runners in our region continue to be a tight pack, as evidenced by the recent State Energy Efficiency Scorecard[4] issued by the American Council for an Energy-Efficient Economy (ACEEE). Massachusetts held on to the top spot in the nation for the third year in a row, while Connecticut and Rhode Island both climbed two spots — to numbers five and six, respectively — due to their stronger investment commitments and initiatives such as combined heat and power, and financing. New York, Vermont and Maryland also earned recognition among the 10 most efficient states in the nation at spot number three, seven and nine, respectively.

New Jersey and Pennsylvania meanwhile earned spots in ACEEE's second tier, at 12 and 19 respectively. New Jersey's once robust energy efficiency programs have seen their progress stall as a result of diversions of funds to the general state budget nearing $1 billion over the last four years and administrative challenges at the Office of Clean Energy. Unless full funding is restored, the state may struggle to keep up with its neighbors. Pennsylvania earned praise in our *Roundup* last year for extending its important Act 129 Energy Efficiency Programs. However, relatively modest savings goals and a legislative cap on energy efficiency program expenditures have prevented it from achieving greater progress for ratepayers.

New Hampshire continues to struggle with a vision for its energy future, spending significant time and resources on multiple studies about energy and how much to invest in energy efficiency, yet still waiting for action. While legislative leadership is needed, there are important steps that could be taken at the regulatory level.

Delaware is in somewhat of a hopeful situation, with legislation to fix funding and program administration set to move forward this spring. Meanwhile, the District of Columbia continues to show progress, with the DC Sustainable Energy Utility (DC SEU) stepping up program activity, promising greater levels of savings in future years.

4 In the American Council for an Energy-Efficient Economy's 2013 Scorecard, six of the top ten spots are held by NEEP region states: http://aceee.org/state-policy/scorecard

OVERVIEW ANALYSIS

Leading the Pack: Connecticut, Massachusetts, New York, Rhode Island and Vermont. These states show sustained and even increasing support for energy efficiency program funding and are implementing policy and program innovations like building energy rating, new financing tools, improved program tracking and coordination, and evolving regulatory frameworks.

Moving Ahead: Maine and Maryland. In 2013, Maine set the stage for a significant ramp-up in efficiency investments, and made progress on thermal efficiency needs with proceeds from the Regional Greenhouse Gas Initiative. Maryland's program administrators have made significant progress on savings goals, and the state is tackling tough issues like cost-effectiveness screening.

Keeping Pace: Pennsylvania and the District of Columbia. The Keystone State continues with modest efficiency savings, and Washington, D.C. makes progress with its efficiency and economic development program portfolio.

Falling Behind: New Hampshire & New Jersey. New Hampshire and New Jersey's energy efficiency program goals continue to lag in comparison with other states around the region. Policymakers in New Hampshire are exploring new policy commitments to energy efficiency, but similar efforts in years past have not produced tangible results. New Jersey struggles to improve its performance as a result of Governor Christie's diversion of efficiency funding to the general budget.

Still in the Starting Blocks: Delaware. Delaware is poised for real progress if the legislature passes a bill that could create a sustainable funding mechanism, and allows Delmarva Power to begin directly providing efficiency programs for their customers.

QUICK TAKE ON THE STATES — 2013

Following is a quick take on what we see as the major issues in play in each state over the last year. Please see "A Look at the States" for a detailed explanation, acronyms and citations.

State	Key Developments
Connecticut — Leading the Pack	• DEEP approval of greatly expanded 2013-15 C&LM Plan • Funding to double with new Conservation Adjustment Mechanism • PACE financing picks up for C&I sector
Delaware — Still in the Starting Blocks	• Legislation to reform Energy Efficiency Resource Standard still in play, clear for take-off in 2014? • EE potential study complete • Progress on energy code compliance via code collaborative
Maine — Moving Ahead	• Legislature approves Omnibus Energy Bill, removing legislative cap on efficiency spending • RGGI proceeds help with fuel-blind efficiency • One of few states in nation lacking a state building energy code
Maryland — Moving Ahead	• EmPOWER Planning Group seeks extension of energy efficiency programs • Electric utilities make significant progress on savings targets • Greenhouse Gas Reduction Plan released
Massachusetts — Leading the Pack	• State moves ahead with second three-year efficiency plan • Building Asset Rating Pilot into second phase • Work on ways to value carbon through DPU order 11-120 • Stretch building code delayed
New Hampshire — Falling Behind	• Energy Efficiency Expansion bill stalls (SB 65) • EE Resource Standard study completed for Office of Energy and Planning • SB 191 commissions 10-year Energy Strategy, due in 2014
New Jersey — Falling Behind	• Transfer of Clean Energy programs to third-party administrator tied up in litigation • Governor diverts nearly $1 billion in clean energy program funds • Adoption of 2012 model energy codes delayed

State	Key Developments
New York — Leading the Pack	• PSC issues proposal to restructure EE Portfolio Standard, change how programs are administered and coordinated • Proposal to revise cost-effectiveness testing • New statewide goals and planning structure unveiled
Pennsylvania — Keeping Pace	• Natural gas utility merger sets stage for new gas efficiency programs • Act 129 efficiency programs continue with deeper, lower savings goals • Legislators propose fixes to cumbersome building code adoption process
Rhode Island — Leading the Pack	• 2014 EE plans among most ambitious in region • First in New England to adopt 2012 model energy codes • State and utilities partnering on innovative public building and CHP initiatives • Utility may claim savings from codes/standards support
Vermont — Leading the Pack	• Looking for ways to achieve more thermal EE savings • Taking a total energy approach, "strategic electrification" • New residential stretch energy code
Washington, D.C. — Keeping Pace	• Sustainable Energy Utility building momentum • DC Comprehensive Energy Strategy nearly complete • Energy benchmarking for private buildings on track

A LOOK AT THE STATES

Connecticut

Leading the Pack

In February 2013, the Department of Energy and Environmental Protection (DEEP) issued the first-ever Comprehensive Energy Strategy for the state, which recommended a number of important policy changes to better enable the state to capture cost-effective efficiency. A few months later, Connecticut passed and enacted Public Act 13-298, "An Act Concerning Implementation of Connecticut's Comprehensive Energy Strategy." The statute included many of the recommendations of the Comprehensive Energy Strategy, such as revenue decoupling, funding new Conservation Adjustment Mechanisms (CAM[5]) to nearly double efficiency investments, and clarifying PURA/DEEP authority over energy efficiency investment plans. Unfortunately, provisions to create building energy rating guidelines were stricken from the bill. While rating and disclosure remains an area for improvement in Connecticut's building policies, the state is taking steps in the right direction with a residential scoring and labeling pilot.

Meanwhile, the state's electric and gas utilities were underway with the first year of their 2013-2015 Conservation and Load Management Plans, on track for this substantial ramp-up in efficiency investments. Thankfully, DEEP had allowed the utilities to move forward with their plans and borrow up to 15 percent from 2014 budgets, since new collection rates were not yet in place. This type of flexibility lessens the risk of program stops and starts that can be very difficult for markets and customers. In late in 2013, PURA did approve the increased revenue sources. The new electric Conservation Adjustment Mechanism will allow the state to as much as double the 3 mil/kWh systems benefit charge (SBC), and collect a CAM for natural gas of up to $0.046 per hundred cubic feet.

Connecticut at a Glance (2012)
Electric Program Expenditures: $121.8 million
Gas Program Expenditures: $17.4 million
Per Capita Expenditures: $41
Electric Savings: 308,428 MWh
Electric Savings as Percent of Retail Sales: 1.1%
Gas Savings: 3.7 million therms
Gas Savings as Perecent of Retail Sales: 0.34%

Data as reported to ISO-New England for its 2014 Energy Efficiency Forecast and to the NEEP EM&V Forum for the Regional Energy Efficiency Database (REED). Savings are expressed in net annual terms.

It was late in October 2013 that DEEP issued its Final Decision[6] on the joint statewide Conservation and Load Management Plan for 2013-15. While DEEP did not grant the full budgets that the electric and gas utilities had requested, DEEP has stated that it believes these

5 For more on the CAM, see pg. 31 of DEEP's determination on the 2012 C&LM Plans

6 DEEP Final Decision , 2013-15 Electric and Gas Conservation and Load Management Plan

expenditure levels will put the state on track to capturing all cost-effective efficiency. Combined electric and gas budgets are set at approximately $220 million, $222.3 million and $223.2 million— in 2013, 2014 and 2015, respectively.

The Final DEEP Decision:

"As a result of Governor Malloy's leadership on energy issues, Connecticut has adopted a Comprehensive Energy Strategy designed to bring cheaper, cleaner, and more reliable power to our state. We have made great progress in implementing our vision for efficiency….and electric ratepayers will be the real beneficiaries of the expanded programs and services we are making available."

- Daniel C. Esty, CT DEEP Commissioner

- Includes smaller program budgets than what the utilities had proposed, but nearly doubles the electric efficiency budgets and more than doubles the gas budgets from previous years.
- Permits greater flexibility in allowing customers who convert to natural gas to receive efficiency rebates, if they were already planning to convert
- Requires that natural gas program funding be used to support Home Energy Services measures that save fuel oil or propane, with a 50/50 split between electric and gas efficiency budgets.
- Increases focus on supporting efficiency investments by low and moderate income residents.
- Approves enhanced building energy code compliance assessment under the efficiency program evaluation plans.
- Requires that gas programs get deeper savings from each customer.
- Directs the utilities to broaden commercial and industrial participation.
- Orders the utilities to develop self-directed program option for the largest customers.

Other Hot Topics in Connecticut:

While work to expand the efficiency program funding has been the main event in Connecticut, there were several other important policy developments in 2013.

- Advocates mobilized to protest a move by the Malloy Administration and legislation leadership to raid several million dollars in funding from the Regional Greenhouse Gas Initiative (RGGI) proceeds that had been earmarked for energy efficiency and for investments made through the state's Clean Energy Finance and Invest Authority (CEFIA). A last-minute deal was struck by which the governor promised to restore funding via anticipated increases in RGGI auction proceeds that will be realized when the new RGGI cap goes into effect.

- Connecticut's first-in-the-nation "Green Bank" put in place innovative financing programs for commercial and residential efficiency and renewables investments, including financing over $20 million in efficiency and renewable investments through the state's Commercial Property Assessed Clean Energy Program, and securing more than $30 million in private capital for residential efficiency projects through the Smart-E loan program.
- The state continues to be slow to adopt the latest edition of the model building energy code, with action appearing unlikely until 2015.
- The state is reportedly considering adopting efficiency standards for an array of products. Connecticut is one of the few states with the authority to set standards administratively, thus not requiring legislative action to make progress on this front.
- Despite being emphasized in the state's Comprehensive Energy Strategy, two key provisions failed to meet legislative approval. The creation of an oil-heat efficiency fund and a requirement that all commercial buildings in the state be benchmarked for energy use, and that benchmarking disclosed publicly to provide markets with better information regarding building energy performance both fell short in 2013. The benchmarking requirement is limited to state buildings.
- Connecticut launched a performance contracting system for conducting audits and energy makeovers to invest in state agency facilities and municipal facilities to increase energy savings in this sector, overcoming funding hurdles that typically hinder investment.

Connecticut remains an active and striving state with strong policy leadership on efficiency from the governor on down through the legislature. While there have been a few growing pains to achieve the full measure of energy efficiency investments, signs are positive that the state should be able to maintain this strong course.

Delaware
Still in the Starting Blocks

It was dejà vu in Delaware, with the clock running out before legislation aimed at fixing the funding mechanism and program administration for Delaware's efficiency programs could be passed. Negotiators failed to reach accord until the end of the legislative session in June, which left no time to pass House Bill 179, "An Act to Amend Title 26 of the Delaware Code Relating to Energy Efficiency Resource Standards and Renewable Energy Portfolio Standards."

"Of course we are disappointed we didn't get it through last summer, but the bill has not died," said Tom Noyes, Principal Planner for Utility Policy at Delaware's Division of Energy and Climate (DNREC). With the filing of two amendments, Noyes is optimistic that all the key players are on board to support the bill, which he expects could come up for a vote in early 2014. "The bill has broad political support from Republicans and Democrats, upstate and downstate," said Noyes. It passed the House 38-0 in June 2013.

HB 179 builds on the recommendations of the Energy Efficiency Resource Standards (EERS) Workgroup, enabling and facilitating cooperative efforts to help the state meet its energy efficiency targets. The bill includes: rate recovery for utilities to invest in cost-effective efficiency as a resource, a three-year planning and budget cycle for efficiency programs, and a stakeholder advisory board to help oversee the investment of ratepayer funds. It draws from successful models in Connecticut, Massachusetts and other states, and is expected to support hundreds of jobs annually.

"Of course we are disappointed we didn't get it through last summer, but the bill has not died,"

- Tom Noyes of DNREC, on legislation to create a sustainable funding mechanism for efficiency programs.

HB 179 will expand energy efficiency programs led by the utilities, notably because Delmarva Power, the state's only investor-owned utility, will be allowed to recover for investments in efficiency through rates. But the bill as amended makes clear there is a strong role for the Sustainable Energy Utility (SEU), which will continue to offer programs in coordination with Delmarva and the state's municipal electric companies and rural electric cooperatives. In the months leading up to the bill's reintroduction, DNREC, the SEU and the state's utilities are building on Phase Two of the Delaware Economic Energy Efficiency Potential Study and laying the groundwork for the types of programs that will be offered, and how they will be coordinated.

As it stands, DNREC offers a limited grant program for commercial and industrial customers, and the Sustainable Energy Utility remains without an appropriate funding mechanism—

essentially reliant on a revolving loan fund using proceeds from Regional Greenhouse Gas Initiative (RGGI) auctions. Consequently, the SEU is falling far short of its goals, has had to suspend some programs and only offers financing for business customers. Additionally, the state has not yet begun to implement its Energy Efficiency Resource Standard (EERS) that calls for 15 percent energy savings by 2015. Getting HB 179 enacted in 2014 would be a major step forward for the state.

An Effort Advancing Building Energy Codes

Delaware officials have been proactive in establishing a "Code Collaborative" in the state to bring stakeholders together to jointly strategize and leverage forces to address issues with the advancement of energy codes in the state, including compliance efforts. In addition, the state used federal Recovery Act funding to undertake a gap analysis of code compliance, including a targeted residential assessment, to help better target its code trainings. Delaware's "Gap Analysis" report is available here. Lastly, the state prepared for adoption of the 2012 IECC by hosting training for local code officials, builders and design professionals in advance of an anticipated 2014 code update.

Delaware at a Glance (2012)
Electric Program Expenditures: $0.8 million
Gas Program Expenditures: $0.59 million
Per Capita Expenditures: $1.6
Electric Savings: 4,481 MWh
Electric Savings as Percent of Retail Sales: 0.04%
Gas Savings: 1.7 million therms
Gas Savings as Percent of Retail Sales: 0.4%

Data as reported to the NEEP EM&V Forum for the Regional Energy Efficiency Database (REED). Savings are expressed in net annual terms.

Maine
Moving Ahead

The state's independent program administrator, the Efficiency Maine Trust, is in the midst of a significant increase in energy efficiency investments, thanks to the June bipartisan passage of LD 1559, "An Act to Reduce Energy Costs, Increase Energy Efficiency, Promote Electric System Reliability and Protect the Environment."

The bill, enacted via gubernatorial override margins of 121-11 in the House and 35-0 in the Senate, will have significant implications for Maine's energy future — including expanding natural gas pipeline capacity, increasing funding for thermal efficiency with the use of RGGI proceeds, dramatically ramping up efficiency funding and authorizing the Public Utilities Commission to approve the budget of the Efficiency Maine Trust. While the bill lays the foundation for natural gas expansion, it also requires that any proposed transmission projects also include a review of so-called "non-transmission alternatives," such as energy efficiency.

"We are really pleased that the level of support for energy efficiency has grown to a point that is totally bipartisan and across all sectors of the economy."

- Michael Stoddard, Executive Director of the Efficiency Maine Trust

Part D of the bill also signals that Maine remains committed to the Regional Greenhouse Gas Initiative (RGGI). Notably, the adjustment to the state's RGGI allowance cap is expected to increase revenue available for the state's energy efficiency programs.

Michael Stoddard, Executive Director of the Efficiency Maine Trust, outlined three main elements of the bill that will enhance energy efficiency efforts in Maine. He noted that:

1. The state's electric conservation budgets are now on a path to funding levels consistent with the Maximum Achievable Cost-Effective (MACE) potential outlined in the 2014-2016 Triennial Plan. Stoddard noted that they will seek to ramp up over a three-year time frame, and that a very important change is that the bill restores the Public Utilities Commission's authority to adjust budget levels in line with the state's energy savings goals. "The all cost-effective standard has been solidified, and the process amended so that it starts and finishes with the Public Utilities Commission," he explained.

2. The bill expands natural gas conservation program to all gas utilities. Until passage, Unitil was the only provider large enough to be required to pay into the natural

gas conservation fund. With 27,000 customers, their efficiency budget amounts to about $650,000 each year. The state's other gas utilities are currently small, but the change is an important expansion of the programs.

3. The bill directs the use of Regional Greenhouse Gas Initiative (RGGI) proceeds to assisting oilheat customers, stating that at least 35 percent of proceeds shall be used for thermal efficiency programs, without specification of fuel type. With upwards of three-quarters of the state's residential customers dependent on heating oil, this provision should provide significant relief.

The hard-fought policy changes that came in the Omnibus Energy Bill, and despite the opposition of Gov. Paul LePage, lay the groundwork for important and sustained increases in the state's efforts to help more Mainers harness the power of energy efficiency.

Maine at a Glance (2012)

Electric Program Expenditures: $23.7 million
Per Capita Expenditures: $18
Electric Savings: 143,531 MWh
Electric Savings as Percent of Retail Sales: 1.2%

Data as reported to ISO-New England for its 2014 Energy Efficiency Forecast. Data here are only for SBC & RGGI funded electric efficiency programs. Gas data was not available at the time. Savings are expressed in net annual terms.

Effort on building codes falls short

2013 saw an attempt to reverse a 2011 legislative decision to eliminate the mandatory uniform statewide building and energy code in Maine, which left most of the state without this basic consumer protection. However, legislators failed to restore the mandatory statewide code, meaning that only those communities with populations greater than 4,000 — representing just one-third of the state's population — have in place a building and energy code to eliminate energy waste in building construction and renovation.

Maryland

Moving Ahead

Maryland finishes out 2013 with a renewed focus on energy efficiency as part of their EmPOWER Maryland programs. While Maryland is expected to fall slightly short of its original 2015 electricity savings goals, evidence suggests that the electric utilities are making significant progress in increasing electric savings.

EmPOWER Planning Lays Foundation for Post-2014 Energy Efficiency Programs

With several years of energy efficiency program administration now under their belts, state officials, utilities, and energy efficiency stakeholders are looking beyond 2015 — when the current savings targets expire — and to the future of energy efficiency programs in Maryland. The Maryland Energy Administration (MEA) has kick-started the process with a proposal to the Public Service Commission (PSC) that seeks to continue and refine its energy efficiency programs, which operate under the name of "EmPOWER Maryland," after the 2008 law of the same name. (MEA's proposal can be viewed here). To assist with its recommendations, MEA has convened a stakeholder engagement process, the EmPOWER Planning Group.

"In our view, the unequivocal solution is to first invest in cost-effective demand-side resources to avoid as much of the increase as possible, and only then invest in strategic supply-side resources to meet any remaining requirements.

- Kevin Lucas,

Director of Policy, Planning, and Analysis: Maryland Energy Administration

MEA Director of Planning and Policy Analysis Kevin Lucas explained that the process that emerged out of MEA's EmPOWER Planning report will allow Maryland to "take a fresh look" at its energy efficiency programs and savings goals in light of its recent experience and changes in the larger energy landscape. "We took the opportunity presented by the statute to rethink how we set the goals and how to engage with stakeholders," Lucas explained.

A key deliverable of the EmPOWER planning process will likely be a revised method for setting electric savings goals. Currently, the electric savings goals are linked to per capita electricity consumption, which has presented difficulties in evaluating the performance of the utilities' energy efficiency programs against external factors, such as weather and the economy. MEA has also asked the Commission to consider creating natural gas energy efficiency targets as well. Additionally, Maryland is at revising the way that they screen programs for cost-effectiveness. In the past, inconsistent cost-effectiveness screening practices have posed a challenge to many energy efficiency programs.

The EmPOWER Planning process will be a busy one between now and this fall, when the utilities are set to submit their post-2014 EmPOWER program plans. Thus far, the process has been well received. According to Lucas, "There has been good responsiveness from the utilities and energy efficiency stakeholders."

Progress in 2012 & 2013

In the last *Regional Roundup,* we reported that Maryland's five electric utilities were behind on their 2015 energy savings goals, which call for a 10 percent reduction in per capita electric use. This year, however, the utilities showed significant progress, as evidenced by a report by Public Service Commission staff that shows almost over 530,000 in net electric savings this year.[7] Recent analysis MEA presented to the Commission shows that the EmPOWER programs have met 50 percent of their goal by the third quarter of 2013, with two years remaining. While meeting the original EmPOWER goal remains challenging, this suggests that the collective efforts of the utilities, MEA, PSC staff, and other stakeholders is bringing Maryland closer to the level of saving envisioned by the EmPOWER Maryland Act of 2008.[8]

Governor O'Malley Releases Climate Action Plan

Maryland Gov. Martin O'Malley continues to press for action to reduce greenhouse gases, as his time in office nears its end in 2014. In October, O'Malley's administration released its comprehensive Greenhouse Gas Reduction Act (GGRA) Plan, which calls for GHG emissions reductions of 25 percent by 2020. Together, the EmPOWER energy efficiency programs, appliance energy efficiency standards, and updated building energy codes account for almost 25 percent of the proposed reductions. This shows that energy efficiency remains central to Maryland's strategies not only to provide economic benefits to ratepayers, but also to ensure that the state can meet its environmental policy objectives. Furthermore, if EmPOWER were expanded to target thermal fuel consumption in addition to electricity consumption, even greater reductions in emissions could be achieved.

Maryland at a Glance (2012)

Electric Program Expenditures: $229.4 million
Per Capita Expenditures: $40.3
Electric Savings: 536,963 MWh
Elecrtic Savings as Percent of Retail Sales: 0.9%

Data as reported to the NEEP EM&V Forum for the Regional Energy Efficiency Database (REED). Savings are expressed in net annual terms.

7 Gross savings achieved by the Maryland utilities were substantially higher at over 800,000 MWh. See Maryland Public Service Commission, "EmPOWER Maryland Energy Efficiency Act Standard Report of 2013," April 2013, p.3

8 For the full text of the EmPOWER Maryland Act of 2008, see the Maryland Public Utilities Article, Section 7-211

Massachusetts

Leading the Pack

Thanks to the strong policies laid forth under the Green Communities Act of 2008, Massachusetts continues to invest in energy efficiency to unprecedented levels. The state has held on to the top spot in the ACEEE State Energy Efficiency Scorecard for the third straight year. While meeting ever more aggressive savings targets is proving challenging for the program administrators, the stakeholder Energy Efficiency Advisory Council is working hard to drive savings and ensure that program dollars are well and fairly invested.

Grid Modernization Efforts

Massachusetts is among the states that have begun proactively thinking about what kind of electric grid will be needed to serve the changing ways we will use energy in the future. Building resiliency, being able to better incorporate more renewable sources, the role of energy efficiency in demand response, and the increase in electric vehicles all need to be taken into account in planning the grid of the future.

Massachusetts at a Glance (2012)
Electric Program Expenditures: $400.6 million
Gas Program Expenditures: $134.7 million
Per Capita Expenditures: $79.1
Electric Savings: 980,105 MWh
Electric Savings as Percent of Retail Sales: 2.1%
Gas Savings: 22.6 million therms
Gas Savings as Percent of Retail Sales: 1.0%

Data as reported to ISO-New England for its 2014 Energy Efficiency Forecast and to the NEEP EM&V Forum for the Regional Energy Efficiency Database (REED). Savings are expressed in net annual terms.

In 2013, a team of stakeholders met for countless hours to develop a roadmap for the Department of Public Utilities (DPU), per their October 2012 Notice of Investigation ("NOI") into the modernization of the electric grid. Through this investigation, the DPU sought to explore key issues of grid modernization, specifically recognizing the important role that grid modernization can play in (1) improving grid reliability, especially during extreme weather conditions; (2) increasing customer control over usage and costs; and (3) improving system efficiency.

The investigation explored both "grid-facing" elements, which improve the reliability and efficiency of the electric grid itself, as well as "customer-facing" elements, which are directed at increasing customers' control of their own usage and reducing customer costs. The goal of the DPU was to both plan for grid modernization in Massachusetts and carefully considering potential costs to ratepayers.[9] This "Grid Mod Working Group" submitted its Final Report to the DPU on July 3, 2013. On December 23, 2013 DPU issued a straw plan for how it will move forward, again seeking public comment.

9 http://magrid.raabassociates.org/index.asp

What were you most proud of in 2013?

Getting aggressive electric savings targets approved for 2013-2015, starting the scoping of a statewide energy efficiency database, convening a commercial real estate (CRE) working group to deconstruct the barriers to EE in CRE, and creating a roadmap to unleashing the huge savings potential for EE in CRE.

What did you find most challenging?

Managing the volume and depth of data available and identifying meaningful trends and inconsistencies in program operations across the state.

What is on the horizon for 2014 and beyond?

Data management, data integrity, data analysis for 2015-2018 planning. Tackling thermal efficiency in the residential sector, integrating energy efficiency and renewable energy policy. Finding greater energy efficiency solutions for commercial real estate.

- Insights from Tina Halfpenny, Director of Energy Efficiency, Massachusetts Department of Energy Resources

All-Fuel Efficiency: Still Waiting

In Massachusetts, like other Northeast states, a sizable portion of customers rely on unregulated heating fuels such as oil and propane. For the past two years, leaders in the legislature, together with a broad range of advocates, have been working to advance a measure to create an oil heat efficiency fund. While residential customers of the regulated utilities (and for Cape Light Compact's C&I customers) can access thermal programs through the electric energy efficiency programs, most business customers and customers of municipal electric companies do not have such programs to help them save if they heat with oil or propane.

This is important not only in terms of equity and need, it also represents a big gap for the state to achieve its CO_2 reduction goals under the 2008 Global Warming Solutions Act (GWSA). The state's Clean Energy and Climate Plan for 2020, developed as a requirement of the GWSA, specifically cites the need to serve business customers who heat with oil. Until the state develops a funding mechanism for energy efficiency programs to serve those customers, significant savings are being left on the table. This is a challenge faced by neighboring states as well, but as Massachusetts has been recognized as the nation's leader in energy efficiency policies, there are growing calls to the administration of Gov. Deval Patrick to address this issue before he leaves office in 2015.

Seeking Ways to Value Carbon

Under Order 11-120, the Massachusetts Department of Public Utilities has been holding ongoing stakeholder meetings to evolve the state's regulatory framework in several ways. One of those areas is whether and how to value CO_2 reduction that come as a result of energy efficiency programs, as one way to make progress on the state's Clean Energy and Climate Plan and the goals set forth under the Global Warming Solutions Act. This is a difficult subject without precedent, but it is encouraging to see the DPU, program administrators and advocates seeking a path forward.

Building Energy Policies

In July, the Massachusetts Board of Building Regulations and Standards (BBRS) voted to adopt the 2012 International Energy Conservation Code (IECC) and ASHRAE 90.1-2010, with non-weakening amendments. The Board had previously voted for a one year concurrency period where either the 2009 or 2012 IECC can be used. Starting July 2014, 2012 IECC for residential and ASHRAE 90.1-2010 for commercial will be the mandatory statewide building energy code.

Massachusetts also played an important role in the October national meeting of the IECC in hammering out a strong 2015 code, helping to beat back attempts by the National Home Builders Association to roll back important improvements to the code.

But it wasn't all good news on the codes front in Massachusetts, the first-in-the-nation state to create an informative appendix to the state energy code, known as the "stretch code." The state has indefinitely delayed the implementation of the revised stretch code, an option to keep ahead of the IECC for communities that adopt the stretch code locally. Without action, the stretch code will lose its value, as codes tend to become more stringent over time. In addition, municipalities entering into the state's Green Communities Program have been left without an updated stretch code, meaning a key element of their program qualification is missing. And the adoption of the 2012 IECC as the state's baseline energy code, while welcome, was still more than a year-and-a-half overdue, based on the state's statutory obligations.

New Hampshire Falling Behind

While New Hampshire has dedicated significant time to considering whether and how to make efficiency a first-order resource, action has yet to follow. The fact is, as other states move ahead, lack of measurable progress equates to falling behind. Now there are numerous studies pointing the way forward for the Granite State. The question is: will New Hampshire's governor, legislature and public utility commissioners make it a priority to create a sustainable policy framework that invests in efficiency first?

In 2013, a changing tide was seen in Concord, with the election of a Democratic majority in the House, election of a more moderate Senate, and a new Governor, Maggie Hassan. There was an attempt by Senator Martha Fuller Clark to introduce a bill aimed at capturing all cost-effective efficiency, but SB 65 did not make it out of the gate. And so it was decided to do another study, with the passage of SB 191. Now an Energy Strategy Commission is working on a 10-year plan, which should be completed in 2014.

"With good regional energy programs in place, and on the eve of launching a new state energy plan, many of us think that the time is right for New Hampshire to enact policies that treat energy efficiency like other energy resources. So with others, I am sponsoring legislation aimed at achieving the goal of an Energy Efficiency Resource Standard."

- NH Representative Kenneth Grossman

In the meantime, in November 2013, the state received an important and long-awaited report entitled Increasing Energy Efficiency in New Hampshire: Realizing our Potential.[10] The report, commissioned by the Office of Energy and Planning and funded by the U.S. Department of Energy, lays out a clear and compelling case for creating an Energy Efficiency Resource Standard, and the steps to get there. This report was a follow-up to the Independent Study of Energy Policy Issues,[11] a major comprehensive effort developed per Senate Bill 323 in 2010. In 2012, the stakeholder Energy Efficiency and Sustainable Energy (EESE) Board spent a great deal of time reviewing and developing recommendations based on that report — chief among them creating a policy framework to target all cost-effective energy efficiency.[12]

While the electric and gas program administrators have been successfully delivering coordinated programs under the 2013-2014 CORE filing, New Hampshire continues to lag the region in its per capita investments in efficiency, being the only state in the Northeast without mandated savings goals or a policy to capture all cost-effective energy efficiency before

10 The EERS Report was by prepared by VEIC
11 The Independent Energy Policy Study or "SB323 Study"
12 According to the EERS report, page 19.

investing in fossil fuel or nuclear energy supply. As the latest report on the state's energy efficiency potential describes, the state is currently capturing about .6 percent of potential energy efficiency, while it could be achieving 10 times that rate.

Staying in RGGI, with Changes

Despite repeated threats to leave the Regional Greenhouse Gas Initiative, New Hampshire remains a party to the accord and passed HB 306 to lower the carbon emissions cap, along with other states. But SB 123 will change the way funds are allocated, eliminating the grants program for clean energy programs administered by the PUC and allocating revenue directly to the CORE electric programs, with a $2 million carve-out dedicated to municipal efficiency projects. This is on top of 2012 legislation that mandated that all RGGI proceeds beyond the first dollar per ton of CO_2 revenues would go directly to ratepayers.[13]

Building Codes

New Hampshire's Energy Code Challenge continues to set an innovative course to measure and achieve progress toward the promised goal of achieving at least 90 percent compliance with the building energy code, made as a condition of the state's acceptance of federal Recovery Act funding. Under the direction of the Office of Energy and Planning (OEP), the Challenge follows the NH Building Energy Code Compliance Roadmap, released in April of 2012, which includes both a Gap Analysis Report and Strategic Compliance Plan. One accomplishment of the Code Challenge was the establishment of a stakeholder collaborative, which develops tools and guidance for builders, lenders, appraisers, buyers, and state and local regulators to evaluate and assign value to building energy efficiency.

New Hampshire at a Glance (2012)

Electric Program Expenditures: $18.7 million
Gas Program Expenditures: $6.2 million
Per Capita Expenditures: $19.2
Electric Savings: 53,973 MWh
Electric Savings as Percent of Retail Sales: 0.5%
Gas Savings: 1.1 million therms
Gas Savings as Percent of Retail Sales: 0.52%

Data as reported to ISO-New England for its 2014 Energy Efficiency Forecast and to the NEEP EM&V Forum for the Regional Energy Efficiency Database (REED). Savings are expressed in net annual terms.

13 House Bill 1490

New Jersey Falling Behind

In recent years, New Jersey, which once led the region in energy efficiency programs, has lost considerable ground. While other states have set more aggressive energy savings goals and established energy efficiency as a first order resource, the administration of Gov. Chris Christie has diverted staggering amounts of ratepayer funds from energy efficiency programs to the general state budget. In addition, the administration has continued to delay adoption of the latest model building energy code, despite having witnessed first-hand the devastating effects of Hurricane Sandy on countless numbers of homes and buildings in the state.

Funding Diversions Continue, FY 2015-2017 Programs Await Approval

During Governor Christie's tenure, diversion of funds for its Clean Energy Program has been an annual occurrence. Public data reveals that the administration has taken another $161.8 million from the New Jersey Clean Energy Trust Fund in FY 2014 — funded by ratepayer surcharges that are intended for energy efficiency programs — leaving about $300 million for the actual programs. As a recent article in the journal *New Jersey Spotlight* noted, the funding raids have amounted to over $800 million over the least three years, bringing the total including this year's funds to almost $1 billion, or $250 million per year.[14] The estimated FY 2014 budget will be about $300 million per year, plus additional funds from utility-run programs.

*New Jersey at a Glance (2012)**

Efficiency Program Expenditures: $157.6 million
Per Capita Expenditures: $18.1
Electric Savings: 445,657 MWh
Electric Savings as Percent of Retail Sales: 0.6%
Gas Savings: 6.54 million therms
Gas Savings as Percent of Retail Sales: 0.16%

Data available from 2012 New Jersey Clean Energy program reports. These data do not include any additional programs that the electric and gas utilities may run independently. Savings are expressed in gross annual terms.

As a result, savings levels have remained largely flat since 2009 for the state's electric and natural gas programs. The Office of Clean Energy reported about 445,000 MWh of annual electric savings and 6.5 million therms, or about 0.6 percent and 0.15 percent of its electric and gas needs. The funding uncertainty has had an impact on New Jersey's ability to use its demand side management (DSM) programs effectively, as other states with similar planned budgets have achieved significant highly savings.

14 Tom Johnson, *New Jersey Spotlight*, "Repeated Raids on Clean Energy Fund Sets Back State's Energy Efficiency Efforts," April 24, 2013

Two important program decisions are expected in 2014. First, the Board of Public Utilities (BPU) has stated it will decide on FY 2015-2017 budgets in its June order in the FY 2014-2017 Comprehensive Resource Analysis proceeding. If approved, the Office of Clean Energy would have an electric savings target of 1.0 percent of electric sales and 0.6 percent of gas sales. Additionally, the state Treasury is still in the process of awarding the contract for a single administrator of the Clean Energy Programs, an issue that has been caught up in litigation.

Updates Building Energy Codes

While New Jersey's Uniform Construction Code Advisory Board (CAB) endorsed a modified version of the model 2012 residential and commercial energy code updates last August, the rule is still awaiting final approval from the governor's office. As of year-end, the energy codes in the state remain the 2009 IEEC and ASHRAE 90.1-2007. New Jersey was supposed to review their energy codes by the end of last year to be in compliance with its Uniform Construction Code Act.

Combined Heat and Power Expansion

One bright spot has been New Jersey's continued expansion of combined and heat power (CHP) offerings for large customers that began in April 2012. Public officials have seen an opportunity to promote greater resilience in their power distribution in the wake of Hurricane Sandy. A suite of CHP projects approved by the BPU last year would reduce demand by 29 MW in the state. The state's 2011 Energy Master Plan calls for 1,500 MW of CHP by 2020, though that goal may be in doubt because of funding concerns. Office of Clean Energy (OCE) staff has called for the program to be funded separately from the state's system benefits charge (SBC). Funding for future CHP projects has already been put in doubt by recent news that $60 million of the $100 million fund may be diverted to the FY 2014 budget.

New York
Leading the Pack

While New York continues to be a leading state in energy efficiency and clean energy policies and funding, the state had faced increasing criticism in recent years over its restrictive regulatory environment and the need for better coordination between NYSERDA, LIPA and the electric and gas utility program administrators. The need for changes came into focus with the independent Moreland Commission Report on Utility Storm Preparation and Response,[15] released in June 2013. The report included a number of recommendations regarding New York's energy efficiency programs, stating that the Public Service Commission's (PSC) level of oversight of the state's energy efficiency programs "ignores best practices, trends and overall program performance." The report went on to state that the competing mix of programs offered by NYSERDA and the investor owned utilities is "leading to customer confusion and diminishing overall effectiveness."

To remedy the situation, the Moreland Commission recommended that the PSC redirect its oversight efforts to examine program performance rather than program design and to employ a consultant to review the 100 programs currently in operation. In addition, it called for the PSC to revise its protocol for screening the cost-effectiveness of energy efficiency programs at the measure level to evaluate programs at the program rather than measure level. Another key development coming out of the Moreland report is the conversion of the Long Island Power Authority to Public Service Electric and Gas (PSEG-LI). While it appears that this new structure will maintain a strong energy efficiency program, stakeholders will be closely watching to see if this new venture maintains strong goals to increase energy savings, and builds upon the award-winning efficiency programs of the former LIPA organization.

"We can no longer afford to think of energy efficiency and clean energy resources as peripheral elements of the electric system. Rather, the time has come to manage the capabilities of new customer-based technologies as a core, clean source of value to customers and the electric grid."

- NY PSC Chair Audrey Zibelman

In response to these recommendations, the Public Service Commission staff has worked diligently to develop an Energy Efficiency Portfolio Standard (EEPS) Restructuring Proposal[16], released in September 2013. The EEPS proposal lays forth changes in roles and responsibilities for NYSERDA and the utilities and addresses technical and infrastructure needs. Impor-

15 moreland.ny.gov/
16 http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7BD6072916-64ED-4FE2-B2B3-6CD94AC8866A%7D

tantly, it seeks to improve coordination, reduce program overlap and customer confusion, and shift the PSC's role to one of high-level oversight and guidance. The restructuring proposal addresses changes in how cost effectiveness is measured, improvements to program evaluation, and the creation of a State-wide Energy Efficiency Program Plan.

Late in December, the PSC announced what appears to be a major shift in how it will regulate electric distribution utilities, commencing a "top-to-bottom restructuring of the State's energy efficiency programs to help ensure that New Yorkers have access to reliable, clean and competitively priced electric power."[17] The five core principles articulated by the PSC are:

- Empowering Customers
- Leveraging Customer Contributions
- System-Wide Efficiency
- Fuel and Resource Diversity
- System Reliability and Resiliency

While there much work remains to implement these changes, we are hopeful that these efforts will make it easier for customers and market actors to participate in programs, reduce administrative burdens for regulators and program administrators, and ultimately clear the way for greater progress towards the state's energy efficiency and clean energy goals.

New York At A Glance

Electric Program Expenditures: $361.7 million
Gas Program Expenditures: $87.6 million
Per Capita Expenditures: $38.9
Electric Savings: 1,105,854 MWh
Electric Savings as Percent of Retail Sales: 0.8%
Gas Savings: 18.8 million therms
Gas Savings as Percent of Retail Sales: 0.27%

Data from NYSERDA and utility EEPS and SBC programs and LIPA's energy efficiency programs provided to the NEEP EM&V Forum for the Regional Energy Efficiency Database (REED). Savings are expressed in net annual terms.

Mixed Bag on Building Codes

State officials have been delayed in adopting the 2012 state building energy codes (residential and commercial), meaning new construction and substantial renovations in the state are regulated under the 2009 building energy code, and sizable savings are being left on the table. New York remains one of the few states in the region, however, to actively assess code compliance in order to target energy code training within the state.

17 http://www3.dps.ny.gov/pscweb/WebFileRoom.nsf/ArticlesByCategory/A36240B5FDF13F5985257C460077CAE5/$File/pr13083.pdf?OpenElement

Pennsylvania Keeping Pace

Natural Gas Settlements Promotes Gas Efficiency Programs

The most significant news from Pennsylvania may be part of the merger between Equitable Gas Company and Peoples Natural Gas, which serves western Pennsylvania. As part of its decision on the merger, the Public Utility Commission (PUC) ruled that People's Natural Gas must work with a new energy efficiency stakeholder collaborative to develop natural gas energy efficiency programs over the next four years. Currently, Philadelphia Gas Works and PECO are the only utilities operating gas energy efficiency programs in Pennsylvania, so this would significantly expand the reach of gas energy efficiency programs in the state. However, the program is not set to begin until 2017 due to a four year freeze on rates called for by the settlement.

Act 129 Phase II Programs Achieve Deeper Savings

Last year, the PUC overruled petitions by the state's electric utilities and extended its energy efficiency programs through 2016, albeit with lower targets than in Act 129 Phase 1 due to a shorter time period and, the cost of additional reductions decline over time. Results from the 2012 Program Year show that the utilities achieved savings of about 1.0 percent of retail sales. That is slightly lower than the previous year, while spending about $264 million or about $20 per ratepayer.

Pennsylvania at a Glance (2012)
Electric Program Expenditures: $264.2 million
Per Capita Expenditures: $20.1
Electric Savings: 1,433,388 MWh
Electric Savings as Percent of Retail Sales: 1.0%

Data available from the 2012 Statewide Evaluation Report. Savings are expressed in gross annual terms.

NEEP praises Pennsylvania for the crucial step of extending the Act 129 electric energy efficiency programs, particularly in light of opposition by a number of utilities. However, the PUC requires the utilities to hit a relatively conservative goal of about 0.75 percent savings each year, with significant variance between different utility service territories. The fact that savings levels fell during the past year is likely the result of programs seeking out deeper, more expensive savings, but also policy constraints. Next year, policymakers have an opportunity to boost utility performance by revisiting provisions within Act 129 that prevent the PUC from implementing revenue decoupling and limiting energy efficiency program budgets to two percent of 2006 sales for each utility. These measures will better align each utility's incentives with the important goal of achieving energy and demand savings for their customers.

Building Energy Codes

Pennsylvania was once a national leader in the adoption of new building energy codes, but as a result of changes to its Uniform Construction Code (UCC), new codes must garner support of a two-thirds majority before the state's UCC Review and Advisory Council (RAC). This effectively gives opponents of new building codes, such as the homebuilders association, a veto over changes they view unfavorably. The RAC has voted not to adopt the 2012 model commercial and residential energy codes.

Legislators have proposed amendments to the UCC Act in order to remedy this situation. For example, S.B. 1023 sponsored by Senator Charles McIlhinney, would alter the adoption process to require that a two-thirds majority vote against certain portion of the new model building codes, rather than a supermajority in favor of the changes. As of this time, however, none of these proposals have garnered serious support in the Pennsylvania Legislature.

Rhode Island
Leading the Pack

Rhode Island Moves Ahead with Stronger Utility Energy Efficiency Programs

Rhode Island has developed one of the most aggressive energy efficiency programs in the country through a close and cooperative relationship between the Office of Energy Resources (OER), the state's major utility, National Grid, and key stakeholders through the Energy Efficiency and Resource Management Council (EERMC). Results from the 2012 energy efficiency programs run by National Grid show that Rhode Island achieved 93 percent of its electric and 99 percent of its natural gas savings goals. This comes close to the savings levels called for in the state's 2012-2014 Least Cost Procurement Plan, which is a significant achievement.

"Rhode Island's ambitious 2014 efficiency goals demonstrate the state's ongoing leadership in commitment to energy efficiency, the single most cost-effective source of clean and reliable energy."

- Marion Gold, Commissioner of the Rhode Island Office of Energy Resources (OER)

Now, under its 2014 energy efficiency plan, National Grid has proposed a savings target of 3.2 percent of electricity sales, which would be the highest annual saving goal in the nation. "Rhode Island's ambitious 2014 efficiency goals demonstrate the state's ongoing leadership in commitment to energy efficiency, the single most cost-effective source of clean and reliable energy," said Marion Gold, Commissioner of the OER. Investment levels also continue to rise, reaching over $105 per capita, and the state and the utility have sought a careful balance between efforts that can reach more customers and ensuring the best value to all ratepayers. The EERMC has endorsed the saving targets for 2015-2017 that will help Rhode Island continue to save as much as 2.55 percent of electric load and 1.1 of gas load in future years.

The state's energy efficiency plans continue to examine new strategies that can help to provide more savings at the least cost. A significant portion of the savings planned for 2014 will come from the new Toray Plastics, Inc. combined heat and power (CHP) project in North Kingstown. This is a direct result of legislation enacted last year to expand the reach of the state's CHP program. Rhode Island is also moving ahead with behavioral energy efficiency programs. National Grid is now working with Opower to create the first truly statewide behavioral energy efficiency program.

Rhode Island at a Glance (2012)

Electric Program Expenditures: $50.7 million
Gas Program Expenditures: $13.3
Per Capita Expenditures: $60.8
Electric Savings: 119,666 MWh
Electric Savings as Percent of Retail Sales: 1.6%
Gas Savings: 2.3 million therms
Gas Savings as Percent of Retail Sales: 0.7%

Data as reported to ISO-New England for its 2014 Energy Efficiency Forecast and to the NEEP EM&V Forum for the Regional Energy Efficiency Database (REED). Savings are expressed in net annual terms.

Rhode Island Moves Ahead with Model Building Energy Codes, Codes & Standards Initiative

Rhode Island became the first state in New England to adopt the 2012 model residential and commercial energy codes this past July. Those codes are 15 percent higher than the 2009 model codes. The state has also been one of the most active states in working to improve energy code compliance through benchmarking studies and innovative training. As part of its Codes & Standards Initiative, Rhode Island now allows National Grid to claim savings for energy code and appliance standards support-related activities. National Grid plans to explore ways it can assist Rhode Islanders to achieve more savings through appliance standards in the coming year.

Reaching Public Buildings & Street Lighting

Rhode Island is also making significant efforts to save energy in the public sector through its Public Energy Partnership, or "RIPEP." The OER has been working on a three-year grant with National Grid and the University of Rhode Island to benchmark the energy performance of its state and municipal buildings as part of a statewide baseline study of such facilities. This results from the state's cooperation with the U.S. Department of Energy (DOE) to focus on public buildings. "This is a great example of federal funding driving energy efficiency activity in Rhode Island," said Rachel Sholly, Chief of Program Development at OER. Based upon that study, OER will complete retrofits in at least 100 buildings in four different sectors: water suppliers, schools, state buildings, and municipal government buildings, with an aim of reducing energy use by 20 percent.

Finally in 2013, the Rhode Island General Assembly approved S. 836, which allows municipalities to purchase their street lights from National Grid so they are locally controlled and maintained. It is expected that many cities and towns will choose more energy efficient lighting options in the future, particularly LEDs, to help reduce future operations and maintenance costs.

Vermont
Leading the Pack

While other states have made strides, Vermont has maintained one the leading customer energy efficiency programs in the region. In 2012, Vermont invested about $67 per person in electric and natural gas energy efficiency programs and achieved electric savings nearing 2 percent of their electric load.

Now, as part of the energy efficiency budget plan for 2015-2017 before the Public Service Board, Vermont is considering an ambitious 3 percent electric savings scenario by the end of the decade. This scenario would help increase savings targets and per capita energy efficiency budgets to some of the highest levels in the nation.

"Vermont's comprehensive energy plan, released in 2011, includes an aggressive goal of having 100 percent of the state's new building stock being net-zero energy by the year 2030. The stretch code is one way that we can create a viable on-ramp to reaching that goal on schedule, and in a predictable and consistent fashion that is sensitive to the needs of the marketplace."

- George Twigg,
Director of Public Affairs, Vermont Energy Investment Corporation

Vermont has taken on a number of innovative new approaches to using energy efficiency programs to reduce energy costs for their customers. One approach the state has taken is to geographically target certain regions of the state with transmission and distribution constraints in order to reduce potential future costs. Those efforts thus far have focused on customers near Essex. Efficiency Vermont has been working on renewed efforts to offer efficiency services to 70 customers with the largest summer peak demand in their territory. Efficiency Vermont is also exploring electrification of its transportation and heating systems in light of new renewable energy, electric heat pumps, and electric vehicles. According to George Twigg of Efficiency Vermont such strategic electrification is consistent with the state's mission to provide for greater use of renewable energy and economic and environmental benefits for Vermont ratepayers.

Oilheat Energy Efficiency Programs

Vermont continues to work to expand energy efficiency services to customers who heat with oil and other deliverable fuels. Current programs are offered to such customers, but Twigg characterizes those efforts as "a drop in the bucket compared to what the need is." Vermont has a goal of increasing the energy efficiency of 25 percent of its residential buildings by 2020. Legislation based upon the state's Thermal Efficiency Task Force report, H. 216, proposed a new source of revenue to fund energy efficiency and weatherization programs

through a system benefits charge (SBC). Funding for an expanded program would have begun at around $37 million per year.

Ultimately, however, the Vermont Legislature chose not to expand funding for deliverable fuels programs because of concerns about imposing new costs on customers. Twigg says that while most believe that creating a new SBC remains the best option to "level the playing field" for deliverable fuels customers, the politics remain challenging.

New Residential Stretch Energy Code

Vermont at a Glance (2012)
Electric Program Expenditures: $39.7 million
Gas Program Expenditures: $2.0 million
Per Capita Expenditures: $67.09
Electric Savings: 117,653 MWh
Electric Savings as Percent of Retail Sales: 2.2%
Gas Savings: 746,510 therms
Gas Savings as Percent of Retail Sales: 0.93%

Data as reported to ISO-New England for its 2014 Energy Efficiency Forecast and to the NEEP EM&V Forum for the Regional Energy Efficiency Database (REED). Gas data based on the annual energy efficiency report of Vermont Gas Systems. Savings are expressed in net annual terms.

In June, Vermont passed Act No. 89, which authorizes the adoption of a "stretch energy code" to be used for new residential buildings greater than the state Residential Building Energy Standards (RBES). Under the new provision, new residential developments will gain presumption of compliance with the energy consumption criteria within Act 250, the state's Land Use and Development Act. Municipalities will also have the option to adopt the stretch code for their residential buildings as well.

According to Twigg, the new stretch code represents an innovative pathway to boost energy savings in the state. "Vermont's 2011 comprehensive energy plan, released in 2011, includes an aggressive goal of having 100 percent of the state's new building stock being net-zero energy by the year 2030. The stretch code is one way that we can create a viable on-ramp to reaching that goal on schedule, and in a predictable and consistent fashion that is sensitive to the needs of the marketplace." Twigg credits a consensus approach to enacting this new provision. "A pretty broad group of stakeholders from Efficiency Vermont to environmentalists to the business community came up with an agreement on an approach that everyone was comfortable with," he noted. Once the Vermont Department of Public Service finalizes the regulations next year, it will be just the fourth state (after California, Oregon, and Massachusetts) to enable communities to achieve higher levels of efficiency in new buildings through a stretch code.

Washington, D.C.
Keeping Pace

The District of Columbia is working to implement the Sustainable DC Plan, which includes a number of environmental, energy and public health initiatives aimed at making the city a cleaner, greener place to live and work. Included in Mayor Vincent Gray's initiative are ambitious goals to reduce energy consumption and carbon emissions 50 percent by 2032. Legislation was introduced in September to help the city move forward with this agenda, including through better coordination among agencies on energy efficiency and renewable energy programs, and leveraging the work of the Sustainable Energy Utility (SEU).

The District is making steady progress on its energy efficiency goals, according to the 2013 Annual Report[18] of the SEU — the independent entity overseen by the District Department of the Environment (DDOE). According to the report, electricity consumption was reduced by 50,361 MWh, a 134 percent increase over FY 2012. Savings in natural gas consumption increased 567 percent over FY 2012 performance.

Washington D.C. at a Glance (2012)

Efficiency Program Expenditures: $13.8 million
Per Capita Expenditures: $23.1
Electric Savings: 19,875 MWh
Electric Savings as Percent of Retail Sales: 0.2%
Gas Savings: 46,509 therms
Gas Savings as Percent of Retail Sales: 0.02%

Data as reported to the NEEP EM&V Forum for the Regional Energy Efficiency Database (REED). Savings are expressed in net annual terms.

The Clean and Affordable Energy Act of 2008 created the SEU, which has been ramping up from an initial combined electric and gas budget of $7.5 million, and will hit its annual budget cap of $20 million in fiscal 2014 (starting October 2013). The SEU is focused on lowering energy use and peak demand, increasing renewable energy generation, and promoting green jobs among District residents and businesses. The DC SEU's goals are as much about economic development in the district as they are about energy savings. While these goals are not necessarily competing, the SEU must walk a fine line in how it spends ratepayer funds collected to deliver efficiency and renewable energy solutions to the District.

"We just completed a benchmarking revision process on the SEU's goals, but have not determined new performance metrics yet," said to Taresa Lawrence, Acting Deputy Director for the DDOE's Energy Administration. "We went through a rebalancing period on goals— labor intensive jobs don't generate as much savings. We still think that all the goals are valid, and

18 The DCSEU's Annual Report for Fiscal Year 2013

we want to make sure we can allocate the funds in a way that maximizes achievements. With regards to the savings levels of the programs, SEU continues to work on this. We continue to monitor things and try to get as much as possible to benefit the entire District."

"We just completed a benchmarking revision process on the SEU's goals, but have not determined new performance metrics yet."

- Taresa Lawrence, Acting Deputy Director, District Department of the Environment

By early 2014, the District will be issuing a Comprehensive Energy Plan, which is expected to shed light on the city's energy efficiency potential with a market characterization study, and help lay forth a path to capture those savings through SEU programs and the efforts of other public and private entities.

D.C. recently implemented a strong energy benchmarking law that requires public buildings and large private buildings over 50,000 square feet to disclose their energy use, an important measure that can provide a market value for energy savings measures.

ON THE HORIZON FOR ENERGY EFFICIENCY POLICY IN 2014

2013 was an important year for energy efficiency in the Northeast and Mid-Atlantic region. State policymakers and program administrators made strong and firm commitments to energy efficiency as our first order resource. We can see this commitment clearly in the 2013 ACEEE State Energy Efficiency Scorecard, where six of the top 10 spots went to states in the Northeast/Mid-Atlantic region. But we see this more visibility in the work being done by policymakers and program administrations on the ground.

Legislators in Connecticut and Maine enacted laws that will allow their states to continue to expand investments in customer energy efficiency programs. Massachusetts and Rhode Island put in place energy efficiency plans that boast some of the most aggressive savings programs in the nation, while Vermont is likely to do so this year. Maryland and New York established important proceedings that could revamp their energy efficiency portfolio standards. And the states in the region all reaffirmed the importance of the Regional Greenhouse Gas Initiative (RGGI) by lowering the cap on emissions. Together, the states in the region are still working to realize the benefits of cost-effective energy efficiency.

2014 will be an important year as well, with states tackling key energy efficiency issues both new and old. And while we expect significant continuity in the overall goals of energy efficiency programs, we see a number of trends that could impact policy and programs in important ways. Below we list key overarching policy and programmatic trends to look out for next year as each state seeks innovative ways to save energy while lowering costs and reaching more customers.

Five Policy Trends to Watch

- **Gubernatorial & Legislative Elections**: 2014 is an election year, meaning changes in administration and legislatures in a number of states in the NEEP region. Maryland, Massachusetts, and Rhode Island will also see new governors and state legislators coming into office in 2015, while there will be competitive elections with significant implications for energy efficiency policy in Connecticut, Maine, New Hampshire, New York, and Vermont.
- **Federal Climate & Air Regulations**: The U.S. Environmental Protection (EPA) will issue regulations on carbon dioxide (CO_2) emissions for new electric power plants next June. Stakeholders in this region will work together to ensure that RGGI and energy efficiency play an important role for compliance in the Northeast and Mid-Atlantic Region. Additionally, states and the EPA are looking at how efficiency can be used as a strategy to reduce criteria air pollutants as part of their State Implementation Plans (SIPs).
- **Another Crack at Fuel Oil Efficiency Programs**: No states created a new revenue stream to fund unregulated fuels energy efficiency programs this year, despite the

significant role oil, propane and other fuels play in heating homes and business in our region. This should be an important issue for energy efficiency advocates to tackle next year.

- **Higher Goals, Higher Investments**: Massachusetts, Rhode Island, and Vermont are working on energy efficiency programs with electric savings approaching 2.5 to 3 percent of their electricity needs. While the unit costs of energy efficiency measures may be higher than it has been in the past, forecasts suggest that these investments remain significantly less expensive than supply-side alternatives.

- **Natural Gas Prices**: Natural gas prices are expected to remain relatively low in the near-term, though they are expected to perhaps double over present levels in the next twenty years. With some states trying to expand gas capacity for electricity and heat, natural gas will continue to be a major focus of state energy policy debates. Policymakers will weigh how the region's robust energy efficiency programs can play an important part in right-sizing the region's overall gas consumption and ensuring a diverse fuel supply.

Five Program Trends to Watch

- **Grid Modernization**: Leading states are examining ways to modernize the electricity grid, taking into account the role of advanced metering, time-of-use pricing and greater uptake of energy efficiency opportunities. New technologies, communication tools, and behavioral strategies can help reduce and manage electricity use, and handle the variable supply and demand that will come from the increasing amount of renewable sources and electric cars on the grid.

- **Cost-Effectiveness Screening**: We expect a number of states to tackle the ongoing challenge of how to best weigh the cost and benefits of energy efficiency programs for ratepayers. Several states may revise their cost-effectiveness screening protocols to align with their energy efficiency targets and broader public policy goals.

- **Greater Focus on Peak and Total Energy Savings**: Thus far, states have mostly focused on reducing electricity and natural gas consumption. But states and program administrators are now viewing their goals more dynamically in order to reduce overall energy use — across fuels, and to achieve greater carbon emissions reductions. In some cases, states are seeking to re-focus some of the energy efficiency programs on peak demand savings to help reduce future transmission costs, while others are examining approaches that may increase electricity use in order to enable important new technologies like heat pumps and electric vehicles, and a fuel mix that will include more renewable sources.

- **Building Energy Benchmarking and Big Data**: Cities, states, and program administrators are all exploring ways to provide greater transparency in building-level

energy data. We expect a number of cities to seek to join New York, Philadelphia, and Boston and put in place benchmarking for their commercial buildings, while the program administrators will incorporate efforts to use more precise energy data to find new pools of energy savings.

- **Experimentation with Financing**: We expect states to build upon innovative new financing instruments to leverage, but not supplant, ratepayer energy efficiency programs to achieve deeper and broader energy savings and to transform markets in favor of energy efficient technology and practices. Connecticut and New York are each approaching the issue with their "green banks," while other states are seeking a greater role for on-bill financing in their energy efficiency program portfolios.

CONCLUSION

As the states of the Northeast/Mid-Atlantic region continue to lead the nation in creating and evolving the policies and programs to capture cost-effective energy efficiency, a few states are clear stand-outs. But it is encouraging to see that states like Delaware and New Hampshire are working hard to develop a policy framework and funding mechanism that will allow them to move forward. We see that there is always room for advancement and evolution, as states work to align their programs and strategies with broader public policy goals such as reducing emissions, creating local jobs, and increasing affordability and resiliency of energy systems.

Even for the real leaders, continual innovation is important. For example, we are closely watching plans to better integrate NYSERDA and utility-led programs in New York, efforts to better serve thermal efficiency needs in Maine, New Hampshire and Vermont, creative financing programs in Connecticut, New Hampshire and New York, and new ways of involving utilities in codes and standards work in Massachusetts and Rhode Island.

Though some of the states in our region are small, and some have what one could call "emerging" efficiency policies and programs, as a region they have a real impact. It is always encouraging to see states collaborating and sharing ideas on how to deliver more and better energy efficiency for all customer types. We watched this at the Regional Evaluation, Measurement and Verification Forum's Annual Public Meeting held in Portsmouth, New Hampshire this December.[19] The meeting convened energy and air regulators, utilities and other program administrators, consumer advocates, ISO-New England, energy offices and some of the nation's leading energy efficiency consultants. NEEP is pleased to serve as a platform and a resource to bring thought-leaders and decision-makers together to help states leverage activities and learn from each other in their policies, market strategies program delivery and evaluation of savings.

19 http://neep.org/neep-events/emv-forum-annual-public-meeting/2013-emv-annual-public-meeting

NEEP'S VIEW: ELEMENTS OF SUCCESSFUL ENERGY EFFICIENCY POLICY

1. Direct utilities to capture all cost-effective efficiency, and link efficiency to broader public policy goals.
2. Ensure adequate, stable, long-term funding for efficiency programs.
3. Allow for robust stakeholder input and engagement — ideally through a standing advisory board with expert consultants — to help states plan, deliver and evaluate plans to achieve long-term savings goals.
4. Advance policies and programs that enable fuel-blind, total energy savings.
5. Foster a supportive and flexible regulatory framework on issues such as cost-effectiveness.
6. Support complementary public policies such as building energy codes, building energy rating and disclosure, appliance efficiency standards, and state and local governments "leading by example."
7. Integrate efficiency into long-range state energy and air quality planning.
8. Support development and implementation of greater transparency and consistency in evaluation, measurement and verification of program savings.

APPENDICES

Figure 1:

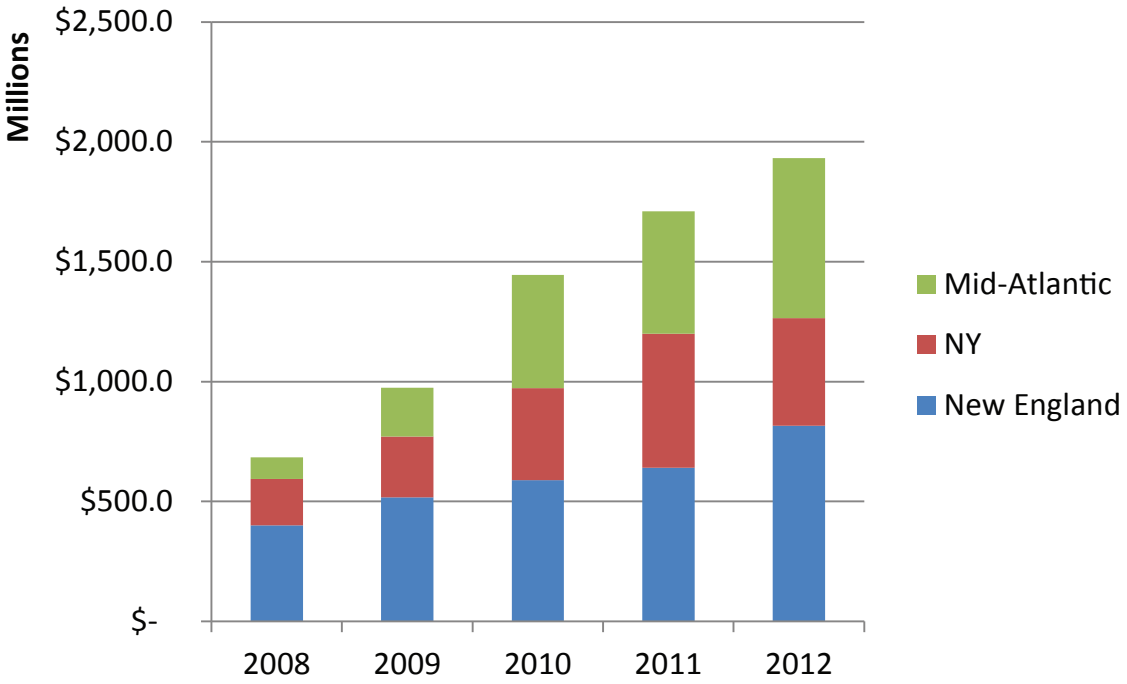
Overview of State Energy Efficiency Policies, Administration Model & Savings Goals[20]

State	Policy Type	Program Administrator	Energy Savings Goals
Connecticut	All Cost-Effective Energy Efficiency	Utilities	*Pending*
Delaware	Energy Efficiency Resource Standard *Not Yet Implemented*	Sustainable Energy Utility	*Pending*
Maine	All Cost-Effective Energy Efficiency	Efficiency Maine	-1.5% of electric sales by 2016
Maryland	Energy Efficiency Resource Standard	Electric Utilities	15% of per capita electric use by 2015
Massachusetts	All Cost-Effective Energy Efficiency	Utilities + CLC	2.6% of electric & 1.14% of natural gas sales annually by 2015
New Hampshire	*Program Funding Only*	Utilities	*No mandated savings goals*
New Jersey	*Program Funding Only*	Office of Clean Energy & Utilities	*No mandated savings goals*
New York	Energy Efficiency Portfolio Standard	NYSERDA & Utilities	15% of electric & natural gas sales by 2015
Pennsylvania	Energy Efficiency Resource Standard *Funding Capped*	Utilities	0.75% of electric sales annually through 2015
Rhode Island	All Cost-Effective Energy Efficiency	Utilities	2.4% of electric & 1% of natural gas sales by 2014
Vermont	All Cost-Effective Energy Efficiency	Efficiency Vermont & Utilities	>2% of electric sales annually
Washington, D.C.	*Program Funding Only*	Sustainable Energy Utility	*Part of SEU Contract*

20 The table above takes its data from the major state energy efficiency statutes and regulatory orders.

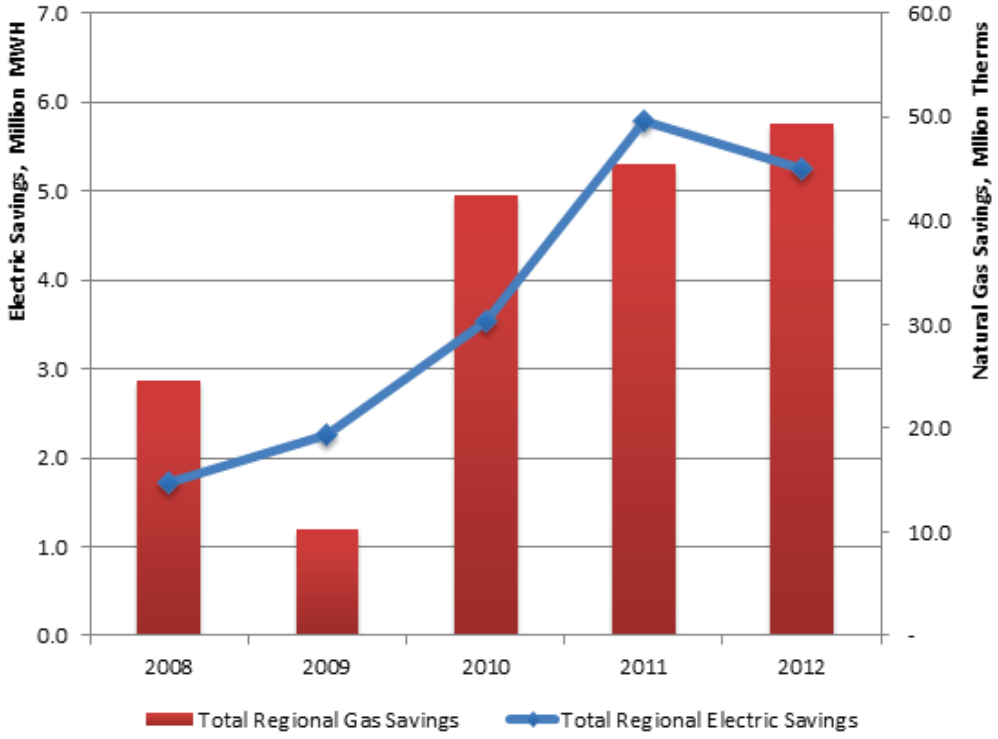
Figure 2: How Much are States Investing in Energy Efficiency?

Regional Energy Efficiency Investments, 2008-2012[21]



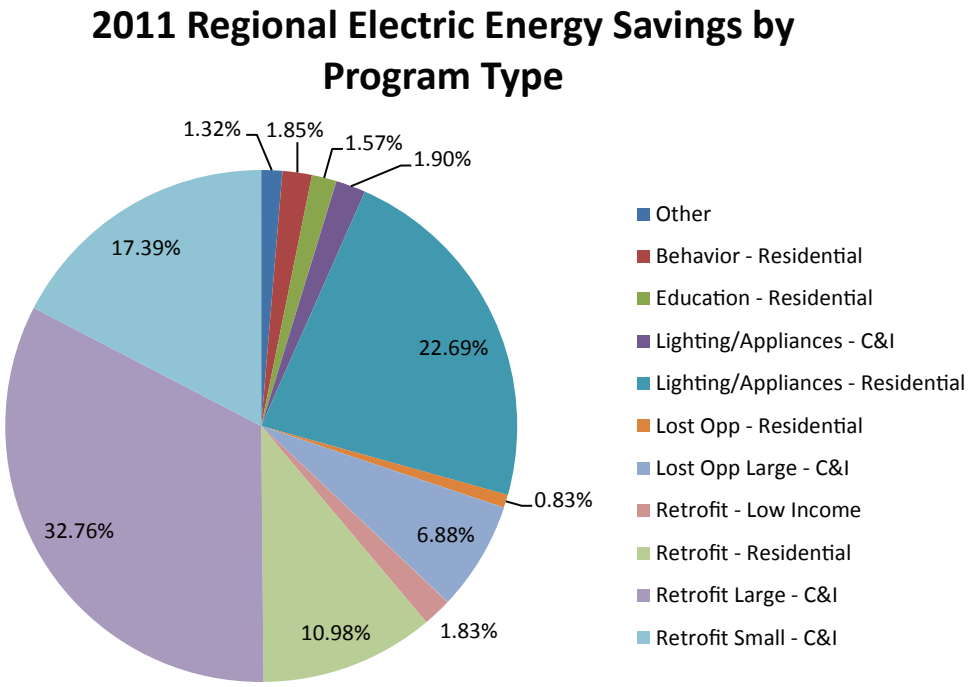
21 Data compiled from state energy efficiency program expenditures from state annual energy efficiency reports from 2008 to 2012, data submitted to ISO-New England for its annual energy efficiency forecast, and to NEEP for its Regional Energy Efficiency Database (REED).

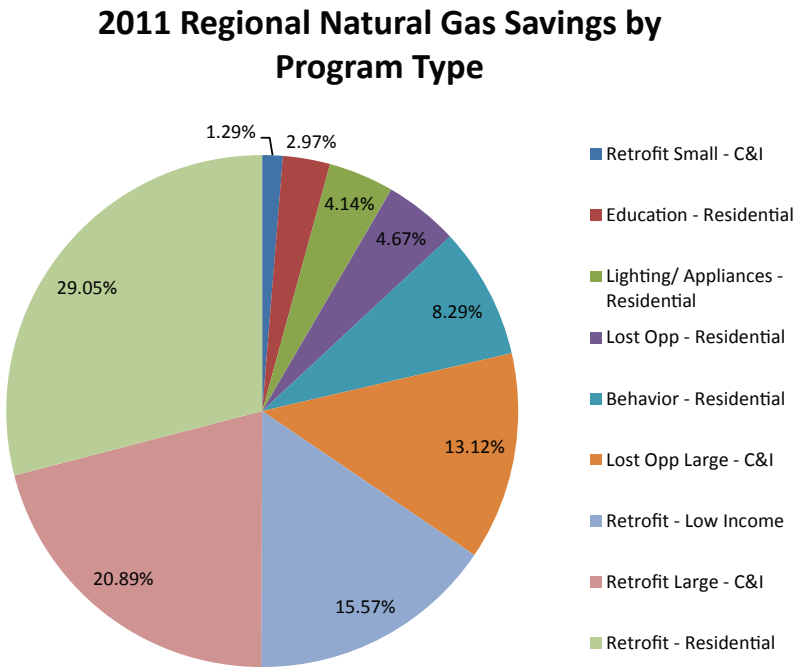
Figure 3: How Much Are The Northeast & Mid-Atlantic States Saving?
Regional Electric and Natural Gas Savings, 2008-2012[22]



22 Data is based upon state energy efficiency data provided to the NEEP EM&V Forum for the Regional Energy Efficiency Database (REED) Annual Report, the ISO-New England 2014 Energy Efficiency Forecast, and state annual energy efficiency reports.

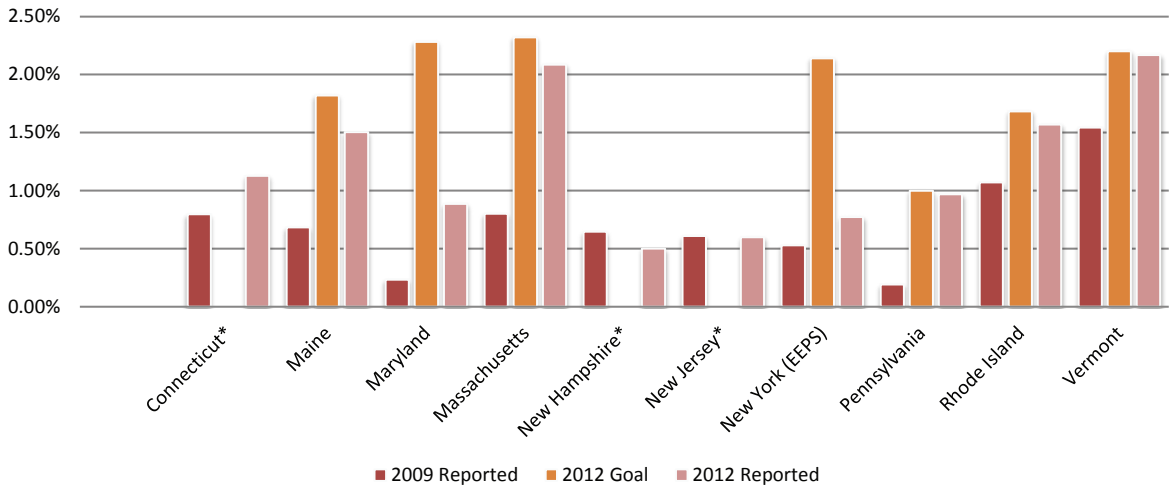
Figure 4: What Programs are Achieving the Most Savings?
Regional Electric and Natural Gas Savings by Program Type (%), 2011[23]





23 Data is compiled by NEEP for its 2011 Regional Energy Efficiency Database (REED) Annual Report. It includes the following states: Connecticut, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont.

Figure 5: How are States Performing against their Electric Savings Goals? 2009 and 2012 Electric Energy Savings vs. 2012 Electric Savings Targets[24]



This level of expenditures has allowed states to capture higher levels of savings, but a number of jurisdictions have either approved or are proposing even higher levels of electricity savings this year and beyond, with many having targets near 2 percent of annual retail sales or higher. Natural gas programs are not included this year because of data limitations and the lack of states with mandatory gas savings goals.

24 2012 state savings targets are estimates of expected savings based upon 2012 state program plans or from the 2012 ACEEE Scorecard (p.33) compared with state electric retail sales data submitted to the U.S. Energy Information Agency (EIA) in 2012. Connecticut and New Hampshire do not have mandated electricity savings targets at this time, while Maine's figures include ARRA funding, possibly increasing its total savings in comparison with other states. Data limitations for Delaware and Washington D.C. made comparisons challenging this year and hence they are not included in the chart.

FURTHER INFORMATION

Northeast Energy Efficiency Partnerships (NEEP) maintains and updates an abundance of news materials and policy and program information resources on our website, www.neep.org. You will find information on building energy codes and high performance buildings, appliance efficiency standards, regional work on market strategies to advance efficient lighting and other products, and more. We encourage you to subscribe to our newsletters, and contact us if we can be of assistance in any way. Please check out the following:

- Highlights, our bi-monthly policy news and analysis e-newsletter
- Policy Tracking Brief, our monthly round-up of legislative and regulatory happenings
- The Efficiency Policy Snapshot –focuses on New England investment and savings data.
- EnergyEfficiencyMatters.org – NEEP's blog
- The Regional Evaluation, Measurement and Verification Forum, which supports the development and use of common and/or consistent protocols to evaluate, measure, verify, and report the savings, costs, and emission impacts of energy efficiency.
- The Regional Energy Efficiency Database - REED is the only regional resource to provide for transparent and consistent reporting of electric and natural gas energy efficiency program energy and demand savings and associated costs, avoided emissions, and job impacts, with the purpose of supporting state and regional energy and environmental policies.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