



STATE OF RHODE ISLAND
**ENERGY EFFICIENCY &
RESOURCE MANAGEMENT COUNCIL**

MEETING MINUTES

Thursday, May 14, 2015

3:30 - 5:30 PM

Conference Room B, 2nd Floor
Department of Administration
One Capitol Hill, Providence, RI

- Members Present:** Abigail Anthony, Joe Cirillo, Marion Gold, Jennifer Hutchinson, Dan Justynski, Michael McAteer, Joe Newsome, Chris Powell, Paul Ryan
- Members Absent:** none
- Consultants Present:** Mike Guerard, Scudder Parker
- OER Staff Present:** Chris Kearns, Rachel Sholly
- Others Present:** Matthew Banoub, Marisa Desautel, Rachel Henschel, Craig Johnson, Sam Milton, Jeremy Newberger, Brigid Ryan, Karen Verrengia, Chon Wong

1. Call to Order

Chairman Paul Ryan called the meeting to order at 3:38 PM.

2. Approval of April Meeting Minutes

Joe Newsome expressed concerns that Rhode Island vendors are paid significantly less than compared to those in Massachusetts. Jeremy Newberger said he would look into it and respond next month. **Joe Cirillo made a motion to approve the minutes. Dan Justynski seconded and all approved.**

3. Executive Committee Report

The June agenda should include a vote on providing legal counsel to consultant team.

4. Policy & Planning Issues

Legislative Update

Chris Kearns reported that the finance hearings have occurred on the Sub A to Budget Article 24, which includes the Infrastructure Bank, extension of the Least Cost Procurement law and a \$2M general revenue request for the Infrastructure Bank. Mid-late June, positive feedback, hearings went well. Legislation to add non-profit representatives to the EERMC has passed the Senate Environment Committee, and will go to the Senate floor before going to the House. This would add two more voting members (representing the small and large non-profit sectors) to be appointed in 2016, bringing the total membership to 15. Abigail Anthony pointed out that a new non-profit representative would be adding another person like Chris Powell since Brown University is technically a non-profit. Lastly, Mr. Kearns has not heard anything about the stand-alone Senate bill looking at National Grid's shareholder incentive, to which the Council had drafted an opposition letter. Mr. Kearns felt that it would not be necessary to submit the letter at this point.

5. Executive Director Report

Commissioner Marion Gold reported that a lot of hard work is being done on systems integration through the subcommittee. Efforts are also underway to make progress in state facilities with John King, a retired engineer from Brown University who is volunteering for OER, along with George from OER, Jerry from National Grid to jumpstart energy programs in state facilities and compiling energy consumption and expenditure data. George is currently monitoring the performance of the recently installed LED streetlights along I-295 and is about to launch phase 2, which is to upgrade lights in park-and-rides. A plan is in place to upgrade all the DOT-owned highway streetlights in the state in a short period of time.

6. General Updates on Energy Efficiency Programs and System Reliability Procurement

ACEEE State Scorecard Presentation

Mike Guerard, Craig Johnson and Rachel Sholly gave the presentation (*see attached*). Mr. Kearns asked if the proposal to expand PACE financing to include electric vehicle charging stations would count. Ms. Sholly thought this might fall under the consumer incentives for high-efficiency vehicles category. Ms. Anthony felt that the state's advancements in areas that indirectly support the use of electric vehicles, such as time-of-use pricing, demand charges, system reliability planning, should receive some credit. Scudder Parker pointed out that we can also provide suggestions to ACEEE on how to improve the scoring criteria. The RI interconnection standard is the same as MA, which receives points, while RI does not. Ms. Anthony thought it might need to be a PUC-adopted regulation as opposed to an internal utility policy. Chris Powell noted that large campuses with district energy systems would probably have a hard time meeting a building disclosure requirement. Ms. Anthony felt that the state research and development category may not be a fair one for Rhode Island because we are a small state and lean on R&D going on throughout the region and may not need it in-state.

2016 Energy Efficiency Procurement Plan Timeline/Preview

Mr. Newberger and Rachel Henschel gave the report (*see attached*). National Grid proposes moving the October Council meeting from October 8th to October 1st to accommodate the early submission deadline. Grid also implored the Council to begin thinking about themes or ideas that should be addressed in the Plan. Mr. Powell suggested including something on CHP heat

recovery and storage. Mr. Parker suggested including a piece on new strategies for demand management or load management and how to value those so Grid has an incentive to invest in them. Ms. Anthony asked if Grid could target commercial customers with demand charges to work more toward demand reductions. Mr. Guerard felt that delivered fuels should be considered sooner rather than later.

7. Other Business

Rhode Island Alliance for Healthy Homes Presentation

The presentation was postponed until the June meeting.

8. Public Comment

There was no public comment.

9. Adjournment

Chairman Ryan adjourned the meeting at 5:10 PM.

Next Meeting: Thursday, June 11th, 2015; 3:30-5:30 PM; Conference Room B

2016 EE Plan Schedule

nationalgrid



Presentation to EERMC

May 13, 2015

- June
 - 11th – EERMC Meeting
 - 25th – RI Collaborative Meeting
- July
 - 9th – EERMC Meeting
 - 22nd – First draft of the TRM circulated
 - TBD – Collaborative Meeting
- August
 - 13th – EERMC Meeting
 - TBD – Collaborative Meeting
 - 25th – First Draft of 2015 Plan circulated externally
 - 28th – Second Draft of the TRM circulated

- September
 - 2nd – RI Collaborative Meeting
 - 4th – Comments back on First Draft of 2015 Plan
 - 10th – EERMC Meeting
 - 21st – Second and Final Draft of 2016 Plan circulated
 - 28th – TRM Finalized
 - 28th – Collaborative Meeting
- October
 - 1st – EERMC Meeting (*request vote to change meeting date*)
 - Vote for approval pending final adjustments
 - 5th – Collaborative Meeting
 - 7th – Final version of 2016 Plan circulated for settlement approval
 - 15th – 2016 Plan Filed

- Brainstorming topics to consider
- Plan to address finance, CHP, system integration, and integration with solar RI growth
- What else?

To Rhode Island Energy Efficiency & Resource Management Council (EERMC)
 From VEIC/Optimal Energy Consultant Team (C-Team)
 Date May 14, 2015
 Subject ACEEE Deconstruction

Introduction

In October 2014 ACEEE released the eighth iteration of its annual State Energy Efficiency Scorecard. In this year’s edition, Rhode Island moved up three spots from 2013 to a tie for third with Vermont and Oregon (Table 1). While this is certainly something for the state to be proud of, it does not mean that the state cannot do more to create an even more favorable environment for energy efficiency. The following information seeks to document areas where RI excelled and where there is opportunity for improvement. The process for creating the next Scorecard is underway, so we hope this document supports deliberations of the Council in guiding and providing input to the decisions and documentation relating to RI energy efficiency efforts.

Table 1: Summary of local and top state scores in the 2014 State Scorecard

State	Utility & Public Benefits Programs & Policies (20 pts.)	Transportation Policies (9 pts.)	Building Energy Codes (7 pts.)	Combined Heat & Power (5 pts.)	State Government Initiatives (7 pts.)	Appliance Efficiency Standards (2 pts.)	Total Score (50 pts.)
1. MA	20.0	7.0	5.5	4.5	5.0	0.0	42.0
2. CA	12.5	8.5	7.0	4.0	6.5	2.0	40.5
3. RI	20.0	5.0	6.0	3.0	3.0	0.5	37.5
3. OR	15.0	7.0	5.5	3.5	5.5	1.0	37.5
3. VT	18.5	6.0	6.0	3.0	4.0	0.0	37.5
6. CT	14.0	5.0	5.0	4.5	6.0	1.0	35.5
7. NY	13.5	8.0	5.5	2.0	6.0	0.0	35.0

Because each category is made up of several sub-categories, some of which are scored on multiple criteria, the summary scores (Figure 1) only reveal part of the picture. The goal of this effort was to deconstruct each of the scoring categories in an effort to truly understand where, and why, Rhode Island received its points. In doing so, it also reveals where the state missed out on points.

This report is an attempt to highlight where Rhode Island received and missed points in the ACEEE Scorecard. In categories where the state missed out on points, the report looks at the scoring criteria and reviews the actions taken by other states to achieve maximum points in that category.

While this report does not make or prioritize specific recommendations that Rhode Island should focus on, it does provide insight as to the types of policies or actions that would be needed to improve the states score.

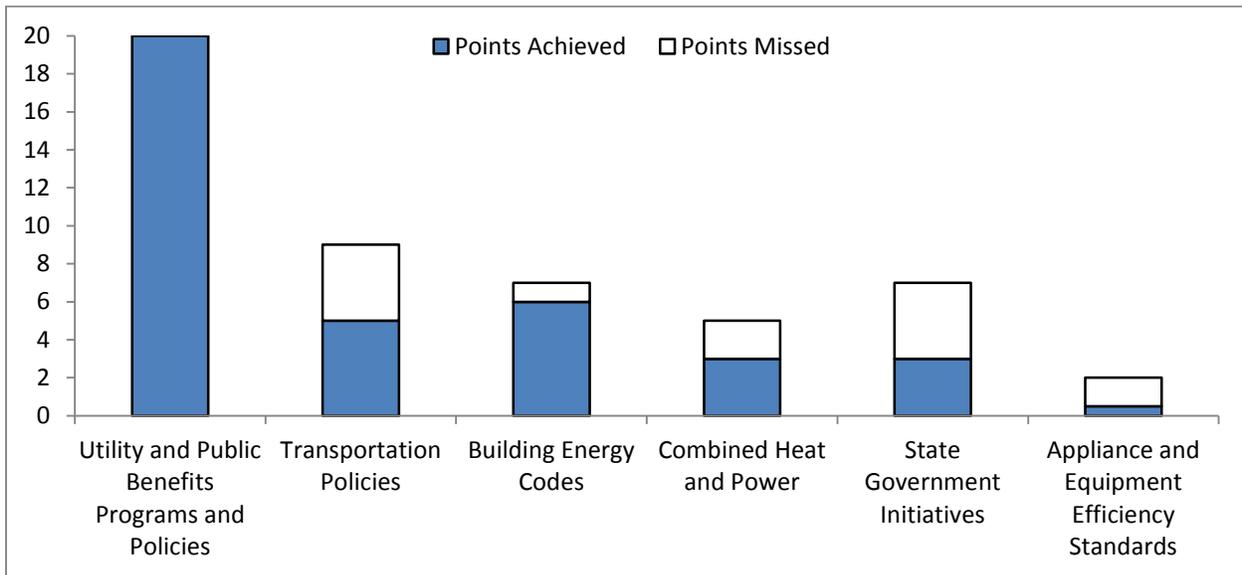


Figure 1: Summary of Rhode Island scores in the 2014 Scorecard

Utility and Public Benefits Programs and Policies

The utility and public benefits programs and policies category accounts for 40% of the total scorecard; it is important that states do well here to achieve a high overall ranking. Rhode Island scored exceptionally well in this category and was the only state other than top-ranking Massachusetts to achieve the maximum points available. This was the first time that any state has achieved maximum points in this category since ACEEE increased the maximum points available from 15 in its first iteration to 20 in all subsequent iterations.

Table 2 summarizes the scoring for each sub-category. All but two of the sub-categories (opt-out programs and performance incentives and fixed cost recovery) are scored based on quantitative metrics (e.g., percentage of spending or sales).

Table 2: Summary of Rhode Island scoring on utility and public benefits programs and policies

Sub-Category	Max. Points	Points Achieved	Notes
Budgets for Electricity Efficiency Programs	5.0	5.0	<ul style="list-style-type: none"> One of five states to receive maximum points for spending 4% or more of statewide utility revenues Budget of \$77.5 million is 8.6% of revenues Highest percent spending by more than two percentage points
Budgets for Natural Gas Efficiency Programs	2.0	2.0	<ul style="list-style-type: none"> One of eight states to receive maximum points for spending more than \$50 per residential customer Budget dollars per residential customer of \$83.28 was second most in the country
Annual Savings from Electricity Efficiency Programs	5.0	5.0	<ul style="list-style-type: none"> One of two states to receive maximum points for achieving savings greater than or equal to 2% of sales Incremental savings of 161,831 MWh is 2.09% of sales

Annual Savings from Natural Gas Efficiency Programs	2.0	2.0	<ul style="list-style-type: none"> Greatest savings as a percent of sales in the country One of five states to receive maximum points for achieving savings greater than or equal to 1% of sales Incremental savings of 330,000 MMBtu is 1.24% of sales Fourth highest savings in the country
Large Opt-Out Programs	-1.0	0.0	<ul style="list-style-type: none"> Did not receive one point penalty for having opt-out provisions for large customers
Energy Efficiency Resource Standards (EERS)	3.0	3.0	<ul style="list-style-type: none"> One of eight states to receive maximum points for having annual electric savings targets of greater than or equal to 1.5% Approximate annual electric savings target of 2.3% was third best in the country
Performance Incentives and Fixed Cost Recovery	3.0	3.0	<ul style="list-style-type: none"> One of six states to receive maximum points for having decoupling established for at least one major utility, for both electric and gas, AND, for having performance incentives established for a major utility, for both electric and gas.
Total	20.0	20.0	

Transportation Policies

While Rhode Island was moderately successful in the transportation category, its score was the lowest among the top five states overall. Table 3 summarizes the scoring for each of the sub-categories. In cases where Rhode Island did not receive maximum points, there is a discussion of what other states did to achieve those points below.

Table 3: Summary of Rhode Island scoring on transportation policies

Sub-Category	Max. Points	Points Achieved	Notes
GHG Tailpipe Emissions Standards	1.5	1.5	<ul style="list-style-type: none"> Received maximum points for having adopted California's GHG tailpipe emissions standards and ZEV program
Electric Vehicle Registrations	0.5	0.0	<ul style="list-style-type: none"> Did not meet the requirement of 20 registered electric vehicles per 100,000 people
Integration of Transportation and Land Use Planning	1.0	1.0	<ul style="list-style-type: none"> Received maximum points for having smart growth statues or incentives to encourage sustainable growth
Freight Plans & Energy Efficiency Targets	1.0	0.5	<ul style="list-style-type: none"> Received half of the maximum points for having a freight-specific transportation plan that meets the Moving Ahead for Progress in the 21st Century (MAP-21) requirements
Targets to Reduce Vehicle Miles Traveled (VMT)	1.0	0.0	<ul style="list-style-type: none"> Did not meet the requirement of having targets for statewide VMT
Change in VMT	1.0	0.5	<ul style="list-style-type: none"> Received a half-points because the state's rolling 10-year VMT average decreased by 1.22% between 2010 and 2012
Transit Funding	1.0	1.0	<ul style="list-style-type: none"> Received maximum points for having per capita transit expenditures of greater than or equal to \$50 per person At \$50.53 per person, RI just made the cutoff for maximum points

Transit Legislation	1.0	0.0	<ul style="list-style-type: none"> Received no points because the state has no transit statutes that provide sustainable sources for operating expenses in addition to the expansion and maintenance of transit facilities
Complete Streets Policies	0.5	0.5	<ul style="list-style-type: none"> Received maximum points for having statutes that ensure proper attention is given to the needs of pedestrians and cyclists in all road projects
High-Efficiency Vehicle Consumer Incentives	0.5	0.0	<ul style="list-style-type: none"> Received no points because the state has no consumer incentives for the purchase of high-efficiency vehicles
Total	9.0	5.0	

EV Registrations and High-Efficiency Vehicle Consumer Incentives

To receive the half-point that Rhode Island was not rewarded for high-efficiency vehicle consumer incentives, the state would need to have an incentive program for consumers who purchase electric or hybrid vehicles. Listed below are some examples of the types of programs that were eligible to receive points in this sub-category. It would not guarantee it, but having one of these programs could help Rhode Island bridge the gap to the minimum requirement for points in the EV registrations sub-category. As it stands, Rhode Island would need about 210 EV registrations to receive the half-point available for this sub-category.

- Tax Credits:** Maryland provides a one-time excise tax credit of up to \$3,000 for the purchase of qualified electric and hybrid vehicles.
- Sales Tax Exemption:** Consumers who purchase qualified electric and hybrid vehicles in Washington and New Jersey are exempt from state motor vehicle sales and use taxes.
- Rebates:** Several states provide rebates ranging from \$2,000 to \$5,000 for customers who purchase qualified electric and hybrid vehicles. As a local example, Massachusetts Department of Energy Resources has its Massachusetts Offers Rebates for Electric Vehicle (MOR-EV) Program which offers rebates of up to \$2,500 to customers who purchase or lease qualified electric vehicles.

Targets to Reduce VMT and Change in VMT

Although there were just six states that received points for having VMT reduction targets, Rhode Island was the only state that finished in the top five overall that did not receive points in this sub-category. Massachusetts, California, Oregon, and Vermont, along with New York and Washington, all have targets to reduce VMT. Washington, for example, mandates VMT reductions of 18%, 30%, and 50% by 2020, 2025, and 2050, respectively, relative to 1990 levels. Vermont also received points for having goals in its Comprehensive Energy Plan, adopted in 2011, to maintain per capita VMT at or below 2011 levels. Creating targets to reduce VMT could be a policy solution that would also help Rhode Island achieve the 5% reduction requirement needed to achieve maximum points in the change in VMT sub-category.

Transit Legislation and Funding

Nearly half of the states received points for having legislation that creates a dedicated and sustainable source of funding for public transportation efforts. A few local states received points in this sub-category. One example is Maine, which has a dedicated revenue stream through sales tax revenues derived from taxes on vehicle rentals. Other examples are Massachusetts and New York, which have dedicated revenue streams for their respective public transit authorities through sales taxes and registration and renewal fees. Like some of the other sub-categories, creating transit legislation could help Rhode Island boost its transit funding so that it is not so close to the cutoff for maximum points in the future.



EERMC CONSULTANT TEAM

Freight Plans and Energy Efficiency Targets

California was the only state that received the additional half-point for including energy efficiency performance metrics in its freight transportation plans, which includes a goal to reduce emissions in the industry to near zero by 2050.

Building Energy Codes

Rhode Island performed well in the building energy codes category, scoring six out of a possible seven points, which was tied for second best with ten other states. Table 4 summarizes the scoring for each of the sub-categories. California was the only state that received maximum points for residential and commercial code stringency. For Rhode Island to receive maximum points, it would have to follow California’s lead and have codes that exceed the 2012 IECC standards for residential buildings and ASHRAE/IESNA 90.1-2010 standards for commercial buildings.

Table 4: Summary of Rhode Island scoring on building energy codes

Sub-Category	Max. Points	Points Achieved	Notes
Residential Code Stringency	2.5	2.0	<ul style="list-style-type: none"> Received points because Rhode Island requires compliance with the 2012 International Energy Conservation Code (IECC) for residential buildings
Commercial Code Stringency	2.5	2.0	<ul style="list-style-type: none"> Received points because Rhode Island requires compliance with the 2012 IECC for commercial buildings
Code Compliance	2.0	2.0	<ul style="list-style-type: none"> Received one point for having conducted a compliance study within the last five years (last conducted in 2012) Received additional points for having engaged in the following compliance metrics – gap analysis/strategic compliance plan, baseline and updated compliance studies, utility involvement, stakeholder advisory group, training and outreach
Total	7.0	6.0	

Combined Heat and Power

Similar to the transportation category, Rhode Island scored well for CHP, but finished behind Massachusetts, California, Oregon, and Connecticut. Table 5 summarizes the scoring for each of the sub-categories. In cases where Rhode Island did not receive maximum points, there is a discussion of what it would have to do to achieve those points below.

Table 5: Summary of Rhode Island scoring on CHP

Sub-Category	Max. Points	Points Achieved	Notes
Interconnection Standard	1.0	0.5	<ul style="list-style-type: none"> Received a half-point for having a standard that explicitly establishes parameters and procedures for the interconnection of CHP systems and meets the following criteria – is adopted by all major utilities; covers all forms of CHP, regardless of fuel; and has multiple tiers of interconnect or some kind of fast track for smaller systems

EERS Treatment	1.0	1.0	<ul style="list-style-type: none"> Received maximum points because Rhode Island's EERS meets the following criteria – it explicitly applies to CHP powered by natural gas; treats CHP as a resource in the top tier or category; establishes specific CHP targets; and is binding and includes penalties for utilities that do not meet goals
RPS Treatment	0.5	0.0	<ul style="list-style-type: none"> Did not receive points because Rhode Island's RPS does not account for CHP
Revenue Streams	0.5	0.0	<ul style="list-style-type: none"> Did not receive points because Rhode Island does not have a dedicated revenue stream for CHP
Incentives and Grants	0.5	0.5	<ul style="list-style-type: none"> Received maximum points as a result of National Grid's CHP program which offers three tiers of performance rebates based on the energy efficiency of CHP units
Financing Assistance	0.5	0.0	<ul style="list-style-type: none"> Did not receive points because Rhode Island does not have applicable financing assistance programs for CHP
Emissions Treatment	0.5	0.5	<ul style="list-style-type: none"> Received maximum points for having a fast-track CHP permitting process in place for sulfur oxides and/or nitrogen oxides, and output-based parameters for all major applicable air permits
Additional Policy Support	0.5	0.5	<ul style="list-style-type: none"> Received maximum points for having additional policy support that includes policies including targeted technical assistance programs, education campaigns, or other unique policies or incentives that support CHP
Total	5.0	3.0	

Interconnection Standards and RPS Treatment

Rhode Island does have interconnection standards that establish parameters and procedures for the interconnection of CHP systems. Its standards do not, however, apply to systems greater than 10 MW. If the standards applied to systems of greater than 10 MW like many other states in the top ten overall, it would have received the maximum points in this subcategory. Additionally, Rhode Island did not receive any points because its RPS does not explicitly define waste heat-, biomass-, or biogas-powered CHP as an eligible resource. For Rhode Island to receive maximum points here its RPS would have to include that provision and it would have to be binding and include penalties for utilities that do not meet goals.

Revenue Streams and Financing Assistance

Rhode Island also missed out on receiving a half-point each for not having dedicated revenue streams and financing assistance for CHP projects, although it should be noted that no state received the points for both sub-categories. Eighteen states received points for having revenue streams for CHP (but not having financing assistance), and four states received points for having financing assistance programs for CHP (but not favorable revenue streams).

- 1. Revenue Streams:** States received points for favorable revenue streams for CHP such as wholesale net metering policies that can be used by all customer classes and feed-in tariffs that apply to CHP powered by natural gas.
- 2. Financing Assistance:** Connecticut and Massachusetts are two of the four states that received points for having financing assistance for CHP projects. Connecticut has a CHP Pilot Loan Program which helps finance the cost of CHP equipment for energy-generating projects in

development that have not yet started construction. Massachusetts offers \$500,000 interest-free loans through its Mass Save® program to incentivize the build-out of CHP systems.

State Government Initiatives

Rhode Island performed most poorly in the state government initiatives category. It only received three out of seven points (tied for 32nd overall within the category) and was the only state that finished in the top ten overall to finish outside of the top twenty in this category. Table 6 summarizes the scoring for each sub-category, and in cases where Rhode Island did not receive maximum points, there is a discussion of what it would have to do to achieve those below.

Table 6: Summary of Rhode Island scoring on state government-led initiatives

Sub-Category	Max. Points	Points Achieved	Notes
Financial Incentives	2.5	1.0	<ul style="list-style-type: none"> Received a half-point each for its Home Energy Assistance Loan Program and its School Grant Program
Energy Disclosure Policy	1.0	0.0	<ul style="list-style-type: none"> Did not receive points because Rhode Island has no energy-use disclosure laws
Lead-by-Example Efforts	2.0	1.5	<ul style="list-style-type: none"> Received a half-point for having each of the following: energy savings targets in new and existing state buildings; benchmarking requirements for public facilities; and energy savings performance contracting activity
Research and Development	1.5	0.5	<ul style="list-style-type: none"> Received a half-point for URI Outreach Center's Sustainable Energy Program which has a focus on energy efficiency and technology assessment research
Total	7.0	3.0	

Financial Incentives

If Rhode Island is to score better in this category in the future it will have to find more ways to incentivize energy efficiency. Table 7 is an excerpt of Table 31 from the ACEEE Report that highlights what some local states, as well as California, have done to receive maximum points in this sub-category.

Table 7: Incentives and programs offered by select states who received maximum points

State	Incentives and Programs
Massachusetts	Alternative Energy and Energy Conservation Patent Exemption (personal and corporate); grant, rebate, and bond programs
Connecticut	One rebate, one loan, and one grant program; sales tax exemption for energy efficient products; Clean Energy Communities incentive program
New York	Green Jobs – Green NY Program; several rebate, loan and grant programs; Energy Conservation Improvements Property Tax Exemption
California	Two grant programs for school facilities; sales tax exemption for alternative energy manufacturing equipment (includes energy efficiency); rebate program (Energy Upgrade California); loan program for public-sector projects

Building Energy-Use Disclosure Policies

Rhode Island was not alone in failing to score points in this sub-category. In fact, only nine states were awarded points for having energy disclosure policies, none of which received the maximum points for having policies for both the residential and commercial sectors. Table 8 is an excerpt of Table 32 from the

ACEEE Report that provides one example each for residential and commercial building energy-use disclosure policies.

Table 8: Select Commercial and residential building energy-use disclosure policies

State	Disclosure Requirements
California (Commercial)	Assembly Bill 1103 requires nonresidential building owners or operators to disclose the energy consumption data consistent with the ENERGY STAR rating system to buyers, lenders, and lessees
New York (Residential)	Beginning in 1981, the Truth in Heating law required the release of utility data for residential buildings at the time of sale or rental.

Lead-by-Example Efforts

In this sub-category, states received a half-point each for four separate initiatives. Rhode Island did not receive points for having an efficient fleets initiative that includes a plan or policy that presents a specific, mandatory requirement. Table 9 highlights the efficient fleets efforts that Vermont and Connecticut have undertaken.

Table 9: Efficient fleet efforts from select states

State	Initiative Description
Connecticut	All cars and light-duty trucks that the state purchases or leases must be hybrid electric vehicles, plug-in hybrid electric vehicles, or capable of using alternative fuels. Furthermore, the Connecticut Department of Administration Services must report annually on the composition of the state fleet, including the volume of alternative fuels uses.
Vermont	Vermont’s State Agency Energy Plan states that the Vermont Agency of Transportation must use 5% biodiesel in its fleet of heavy-duty vehicles. Furthermore, the Vermont Department of Buildings and General Services must use hybrid electric vehicles and Partial Zero Emissions vehicles in its fleets. Finally, all state government agencies, offices, and departments must purchase the most fuel-efficient vehicles available in each vehicle class, provided that the vehicle is suitable for the vehicles indented operational needs.

Research and Development

Similar to the financial incentives sub-category, states received a half-point, up to one and a half points for each of its major research and development programs dedicated to energy efficiency that is funded by the state government. Table 10 is an excerpt of Table 35 from the ACEEE Report that highlights what some local states, as well as California and Oregon, have done to receive maximum points in this sub-category.

Table 10: Research and development programs in select states who received maximum points

State	Major Programs
California	<ul style="list-style-type: none"> California Energy Commission Electric Program Investment Charge (EPIC) program and Natural Gas Research, Development, and Demonstration program University of California-Davis Center for Water-Energy Efficiency and Energy Efficiency Center University of California-Berkeley Center for the Built Environment University of California-Los Angeles Center for Energy Science and Technology Advanced Research and Smart Grid Energy Research Center
Connecticut	<ul style="list-style-type: none"> University of Connecticut Center for Clean Energy Engineering and Fraunhofer Center for Energy Innovation Connecticut Center for Advanced Technology
New York	<ul style="list-style-type: none"> New York State Energy Research and Development Center (NYSERDA)

	<ul style="list-style-type: none"> • State University of New York Center for Sustainable and Renewable Energy • Syracuse University Building Energy and Environmental Systems Laboratory • City University of New York Institute for Urban Systems • Albany State University Energy and Environmental Technology Applications Center
Oregon	<ul style="list-style-type: none"> • Oregon State University Oregon Built Environment and Sustainable Technologies Center • University of Oregon Energy Studies in Buildings Laboratory and Baker Lighting Laboratory • Portland State University PGE Foundation Renewable Energy Research Laboratory • Energy Trust of Oregon • Transportation Research and Education Consortium

Appliance and Efficiency Standards

This category did not have any sub-categories and was scored on a half-point scale based on the potential savings in billion British thermal units (BBtu) generated through 2030 by appliance efficiency standards that do not preempt federal standards. Rhode Island was one of only ten states and the District of Columbia that received points in this category and scored a half-point for having energy savings less than 10 BBtu/customer (Table 11). California was the only state that received maximum points in this category for having savings of greater than 100 BBtu/customer.

Table 11: Summary of Rhode Island scoring on appliance and equipment efficiency standards

Sub-Category	Max. Points	Points Achieved	Notes
Appliance & Equipment Efficiency Standards	2.0	0.5	<ul style="list-style-type: none"> • Received a half-point for having potential energy savings of 0.6 BBtu/customer
Total	2.0	0.5	



Deconstructing the ACEEE Scorecard: Overview of Findings & Recommendations for Moving Forward

EERMC Meeting
May 14, 2015

Office of Energy Resources:

Rachel Sholly

Consultant Team:

Mike Guerard

Craig Johnson



STATE OF RHODE ISLAND

ENERGY EFFICIENCY & RESOURCE MANAGEMENT COUNCIL



Presentation Content

1. Review of process and timing for 2015 ACEEE Scorecard
2. Deconstruction of 2014 Scorecard that has RI at #3
 - “Where are we now?”
3. Key Issues requiring Council Input
 - “How can we improve?”



Status & Process for Next Scorecard

May 15th

Data request due

- OER
- National Grid
- PUC

August

Feedback due on prelim report

- Acadia Center
- NEEP
- National Grid
- EERMC

October

Final report released



Where are we now?

State	Utility & Public Benefits Programs & Policies (20 pts.)	Transportation Policies (9 pts.)	Building Energy Codes (7 pts.)	Combined Heat & Power (5 pts.)	State Government Initiatives (7 pts.)	Appliance Efficiency Standards (2 pts.)	Total Score (50 pts.)
1. MA	20.0	7.0	5.5	4.5	5.0	0.0	42.0
2. CA	12.5	8.5	7.0	4.0	6.5	2.0	40.5
3. RI	20.0	5.0	6.0	3.0	3.0	0.5	37.5
3. OR	15.0	7.0	5.5	3.5	5.5	1.0	37.5
3. VT	18.5	6.0	6.0	3.0	4.0	0.0	37.5
6. CT	14.0	5.0	5.0	4.5	6.0	1.0	35.5
7. NY	13.5	8.0	5.5	2.0	6.0	0.0	35.0

Areas where we did **EXCEPTIONALLY** well

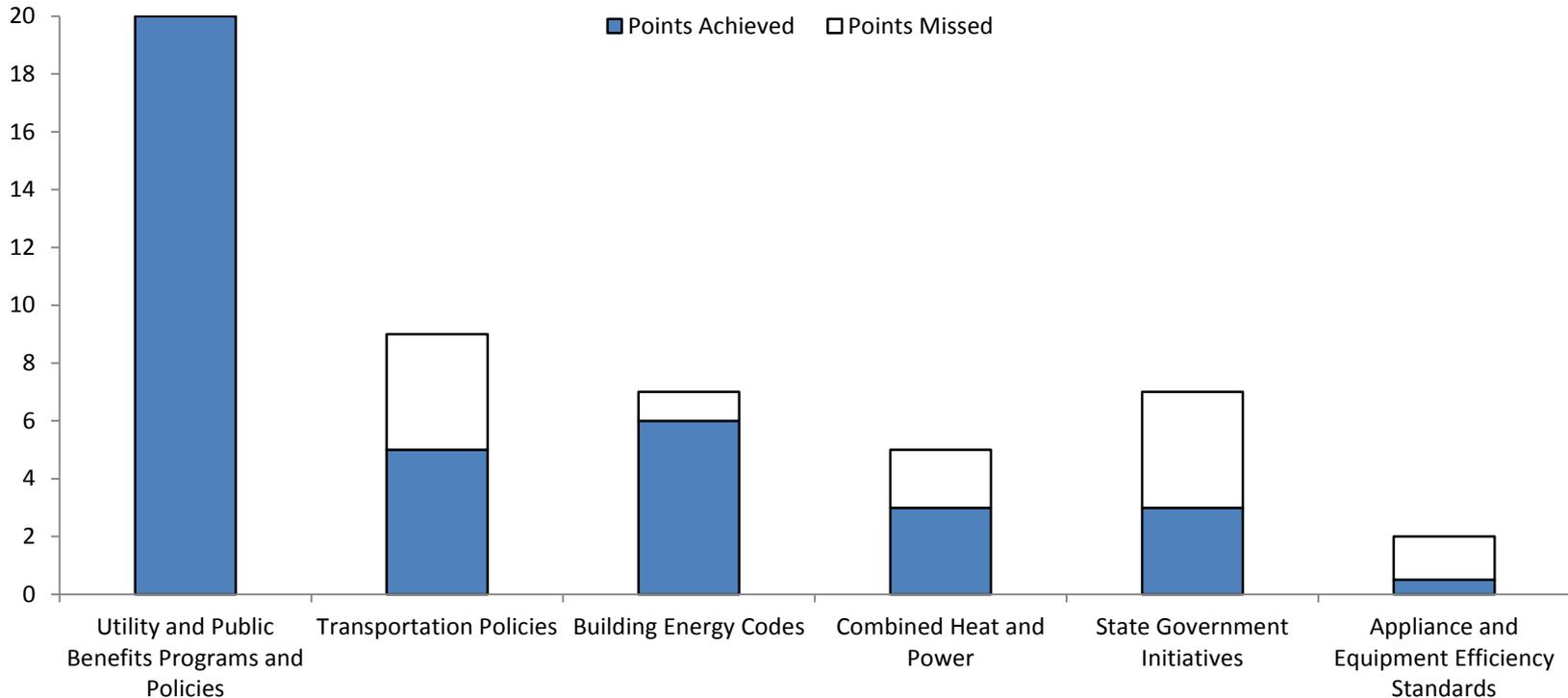
Areas where we think we can improve

Areas that will be difficult to improve



Where are we now?

		Utility & Public Benefits Programs & Policies (20 pts.)	Transportation Policies (9 pts.)	Building Energy Codes (7 pts.)	Combined Heat & Power (5 pts.)	State Government Initiatives (7 pts.)	Appliance Efficiency Standards (2 pts.)	Total Score (50 pts.)
3.	RI	20.0	5.0	6.0	3.0	3.0	0.5	37.5





Utility and Public Benefits Programs and Policies

Sub-Category	Max. Points	Points Achieved
Budgets for Electricity Efficiency Programs	5.0	5.0
Budgets for Natural Gas Efficiency Programs	2.0	2.0
Annual Savings from Electricity Efficiency Programs	5.0	5.0
Annual Savings from Natural Gas Efficiency Programs	2.0	2.0
Large Opt-Out Programs	-1.0	0.0
Energy Efficiency Resource Standards (EERS)	3.0	3.0
Performance Incentives and Fixed Cost Recovery	3.0	3.0
Total	20.0	20.0

1 of only 2 states to receive maximum points

Electric Programs:

- 1 of 5 states with max. points for budget (#1 in spending @ 8.55%)
- 1 of 2 states with max. points for savings (#1 in savings @ 2.09%)

Gas Programs:

- 1 of 8 states with max. points for budget (#2 in spending @ \$83 per res. customer)
- 1 of 5 states with max. points for savings (#4 in savings @ 1.24%)

Status quo will keep us on top!



Transportation Policies

Sub-Category	Max. Points	Points Achieved
GHG Tailpipe Emissions Standards	1.5	1.5
Electric Vehicle Registrations	0.5	0.0
Integration of Transportation and Land Use Planning	1.0	1.0
Freight Plans & Energy Efficiency Targets	1.0	0.5
Targets to Reduce Vehicle Miles Traveled (VMT)	1.0	0.0
Change in VMT	1.0	0.5
Transit Funding	1.0	1.0
Transit Legislation	1.0	0.0
Complete Streets Policies	0.5	0.5
High-Efficiency Vehicle Consumer Incentives	0.5	0.0
Total	9.0	5.0

Lowest score out of Top 5 states overall

Where We Got Max. Points:

- CA's GHG tailpipe standards & ZEV
- Smart Growth statutes
- Per capita transit spending > \$50/person
- Statute that ensure needs of pedestrians and cyclists are considered in all road projects

What We Need to Get Max. Points

- Greater than 20 EV registrations/100K people
- Include EE metrics in freight-specific plans
- Targets to reduce VMT & reduce VMT by 5%
- Dedicated and sustainable source of public transit funding



STATE OF RHODE ISLAND

ENERGY EFFICIENCY & RESOURCE MANAGEMENT COUNCIL



Transportation Policies

Challenges:

- RGGI funding can't be used for transportation (use indirectly, but limited)
- Leg would be needed, which would need a funding source and/or a responsible party

State Energy Plan policy recommendations:

- Reduce VMTs - take advantage of ongoing interagency efforts to devise a creative transportation analog to the electric and gas Least-Cost Procurement model
- Improve fuel efficiency and reduce vehicle emissions
- Promote alt fuel & EV's – electrification trend
- Expand use of biofuels
- Ryan Cote, OER – taking on new transportation initiatives (ZEV working group)



Building Energy Codes

Sub-Category	Max. Points	Points Achieved
Residential Code Stringency	2.5	2.0
Commercial Code Stringency	2.5	2.0
Code Compliance	2.0	2.0
Total	7.0	6.0

Tied for 2nd best with 10 other states

Where We Got Max. Points:

- Conducted a compliance study within last 5 years (2012)
- Engaged in at least one compliance metric

State Energy Plan policy recommendation:

Innovate with state energy efficiency codes and standards

- address policies that improve base code,
- provide incentives to exceed base code, and
- increase overall code compliance

What We Need to Get Max. Points

- Residential codes that exceed 2012 IECC
- Commercial code that exceed ASHRAE/IESNA 90.1-2010
- (CA only state to get max points)



Combined Heat and Power

Sub-Category	Max. Points	Points Achieved
Interconnection Standard	1.0	0.5
EERS Treatment	1.0	1.0
RPS Treatment	0.5	0.0
Revenue Streams	0.5	0.0
Incentives and Grants	0.5	0.5
Financing Assistance	0.5	0.0
Emissions Treatment	0.5	0.5
Additional Policy Support	0.5	0.5
Total	5.0	3.0

Tied for 5th with four other states

Where We Got Max. Points:

- EERS applies to CHP, treats CHP as resource in top tier, establishes targets, and is binding
- National Grid’s CHP program
- Fast-Track CHP permitting process
- Additional policy support

State Energy Plan policy recommendation:

- Set an ambitious target of meeting the economic potential—an estimated 400 MW—for in-state CHP by 2035

What We Need to Get Max. Points

- Interconnection Standard applying to systems that are greater than 10MW
- RPS define waste heat-, biomass-, or biogas-powered CHP as eligible resources
- Dedicated revenue stream and financing for CHP projects



State Government Initiatives

Sub-Category	Max. Points	Points Achieved
Financial Incentives	2.5	1.0
Energy Disclosure Policy	1.0	0.0
Lead-by-Example Efforts	2.0	1.5
Research and Development	1.5	0.5
Total	7.0	3.0

Only Top 10 state to finish outside Top 20 in category (Tied for 32nd)

What We Need to Get Max. Points

- More Gov't-led financial incentives for EE
- More Gov't-funded R&D programs for EE
- Establish energy-use disclosure policies for both the residential and commercial sectors
- Efficient fleets initiative with mandatory requirements

Progress:

- Should get points for RIPEP 0.5, PACE 0.5, EBF 0.5
- Disclosure working groups – res and C&I
- LBE efforts – high-level support



Appliance and Efficiency Standards

Sub-Category	Max. Points	Points Achieved
Appliance & Equipment Efficiency Standards	2.0	0.5
Total	2.0	0.5

1 of 10 states to receive points

What We Need to Get Max. Points

- Standards that create savings of 100+ BBtu/customer through 2030

State Energy Plan policy recommendation:

- *Innovate with state energy efficiency codes and standards*
 - Continue ongoing efforts to innovate with appliance and building codes and standards
 - Codes working group
 - Appliance standards working group
 - Chart a long-term path to zero net energy buildings for the new construction / renovation and existing housing markets alike
 - New ZNE working group/initiative led by Grid



STATE OF RHODE ISLAND

ENERGY EFFICIENCY & RESOURCE MANAGEMENT COUNCIL



Issues for EERMC Consideration

- Balancing the ambition for points with what RI really needs
- Priorities
 - Lower hanging fruit first?
 - How to address more difficult, but potentially more impactful efforts?
- ACEEE Scorecard is useful and significant, **BUT**, does not need to be the only measure for success in RI



2016 Energy Efficiency Program Plan Timeline and Review



2016 EE Program Plan – Timeline/Preview

- Multiple Collaborative meetings and ongoing C-Team engagement with National Grid and other key stakeholders
- **July 9 – EERMC Meeting** – Presentation of outline and general direction of the Plan
- **August 13 – EERMC Meeting** – Review of First Draft
- **Early September** – Second Draft
- **October 1** – Final Draft Submitted to the EERMC
- **October 8 – EERMC Meeting** – Final approval vote required (Historically, votes have been provisional, pending any minor adjustments leading up to the November 1 filing date of previous years)
- **October 15** – 2016 Plan Filing date to the PUC



STATE OF RHODE ISLAND

ENERGY EFFICIENCY & RESOURCE MANAGEMENT COUNCIL



Key Issues That Require Further Consideration

- **Financing** – Potential impact of RI Infrastructure Bank and EERMC’s follow-up on the Dunsky Report
- **CHP** – Potential modification of requirements/standards and deeper understanding of market potential
- **Delivered Fuels Energy Efficiency** – What is the long-term approach?
- **System Integration**
 - Strategic Electrification
 - Distributed Generation
 - Demand Response

Rhode Island Energy Efficiency

First Quarter 2015 | National Grid

May 8, 2015

Overview

National Grid is off to a great start for the first quarter of 2015. At the end of the first quarter the Company achieved 16.5% of the electric savings goal and 16.8% of the gas savings goal.

For the second year in a row, National Grid partnered with the RI Office of Energy Resources (OER) and the RI Energy Efficiency and Resource Management Council (EERMC) to host the Rhode Island Energy Expo at the 2015 RI Home Show on March 5-8th. Attendance was on par with last year, with a remarkable 22,026 attendees.

Attendees could visit over 100 vendors and attend seminars on lowering energy bills, home heating options; learn from educational displays including insulation and lighting comparisons, blower door testing, infrared cameras, and do-it-yourself air sealing; and enter to win a \$2,500 Home Energy Makeover.

The Expo helped increase attendee awareness of energy efficiency and National Grid's program offerings. Over 400 leads were created for the Home Energy Assessment program and boxes of energy efficient lighting sold out again this year.

The 2014 Jobs Study was also finalized in the first quarter. The Study concluded that 639.4 full-time equivalent (FTE) workers were employed in 2014 as a result of investments by National Grid in energy efficiency programs provided to its Rhode Island electricity and natural gas customers. This is an increase in 17% of the 2013 FTEs. The study also identified 899 companies and agencies involved in National Grid's 2014 energy efficiency programs, 77% of which were located in Rhode Island. The companies identified include those whose employees were counted in the FTE analysis, as well as additional companies who assisted customers to secure equipment rebates, for example through the New Construction or High Efficiency HVAC programs.

Based on the strong first quarter results, National Grid believes that 2015 will be a year full of innovation and success.

2015 Program & Initiative Updates

Residential New Construction

- During the first quarter there were 216 enrollments in the program, including affordable housing.
- Projects included 10 units at the East Greenwich Housing Authority, a reno/rehab project for 57 apartments at Dean Street Studios in Providence, and a reno/rehab project for 10 units in two historic homes in the Parkis-Comstock Historic District.
- In total there were 115 completions during the first quarter, with 75% of completed homes achieving top tier levels.
- Four homes achieved Tier 3 during the first quarter. This included a triplex reno/rehab project in Providence that achieved 57% savings over the User Defined Reference Home (UDRH) and a single family, new construction, home in Exeter that 54% savings over the UDRH.

Income Eligible

- First quarter production and spending was slightly below the first quarter goal of 25%. The harsh winter took its toll on weatherization appointments, requiring many jobs to be rescheduled. When comparing year on year: gas is up 30% for spend and up 50% for savings. Electric is up 13% for spend and down 20% for savings (this is due to some costs increasing and some savings values decreasing from evaluation results).
- During the first quarter, quality control inspector training and testing continued. Several auditors passed the written test and will take the field test during the second quarter.
- The draft tri-fold marketing brochure for the Income Eligible Services (IES) program was also released in the first quarter. CLEAResult and the seven CAP agencies contributed to developing the brochure for the Rhode Island IES program.
- Two Weatherization Technical Committee meetings were held in first quarter. At the meetings training opportunities for contractors, auditors and monitors were discussed and a list of trainings was compiled. Subsequent meetings will have a training component based on these training requests.
- Training on the proper installation of Heat Pump Water Heaters has been completed for all auditors and monitors in the IES program.
- The IES Field Manual aligned with the Department of Energy (DOE) Standardized Work System was completed and sent to the DOE for approval. When the manual is approved there will be a general training for all RI IES contractors as well as individual training with Jules Junker.
- The implementation of the National Grid background check program was discussed at many meetings and in agency discussions. This program will ensure the safety of customers and contractors. The lead time afforded by National Grid has allowed agencies and contractors time to formulate questions about and become comfortable with background checks.

- The Rhode Island Department of Human Services (DHS) and CLEARResult began investigating the integration of budgets based on funding from Federal DOE and LIHEAP programs, and National Grid energy efficiency funds. The goals are to maximize the leveraging of funds, match funding to capacity, and build a reliable funding stream for the CAP agencies.

EnergyWise

- During the first quarter, 1,841 audits and 589 weatherization jobs were completed.
- During the Rhode Island Energy Expo at the 2015 RI Home Show on March 5-8 there were 404 sign-ups for home energy assessments.
- The program submitted the 2014 Home Performance with ENERGY STAR Annual Report.
- Heat Loans continued in the first quarter of 2015 with 300 loans completed for almost \$2 million.
- Comparing first quarter 2015 with 2014, gas audits resulting in weatherization have declined by 13% (from 49% to 36%). Some of this change might be due to the decline in the incentive level from 75% to 50% of project cost. In addition, challenging weather conditions in January and February slowed down gas weatherization projects in early 2015.
- Planning will ensue to determine how to increase gas weatherization activity.

EnergyWise and Income Eligible Multifamily

- The benchmarking initiative is progressing as planned. There were several rounds of solicitations to building owners to participate in the initiative during the first quarter. All participants were identified by the end of the first quarter and data processing of energy and water information is currently being completed.
- A special focus for multifamily in 2015 is to improve the participation of individual condo owners in direct savings measure installations. Traditionally around 30% of condo owners participate in, in-unit savings measures. A combined effort of Rise, Smart Power, and National Grid is working to improve the participation rate through direct outreach and enhanced engagement. Plans may also follow where a celebration is planned to reinforce the savings condo owners should find and enhance efficiency education after the work is completed.
- National Grid and Smart Power met with the Providence Housing Authority (PHA) in the first quarter to see if they would like to be a business partner in the Rhode Island Energy Challenge. PHA may also participate in benchmarking during the summer of 2015.
- Challenging weather conditions in January and February slowed down gas weatherization projects in early 2015.

ENERGYSTAR® Lighting and Appliances

- During the first quarter of 2015, the pop-up retailer, TechniArt, was present at the Rhode Island Energy Expo, the Northern Rhode Island Spring Home Show, and the Southern Rhode Island Home Show.
- At the end of March, Sylvania had an education table at Lowe's in Cranston to demonstrate the difference between an LED bulb and an incandescent bulb.
- In the first quarter the transition from the current fulfillment contractor, Blackhawk, to Energy Federation Inc. began. The transition will be complete by June 1st.
- ENERGY STAR initiated its first clothes dryer specification on January 1st. The Appliance program is supporting this new specification with point of purchase (POP) information and a \$50 incentive.

ENERGYSTAR® HVAC (Heating and Cooling)

- For heating, boilers and furnaces were the most robust measures in the first quarter, bringing in the largest percentage of savings. The program is over budget by 50% due to the number of applications with higher rebate levels that were carried over to 2015 after the program was suspended in 2014. Program strategy and execution teams are working to identify options for the remainder of the year.
- For cooling, heat pump water heaters and heat pumps continued to have high participation bringing in the greatest amount of savings to the program during the first quarter.

Home Energy Reports

- In February, Nick Corsetti presented at the PowerUp Conference. PowerUp brings together utility industry professionals focusing on behavioral science/marketing in energy efficiency. The topic was "Unlocking Value from Hard to Reach Customers". With certain segments, including small and medium businesses and low-income households, being difficult to reach the panel spoke to lessons learned, and strategies for how they are bridging the engagement divide.

Community Initiative

- The Rhode Island Energy Challenge: Find Your Four! kicked off 2015 by celebrating the success of the Video Challenge. Over 11,000 votes were cast for the top 36 videos. Winners from Central Falls, Scituate, John Deering Middle School, and North Kingstown Senior High School received commemorative street signs at the Rhode Island Home Show and will be accepting grants for their sustainability initiatives in June 2015.
- Rhode Island Housing Authority took the Challenge to get 25% of all employees to sign up for Find Your Four! and pledge to be more energy efficient (standard employer pledge rate has been 10% of employees).

- On March 31st, North Providence became the newest municipal partner in the RI Energy Challenge: Find Your Four!. Mayor Charles Lombardi, the town, and Tri-Town CAP agency will work closely to encourage residents to commit to finding four ways to save energy. This is the second municipality to team with a CAP to achieve a broader reach into the community (Warwick was the first in 2014).
- The Rhode Island Energy Challenge has teamed up with RISE Engineering to run a pilot aimed at increasing energy efficiency in the multi-family condominium communities. This May, the Challenge will host educational tables at condominium complexes to compliment the extremely popular EnergyWise program.
- National Grid, The Office of Energy Resources, RISE Engineering, and the Rhode Island Energy Challenge held two seminars for some of the 143 parish priests of the Roman Catholic Diocese of Providence. The goal of these seminars was to teach pastors about the difference National Grid program offerings can make for their parishes and the difference the Challenge can make for their congregants.

Comprehensive Marketing

- The 2015 marketing campaign focuses on "Energy savings make the things that matter better". Radio spots began at the end of February and will be supported with print ads and billboards in March and April.

Codes Initiative

- Five residential trainings were held during the first quarter with 109 attendees. This included 2 classroom trainings at the Rhode Island Builders Association (RIBA), a session at the Rhode Island Building Officials Association (RIBOA), a carpentry and weatherization training for 16 participants at the Amos House, and training for 18 students at Chariho Career and Technical Center.
- Four commercial trainings were also held at RIBA in the first quarter with 46 attendees.
- The Rhode Island Residential New Construction Field Guide was promoted during the first quarter through email and at local events.

Large Commercial New Construction

- Upstream Lighting:
 - Upstream lighting performed below the Company's expectations in the first quarter. The program manager has investigated this issue and believes that the strong winter storms were main factor in lower than expected performance.
- Upstream HVAC:
 - Two system errors are preventing the Company from accurately accounting for upstream HVAC savings. They are in the process of being fixed and results will be reported in the next quarter.
- BOC

- A Level I class is scheduled to begin on April 22 in Providence. This class will end on July 22nd.
- Street lighting:
 - Incentive levels for lights and controls were announced for customer owned LED street lighting in January at the League of Cities & Towns' annual meeting.

Large Commercial Retrofit

- The Company proposed a budget transfer for the C&I Electric sector. The transfer will enable more customers to participate in New Construction, Retrofit, and Small Business Direct Install offerings than were planned for 2015. The EERMC and Division approved the budget transfer in March.
- The Company projects it will meet the electric goals by year-end, even though it has been a slow quarter. While paid applications are fewer in number than same time last year, the number of applications generated by end of this quarter are higher than last year and have more savings associated with them.
- The gas program had a slow first quarter but the Company is working hard to focus on gas applications and savings.
- In the first quarter of 2015, the Company worked on finalizing the contract with the lead vendor Leidos. Scope and goals were finalized for a three-year period as well as a list of large customers that will be pursued.
- There continues to be a good pipeline of industrial applications this year. The lead vendor was in contact with customers in first quarter and many applications are expected to close at the end of the year. The vendor also visited some industrial distributors, these visits were well received and the Company expects significant business from the industrial distributors.
- The Company also continued to work closely with OER to bring in projects that save more than 15% of electric or gas or total energy per facility. At the end of 2014, there were 78 projects that met the criteria. The Company needs another 22 projects this year to meet the goals of the Rhode Island Public Energy Partnership (RI PEP).
- In the first quarter, work also started on a customer combined heat and power (CHP manual). This manual will be similar in content and breadth to the CHP manual that exists for Massachusetts.

Small Business Direct Install

- The Small Business program had a strong start in 2015. Almost 14% of the electric goal has been achieved and paid to date. Over 20% of the gas goal has been achieved and paid to date. Although it is still early, the Company projects that the program will meet or exceed its goals for both fuels in 2015.

Pilots

- National Grid continued the testing and evaluation of heat pump dryer unit demonstrations installed during the fourth quarter of 2014. The Company was

generally pleased with the results of the demonstration. The dryer study provided us with the following results:

- A dryer that is fully loaded (8.45 pounds) will use 13.3% less energy than a similar load that is only loaded at 50% of capacity.
- Unvented dryers installed in an enclosed space should be provided with a source of room ventilation. In our study, the unit which was installed in a small enclosed space used 41% more energy than the other comparable units.
- The type of washing machine used is indicative to the amount of electrical savings that will be realized by the dryer. A top load washer (vertical axis) is less efficient at removing moisture content than a front load washer (horizontal axis).
- A dryness setting of “More” consumed 3.7% more energy, whereas a setting of “less” saved 22.3% energy.
- To achieve optimal energy savings, heat pump dryers need to have a horizontal axis washing machine installed with it at the time of installation.
- A heat pump dryer will decrease electric demand by 2.79 kW.
- The electronically commutated motor (ECM) pump demonstration to explore gas savings and additional electrical savings continued during the first quarter. The Company successfully installed all of the pumps with the associated monitoring equipment with the assistance our Rhode Island plumbing contractor. National Grid used B&G, Grundfos and Taco pumps on the systems which included both single family and multifamily sites. The Company intends to have all of the monitoring equipment removed by June and will begin analyzing the data to determine what benefits can be achieved by the installation of the ECM pumps. The goal is to have all of the data analyzed by the beginning of the fourth quarter.

Evaluation

- The 2014 Jobs Study was completed and found that 639.4 full-time equivalent (FTE) employees had work in 2014 as a result of investments by National Grid in energy efficiency programs provided to its Rhode Island electricity and natural gas customers. The study also identified 899 companies and agencies involved in National Grid’s 2014 energy efficiency.
- Sampling for the Commercial and Industrial gas free-ridership study was scoped and will begin in the second quarter.

Upcoming Events

- Johnson & Wales University Sustainability Resource Fair, Wednesday, April 29 on the Harborside Green Space held.
- Annual Preparedness Conference, Tuesday, August 25, 2015 through Wednesday, August 26, 2015 at the CCRI’s Knight Campus, 400 East Ave, Warwick, Rhode Island.

NATIONAL GRID ENERGY EFFICIENCY PROGRAMS IN RHODE ISLAND

Table 1. Summary of 2015 Target and Preliminary 1st Quarter Results

ELECTRIC PROGRAMS Sector and Program	(1) Demand Reduction (Annual kW)			(2) Energy Savings (Annual MWh)			(3) Customer Participation			(4) Implementation Expenses (\$ 000)			(5) Lifetime	
	Target	Year To Date	Pct Achieved	Target	Year To Date	Pct Achieved	Target	Year To Date	Pct Achieved	Budget	Year To Date	Pct Achieved	savings, MWh	\$/kWh
Commercial and Industrial														
Large Commercial New Construction	6,846	84	1.2%	33,702	481	1.4%	3,698	310	8.4%	\$9,555.6	\$640.7	6.7%	7,188	\$ 0.089
Large Commercial Retrofit	6,262	452	7.2%	48,041	3,966	8.3%	574	56	9.7%	\$15,322.2	\$1,786.5	11.7%	43,260	\$ 0.041
Small Business Direct Install	4,143	638	15.4%	19,539	2,622	13.4%	1,407	197	14.0%	\$11,869.6	\$1,379.1	11.6%	30,391	\$ 0.045
Community Based Initiatives - C&I										\$63.7	\$10.2	15.9%		
Commercial Pilots										\$208.9	\$3.9	1.8%		
Comprehensive Marketing - C&I										\$191.4	\$21.3	11.1%		
Finance Costs										\$4,000.0	\$4,000.0	100.0%		
SUBTOTAL	17,252	1,174	6.8%	101,282	7,069	7.0%	5,680	562	9.9%	\$41,211.4	\$7,841.6	19.0%	80,839	\$ 0.097
Income Eligible Residential														
Single Family - Income Eligible Services	479	81	16.9%	3,680	616	16.7%	2,500	772	30.9%	\$7,806.7	\$1,307.4	16.7%	5,773	\$ 0.226
Income Eligible Multifamily	120	36	30.0%	2,907	693	23.9%	8,000	1,172	14.7%	\$2,298.2	\$528.6	23.0%	7,176	\$ 0.074
SUBTOTAL	599	117	19.5%	6,587	1,309	19.9%	10,500	1,944	18.5%	\$10,104.9	\$1,836.1	18.2%	12,950	\$ 0.142
Non-Income Eligible Residential														
Residential New Construction	169	29	17.1%	559	181	32.4%	430	115	26.7%	\$959.8	\$281.4	29.3%	1,912	\$ 0.147
ENERGY STAR® HVAC	197	46	23.2%	1,020	267	26.2%	1,322	368	27.8%	\$1,314.1	\$272.8	20.8%	3,628	\$ 0.075
EnergyWise	1,383	218	15.8%	11,157	3,308	29.7%	9,000	2,993	33.3%	\$8,805.8	\$2,016.9	22.9%	34,849	\$ 0.058
EnergyWise Multifamily	178	12	6.8%	3,898	237	6.1%	4,900	1,288	26.3%	\$3,132.4	\$204.6	6.5%	2,404	\$ 0.085
ENERGY STAR® Lighting	5,125	1,039	20.3%	38,859	7,865	20.2%	104,825	52,855	50.4%	\$8,656.1	\$1,432.9	16.6%	86,203	\$ 0.017
ENERGY STAR® Products	652	118	18.1%	4,605	864	18.8%	13,438	3,269	24.3%	\$2,294.7	\$417.6	18.2%	6,573	\$ 0.064
Home Energy Reports	4,161	1,738	41.8%	25,634	10,867	42.4%	268,733	270,285	100.6%	\$2,517.5	\$1,725.1	68.5%	10,867	\$ 0.159
Energy Efficiency Educational Programs										\$50.0	\$38.3	76.6%		
Residential Products Pilot										\$473.2	\$4.4	0.9%		
Community Based Initiatives - Residential										\$295.6	\$48.8	16.5%		
Comprehensive Marketing - Residential										\$633.9	\$30.2	4.8%		
SUBTOTAL	11,865	3,199	27.0%	85,733	23,590	27.5%	402,648	331,174	82%	\$29,133.1	\$6,472.8	22.2%	146,435	\$ 0.044
Regulatory														
EERMC										\$846.1	\$1.5	0.2%		
OER										\$564.1	\$100.4	17.8%		
SUBTOTAL										\$1,410.1	\$101.9	7.2%		
TOTAL	29,715	4,491	15.1%	193,602	31,969	16.5%	418,828	333,680	79.7%	\$ 81,859.5	\$ 16,252.4	19.9%	234,451	\$ 0.069
GAS PROGRAMS														
Sector and Program				Energy Savings (MMBtu)			Customer Participation			Implementation Expenses (\$ 000)			Lifetime	
				Approved Target	Year To Date	Pct Achieved	Approved Target	Year To Date	Pct Achieved	Approved Budget	Year To Date	Pct Achieved	MMBtu	\$/Lifetime MMBtu
Commercial and Industrial														
Large Commercial New Construction				41,802	2,635	6.3%	227	31	13.6%	\$1,448.7	\$268.5	18.5%	54,675	\$ 4.911
Large Commercial Retrofit				125,711	6,288	5.0%	600	35	5.8%	\$4,120.2	\$289.5	7.0%	61,831	\$ 4.682
Small Business Direct Install				3,489	763	21.9%	83	29	34.6%	\$313.0	\$30.1	9.6%	5,442	\$ 5.531
Commercial & Industrial Multifamily				9,396	1,027	10.9%	1,968	437	22.2%	\$692.0	\$45.6	6.6%	15,243	\$ 2.991
Commercial & Industrial Pilots										\$63.0	\$4.5	7.1%		
Comprehensive Marketing - C&I										\$102.2	\$9.0	8.8%		
Community Based Initiatives - C&I										\$10.0	\$1.3	13.3%		
Finance Costs										\$500.0	\$0.0	0.0%		
SUBTOTAL				180,397	10,712	5.9%	2,878	531	18.5%	\$7,249.2	\$648.4	8.9%	137,191	\$ 4.727
Income Eligible Residential														
Single Family - Income Eligible Services				8,780	2,085	23.7%	400	103	25.8%	\$3,120.9	\$556.7	17.8%	41,704	\$ 13.348
Income Eligible Multifamily				19,098	880	4.6%	2,900	461	15.9%	\$1,900.8	\$57.5	3.0%	11,011	\$ 5.221
SUBTOTAL				27,878	2,965	10.6%	3,300	564	17.1%	\$5,021.7	\$614.2	12.2%	52,715	\$ 11.650
Non-Income Eligible Residential														
EnergyWise				68,141	11,633	17.1%	2,400	527	22.0%	\$6,258.6	\$822.6	13.1%	259,823	\$ 3.166
Energy Star® HVAC				29,081	10,110	34.8%	1,327	627	47.3%	\$1,474.2	\$564.5	38.3%	174,037	\$ 3.244
EnergyWise Multifamily				15,863	645	4.1%	2,500	511	20.4%	\$1,637.6	\$75.2	4.6%	12,934	\$ 5.811
Home Energy Reports				50,806	25,774	50.7%	142,220	125,926	88.5%	\$445.4	\$316.1	71.0%	25,774	\$ 12.266
Residential New Construction				4,796	1,440	30.0%	386	97	25.1%	\$328.5	\$100.5	30.6%	36,010	\$ 2.790
Residential Products Pilot										\$73.4	\$7.4	10.1%		
Comprehensive Marketing - Residential										\$90.4	\$6.0	6.6%		
Community Based Initiatives - Residential										\$27.2	\$4.3	15.9%		
SUBTOTAL				168,687	49,603	29.4%	148,833	127,688	85.8%	\$10,335.3	\$1,896.6	18.4%	508,578	\$ 3.729
Regulatory														
EERMC										\$318.8	\$0.5	0.1%		
OER										\$212.5	\$29.0	13.7%		
SUBTOTAL										\$531.3	\$29.5	5.6%		
TOTAL				376,963	63,280	16.8%	155,012	128,784	83.1%	\$ 23,137.4	\$ 3,188.7	13.8%	698,484	\$ 4.565

NOTES
(1)(4)(7) Targets from Docket 4527 - Attachment 5, Table E-7 (electric) and Attachment 6, Table G-7 (gas).
(3) Pct Achieved is Column (2)/ Column (1).
(6) Pct Achieved is Column (5)/ Column (4).
(8) Participation was planned and is reported in 'net' terms which takes into account free-ridership and spillover.
(9) Pct Achieved is Column (8)/ Column (7).
(10) Approved Implementation Expenses from Docket 4527, Attachment 5 Table E-4 (electric) and Attachment 6 Table G-5 (gas), adjusted to reflect "Docket 4527 - The Narragansett Electric Company, d/b/a National Grid 2015 Energy Efficiency Program Plan Transfer of Funds Request" approved by the Energy Efficiency Resources Management Council on March 29, 2015, the Division of Public Utilities and Carriers on March 20, 2015, and the Rhode Island Public Utilities Commission on May 7, 2015.
(11) Year To Date Implementation Expenses are net of evaluation expenses.
Small Business Direct Install Electric Includes RGGI funds spent in Quarter 1.
(12) Pct Achieved is Column (11)/ Column (10).
(14) \$/lifetime kWh = Column (11)/Column (13); \$/lifetime MMBtu = Column (11)*1000/Column (13)
System Reliability Procurement targets from Docket 4528, not included in Implementation Expenses Total

Table 2
National Grid
Revolving Loan Funds

Large C&I Revolving Loan Fund			Small Business Revolving Loan Fund		
(1)	2015 Funds Available	\$9,057,728	(1)	2015 Funds Available	\$1,702,050
(2)	2015 Loan budget	\$6,500,000	(2)	2015 Loan Budget	\$1,455,000
(3)	Committed	\$2,400,159	(3)	Committed	\$235,666
(4)	Paid	\$378,971	(4)	Paid	\$258,321
(5)	Number of loans	4	(6)	Participants	216
(6)	Participants	4	(7)	Savings (MWh)	2,622
(7)	Savings (MWh)	714	(8)	Available	\$961,013
(8)	Available	\$3,720,870			

Rhode Island Public Energy Partnership (RI PEP)

(6)	2014/2015 Loan Budget	\$1,000,000
(7)	Committed	\$461,903
(8)	Paid	\$196,336
(9)	Participants	5
(10)	Savings (MWh)	563
(11)	Available	\$341,761

Notes

- 1 Amount Company estimated in 2015 Plan, Table E-10 including 2015 injections.
- 2 Budget adopted by Sales Team for 2015 operations.
- 3 As of March 31, 2015
- 4 As of March 31, 2015
- 5 As of March 31, 2015.
- 6 Unique customer names for large business and unique customer accounts for small business (not adjusted for net-to-gross).
- 7 As of March 31, 2015
- 8 Available funds as of March 31, 2015.
- 9 RI PEP funding is over two years
- 10 As of March 31, 2015
- 11 As of March 31, 2015
- 12 As of March 31, 2015
- 13 Available funds as of March 31, 2015.