Putting the Pieces in Place to Make Giant Leaps in Efficiency Investment: The Rhode Island Experience

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ABSTRACT

Rhode Island's groundbreaking Comprehensive Energy Conservation, Efficiency, & Affordability Act of 2006 set the state on a new course to invest in all cost-effective energy efficiency as the lowest cost, cleanest energy resource and stands as one of the most significant pieces of state energy efficiency legislation in the country. Rhode Island's energy reforms have increased transparency in decision-making, provided for greater consumer and public input, and developed processes that rely upon independent, expert advice. A new stakeholder council, the Energy Efficiency and Resource Management Council, was created and charged with a central planning and policy role in achieving the new goals by empowering leading stakeholders – business, institutional, consumer, low-income, and environmental – to work together with the utility program administrator to implement the state's energy efficiency vision. Five years later, the new efficiency plans ushered in by this process vaulted Rhode Island to the top 3 in the nation for efficiency investment per capita. Investment in electric and natural gas efficiency has more than tripled from $16 million in 2007 to $49 million in 2011, resulting in $465 million in total benefits to ratepayers. A savings target of 2.5% of 2009 electric load by 2014 leads the nation. The 2012-2014 Energy Efficiency Procurement Plan will attain this goal by increasing annual investments to $100 million per year in electric and natural gas energy efficiency – 5 times higher than in 2008. This paper identifies the core policy and implementation components that have led to these successes in Rhode Island and explains how these pieces can be replicated elsewhere.

Introduction

In 1996 Rhode Island enacted electric restructuring legislation that provided continuing legal authority for energy efficiency programs.[1] The legislation created the nation's first public benefits fund for renewable energy and demand side management, which generated an average of $15 million annually for energy efficiency.[2] However, ten years later Rhode Island was still spending over 60 times more on energy supply that was 6 times more expensive than energy efficiency. In 2006, Rhode Island customers spent approximately $1.09 billion on electric supply

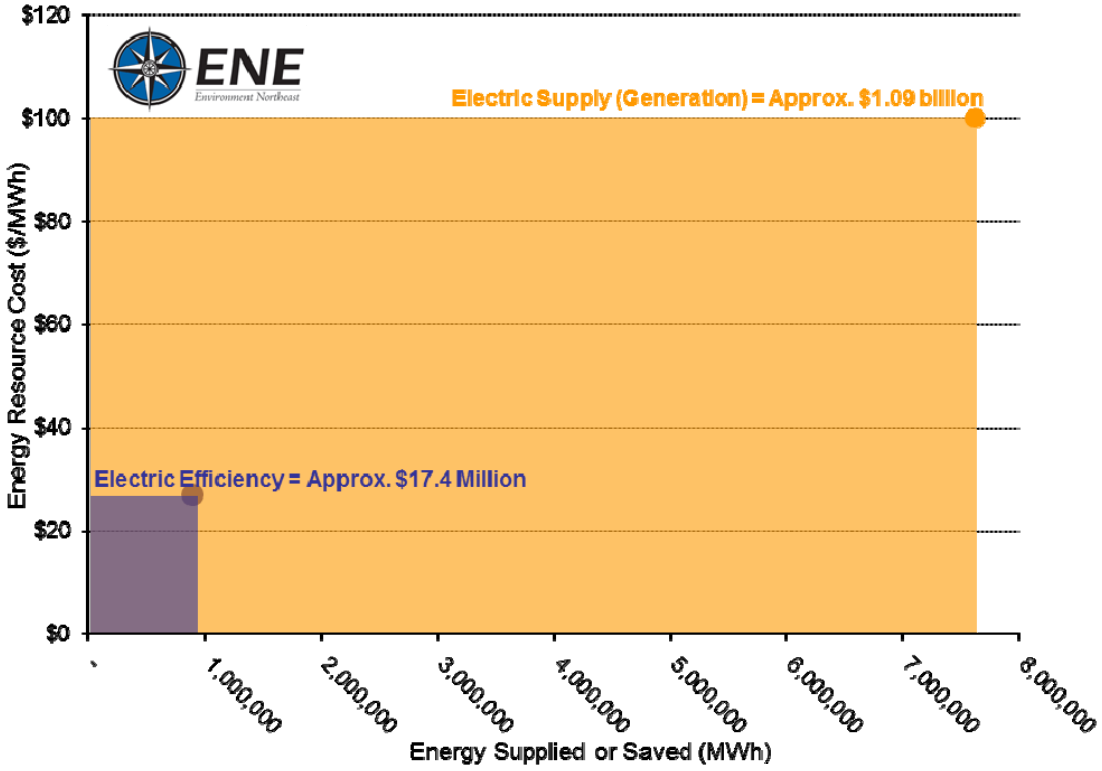
[1] Rhode Island's Public Utilities Restructuring Act of 1996 created the nation's first public benefits fund for renewable energy and demand side management (DSM). The fund's DSM component is administered by the state's electric distribution utility, subject to review by the Public Utilities Commission (PUC). Originally, the legislation required a surcharge set at $0.0023 per kilowatt-hour (2.3 mills per kWh) to be collected by the electric utility to fund DSM and renewable resources for five years. The law was amended in 2002 by establishing separate surcharges for renewable energy and DSM. The adjusted surcharge for renewable – set at $0.003 (0.3 mills) per kWh- and the adjusted surcharge for DSM programs- set at $0.002 (2.0 mills) per kWh- was initially scheduled to remain in effect for 10 years, beginning January 1, 2003. See R.I.G.L. § 39-2-1.2. Also see: http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=RI04R&re=1&ee=1.

[2] Calculated from data from 1998- 2014 provided by National Grid.

at a price of $0.14 per kilowatt-hour and yet only invested $17.4 million in energy efficiency that delivered electric savings at a price of $0.021 per lifetime kWh (Figure 1) (EIA; RI PUC, 2006).

Stakeholders, including consumer advocates, business associations, environmental interests, National Grid (the state's primary electric and gas distribution utility), and state policymakers, saw a significant imbalance between the amount of energy dollars devoted to low cost efficiency and the significantly greater amount of energy dollars spent on expensive energy supply. The existing policy and regulations were failing to capture all cost-effective energy efficiency and the imbalance persisted despite the fact that year in, year out a large quantity of inexpensive, cost-effective efficiency potential was documented as untapped and available. The stakeholders agreed that a new efficiency policy correction was needed to capture the efficiency opportunities that clearly existed. Policy makers solicited input from stakeholders and a group of unlikely allies formed the POWER Coalition (Protecting our Workers, Economy, & Resources) to develop and advocate for a requirement that the state invest in all cost-effective energy efficiency that is lower cost than supply.

Figure 1. Rhode Island expenditure on electric supply vs. investment in low cost energy efficiency, 2006



Rhode Island policy-makers decided to make efficiency investment decisions on an economic basis- rather than arbitrarily limit efficiency investments- and adopt a new efficiency procurement policy designed to capture all cost-effective energy efficiency that is cheaper than supply. The Comprehensive Energy Efficiency, Conservation, and Affordability Act of 2006 was passed by the state legislature unanimously and was overwhelmingly supported by environmental interests, small and large business associations, National Grid, and consumer advocates.

Core Policy Components and Regulatory Requirements

The Comprehensive Energy Efficiency, Conservation, and Affordability Act ("Act") represented a dramatic new policy framework for Rhode Island. It replaced an old system of investing in a statutorily-mandated, arbitrary amount of energy efficiency with a new strategy based on economics, flexible to changing market conditions, and designed to maximize consumer benefit. The new policy requires National Grid to invest in all cost-effective energy efficiency before expensive energy supply.[3] The key elements of Least Cost Procurement and how it works in practice are described below.

1. *State law established a new economic model for efficiency investment*: The least cost procurement provisions of the Act require National Grid to invest in all cost-effective energy efficiency that is less expensive than supply, including supply for periods of high demand (R.I.G.L. § 39-1-27.7). Initially the least cost procurement mandate applied to electric resources only; natural gas was added in 2011.
2. *State law established a stakeholder oversight council*: The Energy Efficiency and Resource Management Council (EERMC) has a statutory responsibility to oversee National Grid's energy efficiency programs, guide energy efficiency program planning and budgeting, provide stakeholder involvement in program planning, monitor and evaluate the effectiveness of efficiency programs, and promote public awareness and understanding of energy efficiency (R.I.G.L. § 42-140.1). The Council has seven voting members appointed by the governor with advice and consent of the state Senate. The voting members represent: 1) expertise in energy regulation and law; 2) large commercial/industrial users; 3) small commercial/industrial users; 4) residential users; 5) low income users; 6) environmental issues pertaining to energy; and 7) expertise in energy design and codes. [4] In addition, there are four ex-officio non-voting members representing the electric utility, the natural gas utility, the fuel oil or heating oil industry, and the Commissioner of the Office of Energy Resources. The statute provides funding for the EERMC to retain expert consultants to provide technical assistance associated with planning, management, and evaluation of least cost procurement (R.I.G.L. § 39-2-1.2 (h)). The success of the EERMC has resulted in additional statutory functions, including responsibility for evaluating the cost-effectiveness of annual and triennial energy efficiency programs and plans and reporting the findings to the RI Public Utilities Commission (RI PUC).
3. *State law requires the distribution utility to submit successive annual and 3-year Energy Efficiency Procurement Plans*: The statute and regulations establish a process for implementing least cost procurement that includes: 1) assessing the amount of cost-effective efficiency potential available in Rhode Island; 2) developing triennial plans describing how the utility will invest in cost-effective energy efficiency, and annual detailed program plans; 3) evaluating, measuring, and verifying energy savings and

[3] The least cost procurement and system reliability procurement mandate of the Comprehensive Energy Efficiency, Conservation, and Affordability Act applies to electric and natural gas distribution utilities in Rhode Island. National Grid serves 96.5% of Rhode Island electric customers and 100% of natural gas customers. Pascaug Utility District (2.27%) and Block Island Power Company (1.14%) customers) are exempt from the mandate.

[4] The lead author of this paper holds the appointed position representing environmental interests pertaining to energy.

program implementation; and, 4) on-going improvement as technologies and opportunities evolve. The annual and triennial plans must first be reviewed and approved by the EERMC and then by the RI PUC (§ 39-1-27.7 (c)(3),(4), and (5)).

As a result of least cost procurement, Rhode Island is fixing its historical imbalance in spending on low-cost efficiency versus expensive supply. Figure 2 illustrates the change in Rhode Island's energy efficiency investments from 1998 to 2014.

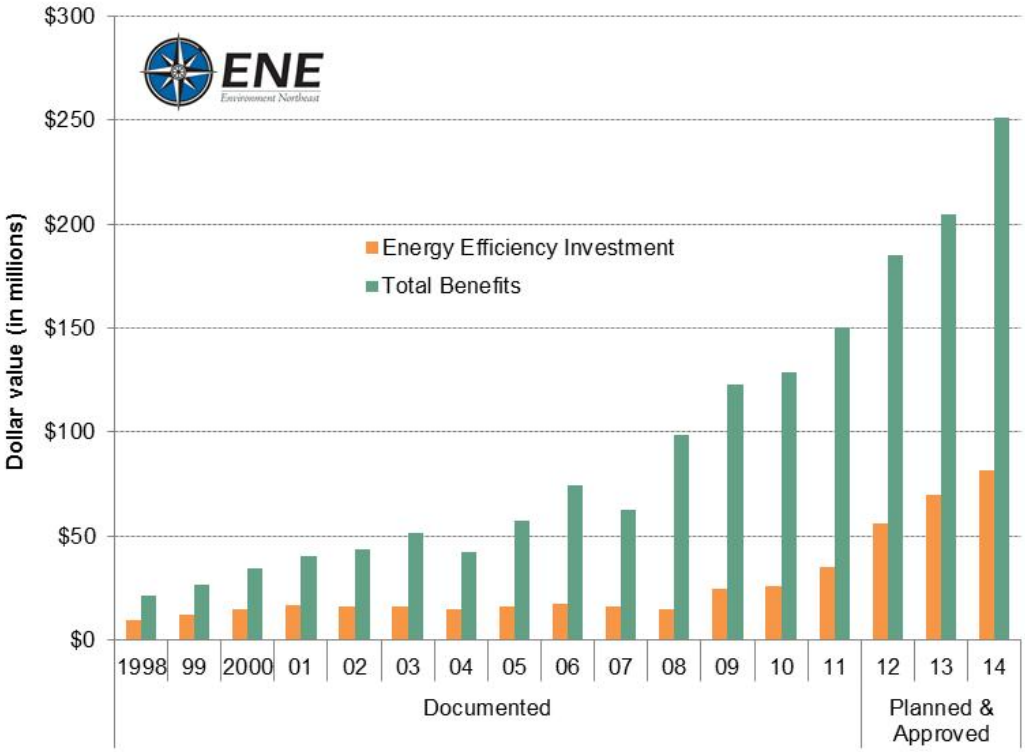


Figure 2. Rhode Island energy efficiency investment and economic benefits, 1998-2014

Since the Comprehensive Energy Efficiency, Conservation, and Affordability Act passed in 2006, policymakers have amended the legislation to strengthen it and remove barriers to investing in cost-effective energy efficiency. Key aspects of the energy reforms include:

1. *Utility's financial incentives are aligned with customer interests*: Utility revenue reform, or "decoupling," breaks the link between the utility's profits and sales volume, removing the disincentive for the utility to be a full partner in energy efficiency (§ 39-1-27.7.1). Rhode Island's least cost procurement regulations also allow performance-based incentives that reward the utility for achieving energy savings goals.
2. *Providing clear directions to regulators to approve funding for cost-effective energy efficiency*: Rhode Island's least cost procurement statute was strengthened to give clear legislative direction to the RI PUC to approve all investments in efficiency that are less expensive than supply and verified to be cost-effective by the EERMC. The statute creates a funding mechanism that facilitates the utility's recovery of any investments in cost-effective energy efficiency (§ 39-1-27.7(c)(5)).
3. *Including natural gas in the state's least cost procurement mandate*: In addition to establishing least cost procurement for electric investments, the 2006 energy legislation also created Rhode Island's first natural gas efficiency program, but capped its funding at $0.15 per dekatherm (§ 39-2-1.2 (c)). The law was first amended in 2010 to establish the same least cost procurement mandate for natural gas as exists for electricity. The law was amended again in May 2011 to remove the upper limit on funding for natural gas efficiency and allow investment levels to be determined on an economic basis.
4. *Regulatory review and approval of energy savings targets for cost-effective energy efficiency*: State law requires the EERMC to propose energy savings targets that are based on identified opportunities for cost-effective energy efficiency investment. The RI PUC is charged with regulatory review and approval of the proposed targets (§ 39-1.27.7.1 (f)).

Key Structural Elements for Successful Implementation

Guided by the statutory direction of the Act, in 2008 the EERMC, Division of Public Utilities ("Division"), The Energy Council ("TEC-RI"), ENE, and other key stakeholders developed Standards for Energy Efficiency and Conservation Procurement and System Reliability ("Standards") for the PUC's review and approval (RI PUC, 2008(a)). The Standards have become a key factor in fulfilling the Act's mandate because they lay out a clear structure and process for achieving the goals of least cost procurement and define the roles and responsibilities for the different program administration and oversight entities.

The Standards are intended to guide the distribution utility as it develops plans for least cost procurement. The Standards set deadlines for annual and triennial efficiency plans and require that the plans include certain components, including strategies for procuring all cost-effective efficiency and providing the utility with the opportunity to earn a performance incentive. The Standards require that the plans include information on program costs and benefits, energy savings goals, funding sources, and monitoring and evaluation plans. The Standards also define an active role for the EERMC in providing assistance to develop the

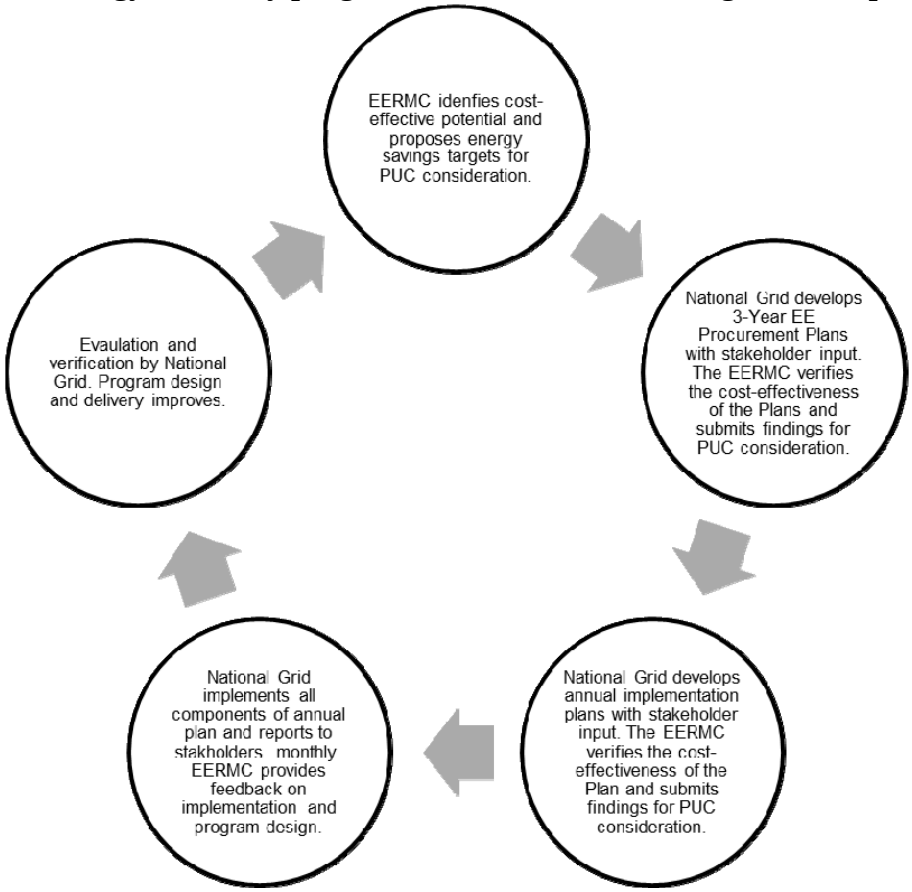
energy efficiency plans and ensure that the state's ratepayers "get excellent value from the EE Procurement Plan being implemented on their behalf." Figure 3 illustrates how Rhode Island organizes efficiency program administration, oversight, and reporting.

The structure defined by the legislation and Standards ensures that the EERMC is empowered to provide objective review of program design and performance, and constructive and binding feedback to the utility. The least cost procurement statute charges the EERMC with reviewing the utility's triennial and annual energy efficiency plans, and verifying that the programs are cost-effective and will deliver the expected energy and economic savings. This model is proving successful because all of the customer sectors paying for the energy efficiency investments have a role in oversight, planning, and evaluation. This level of stakeholder participation results in high quality programs that are responsive to customers' needs and broad support for energy efficiency, even as the level of investment increases.

The EERMC is also provided with a modest budget to retain expert technical consultants who facilitate the members' understanding of least cost procurement and provide research and recommendations that assist Council decision-making (§ 39-2-1.2(h)). The consultants provide technical oversight to ensure that the utility programs address multiple market failures and barriers to energy efficiency, compel the utility to continually innovate and adopt new technologies, and conduct independent verification of the cost-effectiveness of the triennial and annual efficiency plans. The current consultant team is co-led by the Vermont Energy Investment Corporation (VEIC) and Optimal Energy. Most recently, the VEIC/Optimal Consultant Team has assisted the EERMC and National Grid in developing innovative partnerships with local organizations, resulting in more energy savings from traditionally hard-to-reach customer segments. Below is a list of several innovative partnerships:

- *Green & Healthy Homes Initiative Providence Neighborhood Innovation Pilot* is providing free weatherization, upgrades, and health and safety interventions for 250 homes in distressed Providence neighborhoods.
- *Rhode Island Housing and Mortgage Finance Corporation* is working with National Grid and the EERMC to leverage funding streams and require weatherization and efficiency retrofit at the time of refinance.
- *City of Providence Sustainability Office* is coordinating with National Grid and the EERMC to increase the participation of minority contractors in the weatherization program, and partner with community organizations to boost the participation of residents and small businesses in the efficiency programs.
- *Washington County Regional Planning Council* is working with the VEIC/Optimal Consultant Team and National Grid to address the opportunity for high-efficiency street lighting.

Figure 3. Energy efficiency program administration, oversight, and reporting[5,6]



Investing in All Cost-Effective Energy Efficiency

To ensure that the benefits of Rhode Island's energy efficiency programs are greater than the costs, the Standards establish the Total Resource Cost (TRC) test as the measure of cost-

[5] A key element of Rhode Island's triennial and annual energy efficiency planning process is stakeholder participation beyond the EERMC. While not required by the statute or Standards, a collaborative group has been meeting regularly since 1991 to analyze and inform National Grid's electric and natural gas energy efficiency programs. Members of the "Collaborative Subcommittee" presently include National Grid, the Division of Public Utilities and Carriers ("the Division," the state's ratepayer advocate), The Energy Council of Rhode Island ("TEC-RI," representing large commercial and industrial customers), ENE (Environment Northeast), EERMC and the EERMC's Consultant Team, and participation from the Office of Energy Resources. The Collaborative has functioned as a subcommittee of the EERMC since 2008. The constitution of the collaborative has varied since 1991, as some organizations have withdrawn and others have joined. Diverse stakeholder participation in the Collaborative ensures that the interests of all sectors are represented and that all customers are realizing the benefits of energy efficiency.

[6] In order to verify the impacts that programs are having on energy savings, National Grid hires independent consulting firms to regularly conduct program evaluations as part of the measurement and verification process. These evaluations include engineering analysis, metering analysis, billing analysis, site visits and surveys, and market studies to realize the actual energy savings that particular measures and programs are having. Every year, the results of the surveys are used to update the TRC test calculations during planning. The executive summaries of evaluations that have occurred since 2007 are available in RI PUC Dockets 3779, 3892, 4000, and 4116.

effectiveness.[7] The TRC has been widely accepted and used by regulators and policymakers to facilitate investments in energy efficiency based on economics. By comparing the net present value of a stream of benefits over the net present value of a corresponding stream of costs, the TRC test indicates that an efficiency measure or program is cost-effective if the benefits outweigh the costs for Rhode Island customers. A program is considered to be cost-effective if the present value of benefits exceeds the present value of costs, that is, when the TRC benefit-cost ratio (BCR) is greater than 1.0.

One of the most important and challenging elements of Rhode Island's least cost procurement process was the development of a stable, long-term funding source. The legislation and regulations establish stable funding mechanisms that make it possible to invest in all cost-effective energy efficiency. Once the utility, EERMC, and PUC have determined the annual level of energy efficiency investment, there are five funding sources used to make that investment. In 2012 for example, the amount of cost-effective electric and natural gas efficiency investment needed to meet Rhode Island's energy savings target is $68.6 million.[8] The first source of funding Rhode Island will use to invest in energy efficiency in 2012 is a demand side management (DSM) charge of $0.00526 per kWh and $0.411 per Dth, which is applied to all National Grid electric and natural gas customers across the state. Every customer sector contributes towards the needed amount of funding and in return the energy efficiency programs, energy audits, technical assistance, rebates, and incentives are offered to every customer. The electric DSM charge has been in effect since 1996 (the same year Rhode Island restructured its electricity market) and now generates approximately $41 million per year towards least cost procurement. The natural gas DSM charge has been in effect since 2007and now generates approximately $13.9 million per year (RI PUC, 2011(c)).

Rhode Island also utilizes a reconciling funding mechanism to generate the balance of funding that is needed to meet the planned cost-effective efficiency program investments.[9] The DSM charge and the reconciling funding are combined and collected through the Energy Efficiency Program Charge on National Grid customers' electric and natural gas bills. In 2012 the electric reconciling funding mechanism is anticipated to generate $4.9 million. The 2012 reconciling funding mechanism for natural gas is a credit to customers, or $0.027 *lower* than in 2011(RI PUC, 2011(c)). Additional funding sources include:

1. *ISO-New England's Forward Capacity Market (FCM)*: The FCM was created to ensure that the region has enough capacity to meet future peak loads and pays suppliers of capacity (generators, demand response, and energy efficiency programs) to satisfy that need. The state's energy efficiency programs bid in the capacity value

[7] As noted above, the RI PUC adopted the TRC for use in Rhode Island in its 2008 Docket No. 3931. Subsequently, National Grid, with support and input from the EERMC, proposed the specific costs and benefits to be included in the TRC as applied in Rhode Island. An overview of the specific costs and benefits included in Rhode Island's application of the TRC can be found here: http://www.ripuc.org/eventsactions/docket/4296-EERMC-Report(11-16-11).pdf

[8] The target for 2012 is 1.7% and 0.6% of 2009 electric and natural gas load, respectively (approximately 1.55 million lifetime MWh and 3.3 million lifetime MMBTU). Additional information on RI's energy savings targets is available here: http://www.ripuc.org/eventsactions/docket/4202-EERMC-EST-Filing(9-1-10).pdf.

[9] The reconciling funding mechanism is used to generate the balance after the DSM, RGGI, and FCM funding are considered. In any year, if total energy efficiency funding collections are less than approved, the utility can collect the amount of the shortfall in the next year. If energy efficiency funding collections are greater than approved, the utility credits that amount back to customers in the next year.

of their efforts. This means that in addition to capacity payments made to generators, the FCM also makes small but regular payments to the energy efficiency programs for the capacity value they deliver by reducing peak demand. For 2012, the FCM payment to Rhode Island's efficiency programs is projected to be $1.9 million (RI PUC, 2011(c)).

2. *Regional Greenhouse Gas Initiative (RGGI)*: Rhode Island receives, on average, $4 million in carbon emissions allowance value annually.[10] Rhode Island's legislation enacting RGGI requires the proceeds from the auction of carbon allowances to be "used for the benefit of energy consumers through investment in the most cost-effective available projects that can reduce long-term consumer energy demand and costs" (R.I.G.L. § 23-82-6). Re-investing emissions allowance revenue in energy efficiency lowers the cost of achieving emissions reductions by reducing the amount of electric generation. In 2012, RGGI emission proceeds are projected to contribute $1.62 million for Rhode Island's energy efficiency programs (RI PUC, 2011(c)).
3. *American Recovery and Reinvestment Act (ARRA)*: In 2010, National Grid was awarded State Energy Plan funds from the ARRA to provide rebates and incentives for energy efficiency retrofits to homes that heat with oil, propane, and other deliverable fuels. The program began in August, 2010 and by the end of the year over 1,400 homes heated with deliverable fuels received audits, 427 of those homes received rebates for heating system replacement, and 119 received rebates for weatherization. This additional investment will help deliverable fuel customers save more than 2 million gallons of heating fuel over 20 years and save over $7 million through lower heating bills (EERMC, 2011).

Support for these funding mechanisms is based on an understanding that least cost procurement results in lower energy bills and that, in 2012, every $1 invested in cost-effective energy efficiency will return $2.47 in customer savings (RI PUC, 2011(c)). The strategy is to lower customers' bills by allowing a small increase in the price of energy through the Energy Efficiency Program Charge in exchange for a much greater reduction in the quantity of energy consumed. The EERMC continually educates policymakers, regulators, and other stakeholders on these basic economic facts in order to maintain support for least cost procurement.

Results

Rhode Island's least cost procurement strategy is paying off. The new efficiency plans ushered in by this process have vaulted Rhode Island to the top 3 in the nation for efficiency investment per capita (CEE, 2010).[11] Investment in electric and natural gas efficiency more than tripled from $16 million in 2007 to $49 million in 2011, resulting in $465 million in total

[10] RGGI is the first mandatory system in the U.S. to cap and reduce GHG emissions. Under RGGI, electric generators with over 25 MW of fossil fuel- based capacity must purchase emissions allowances for every ton of GHG emissions. Emissions allowances are auctioned quarterly and the use of proceeds from allowance auctions is largely determined by member states, so long as parameters of the 10-state Memorandum of Understanding are met, including a requirement that 25% of allowance value support a "consumer benefit of strategic energy purpose." A majority of the revenue raised through the sale of allowances is channeled to energy efficiency programs at the state and local level.

[11] RI's 2012 per capita energy efficiency investment is $56, behind Massachusetts ($84) and Vermont ($59). See: http://www.env-ne.org/resources/detail/best-practices-for-advancing-state-energy-efficiency-programs-policy-option

benefits to customers.[12] This year also marks the culmination of Rhode Island's first three-year planning cycle and the beginning of the 2012-2014 Energy Efficiency Procurement Plan.

Table 1. 2012-2014 Energy Efficiency Procurement Plan summary, electric

Electric Programs	2012	2013	2014	Total
Annual MWh savings	128,570	158,820	189,068	476,458
Lifetime MWh savings	1,546,997	1,609,419	1,960,550	5,116,966
Savings as a percent of 2009 electric load	1.7%	2.1%	2.5%	
Total benefits[13]	$198,836,955	$204,451,077	$251,198,316	$654,486,348
Total spending[14]	$64,385,628	$75,978,573	$88,236,598	$228,600,799
Benefit cost ratio	2.47	2.20	2.26	

Table 2. 2012-2014 Energy Efficiency Procurement Plan summary, natural gas

Natural Gas Programs	2012	2013	2014	Total
Annual MMBtu savings	231,550	284,734	355,917	872,201
Lifetime MMBtu savings	3,316,495	4,420,967	5,526,209	13,263,671
Savings as a percent of 2009 gas load	0.6%	0.8%	1.0%	
Total benefits	$31,280,215	$43,686,179	$56,214,055	$131,180,449
Total spending	$13,687,795	$18,046,503	$22,602,890	$54,337,188
Benefit cost ratio	1.39	1.47	1.51	

In July, 2011 the RI PUC approved nation-leading energy savings targets of 2.5% and 1.2% of 2009 electric and natural gas load, respectively, by 2014 (RI PUC, 2011(a)). These savings goals were developed and proposed by the EERMC in conjunction with National Grid, the Division of Public Utilities and Carriers, and TEC-RI. The development of these targets relied, in part, on an in-depth study commissioned by the EERMC and conducted by KEMA, Inc. which identified the potential savings from cost-effective energy efficiency in Rhode Island. The 2012-2014 Energy Efficiency Procurement Plan, approved by the PUC in December 2011 will attain these goals by expanding Rhode Island's annual investments to $100 million in energy efficiency- 5 times higher than in 2008 (RI PUC, 2011(b)). This level of investment in cost-effective electric and natural gas efficiency will reach over 1.4 million participants, deliver $785 million in net economic benefits, boost Gross State Product by approximately $1.53 billion, and

[12] In 2011, expenditure on retail residential, commercial, and industrial electricity sales was $1.013 billion vs. $34.8 million invested in electric energy efficiency (EIA, 2011). As Figure 1 illustrates, in 2006 expenditure on retail sales was $1.09 billion vs. $17.4 million on energy efficiency.

[13] Total benefits include the discounted monetized value of reduced energy, reduced capacity (generation, transmission, and distribution), non-electric system benefits, and demand reduction induced price effect.

[14] Total spending includes implementation expenses (program planning & administration, marketing, rebates, incentives), evaluation, commitments, EERMC funding, and shareholder incentive. Total spending does not include the customer contribution.

create 13,800 job-years of employment (ENE, 2009). Tables 1 and 2 (above) include the electric and natural gas program metrics for the 2012-2014 Energy Efficiency Procurement Plan.

Recommendations and Conclusion

Rhode Island has dramatically accelerated its commitment to investing in cost-effective energy efficiency by replacing a system of arbitrarily capped efficiency budgets with laws that establish energy efficiency as an energy resource and economic strategy for reducing the state's energy costs. Policy-makers and regulators recognize energy efficiency's ability to reduce customers' energy bills and have enacted energy reform policies that require the utility to invest in cost-effective energy efficiency to save money. This strategy has successfully lowered customers' energy bills by hundreds of millions of dollars, reduced the cost of doing business in Rhode Island, avoided greenhouse gas emissions, and created local jobs.

States interested in investing in energy efficiency as an economic strategy to reduce costs and maximize benefits to customers can consider the following suite of best practice policies:

1. *Energy efficiency procurement requirements* that mandate distribution utilities or third party administrators to invest in all energy efficiency that is cost-effective and cheaper than supply, provide stable funding sources for energy efficiency investments, and give clear direction to regulators to approve investment plans to capture all cost-effective energy efficiency investments.
2. *Creating energy efficiency stakeholder councils* with a statutory responsibility and financial resources to oversee programs, identify the potential for cost-effective energy efficiency investments, guide planning and budgeting, oversee evaluation, monitoring, and verification, and drive innovation, community engagement, and broad-base support.
3. *Establishing a rulemaking process* at the regulatory agency with involvement from the ratepayer advocate, utility, and other key stakeholders ensures a fair and transparent process. Rulemaking should establish a planning and regulatory review process and define roles and responsibilities. The rulemaking process should establish a cost-benefit test to measure cost-effectiveness and guide efficiency investments.
4. *Remove utilities' disincentives* to invest in energy efficiency through utility rate reform that makes the utility financially neutral to sales volume and load growth. Use performance incentives to reward cost-effective efficiency programs that maximize energy savings and economic benefits.
5. *Integrate the delivery of electric, natural gas, and ideally other fuel efficiency* in order to address thermal and electric savings opportunities simultaneously and increase cost-effectiveness. Integrated program delivery allows customers to benefit from multiple efficiency measures at the same time. Including deliverable fuels extends the cost-saving benefits of efficiency to customers who heat their homes with oil, kerosene, or propane.

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