



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

MEETING MINUTES

Thursday, May 18th 2017 | 3:30 - 5:30 PM

Conference Room A, 2nd Floor, Department of Administration, Providence, RI

Members in Attendance: Abigail Anthony, Chris Powell, Michael McAteer, Tom Magliocchetti, Karen Verrengia, Joe Cirillo, Carol Grant, Betsy Stubblefield Loucks, Marisa Desautel, Shigeru Osada, Scudder Parker and Anthony Hubbard.

Others Present: Mike Guerard, Nick Ucci, Savannah Harik, Mark Kravatz, Becca Trietch, Sara Canabarro, Rachel Henschel, Ben Rivers, Courtney Lane, Matt Ray, Ilene Mason, Alex Hill, Sam Nutter, Brigid Ryan, Hannah Abelow and Brian Pine.

1. Call to Order

Chairman Chris Powell called the meeting to order at 3:31pm.

2. Approval of Meeting Minutes

Chairman Chris Powell stated that because we did not have a quorum, we could not vote on the approval of the meeting minutes for April.

3. Executive Director Report

a) General Update

Commissioner Carol Grant reported that the Financing Technical Session went well earlier today, and the PUC, who had asked for this technical session, was extremely thankful for it. Commissioner Carol Grant also reported that OER has been working on a draft RGGI Allocation Plan Proposal to spend \$3.4m dollars in four areas: the Renewable Energy Fund; to support DEM's Agricultural Energy Grant Program; to support DEM's Trees Program; and lastly, to Pilot a Program that's designed to provide energy savings through zero energy buildings for Low- to- Moderate Income customers. There will be a Public Hearing on the RGGI Plan on June 1st 2017. More information about the RGGI Proposal can be found on OER's website.

Because we did not have a quorum earlier, Chairman Chris Powell now requested a motion to approve the minutes for April. Shigeru Osada made a motion, and Betsy Loucks seconded it. All approved.

4. Executive Committee Report

a) General Update

Chairman Chris Powell reported that there was no Executive Committee meeting earlier this month due to a light agenda. He then asked Abigail Anthony to give a brief update on how the Financing Technical Session went earlier today. Abigail Anthony reported that the purpose of the technical session was to give the Commission an overview of all the Financing Options that are available for Energy Efficiency Programs in conjunction with the programs we have in pace now, and to discuss what trends and issues we will be facing in the next 2018-2020 efficiency plans.

b) Purchasing Process Update

Marisa Desautel shared a Memorandum about the Consultant Contracts and Procurement requirements for the EERMC. It was concluded that the EERMC, when purchasing services or goods, should follow the State's procurement requirements under the State Purchases Act.

5. Council Business

a) Vote on EERMC Annual Plan

Becca Trietch reviewed the Annual Report before requesting the Council to vote to approve it. After some discussion amongst the members, Chairman Chris Powell requested a motion to approve the report. Shigeru Osada reiterated that he would like to see Rhode Island's total energy use over time shown in the annual report. Then Betsy Loucks made a motion to approve the Annual report, and Karen Verrengia seconded it. All approved.

b) Communications Working Group Update

Becca Trietch reported that BasicsGroup has been selected to design the EERMC website, and the Communications Working Group will discuss the main topics and high level pages that need to be highlighted on the website. Overall, progress is being made, and hopefully the site will be live by mid-Summer. Becca Trietch shared with the council a scope of work for the Energy Education RFP. She asked for the Council members to please review it and share any feedback, thoughts and/or recommendations via email.

c) Consultant Team Updates

Scudder Parker concluded that, the Consultant Team recommends that the EERMC continue to monitor the progress of the Power Sector Transformation Initiative to see how it can advance the principles of Least Cost Procurement and System Reliability in Rhode Island. While the Consultant Team's Scope of work only assumed active participation through the completion of Docket #4600 proceedings, the Consultant team is within budget and scope to continue monitoring, at a high level, any ensuing developments from the Power Sector Transformation Initiative and will continue to provide periodic updates to the EERMC on key issues and developments.

Mark Kravatz reported that the EERMC Retreat is scheduled for June 15th, at 400 Smith Street, Providence. The EERMC Consultant team is working with OER and National Grid to build out the topics for the retreat. Mark Kravatz also stated that after reviewing the Teaching and Learning Survey results, the Consultant team thought it would be best to create a Council handbook that will cover all the topics discussed on the survey, as well as create webinars available to the members and the public. The launch date for the Webinars and the Handbook will be in September.

6. National Grid Updates

a) National Grid Presentation

Courtney Lane went over the 2016 Electric and Gas Sector Results, Ben Rivers followed by presenting the 2016 Jobs Study report, and lastly Matt Ray went over the 2017 First Quarter Results for the Electric and Gas Sectors.

7. Special topics Presentation

a) Financing

Alex Hill gave a presentation on Dunsky's financing work and an overview of general financing topics, focusing on two main points: Part 1, Energy Efficiency Financing Overview and Part 2, Expanding Financing Coverage in Rhode Island.

b) On Bill Repayment

The National Grid team will present on OBR offerings.

Ben Rivers, Rachel Henschel and Ilene Mason from National Grid, gave a presentation about, the 3 Year Plan Financing Vision, and The Residential Heat Loan and the different ways National Grid is working to enhance financing options.

8. Public Comment

No public comments were made.

9. Adjournment

Chairman Chris Powell requested a motion to adjourn the meeting. Abigail made a motion and Karen Verrengia seconded it. All approved. The meeting was adjourned at 5:08pm.

Meeting Materials



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

MEETING AGENDA

Thursday, May 18, 2017 | 3:30 - 5:30 PM

Conference Room A, 2nd Floor, Department of Administration, Providence, RI

- 1. Call to Order**
- 2. Approval of Meeting Minutes**
- 3. Executive Director Report (5-10 min)**
 - a) General Update*
- 4. Executive Committee Report (5-10 min)**
 - a) General Update*
 - b) Purchasing Process Update*
- 5. Council Business (35 min)**
 - a) Vote on EERMC Annual Plan (10 min)*

The Council to review and vote on the publishing of the 2017 EERMC Annual Report

- b) Communications Working Group Update (5 min)*

The Communications Working Group will update the Council on recent efforts and present any recommendations: website update and communications proposal discussion

- c) Consultant Team Updates (20 min)*

The EERMC Consultant team to provide updates on the Docket 4600 proceedings, next steps and implications for Least Cost Procurement as well as an outline of upcoming Teaching & Learning activities

- 6. National Grid Updates (20 min)**
 - a) National Grid Presentation (20 min)*

The National Grid team will summarize the 2016 EE Programs year-end report, the recently completed jobs report, and 2017 Quarter 1 results for the council.

- 7. Special Topic Presentations (50 min)**
 - a) Financing (30 min)*

The Dunsky team will present on their financing work and general financing topics.

- b) On Bill Repayment (20 min)*

The National Grid team will present on OBR offerings.

- 8. Public Comment**
- 9. Adjournment**



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

MEETING MINUTES

Thursday, April 20th 2017 | 3:30 - 5:30 PM

Conference Room A, 2nd Floor, Department of Administration, Providence, RI

Members in Attendance: Abigail Anthony, Chris Powell, Michael McAteer, Roberta Fagan, Tom Magliocchetti, Karen Verrengia, Joe Cirillo, Carol Grant, Bob Bacon, Betsy Stubblefield Loucks.

Others Present: Mike Guerard, Savannah Harik, Becca Trietch, Rachel Henschel, Emily Levin, Danny Musher, Jeff Loiter, Courtney Lane and Jonathan Schrag, Marisa Desautel

1. Call to Order

Chairman Chris Powell called the meeting to order at 3:34pm.

2. Approval of Meeting Minutes

Chairman Chris Powell made motion to approve the minutes for February, Joe Cirillo made motion and Bob Bacon seconded it. All approved. Chairman Chris Powell made motion to approve the minutes for March, Joe Cirillo made motion and Karen Verrengia seconded it. All approved.

3. Executive Director Report

a) General Update

Commissioner Carol Grant shared with the full Council members that the Union of Concerned Scientists had created an executive report ranking the States in Clean Energy Leadership, and the State of Rhode Island was ranked #4. This article provided great exposure and news for the State. Commissioner Carol Grant also stated that the first round Lead by Example Awards Ceremony was taking place tomorrow (April 21st). Commissioner Lastly, Carol Grant reported that the OER, DPUC and PUC are starting stakeholder meetings about transforming the grid. She will keep the Full Council informed as these meetings continue to happen.

b) Debrief on State/ House Hearings

Commissioner Carol Grant stated that the Hearings went well and most of the attendees were opposed to the bill to cap the system benefit charge. No decision was made, therefore she will continue to update the Full Council members.

4. Executive Committee Report

a) Update on key issues

Chairman Chris Powell reported that Karen Verrengia has accepted a position at CleaResult, a National Grid vendor. She asked the RI Ethics Commission for a Hearing, and she will let us now the outcome. In the meantime, she will abstain from any potentially conflicting votes prior to the ruling. Chairman Chris Powell also stated that the small non-profit seat on the council is currently empty. Joe Garlick, the Executive Director of NeighborWorks Blackstone River Valley, has been recommended to the Governor's Office for appointment to this seat. During the previous Executive Committee meeting, Rachel Henschel had provided the Ex Comm with an overview of the 3 Year- Plan development process. The first draft is due July 10th and the second draft is due July 26th. During the month of May, the Collaborative will dive into the topic of financing, and on May 18th, the PUC will be holding a technical session on financing. Chairman Chris Powell also reported that the next Ex Comm meeting (May 4th) has been canceled due to a light agenda.

b) Purchasing Report Update

Marisa Desautel reported that she has been working with Andrew Marcaccio from the DOA Legal Staff to put together a memo about the Procurement Requirements for the EERMC and will have a final answer by the next full Council meeting.

5. Council Business

a) Communications Working Group Update

Becca Trietch reported that they received two proposals for the website and they selected Basics Group. They are working on finalizing the contract, and hope to have the website running by mid-Summer. Becca Trietch shared an Energy Expo handout with the Full Council about what they achieved at this year's vs last year's expo. Becca Trietch stated that this year's expo had 5,000 more attendees compared to last year's. In general, they achieved a lot of participation and were able to reach many people through the expo. Becca Trietch has already reached out to the RI Builders Association (RIBA) to request information about sponsorship for next year. She will have an update on sponsorship details by the June Full Council meeting. Becca Trietch also reported that they are working on the proposal for the \$75k the EERMC has set aside for the public education. The marketing team from National Grid is doing a presentation to the EERMC's Communications sub-group about what their general marketing and outreach strategy has been so far. The goal of the discussion with National Grid is to identify potential education/communication gaps. Once those gaps have been identified, Becca Trietch will share a draft of the Request for Proposal with the full Council to discuss further options. Lastly, Becca Trietch mentioned that the EERMC Annual Plan will be provided to the full Council for review and approval at the May meeting.

b) Consultant Team Updates

Mike Guerard stated that Dunsky will attend the PUC technical session on Financing, May 18th. Currently they are working on the agenda for that day. The team will be sure to share the finalized agenda and outcomes of the session with the Council. Mike Guerard gave an update on the Teaching and Learning survey, stating that it helped a lot to figure out the retreat program topics. Mike Guerard also reported that for those who need more help to learn about the topics, they are going to be doing a series of short, recorded webinars; this way it will make it easier for everyone to have access to the information at their leisure. Mike Guerard informed the full Council that the Retreat is set for June 15th and they will also have a 'goodbye party' for Scudder that same day. In addition, Mike Guerard gave a brief background introduction about Jeff Loiter and Emily Levin, who will be part of the transition team for Scudder Parker's position once he retires. Mike Guerard stated that Jeff Loiter is specialized in regulatory matters and Emily Levin is specialized in program planning. Lastly, Mike Guerard reported that the Consultant Team assisted in answering questions posed by the PUC on the LCP Standards. The Consultant Team was hoping to have a final ruling from the PUC by April 15th, but the PUC reached out to Marisa Desautel stating they had trouble scheduling the hearing. The hearing is now scheduled to happen on April 27th. Mike Guerard will update the Council by the next meeting in May.

6. Special topics Presentation

a) Targets & Standards Impact on Three- Year Plan

The meeting's Special Topic reviewed how the EERMC's proposed Targets & Standards will support the development of the Three- Year Plan. The presentation reviewed some of the key issues identified in the Targets and Standards development. Emily Levin spoke about the electric base potential, and Jeff Loiter spoke about the gas base potential and changes to the Rhode Island Test.

7. Public Comment

Chairman Chris Power mentioned that the 15th Annual People's Power & Light Annual Event is May 3rd at the Omni Hotel in Providence. There was no more public comments.

8. Adjournment

Chairman Chris Powell requested a motion to adjourn the meeting. Abigail made motion and Karen Verrengia seconded it. All approved. The meeting was adjourned at 5:08pm.

MEMORANDUM

TO: EERMC
FROM: MARISA DESAUTEL, ESQ.
SUBJECT: CONSULTANT CONTRACTS AND PROCUREMENT
DATE: MAY 17, 2017

This Memorandum is provided to members of the Energy Efficiency Resource Management Council (“EERMC”) in response to a request made during the course of a regularly-scheduled EERMC meeting on April 20, 2017. Said request concerned the process employed by the EERMC when engaging consultants in furtherance of statutory authority and whether this engagement is subject to the Rhode Island State Purchases Act. RIGL §37-2-1, *et seq.* Specifically, the EERMC requested an analysis of statutory procurement requirements when funding for consultant contracts is maintained by a third party provider.

In order for the State Purchases Act to apply, a “state governmental entity” must be expending “public funds.” The term “public funds” applies when the entity controlling the spending of the money is the government, or its agents, and the money is being utilized for the people and/or within the scope of the governmental entity. It is not contested that the EERMC is a “government entity,” as that term is defined in the State Purchases Act.

The determinative question, therefore, is whether or not funds maintained by a third party provider are considered “public funds.”

I. PUBLIC FUNDS

The term “public funds” is not defined by the State Purchases Act, but the Rhode Island Supreme Court has provided that the phrase “is tied to payments made by either the state itself or by its agents.” *Drs. Pass & Bertherman, Inc. v. Neighborhood Health Plan*, 31 A.3d 1263, 1269-70 (R.I. 2011). The Court goes on to hold that the definition of “public funds” means funds that are “authorized or administered by or acting for the people as a political entity.” *Id.*

To meet the definition of “public funds” under the analysis above, the government, or its agent, must be in control of the subject funds and must expend those funds for the people and/or within its scope as a governmental entity.

II. FUNDS ALLOCATED TO EERMC

The funding mechanism for EERMC's activities is provided for by the Rhode Island Duties of Utilities and Carriers Act, RIGL §39-2-1.2(i). Pursuant to that state law, the "demand-side management gas and electric funds, in an amount not to exceed two percent (2%) of such funds" are allocated to EERMC, on an annual basis, for:

"the retention of expert consultants, and reasonable administration costs of the energy efficiency and resources management council associated with planning, management, and evaluation of energy-efficiency programs, renewable-energy programs, system reliability least-cost procurement, and with regulatory proceedings, contested cases, and other actions pertaining to the purposes, powers, and duties of [EERMC], which allocation may by mutual agreement, be used in coordination with the office of energy resources to support such activities."

These charges are made and received by the Narragansett Electric Company, d/b/a National Grid, and not EERMC. In this sense, National Grid is the third party provider and custodian of the allocation under the statute above.

The Rhode Island Public Utilities Commission ("PUC") authorizes and approves the tariff as set by National Grid as the Energy Efficiency Program Charge, but the revenue is never in the custody of the EERMC, nor does the EERMC administer or oversee the tariff.

III. CONTROL OVER AND EXPENDING EERMC FUNDS

Despite that the funds come from a tariff that the PUC authorizes, the funds are ultimately being spent at the direction of the EERMC. In Rhode Island, if the entity controlling the funds is the government and the governmental entity is acting within its scope, the funds being utilized are subject to state procurement processes. EERMC is responsible for making the determination of which expert consultants to select, as authorized by RIGL §39-2-1.2(i). Once that determination is made, EERMC provides direction to National Grid to disburse the funds for purposes of retaining and paying for ongoing consultant services. Otherwise, the funds remain in the custody of National Grid. The mechanics of selecting the consultants and directing payment meet the definition of "public funds."

Therefore, the general rule for the EERMC when hiring consultants, where National Grid forwards payment at the direction of the EERMC, is to follow the state's procurement requirements under the State Purchases Act.



State of Rhode Island
**Energy Efficiency &
Resource Management Council**



Annual Report
May 2017

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EXECUTIVE SUMMARY

The Rhode Island Energy Efficiency and Resource Management Council (EERMC), since 2006, has been striving to secure and maximize the economic and environmental benefits of energy efficiency for Rhode Island's energy consumers. With the continued support of the General Assembly and the Governor, Rhode Island has become a national leader in energy efficiency programs and policies. Specifically, Rhode Island's energy efficiency investments since 2006 have:

- Provided consumers with over \$2.3 billion in economic benefits;
- Created over 23,000 job-years of employment economy-wide;
- Produced over 1.3 million MWh of electricity savings and over 2.4 million MMBtu of natural gas savings; and
- Will avoid 7 million metric tons of greenhouse gas emissions.

In total, the effects of energy efficiency over the last decade account for approximately 20% of Rhode Island's electricity needs. Without these cost-effective investments, which averaged less than 4 cents per kilowatt-hour saved, Rhode Islanders would be paying more than twice that amount to procure approximately 20% more electricity. To build upon this strong foundation in energy efficiency, and to continue steering Rhode Island towards a more secure, cost-effective and sustainable energy future, the EERMC recommends the following policies to the General Assembly and Governor.

Recommendations

1. Build on the successful creation of the Rhode Island Infrastructure Bank and facilitate new financing options for all sectors of the economy.
2. Address the funding issues and support efficiency investments in unregulated fuels, such as oil and propane, for consumers and businesses.
3. Continue to support Rhode Island's Comprehensive Energy Conservation, Efficiency, and Affordability Act of 2006, by passing legislation that facilitates and enhances its implementation, and by resisting efforts to limit the amount of cost-effective efficiency that should be secured.
4. Watch carefully what happens with federal appliance efficiency standards, and look for opportunities to secure savings by adopting and piggybacking on efficiency standards in other jurisdictions (such as California) if the federal standards efforts languish.
5. Ensure that all customers and segments of the market have the opportunity to benefit from efficiency savings by encouraging and supporting efforts that benefit those who are economically vulnerable, and those who are currently above poverty guidelines but need significant assistance to make efficiency investments.

LETTER FROM THE CHAIR

To Governor Gina M. Raimondo, Leaders and Members of the General Assembly, and all Rhode Island energy consumers:

In 2006, the Rhode Island General Assembly unanimously approved a new law for Rhode Island that is reducing the state's energy costs by making energy efficiency investment decisions on an economic basis. The Least Cost Procurement provisions of the Comprehensive Energy Efficiency, Affordability, and Conservation Act replace 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.

Over the past 10 years, this annual report has documented that Least Cost Procurement is paying off. The efficiency plans and investments ushered in by this strategy have vaulted Rhode Island to the top of the national rankings. Rhode Island earned a perfect score for its utility-sector energy efficiency policies and programs for the third year in a row in the American Council for an Energy Efficiency Economy's 2016 State Scorecard, putting the state in the #1 spot in the nation. In 2014, Rhode Island achieved electricity savings of almost 3% of sales, higher than any other state. Under the direction of the state's Least Cost Procurement statute, Rhode Island has set and surpassed aggressive energy savings targets for electricity and natural gas.



In addition to enabling nation-leading levels of energy savings, Rhode Island's investments in cost-effective, low cost energy efficiency are creating jobs and boosting economic activity. Energy efficiency reduces the cost of doing business in Rhode Island and lowers residents' energy bills, leaving them with more disposable income to spend on other goods and services. These two effects lead to job creation and economic growth. By lowering the cost of doing business in Rhode Island and increasing consumers' disposable income, Least Cost Procurement has added over 23,000 job-years of employment to the state's economy.¹ Rhode Island's energy efficiency investments are a proven engine of economic growth for the state:

- ◆ Since 2008, Rhode Island has invested \$569 million in energy efficiency investments that have boosted Rhode Island's Gross State Product by \$2.3 billion.²
- ◆ In 2015, Rhode Island's energy efficiency programs directly supported 695 full-time equivalent jobs in the state. The workers were employed by 1,009 different firms, more than 79% located in Rhode Island.³
- ◆ The cost of energy efficiency is about 4 cents per kWh and buying electricity from a power plant is about 10-14 cents per kWh. This means that energy efficiency investments will result in overall savings to ratepayers.

Rhode Island consumers are the focus of Least Cost Procurement, and the EERMC's role in representing the interests of diverse stakeholders and consumers is critically important. The EERMC provides meaningful input into the utility's long-term energy efficiency plans and ensures that consumer and environmental benefits are maximized. We hope this report underscores the important role of the EERMC in providing ratepayer participation and oversight for the economic and environmental well-being of the state.

Rhode Island's leaders and decision-makers have shown strong commitment to reducing energy waste across almost all policy sectors. The EERMC is grateful for your support in the past and looks forward to enjoying your continued support in coming years. We are committed to working cooperatively with policymakers and all of Rhode Island's energy consumers to continue the state's leadership position.

Respectfully Submitted,

Christopher M. Powell, Chair

LETTER FROM THE EXECUTIVE DIRECTOR

To Governor Gina M. Raimondo, Leaders and Members of the General Assembly, and all Rhode Island energy consumers:

The Rhode Island Energy Efficiency and Resource Management Council (EERMC), in partnership with the Office of Energy Resources (OER), is pleased to present the EERMC's 2017 Annual Report.

Rhode Island is a national leader in energy efficiency savings. The American Council for an Energy Efficient Economy ranked Rhode Island first in utility energy efficiency programs, and fourth in overall energy efficiency. The Union of Concerned Scientists ranked Rhode Island first in electricity savings achieved through state programs and second on the strength of its energy efficiency standards. These achievements reflect the commitment Rhode Island leaders have made to energy efficiency as part of a secure, cost-effective and sustainable energy future.



Rhode Island's energy efficiency programs deliver triple bottom-line benefits. Energy efficiency programs reduce greenhouse gas emissions, create jobs and drive economic growth by keeping energy dollars in our local economy. Every \$1 million invested in this sector leads to the creation of 45 job-years of employment, and every \$1 invested boots Gross State Product by \$4.20. The state's energy efficiency expenditures since 2008 will create over 23,000 job-years of employment and boost Rhode Island's Gross State Product by \$2.3 billion.

We are fortunate to have state leaders who understand and support the vital role energy efficiency plays in our state's energy system. OER thanks each of you for your dedication to enhancing Rhode Island's reputation and standing as a national leader.

The year ahead will bring new challenges as we build on the successful launch of the Rhode Island Infrastructure Bank and facilitate new financing options for all sectors for the economy; address the funding and support for efficiency investments in unregulated fuels for consumers and businesses; adjust to the changes in federal efficiency standards; and work to ensure that all customers have the opportunity to benefit from efficiency savings.

We also want to extend a special note of appreciation to the Rhode Islanders who serve on the EERMC. These generous volunteers donate hundreds of hours over the course of the year, working to ensure that energy efficiency programs deliver on their promise to produce energy and cost savings for Rhode Island ratepayers. Rhode Island's award-winning programs would not be possible without their support and dedication.

Sincerely,

Carol Grant

***Commissioner, Rhode Island Office of Energy Resources
Executive Director, Energy Efficiency and Resource Management Council***

ABOUT THE EERMC

COUNCIL MEMBERSHIP

The EERMC consists of fourteen members appointed by the Governor with the advice and consent of the Senate. Ten members are voting members with knowledge of energy regulation and law, environmental issues pertaining to energy, energy design and codes, energy efficiency education and employment tracking, and energy users in the following sectors: large commercial and industrial, small commercial and industrial, large non-profit, residential, low income, and municipal. Four members are ex-officio, non-voting members including the Commissioner of the Office of Energy Resources and others representing an electric distribution entity, a gas distribution entity and the fuel oil or heating fuel industry. Members serve voluntarily and meet year-round.

COUNCIL MEMBERS

Christopher Powell, Chair

Voting Member

Assistant Vice President, Sustainable Energy and Environmental Initiatives, Brown University
Representing Expertise in Energy Regulation and the Law

Abigail Anthony, Vice Chair

Voting Member

Rhode Island Director, Acadia Center
Representing Expertise in Environmental Issues

H. Robert Bacon

Voting Member

President, Gregg's Restaurants
Representing Small Commercial & Industrial Users

Joseph Cirillo

Voting Member

Former Building Commissioner
Representing Expertise in Energy Design & Code

Roberta Fagan

Ex-Officio Member

President, Oil Heat Institute of Rhode Island
Representing Expertise in Delivered Fuels

Carol J. Grant

Ex-Officio Member

Commissioner, Office of Energy Resources
Executive Director of the EERMC

Anthony Hubbard

Voting Member

Director, YouthBuild Providence
Representing Low Income Energy Consumers

Jennifer Hutchinson

Ex-Officio Member

Senior Counsel, National Grid
Representing Electric & Gas Utility

Thomas Magliocchetti

Voting Member

Vice President, Facilities Management, Rhode Island Hospital
Representing Large Non-Profit Users

Michael McAteer

Ex-Officio Member

Director, RI Customer & Business Strategy, National Grid
Representing an Electric Distribution Entity

Shigeru Osada

Voting Member

Sr. Vice President, Toray Plastics
Representing Large Commercial & Industrial Users

Elizabeth Stubblefield Loucks

Voting Member

Independent Strategy Consultant
Representing Residential Users

Karen Verrengia

Voting Member

Former Energy Manager, Cranston Public School Department
Representing Expertise in Workforce Development

Diane Williamson

Voting Member

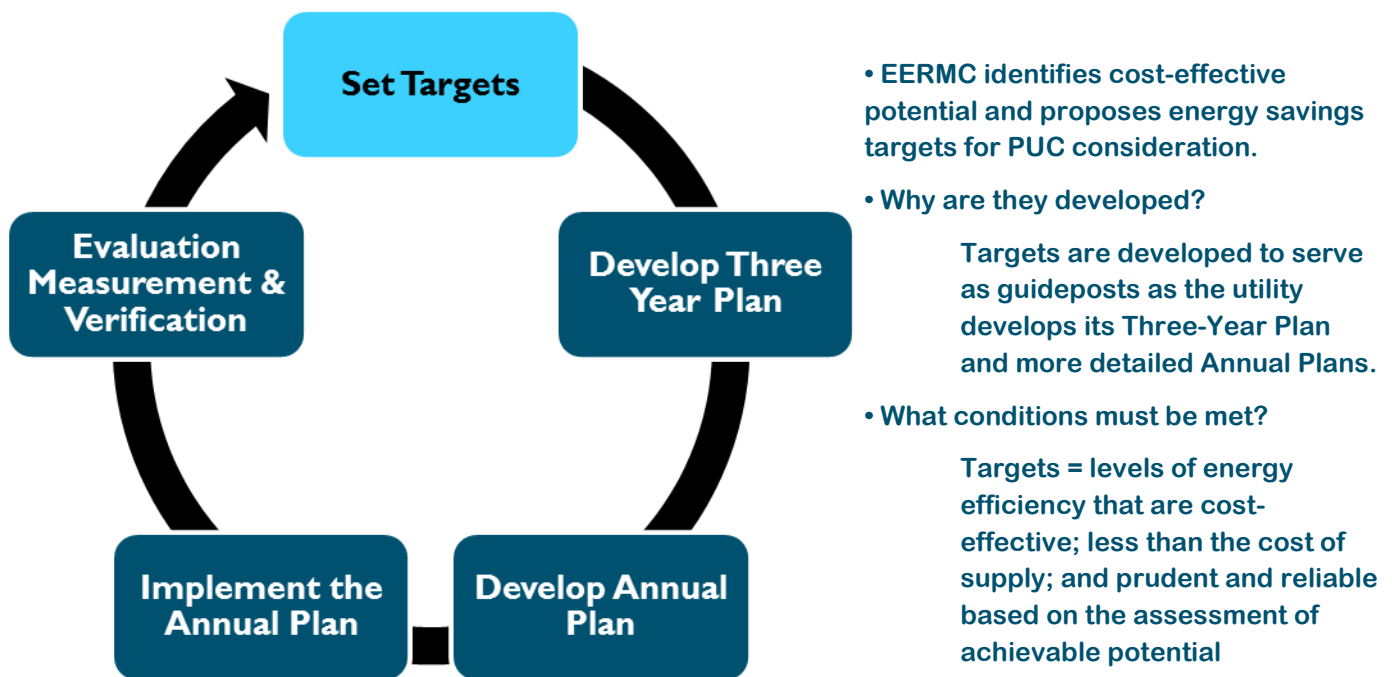
Director of Community Development, Town of Bristol
Representing Municipalities

WHO WE ARE & WHAT WE DO

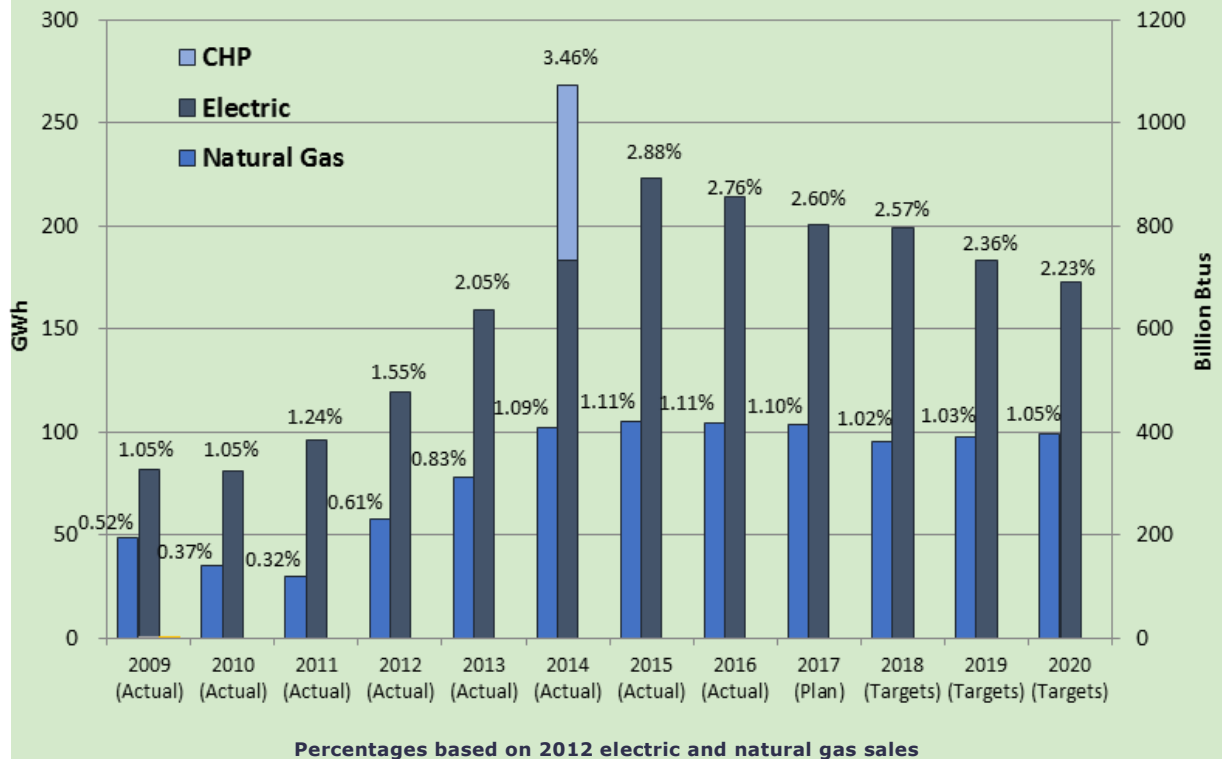
Since its formation in 2006 under amendments to R.I.G.L. § 42-140.1, the Energy Efficiency and Resource Management Council (EERMC) has been providing an integrated, comprehensive, public, stakeholder-driven organizational structure to secure for Rhode Island's energy consumers the economic and environmental benefits of energy efficiency. In representing small and large businesses, non-profit organizations, homeowners and renters, and municipalities and governments, the EERMC's mission has resulted in steadily expanding amounts of energy efficiency being procured instead of having to purchase more costly supply and expanding the number of participants in all sectors, while significantly increasing jobs and other benefits from delivery of programs. The effects of energy efficiency in the last decade now cumulatively account for approximately 20% of Rhode Island's electricity needs. Without the cost-effective investments made over time, which averaged less than 4 cents per kilowatt-hour saved, we would now be paying more than twice that amount to supply that energy.

Rhode Island consumers are the focus of Least Cost Procurement, so ensuring the consumer voice in energy efficiency procurement decisions is critically important. The EERMC, assisted by its expert consultant team, provides meaningful input into National Grid's efficiency procurement plans and adds significant stability to investment decisions. The EERMC's model for structured stakeholder participation has been successfully deployed annually in a nationally-recognized process to set appropriate energy saving targets and then establish implementation plans that are equitable, cost-efficient and cost-effective to maximize benefits for all Rhode Islanders.

A key accomplishment for the EERMC in 2016 was to set the triennial process of Least Cost Procurement planning by establishing and submitting savings targets, and the related processes codified in the Least Cost Procurement Standards, for 2018-2020 to the Rhode Island Public Utilities Commission (RI PUC). That task and objectives are captured in the following graphic:



ACTUAL ENERGY SAVINGS (2009-2016) AND TARGETS (2017-2020)



The remainder of this report describes the specific activities of the EERMC in 2016 which include:

- ◆ Providing oversight and input into 2016 program implementation, which resulted in savings over 100% of the goal in all sectors, within budget.
- ◆ Collaborating with National Grid and key stakeholders on the development of the 2017 Energy Efficiency Program Plan, and the 2017 System Reliability Procurement Report. The RI Public Utilities Commission unanimously approved these plans.
- ◆ Monitoring and supporting product launches and enhancements of the Rhode Island Infrastructure Bank, and proposing other key recommendations for making energy efficiency even easier and more accessible to Rhode Islanders through improved financing options.
- ◆ Exploring challenges, barriers, and opportunities to have a lower cost, cleaner energy future through comprehensive energy system planning and policies. This included participation and input in the RI PUC's Docket 4600 proceedings (**Investigation into the Changing Electric Distribution System**), as well as ongoing participation in work conducted by the System Integration Subcommittee.

2016 ACHIEVEMENTS AND HIGHLIGHTS

Rhode Island is a nationally recognized leader in implementing high-quality energy efficiency programs. Since 2008, Rhode Island has risen in the rankings of the American Council for an Energy Efficient Economy's State Energy Scorecard, and continues to gain ground.

In 2016, Rhode Island was the only state to earn a perfect score in utility and public benefits programs and policies. Rhode Island also ranked #4 overall by having some of the most aggressive energy savings targets in the nation.

The scoring revealed several areas in which Rhode Island can do more, including improving the state's transportation efficiency, leading-by-example through state government initiatives, and more aggressive building and appliance efficiency standards. The state is working to improve scores in these and other areas. The EERMC Policy Recommendations are designed to address these important issues and advance Rhode Island's standing in these categories.

Benefits of the Rhode Island Energy Efficiency Programs



Since 2008, Rhode Island has invested \$569 million in energy efficiency and consumers have realized \$2.3 billion in economic benefits.



GHG Reduction
Will avoid 7 million metric tons from investments since 2006.

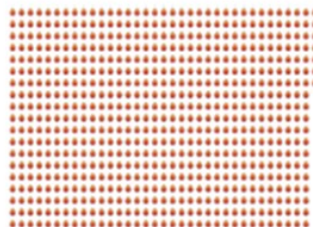
In 2016, 923 firms were involved in delivering Rhode Island's energy efficiency programs, with 82% of those companies located in Rhode Island.

The state's energy efficiency investment since 2008 will create over 23,000 job-years of employment economy-wide and add \$2.3 billion to Gross State Product.

ENERGY SAVINGS



1,301,132 MWh of total electricity savings.



2,465,998 MMBTU of total natural gas savings.

In 2016, 702 full-time equivalent jobs were directly related to the delivery of the state's energy efficiency programs.

2016 ENERGY EFFICIENCY PROGRAM RESULTS



Total Participants

893,364



Cost Per Lifetime kWh of Electricity Saved

\$0.037



Utility Program Cost

\$97 million



Cost Per Lifetime MMBTU of Natural Gas Saved

\$4.38



Total Economic Benefits

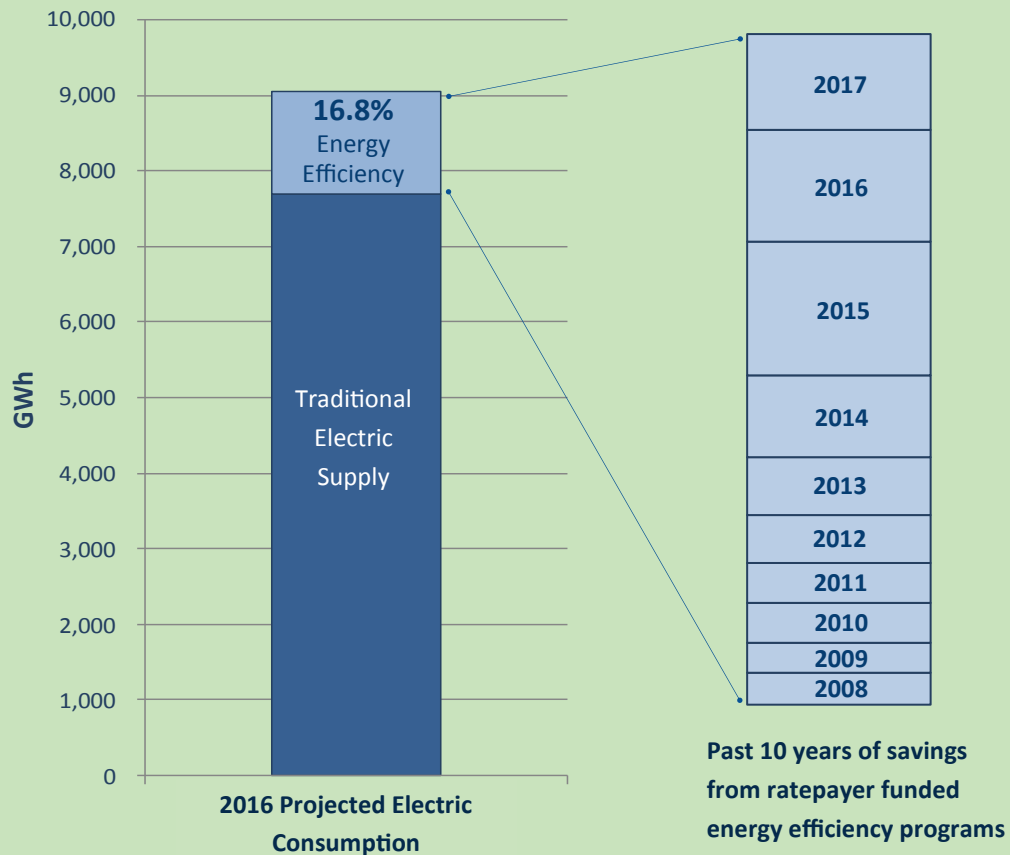
\$293.3 million



Energy Savings as a Percent of 2012 Consumption

2.8% electric

2017 PROJECTED CUMULATIVE SAVINGS FROM ENERGY EFFICIENCY



2017 POLICY RECOMMENDATIONS

R.I.G.L. § 42-140.1-5 requires that the EERMC “Submit to the joint committee on energy an annual report... regarding the activities of the Council, its assessment of energy issues, the status of system reliability, energy efficiency and conservation procurement, and its recommendations regarding any improvements which might be necessary or desirable.” The EERMC submits the following recommendations that will support enhancement of Rhode Island’s position as a national leader in energy efficiency and resource conservation.

As in previous years, we present both *Policy Recommendations* in support of legislative suggestions, and *Strategic Principles*, which provide indication of issues and initiatives that the EERMC will actively pursue and support.

Progress on Previous Policy Recommendations

Strong progress that has been made on the following, previous EERMC policy recommendations:

1. Supporting the continuation of Rhode Island’s landmark Comprehensive Energy Conservation, Efficiency, and Affordability Act of 2006 that established Least Cost Procurement as the state’s overarching resource acquisition strategy for electricity and natural gas. This act was set to expire in 2018, but due to commendable action taken by the General Assembly, Least Cost Procurement has been extended through 2024. This ensures that all Rhode Islanders can continue benefitting from investments in all cost-effective energy efficiency. To date, these benefits have exceeded \$2 billion since inception of the Act.
2. Expanding access to well-designed financing options that supplement and

tie-in to successful rebate and incentive programs to allow more energy efficiency to be captured. The establishment of the Rhode Island Infrastructure Bank through the leadership of the Office of the Governor and the Office of the General Treasurer as well as the General Assembly’s passage of supporting legislation successfully delivers an effective means to this end to benefit all Rhode Islanders. Financing options such as the Efficient Buildings Fund and Commercial Property Assessed Clean Energy (C-PACE) are now available for many Rhode Island municipal and commercial facilities.

3. Establishing a “Rhode Island Sustainability Hub” to empower customers to save energy and optimize the use of the electric distribution system. In 2016, National Grid selected a space in downtown Providence to create the Rhode Island Energy Innovation Hub (The Hub). The Hub is tentatively scheduled to open in summer of 2017 and will serve as an educational facility with interactive exhibits that highlight the successes of today’s energy solutions while empowering customers to create the sustainable energy future of tomorrow.

In that spirit of these successes, the EERMC offers the following recommendations.

2017 Policy Recommendations

In 2016, the EERMC, working with National Grid, OER, the Division of Public Utilities and Carriers (DPUC) and other parties, filed savings targets for the 2018-2020 Three-Year Planning cycle, along with proposed revisions to the guidelines that create the “Rules” (the “Standards” in RI regulatory terminology) for how Least Cost Procurement should be conducted. Those “Targets and Standards” have been the subject of hearings in the first quarter of

2017, and when approved by the PUC will guide the planning effort for meeting the 2018-20 savings goals. Work to draft a Three-Year Plan detailing how energy efficiency programs will meet or exceed the proposed savings targets is currently underway. The EERMC strongly recommends that the executive branch and the legislature continue to support Rhode Island's Least Cost Procurement law for both electric and gas service by passing legislation that facilitates and enhances its implementation, and by resisting efforts to set arbitrary limits on the amount of cost-effective efficiency that should be secured.

As detailed elsewhere in this Report, Rhode Island is now a national leader in energy efficiency savings. Our energy situation and economy are significantly improved by the deep level of savings gained over the past decade. The focus of continued work should be on how to achieve further savings for our businesses, homeowners, institutions and communities.

1. *We should build on the successful creation of the Rhode Island Infrastructure Bank and facilitate new financing options for all sectors of the economy.*
2. *We need to address the funding and support for efficiency investment in unregulated fuels for consumers and businesses.*
3. *We should watch carefully what happens with federal appliance efficiency standards, and look for opportunities to secure savings by adopting and piggybacking on efficiency standards in other jurisdictions (such as California) if the federal standards efforts languish.*
4. *Rhode Island should constantly work to ensure that all customers and segments of the market have the opportunity to benefit from efficiency savings. There should be a concerted effort to include those who are economically vulnerable,*

and those who are currently above poverty guidelines, but need significant assistance to make efficiency investments.

Strategic Principles

Rhode Island has been an active leader in discussions that are taking place across the country about the opportunities and need for change in our energy system. In our 2015 Annual Report we discussed the System Integration Rhode Island (SIRI) effort that pulled key leaders and organizations around the state together to envision how Rhode Island could meet its affordability, climate, reliability and resiliency, and economic policy objectives.

Docket #4600, opened by the Public Utilities Commission (PUC) has now completed a collaboratively developed report⁴. Its work represents a significant first step forward in considering how a new, more comprehensive decision-making process to meet Rhode Island's energy needs may emerge. The work of the #4600 parties was informed by the SIRI process, by Rhode Island's Renewable Energy Growth law and by emerging technology and information approaches that may facilitate new ways of meeting our energy needs.

Governor Gina M. Raimondo has taken bold leadership in moving this discussion forward.

She has asked the Rhode Island Public Utilities Commission, the Office of Energy Resources and the Division of Public Utilities and Carriers to design a new regulatory framework for Rhode Island's electric system.

The kickoff event introducing this effort was held April 6, 2017 and suggests that four parallel sets of investigation and discussion be initiated. They include:

1) The Utility Business Model

- ◆ What functions should the utility perform in the coming decades?
- ◆ How should the utility be compensated for each of the functions it performs?

- ◆ What is the appropriate role of performance metrics in utility compensation and which metrics should drive utility compensation?
- ◆ *In this discussion, the EERMC believes it will be important to build on the efforts such as revenue decoupling that reward the utility for providing energy service according to the principles of Least Cost Procurement, rather than primarily through investment in and earned return on new capital investments. The experience of designing utility performance incentives for LCP should inform this effort.*

2) Distribution System Planning

- ◆ What outcomes should distribution system planning promote?
- ◆ What aspects of utility operations should distribution system planning address?
- ◆ How accessible should distribution system planning be to third parties?
- ◆ *The EERMC believes this discussion should build on the work already under way in Rhode Island's System Reliability Planning (SRP) effort that has developed growing ability by National Grid to meet many new distribution, reliability and an increasing portion of supply requirements through Least Cost strategies. Integrating this learning process with the Grid distribution system planning efforts will be an important way to bring LCP to distribution system investment.*

3) Grid Connectivity Functionality

- ◆ What are the grid-facing and customer-facing functionalities necessary to realize benefits for Rhode Island customers?
- ◆ What scenarios or deployment strategies provide the most benefit for Rhode Islanders now and into the future?

- ◆ *In this context the EERMC believes that much more active engagement of customers in providing energy services through new information and sophisticated control and behavior-related strategies can provide significant benefit. The issues of how customers, utilities, and potentially other parties can have more information about customer use in real time is a critical part of this discussion.*

4) Strategic Electrification of Transportation and Heating

- ◆ What activities are important for the utility to consider and prioritize in developing a plan to encourage growth of beneficial electric vehicles and heating?
- ◆ Are there characteristics unique to the Rhode Island transportation and heating market that should be considered in answering the questions above?
- ◆ *Least Cost Procurement means making the best choice for meeting energy requirements from a perspective that includes customer, system, environmental and economic effects. While Least Cost Procurement has so far focused primarily on increasing the efficiency of energy use, it is now becoming clear that strategic switching to innovative, beneficial electric uses can provide substantial benefits. The EERMC should be actively involved in this discussion to support a thoughtful evolution of this new approach as an extension of LCP.*

2016 PROGRAMS & INITIATIVES

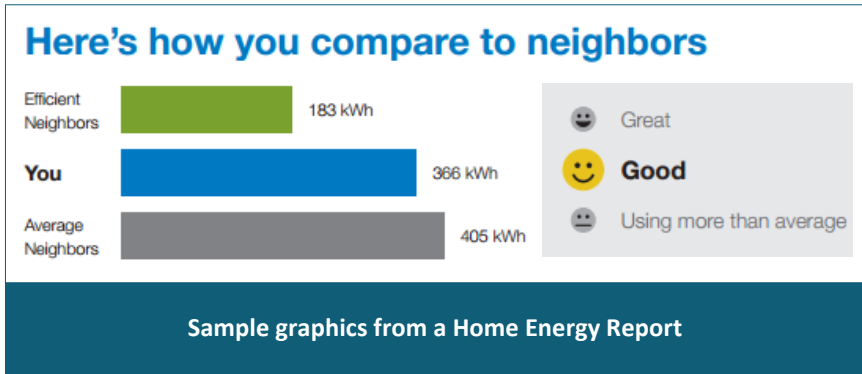
Residential Energy Efficiency Programs

National Grid offers comprehensive energy efficiency solutions for all Rhode Island residents. The goals of these offerings and services are to educate customers on saving energy and reducing energy bills while improving the comfort in their homes. The energy efficiency solutions concentrate on creating energy efficient homes, promoting efficient products, and educating consumers through community outreach and annual events such as the Energy Expo at the Rhode Island Home Show and RI Energy Challenge: Find Your Four!

2016 marked a continuation of market transformation in the lighting market with many more light emitting diode (LED) products receiving incentives in 2016 as opposed to compact fluorescent lamps (CFL). The ENERGY STAR specification for lighting moved to version 2.0 allowing for a new market category of lighting products to be introduced at a lower price level.

National Grid continued to present energy efficiency opportunities and changes to energy consumption behavior to Rhode Islanders through the Home Energy Reports (HER). In its fourth year running, the HER program continues to encourage energy efficiency behavior through personalized print and email reports, and a seamlessly integrated website. Each of the communication channels displays energy consumption patterns and contains a normative comparison to similarly sized and similarly heated homes, as well as to an energy reduction goal for each customer. More than 13,400 customers were added to the HER program in 2016, resulting in a total of 314,000 Rhode Island customers receiving reports.

At the 2016 Home Show, the 6 towns of Barrington, Bristol, Charlestown, Little Compton, Narragansett, and Tiverton were celebrated for their participation in the 2016 Rhode Island Energy Challenge, together having over 3,100 households pledge to be more energy efficient. The towns were presented with street signs proclaiming them Energy Champions as well as citations from all members of Rhode Island’s federal delegation and the Governor. Notably, the program received the Environmental Protection Agency’s 2016 Clean Air



Excellence Award for best national Outreach and Education program. In addition, the Residential New Construction Program awarded the first annual Zero Energy-Ready Challenge Award. The Challenge was designed to highlight that zero energy-ready homes are possible and affordable.

National Grid continued its core residential energy efficiency programs in 2016:

- *EnergyWise Home Energy Assessment* offers single family customers free home energy assessments and information on their actual energy usage. Participants in this program receive personalized recommendations post-assessment, receive technical assistance and education, and also are eligible for financial incentives to replace inefficient lighting fixtures, appliances, thermostats, and insulation levels with models that are more energy efficient. In

2016 EnergyWise continued to leverage Regional Green House Gas funding to provide weatherization services to deliverable heated homes. EnergyWise also supported the Solarize Rhode Island efforts in North Smithfield, Tiverton, and little Compton by promoting an efficient home envelope prior to the installation of solar. The program also celebrated 16 Century Club recipients who are insulation contractors that weatherized 100 or more residential homes in Rhode Island.

- *The Residential New Construction program* promotes the construction and renovation/remodeling of high-performing energy efficient single family, multi-family, and income eligible homes. The program provides technical support to assist in the design of a high efficiency home and also provides in-field technical support and performance testing to ensure the energy efficiency features are properly incorporated. The Program incentivizes both the efficient building envelope as well as high efficiency mechanical equipment. 2016 brought an increase in non-gas heated homes. 35% of total completed units were not gas heat, which is up from an average of 10% in prior years. Throughout the year, there are training opportunities presented for builders, tradespeople, designers, and code officials.
- *The ENERGY STAR® Consumer Products program* promoted the purchase of high efficiency household appliances and electronics.
- *The ENERGY STAR® Lighting program* provides discounts to customers for the purchase of ENERGY STAR® compact fluorescent lamps (CFLs), light emitting diodes (LEDs), fixtures and solid state lighting through instant rebates, retail store promotions, and/or mail order.
- *The High-Efficiency Heating and Cooling Programs* (Gas Heat Program and

CoolSmart Program) promote the installation of high efficiency gas and electric space heating and cooling equipment, water heating measures, and controls via tiered customer rebates. Heat pump water heaters were exceptionally popular. The programs also provide contractor training and incentives for proper equipment sizing, quality installation verification and distribution system improvements.

2016 Residential Results

- 112,191 Annual MWh Saved
 - 833,704 Lifetime MWh Saved
 - 186,272 Annual MMBtu Saved
 - 2,262,818 Lifetime MMBtu Saved
 - 475,183 Metric Tons of Greenhouse Gas Emissions Avoided
 - 873,138 Program Participants
 - \$83.8 Million in Lifetime Electric Bill Savings
 - \$23.2 Million in Lifetime Gas Bill Savings
 - \$126.9 Million in Total Economic Benefits
- *The Home Energy Reports (HER) program* upgraded to version 2.0 of the reports, providing more customization and is optimized for mobile devices. Also, the New Movers experience and Points & Rewards component were continued through the year. New for 2016, the Company offered customer notifications during the hottest summer months to inform them when they could benefit from adjusting their thermostats accordingly.
 - The Company's community based initiative, *the RI Energy Challenge: Find Your Four!*, garnered 3,104 household pledges to be more efficient with 4,627 face to face interactions taking place at 62 events in six Rhode Island towns. Special attention was paid to Tiverton to

support the non-wires Demand Link project where over 100 households requested energy assessments through the program.

- *The Multifamily program* underwent a transformative year in 2016. From the meetings early in the year with an “advisory” group charged with collaborating on program design to the year-end release of a Request for Proposals (RFP) for lead vendor services, the multifamily program was granted great attention. Highlights from the year include benchmarking 75 more income eligible buildings, the inclusion of 11 scattered sites consisting of 109 buildings and the release of an RFP for lead vendor services.
- *The Find Your Four! Program* continued to reach many corners of Rhode Island communities with 57 events and competitions in numerous Rhode Island towns, cities, businesses, and places of worship resulting in over 9,200 face-to-face conversations resulting in almost 4,000 people taking the pledge to find four ways they can save energy. In 2015, with the support of Johnson and Wales University, the city of Providence had over 3,200 city residents pledge to be more energy efficient through the Find Your Four! Program.

Income Eligible Services

National Grid helps reduce electricity and heating costs for residential income eligible customers without any financial obligation from the customer. Income Eligible Services (IES) are delivered by local Community Action Program (CAP) agencies for customers, who are currently on the A-60 or 1301 Low Income rate, those customers who qualify for LIHEAP funds from the State, and/or whose household income level falls below 60% of the Area Median Income (AMI). Services offered to Income Eligible Customers include (1) an energy assessment of lighting, appliances and behavior to

determine baseline consumption and potential replacement if applicable, (2) an inspection of existing insulation to identify opportunities for weatherization, and (3) an inspection of the customer’s heating/cooling system for potential replacement if applicable. All customers receive all services and equipment upgrades at no cost.

Income Eligible Program/WAP Collaborative

National Grid’s Income Eligible Services are administered along with related and complementary federal, state, and local programs in collaboration with Rhode Island Department of Human Services (DHS), the CAP agencies, and other local agencies. National Grid acknowledges and appreciates the collaboration with other programs, bringing local community ties and additional services, to ensure customers receive needed benefits.

2016 Income Eligible Results

- 7,828 Annual MWh Saved
- 82,713 Lifetime MWh Saved
- 30,736 Annual MMBtu Saved
- 527,646 Lifetime MMBtu Saved
- 63,210 Metric Tons of Greenhouse Gas Emissions Avoided
- 13,805 Program Participants
- \$8.94 Million in Lifetime Electric Bill Savings
- \$5.29 Million in Lifetime Gas Bill Savings
- \$23.6 Million in Total Economic Benefits

National Grid and DHS co-authored both the Field Manual and Operations Manual in an effort to standardize the WAP/IES program statewide.

Low Income Home Energy Assistance Program (LIHEAP)

The Low Income Home Energy Assistance Program (LIHEAP) block grant is funded

through the U.S. Department of Health and Human Services. The purpose of LIHEAP is to assist Rhode Island's income eligible households in meeting the increasing costs of home energy and reduce the severity of any energy-related crisis. Rhode Island's LIHEAP is administered by the Rhode Island Department of Human Services (DHS) Individual and Family Support/Community Services Division. LIHEAP intake and outreach is provided by six local CAP agencies. Households are determined eligible for LIHEAP assistance according to income guidelines established by DHS.

Weatherization Assistance Program

The Weatherization Assistance Program (WAP) enables income eligible families to reduce their energy bills (and helps LIHEAP funds go farther) by making their homes more energy efficient, while addressing health and safety concerns. Funds are used to improve the energy performance of income eligible dwellings using the most advanced technologies and testing protocols available in the industry. WAP is funded through annual appropriations from the U.S.

Department of Energy's Weatherization Assistance Program and the U.S. Department of Health and Human Services. The state allocates 15% of its annual LIHEAP funding to weatherization.

2017 Energy Expo at the Rhode Island Home Show

For the fourth consecutive year, the EERMC and National Grid sponsored the Energy Expo at the Rhode Island Home Show. The goal of the Energy Expo is to help Rhode Islanders reduce their energy costs while improving the comfort of their homes. This year, the show ran from March 30 – April 2 at the Rhode Island Convention Center. It provided Rhode Islanders with access to the state's energy efficiency programs, products and services. Show highlights include:

- Over 300 students from 20 Rhode Island career tech schools helped to construct a solar powered greenhouse and a home technology showcase
- ◆ 90 energy related companies and organizations exhibited, including 16 solar installers
- ◆ Over 480 energy audit sign-ups were completed
- ◆ Over, 18,000 LEDs were sold, many as part of 1,535 energy efficiency kits
- ◆ In total, over 25,000 people attended the Home Show



Commercial, Industrial & Public Program and Initiatives

Small Business Energy Efficiency Program

National Grid's Small Business Direct Install program provides turnkey services to customers with less than 200 kW average monthly peak electrical demand. As part of the program, customers receive a free on-site energy assessment and a customized report detailing recommended energy-efficient improvements. National Grid then completes retrofit installations at the customer's convenience.

National Grid pays 70% of installation and equipment costs and customers can finance the remaining share of the project over as

many as 60 months (typically 24) on their electric bill, interest free, using the Small Business Revolving Loan Fund providing that funds are available.

Although the program has traditionally focused on lighting and refrigeration, National Grid is constantly updating the program to apply other measures such as energy management systems, roof-top HVAC unit replacement, and new heating systems.

National Grid has also been actively pursuing new models that serve segments within what has been traditionally considered small business in more tailored and more cost effective ways. The Company's success with schools, national and regional chains, food retailers, and upstream lighting are all signs of a more strategic approach to these customers.

In October, 2016, the SolarWise Program was launched to the small business community. This program encourages customers to consider "right sizing" their facility for energy efficiency prior to installing solar. Those that do receive 5% or 10% more for the electricity generated by their solar panels than they otherwise would.

In 2017, National Grid will continue to utilize the existing contractor/electrician base through the Customer Directed Option, continue successful sub-segment offerings, and explore whether C-PACE may be an attractive option for some of the larger small business customers.

Farm Energy Efficiency Program

The Farm Energy Efficiency Program offers Rhode Island agribusinesses incentives for prescriptive energy efficient measures. As part of the program, customers receive a free on-site energy assessment and a report detailing recommended energy-efficient improvements. Farmers or agribusiness owners can then choose to install any

number of recommended electric or delivered fuels measures. Delivered fuels measures are eligible for incentives equal to 75% of their installed costs. Electric measure incentives vary depending on the application, but any approved electric measure cost not covered by an incentive can be paid back, interest free, through National Grid's on-bill payment system provided that funds are available.

2016 Small C&I Results

- 12,440 Annual MWh Saved
- 138,824 Lifetime MWh Saved
- 4,453 Annual MMBtu Saved
- 24,714 Lifetime MMBtu Saved
- 60,465 Metric Tons of Greenhouse Gas Emissions Avoided
- 4,019 Program Participants
- \$17.9 Million in Lifetime Electric Bill Savings
- \$186,518 in Lifetime Gas Bill Savings
- \$18.3 Million in Total Economic Benefits

Large Commercial and Industrial Programs

National Grid offers two programs for large commercial and industrial customers with an average monthly peak demand in excess of 200kW. Each program contains a few common elements:

- ◆ National Grid offers incentives to reduce the incremental cost barrier to investing in energy efficiency.
- ◆ National Grid reduces barriers to participation by offering a range of technical assistance from identifying opportunities to improving a company's manufacturing process.
- ◆ Depending on the program year and budget, National Grid may also have funds available to provide business owners with zero interest loans for a

defined period of time with on-bill payback.

- ◆ The programs are integrated to offer assistance with gas and electric projects at the same time.

The Commercial New Construction Program encourages energy efficiency in new construction, major renovations, planned replacement of aging equipment, and replacement of failed equipment through financial incentives and technical assistance to developers, manufacturers, vendors, customers, and design professionals. The program includes an industrial initiative with world-renowned engineering firm Leidos and training for trade allies among many other efforts.

In 2016, there was increased interest in new construction due to the improving economy. If the economy continues to strengthen, the Company expects to see several new construction projects materialize over the next 3-5 years.

The Large Commercial Retrofit Program encourages the replacement of existing equipment and systems with energy-efficient alternatives when the customer is not otherwise planning any investments. The program offers solutions including steam trap repair, Combined Heat and Power (CHP), multiyear Strategic Energy Management Plans (SEMPs) with some of National Grid's largest customers, and a variety of Upstream programs. In 2016, National Grid had several notable developments in the Large Commercial and Industrial space. The Company went broader by expanding the Upstream Products Initiatives, continued its partnership and goals with its two SEMP customers, and engaged more customers in the industrial, grocery, and municipal verticals. The Company also began a SEMP with the State of Rhode Island. In 2016, 15 scoping studies and two retro-commissioning studies were performed in state facilities.

In 2016, National Grid and Leidos continued to see success with its Industrial Initiative in Rhode Island. During the year more than 47 sites were visited. This was seven more than the previous year. Of these visits, 26 were building on relationships established in the past year and 21 were new to the Industrial Initiative. This resulted in 66 applications. The applications that were paid in 2016 were 89% non-lighting by application count.

The EnergySmart Grocer (ESG) initiative delivered cost effective, comprehensive energy savings in the Grocery market segment in 2016. The program had another strong year with independent grocery chain Dave's Marketplace, the largest independent grocery chain in Rhode Island with nine stores. This chain completed over 700,000 kWh with ESG for the second year

2016 Large C&I Results

- **81,870 Annual MWh Saved**
- **978,980 Lifetime MWh Saved**
- **196,359 Annual MMBtu Saved**
- **2,467,044 Lifetime MMBtu Saved**
- **547,912 Metric Tons of Greenhouse Gas Emissions Avoided**
- **2,402 Program Participants**
- **\$107.3 Million in Lifetime Electric Bill Savings**
- **\$22.4 Million in Lifetime Gas Bill Savings**
- **\$124.5 Million in Total Economic Benefits**

in a row. Other customer projects included a large controls and VFD implementation with Stop & Shop stores in Rhode Island that improved both HVAC and refrigeration system performance. 2016 also saw an influx of smaller franchisee projects in the restaurant sector with 16 Wendy's franchisee locations completing lighting and refrigeration upgrades. Overall, the ESG initiative saved over 4 million kWh at a very reasonable cost per kWh.

Combined Heat and Power (CHP)

The company continued to see interest in CHP during 2016. Several CHP projects were studied in 2016 and will continue into 2017. They include hospitals, hotels, and a waste water treatment plant. One manufacturer completed a 75 kW project last year. Another manufacturer delayed a 1250 kW project two months and is now up and running.

Rhode Island Efficient Buildings Fund

The Efficient Buildings Fund (EBF) was launched in December 2015 with the first projects receiving financing in July 2016. EBF is administered through a partnership between the Rhode Island Office of Energy Resources (OER) and Rhode Island Infrastructure Bank (RIIB). National Grid has provided technical assistance in the form of energy audits to incentivize municipalities to identify and implement energy savings opportunities. In the first round of financing, National Grid and RIIB (RIIB used their own capital to provide free energy audits) provided 52 energy audits to municipal facilities.

EBF provided \$17.2 million in finance to six communities to implement energy efficiency and renewable energy projects. These projects will save communities almost \$19 million after debt service through energy savings and production of renewable energy. Energy efficiency projects resulted in energy savings of 35% over baseline energy usage.

OER opened a second application period in the fall of 2016 and saw significant interest in the program. OER and RIIB are working together to finalize project eligibility and complete a financing round in July 2017.

In 2016, the RI Department of Education (RIDE) delivered energy audits to all school districts in the State. This was done by Jacobs Engineering for 307 public schools. The key recommendations were:

1. Replacement of heating systems with high efficiency
2. Provide additional ventilation with heat recovery
3. Control all HVAC systems with an Energy Management System
4. Install new LED lighting with advanced controls for occupancy control and daylight harvesting

The audits completed by Jacobs Engineering show a significant demand for project funding and financing to implement energy savings projects in schools across Rhode Island. RIIB, OER and National Grid are working together with RIDE and the local education authorities (LEAs) about their projects and implementation strategies. RIIB and OER see a significant opportunity for project implementation in schools in 2018 and in the future.

Commercial Property Assessed Clean Energy (C-PACE)

Rhode Island Infrastructure Bank successfully launched the Rhode Island Commercial Property Assessed Clean Energy (RI C-PACE) Program in May 2016 with the first two solar projects closing in March 2017 for \$1.2 million. As of April 2017, there are 14 participating municipalities in C-PACE, 30 qualified contractors, of which 16 are based in Rhode Island (20 provide energy efficiency project development and 27 provide renewable energy project development) and 3 qualified capital providers.

The RI C-PACE program has developed a pipeline of over 100 active projects. A strategic initiative of the RI C-PACE program has been to offer C-PACE financing for new construction. To be eligible for C-PACE financing, new construction projects the expected building energy performance must exceed the baseline code by at least 15%.

RI C-PACE has also undertaken a pilot program by working with long-term care

facilities, assisted with energy audits provided by National Grid, to help facility owners identify energy savings projects that they can implement that will reduce the operating costs at their facilities while increasing comfort for their residents. RI C-PACE has a growing pipeline of projects in this sector and expects to close the first long-term care facility project in early summer 2017.

State Lead by Example

In December 2015, Governor Gina Raimondo issued an Executive Order directing State agencies to ‘Lead by Example’ by achieving robust clean energy targets and developing clean energy practices. After one year of implementation, Rhode Island State agencies have reduced their energy consumption by 8.3%, saved \$2.3 million from competitive energy procurement processes, and now procure 20% of their electricity supply from “green” energy sources. The Lead by Example initiative is also promoting interdepartmental cooperation, unlocking opportunities to invest in comprehensive energy efficiency and renewable measures that can reduce and stabilize public sector energy costs, shrink government’s carbon footprint, and support Rhode Island’s burgeoning clean energy economy. In the coming months, Rhode Island State government will deploy renewable installations on Capitol Hill and elsewhere, complete the conversion of all State-owned highway streetlights to cost-effective LEDs, and expand electric vehicle charging infrastructure at State facilities, serving as a model for municipalities, businesses, organizations, and citizens as it works to move Rhode Island toward a more secure, cost-effective, and sustainable energy future.

Key accomplishments include:

- ◆ Ensuring that 20% of electricity consumed by State facilities comes from renewable energy resources
- ◆ Reducing 2016 energy consumption across State facilities by 8.3% compared to 2015

- ◆ Supporting the installation of 53 electric vehicle charging stations across the State
- ◆ Procuring 10 hybrid/alternative fuel vehicles for the State’s light-duty fleet
- ◆ Issuing a request for proposals (RFP) to install rooftop solar arrays on three capitol hill buildings
- ◆ Initiating the development of a voluntary building Stretch Code
- ◆ Converting State-Owned highway streetlights to LED technology

Street Lighting

During 2016, the first energy efficiency incentive for LED street lighting was distributed to the City of Providence. They received over \$1 million for close to 7,000 MWh of savings. Many municipalities have purchased their own street lights with plans to convert them to energy efficient LEDs. Some of the towns, including Providence, Barrington and West Warwick, plan to also install controls. In addition, DOT replaced more than 5,000 highway lights with LEDs. National Grid also filed a company owned street lighting tariff in 2016. This tariff’s effective date is January 2017.

Cross-Sector Programs

Building Energy Codes and Appliance Standards

National Grid’s Codes and Standards (C&S) Initiative saves energy on behalf of ratepayers by creating an environment that achieves the following:

- ◆ Leads to greater statewide compliance with existing building energy codes
- ◆ Directly influences and advocates for stronger statewide appliance standards
- ◆ Works with local governments and key stakeholders to adopt a voluntary stretch code
- ◆ Encourages code-setting bodies to strengthen energy efficiency regulations

This initiative spans across residential and commercial buildings, new construction, and

retrofits of existing buildings. Since 2016, this initiative also includes both residential and commercial appliances.

National Grid has a long-term strategic plan for advancing the aforementioned goals in 2015-2017 and beyond. In the short-term, National Grid’s goal is to focus on the following: 1) Conducting statewide code compliance training and providing energy code technical support, 2) Development of a stretch code as outlined in Governor Raimondo’s Executive Order 15-17 dated December 8, 2015, and 3) Collaborative appliance standards advocacy resulting in submitted Legislation for stronger standards.

In 2016, National Grid worked alongside the OER in developing details of a stretch code which is expected to be finalized in 2017 with continuing support. The stretch code will be available for new construction and large renovation projects interested in implementing above-code energy efficiency and other green building practices. The stretch code will also help projects to receive incentives from National Grid’s New Construction program and assist public buildings in complying with Rhode Island’s Green Buildings Act.

The Code Compliance Enhancement Initiative (CCEI) began in 2013 and was designed to increase the ability and desire of architects, engineers, builders, contractors, construction managers, and energy specialists to comply with the mandated base building energy code, as well as improve the ability of local building code officials to enforce the code. Prior to launching the initiative, a comprehensive study on code compliance in Rhode Island was conducted to establish a baseline and help develop the targeted savings goal. A follow-up commercial compliance

Incentives By Town

Table 1. National Grid Gas and Electric Energy Efficiency Incentives Provided to Residential, Commercial and Industrial Customers in 2016

Barrington	\$966,562	New Shoreham	\$ 18,735
Bristol	\$ 1,002,930	Newport	\$ 1,410,416
Burrillville	\$ 486,968	North Kingstown	\$ 2,077,634
Central Falls	\$ 442,437	North Providence	\$ 950,288
Charlestown	\$ 318,331	North Smithfield	\$ 856,669
Coventry	\$ 1,800,204	Pawtucket	\$ 3,369,187
Cranston	\$ 7,758,724	Portsmouth	\$ 1,449,755
Cumberland	\$ 2,392,272	Providence	\$ 16,329,530
East Greenwich	\$ 2,135,064	Richmond	\$ 224,274
East Providence	\$ 3,561,259	Scituate	\$ 584,068
Exeter	\$ 209,328	Smithfield	\$ 1,608,986
Foster	\$ 184,307	South Kingstown	\$ 489,153
Glocester	\$ 321,751	Tiverton	\$ 680,352
Hopkinton	\$ 259,937	Warren	\$ 537,001
Jamestown	\$ 261,928	Warwick	\$ 5,443,079
Johnston	\$ 2,554,431	West Greenwich	\$ 409,702
Lincoln	\$1,822,282	West Warwick	\$ 1,567,820
Little Compton	\$ 167,282	Westerly	\$ 1,356,724
Middletown	\$ 1,164,078	Woonsocket	\$ 1,564,363
Narragansett	\$ 2,000,283	Grand Total	\$ 70,738,094

study was completed in 2016 to understand the effect that the initiative has had on overall commercial code compliance. A similar follow-up residential code compliance study will take place in 2017.

The code compliance activities that took place in 2016 and which are planned for 2017 are as follows:

- ◆ A total of 21 CCEI training events (classroom and in-field) were held in 2016 for residential and commercial design, construction, and code enforcement groups. The classroom trainings attracted 256 residential attendees and 66 commercial attendees. The in-field trainings were held with 146 attendees.
- ◆ An approximate combined total of 40-50 classroom trainings, on-site trainings, and web-based trainings are targeted for 2017.
- ◆ Project-based energy code technical support service for building department staff and project teams to clarify code interpretations, review specific projects, and/or conduct site consultations. The goal of these “circuit riders” is to clarify any confusion or misunderstanding that building design and construction professionals or building code officials may have regarding applicable energy codes, and to support their efforts to better understand and execute code compliant building designs. In 2016, the toll-free “circuit rider” number fielded 26 residential and 7 commercial related telephone inquiries. In total, 10 residential inquiries and one commercial inquiry resulted in field visits to actual job sites or office consultations.
- ◆ The CCEI program supported the energy efficiency portion of the stretch code development. The goal is to develop a code that facilitates high performance new construction and major renovations

for the commercial sector as well as public buildings.

- ◆ Develop and update consistent documentation tools such as the RI Residential New Construction Field Guide, technical bulletins, frequently asked questions guides, software tools, checklists, and code check protocols for adoption by jurisdictions as a mean of code compliance enhancement.

Continued collaboration with the Rhode Island Office of Energy Resources (OER), Northeast Energy Efficiency Partnership (NEEP), and Appliance Standards Awareness Project (ASAP) will further appliance standards advocacy.

Block Island Saves Program

In 2015, OER began an initiative to help New Shoreham, also known as Block Island, residents and small businesses improve their energy efficiency and reduce energy costs. During recent years, islanders have paid some of the highest energy prices in the nation. Despite this fact, New Shoreham did not have access to a comprehensive suite of energy efficiency programs, services, or educational tools. For this reason, OER developed and implemented a pilot energy efficiency program to fill this notable void in statewide energy service delivery. Block Island Saves, is designed to reduce New Shoreham small business and year-round resident energy consumption and costs, support the State’s clean energy economy, and shrink the island’s carbon footprint. The program has leveraged the best practices and supply chains fostered by the state’s highly-successful and innovative mainland programs to meet Block Island’s energy efficiency demand.

Working in partnership with National Grid, OER launched the program in late 2015 to provide year-round residents and commercial establishments with free, no-obligation energy audits that identified

energy efficiency opportunities in homes and businesses; provided access to incentives and rebates; and educated consumers on additional actions that can be taken to reduce their utility bills. As of April 2017, over 225 MMBtu and 180,000 kWh of annual savings have been achieved on the Island.

The program will remain open to all New Shoreham businesses and year-round residents on a first-come, first-served basis until program end in 2017 or until funds are depleted, whichever comes first.

Zero Energy Buildings (ZEB) Task Force

In 2016, National Grid led the Rhode Island Zero Energy Building (ZEB) taskforce consisting of key stakeholders from the State, associations, architects/engineers and developers. Over the course of the year, the Task Force developed and issued a whitepaper report. The report outlines a 20-year roadmap for zero energy buildings to contribute to the Energy 2035 goal of reducing greenhouse gas emissions by 45% by 2035. The roadmap identifies opportunities including stakeholder collaboration, incentives, education, financing and policies that will help to foster the growth of the residential and commercial Zero Energy Building market in Rhode Island.

Rhode Island Energy Innovation Hub

Advances in technology and our changing energy landscape are fueling innovation and connecting people, places, and energy in meaningful new ways – changing how we live, work, and play. As such, National Grid in 2016 conceived an interactive space in downtown Providence where Rhode Islanders could become more engaged in learning about – and having a conversation around – energy and the environment. National Grid is calling this collaborative space the Rhode Island Energy Innovation Hub (Hub). The Hub, tentatively scheduled

to open in summer of 2017 will serve as an educational facility with interactive exhibits that highlight the successes of today’s energy solutions while empowering customers to create the sustainable energy future of tomorrow.

National Grid 2016 Energy Efficiency Jobs Study

National Grid hired Peregrine Energy Group, Inc. to conduct a study of the job impacts from National Grid’s energy efficiency programs in 2016. The study estimates the number of full-time equivalent (FTE) employees engaged in all aspects of energy efficiency programs where National Grid provided funding support in 2016. The FTE counts cover a wide range of energy efficiency services, including independent contractors and plumbers, rebate processors, engineers, and National Grid Staff. The study also includes counts of Weatherization Assistance Program (WAP) FTEs that are employed by the Community Action Program agencies that deliver low-

Full-Time Equivalent Employment Supported by Energy Efficiency Programs in Rhode Island in 2016

Programs	Total FTEs
Electric Programs	
Commercial and Industrial	241.1
Residential Income Eligible	42.3
Residential Non-Income Eligible	104.0
Gas Programs	
Commercial and Industrial	36.1
Residential Income Eligible	41.4
Residential Non-Income Eligible	159.3
National Grid EE Staffing	39.9
WAP/LIHEAP Income Eligible Programs	38.0
Total 2015 Rhode Island FTEs	702.2

income energy efficiency services. A complete list of all contractors and subcontractors involved in 2016 Rhode Island energy efficiency programs is included in this report on page 39.

The study’s findings were developed through interviews with energy services and equipment vendors and National Grid contractors, as well as through a detailed review of National Grid’s records of all energy efficiency measures installed in homes, apartment buildings, businesses, and industries throughout the state in 2016. Peregrine Energy Group calculated the labor hours required for each installation based on industry standards and discussions with contractor experts.

Peregrine determined that 702 full-time equivalent (FTE) employees had work in 2016 as a result of investments by National Grid in energy efficiency programs provided to its Rhode Island electricity and natural gas customers. One FTE equals 1,760 work hours, or the total of one person working 8 hours a day for 220 work days in an average year. Because a “full-time equivalent” employee often represents the labors of more than one person over the course of a year, the number of individual workers employed as result of Rhode Island energy efficiency programs funded by National Grid is far larger than the total of FTEs. Most of the jobs created as a result of energy efficiency investments were local because they were tied to installation of equipment and other materials.

The study also identified 923 companies and agencies involved in National Grid’s 2016

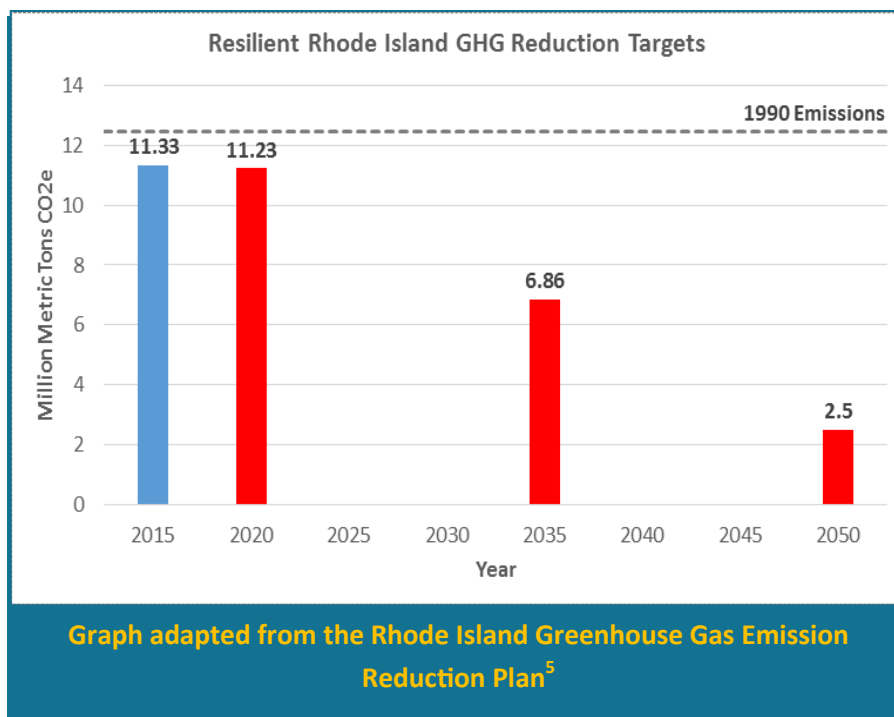
energy efficiency programs, 82% of which were located in Rhode Island. The companies identified include those whose employees are counted in the FTE analysis, as well as additional companies who assisted customers to secure equipment rebates, for example through the New Construction, Commercial Upstream Lighting, or High Efficiency HVAC programs.

The study fulfills General Law 39-2-1.2, which was enacted by the General Assembly in 2012. The study will benefit those who work in workforce development, training or those interested in the state’s green jobs.

PLANNING INITIATIVES

State Goals: State Energy Plan & GHG reduction goals

Energy 2035: The Rhode Island State Energy Plan, formally adopted in October 2015, lays out a long-term, comprehensive energy strategy for Rhode Island. The vision of the Plan is to provide energy services across all sectors—electricity, thermal, and transportation—using a secure, cost-effective, and sustainable energy system. The Plan demonstrates that Rhode Island can increase sector fuel diversity, produce



net economic benefits, and reduce greenhouse gas emissions by 45 percent by the year 2035. The Plan proposes state-of-the-art policies and strategies to achieve those goals.

The Plan identifies energy efficiency as the state's "first fuel" and a centerpiece strategy for achieving the Rhode Island Energy 2035 Vision. The SEP identifies energy efficiency as the lowest-risk, lowest-cost, and arguably, the most sustainable energy resource available for Rhode Island. The SEP lists Least-Cost Procurement as one of Rhode Island's cornerstone energy policies, and the primary vehicle for delivering the benefits of energy efficiency to Rhode Island consumers and businesses.

2015-2017 & 2018-2020 Energy Efficiency Procurement Plans (Three-Year Plans)

Every three years, Energy Efficiency Procurement Plans are created to serve as guideposts for the utility as it develops the details of implementing its energy efficiency programs. The EERMC will be working with National Grid, the Office of Energy Resources, the Division of Public Utilities and Carriers, and additional key stakeholders to develop the 2018-2020 Energy Efficiency Procurement Plan for Rhode Island. This plan, also referred to as the three-year plan, will describe the energy efficiency tools and strategies that Rhode Island will deploy to meet the state's energy savings targets that are currently under consideration by the Public Utilities Commission. The three-year plan will be grounded in Rhode Island's energy efficiency strategy, which is based on economics, flexible to changing market conditions, and designed to maximize consumer benefit.

Efforts resulting from the 2015-2017 Energy Efficiency Procurement Plan are expected to achieve the following large beneficial impacts:

- ◆ Boost Rhode Island's Gross State Product by \$1.2 billion.

- ◆ Create over 13,000 job-years of employment.
- ◆ Deliver more than \$2.70 in benefits to consumers for every \$1 invested.
- ◆ Lead the nation in electric and natural gas savings as a percentage of total annual energy consumption.
- ◆ Generate approximately \$1 billion in electric and natural gas energy system benefits.

Energy Efficiency Program Plans (Annual Plans)

In addition to the three-year plan, annual energy efficiency program plans are developed by National Grid with significant stakeholder input. These annual plans clearly define how the energy efficiency programs will be implemented and specify how the programs will be cost-effective. The annual plans are also reviewed and ruled on by the PUC. Work on the 2018 Annual Plan will commence after the Three-Year Plan is complete.

System Reliability Procurement

In System Reliability Procurement (SRP), the Company develops and implements non-wires alternative projects (NWA). This involves identifying transmission or distribution needs that have the potential to be deferred by distributed energy resources within a specified timeline. These projects are customer-focused and can include some measures that are also offered through the Company's statewide energy efficiency programs.

Currently, these efforts are in a pilot state as the Company continues to implement its Demandlink™ pilot in Little Compton and most of Tiverton. Launched in 2012, the pilot's primary objective is to implement a combination of energy efficiency and demand response measures in customer homes and businesses in order to reduce 1 MW of load the affected feeders by the end of 2017. In achieving this goal, the Company

projects that the need to upgrade that substation will be deferred by four years.

The pilot was approved for its fifth of six planned years by the PUC on December 2, 2015 and implemented throughout 2016. The Company maintained the same portfolio of incentives as the previous year, hoping to continue the rate of recruitment. The principle change in the plan from prior years was the deployment of additional outreach in both Pilot communities as part of the Rhode Island Energy Challenge campaign, which was added to the comprehensive campaign conducted for the Pilot. The Company also continued to leverage its statewide EnergyWise and Small Business Direct Install programs in the promotion and delivery of these measures. Between July and September 2016, eighteen demand response events were conducted. One of these days was triggered by a forecasted need on the feeder, while the rest were triggered based on weather conditions. Based on year-to-date participation, the Company projects that by the end of 2016, it will have achieved approximately 56% of its planned incremental summer kW target of 170 kW. Additional SRP details on 2016 activities and 2017 plans can be found in the Company's 2017 System Reliability Procurement Report filed in Docket 4655 and approved by the PUC on December 8, 2016

Systems Integration Working Group

The energy system is experiencing a long-term transformation. The electric grid is becoming increasingly more complex as residents and businesses adopt local energy resources like energy efficiency, roof-top solar, energy storage, demand response, and smart appliances, among others. Consumers are excited about new electric technologies like highly efficient cold climate heat pumps and electric vehicles that are increasingly affordable and widely available.

The changing nature and growth of these technologies holds significant implications for

the state's electric grid and grid decision-makers. These trends are important to the EERMC because of the potential make our energy system more efficient, cleaner, and lower cost than it otherwise might be in the future. In order to better understand the challenges and opportunities of our changing energy system, representatives from the OER, EERMC, Distributed Generation Board, and National Grid convened the Systems Integration Rhode Island (SIRI) working group in 2014. SIRI's purpose is to identify key issues related to the future of Rhode Island's electric grid and offer recommendations for addressing opportunities, filling gaps, and gaining efficiencies in existing state processes.

The SIRI group presented the "Systems Integration Rhode Island Vision Document" in January 2016. This report describes SIRI's goals and principles; identifies and describes over a dozen existing processes impacting our energy system; and offers recommendations related to utility planning, solar PV, electric heating and transportation, and smart management of electric usage. The SIRI group hosted a stakeholder meeting to present the report and the Vision Document includes stakeholder feedback.

The SIRI group's recommendations have helped inform the Docket 4600 proceeding at the Public Utilities Commission.

Docket 4600

In 2016, the Public Utilities Commission opened Docket 4600 "An Investigation into the Changing Electric Distribution System". The first purpose of the docket was to develop a common framework for evaluating the costs and benefits of different investments in the electric grid. These investments include a range of energy resources, technologies, and infrastructure promoted through Rhode Island clean energy or utility programs and recovered through

electric rates. The second purpose of the docket was to develop mutually agreed-upon principles for electric rate design. The EERMC participated in the docket along with eleven other stakeholder participants. The Docket is important to the objectives of the EERMC because it builds the foundation for energy efficiency and system reliability resources – which represent key least-cost solutions to meeting the needs of Rhode Island customers and the electricity system – to be considered on a more level playing field with conventional utility investment strategies. The Docket 4600 stakeholder group completed a report with a new Benefit/Cost Framework, rate design principles, and recommendations for next steps, and submitted to the PUC in April 2017.

LOOKING FORWARD: 2017 ENERGY EFFICIENCY PROGRAM PLAN HIGHLIGHTS

Residential Programs

Multifamily Program

In 2017 the Multifamily program will begin to implement some of the innovative proposals filed in the Company’s annual plan. These include a focus on finance, boiler monitoring and optimization, and the introduction of heating systems for income eligible facilities and the treatment of delivered fuel sites. Further, the Company will conclude the RFP process for lead vendor services, selecting a vendor to administer the program the following 3-years.

Residential New Construction

In 2016 the Company designed a zero energy home pilot in response to the Rhode Island Zero Energy Building Task Force

Whitepaper. The Residential New Construction program will expand program services into the mid-high rise building sector. In addition, the Company will develop a working group to create a preliminary structure for the development of a Zero Energy-Ready Home Program.

ENERGY STAR® Lighting

In 2017, the ENERGY STAR Lighting program will continue supporting more LED incentives.

Income Eligible Enhancements

The program will continue to increase services that deliver significant energy savings such as LEDs, heat pump water heaters, and replacement room air conditioners. The Company will also assess the potential for savings in mobile homes and improving deliver to residential 3-4 unit buildings.

Community Initiative

The Rhode Island Energy Challenge moves on from the “Find Your Four!” call to action in order to drive deeper energy efficiency commitments within municipalities. Rather than the standard 3-month campaigns where residents will pledge to find four ways to save energy, for 2017 four Rhode Island towns will make a longer-term commitment to savings by creating an Energy Task Force in the community, pledging to host specific calls to action such as a “Refrigerator Recycling Day,” and committing to increase residential EnergyWISE assessment sign ups by 40%.

Home Energy Reports

The Home Energy Reports program will continue offering the revised 2.0 report that is both easier to read and allows for greater customization in 2017. On the web, the insights from the HERs have now been integrated into the single sign on platform and customers will benefit from an

To continue the theme of offering customers more control over their energy consumption, new for 2017 the Company will offer High Usage Email Alerts to notify customers when they are trending to exceed the prior month's bill by 30%.

Behavioral Demand Response

The Residential team will support the efforts of the DemandLink program in Tiverton and Little Compton over the summer by creating on-the-ground interactions through the Find Your Four program in order to drive more participation in Home Energy Assessments. National Grid will investigate the opportunity of merging behavioral messaging, as seen on the Home Energy Reports, with the Company's increased focus on leveraging the benefits of Wi-Fi thermostats. This strategy has the potential to help alleviate the effects of winter peak demand for natural gas and summer peak demand for electricity.

Commercial, Industrial, Public & Other Programs

Street Lighting

Customer Owned - Rhode Island municipal customers are now eligible to purchase their own street lights from National Grid. Incentives are being offered for solid state lighting and controls, as funding allows. National Grid worked closely with RIOER as well as the cities and towns.

Company Owned – National Grid filed a company owned street lighting tariff in 2016. This tariff's effective date is January 2017. If the municipal customer prefers to continue leasing their street lights from National Grid, the customer will receive the incentive and the Company will claim the savings.

Commercial Property Assessed Clean Energy (C-PACE)

National Grid is working closely with the Rhode Island Infrastructure Bank (RIIB) to create a dynamic C-PACE program. National Grid thinks that this exciting new financing model will spur customers to action,

encourage broader and deeper measures, and possibly even revive projects that were abandoned due to inability to finance the entire deal. The first energy efficiency C-PACE project is likely to close very soon. It will be coming from the nursing home sector, which was an underserved sector and priority of several stakeholders.

Zero Energy Buildings (ZEB) Task Force

The OER will assume the lead role in the State for implementing the recommendations set forth in the Zero Energy Buildings Whitepaper that was published in 2016. The Company will work closely with OER to facilitate the ongoing stakeholder groups to address the recommended policies, incentives, education, financing and partnerships to help foster the growth of the residential and commercial ZEB market in Rhode Island.

Appendix A:
Case Studies

Jamestown, Rhode Island

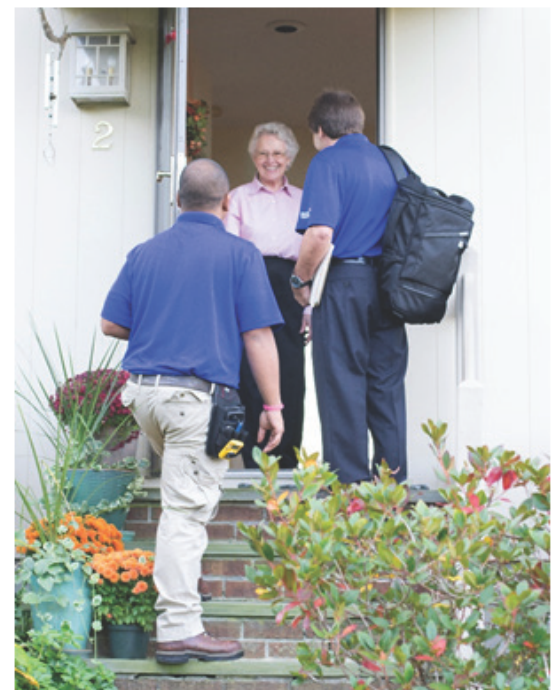
The Armington Household

Carolyn Armington is an octogenarian homeowner who has resided in Jamestown, Rhode Island since 2004 in a two-story, 2,200-square foot contemporary home. The primary heating fuel is oil with supplemental electric heat. The home was built in 1985 on a quiet cul-de-sac adjacent to historic farmland with a water view of Narragansett Bay.

Mrs. Armington wanted to save money on energy costs and make her home more comfortable. Additionally, she is interested in environmental issues and wants to play her part with regard to energy efficiency.

In 2015, National Grid in partnership with lead vendor RISE Engineering, conducted a free comprehensive energy assessment of this property, provided instant energy savings products at no cost, and presented a recommended action plan. While on-site, the Energy Specialist installed energy-efficient LED bulbs, advanced power strips, and a new refrigerator coil cleaning brush. Mrs. Armington decided to move forward with several recommended actions, including installation of carbon monoxide detectors, replacement of the old furnace and a faulty heat pump, air sealing of leaks in drafty areas of the home, duct sealing, and duct and basement ceiling insulation.

The instant energy savings products, air sealing, and insulation following the no-cost home assessment created over \$1,100 in projected annual energy savings. Mrs. Armington is pleased with the savings and improved conditions, especially the warmth of the insulated floors. In 2016, Mrs. Armington contacted National Grid again to discuss some remaining energy improvements she is considering in the upcoming months.



Carolyn Armington, Homeowner
Jamestown, RI

continued next page>

The Armington Household continued

The Need

Reduce energy costs and improve efficiency and home comfort.

The Solution

- 25 efficient light bulbs
- Refrigerator coil cleaning brush
- 2 Advanced power strips
- Air sealing of leaks in drafty areas of the home
- Duct sealing and insulation
- Basement ceiling insulation

About National Grid:

Here with you. Here for you. At National Grid we are committed to delivering safe and reliable energy to the customers and communities we serve. We are one of the largest investor-owned energy companies in the world - covering Massachusetts, New York, Rhode Island and the UK. We are at the heart of one of the greatest challenges facing our society – delivering clean energy to support our world long into the future. Every day we work with stakeholders to promote the development and implementation of sustainable, innovative and affordable energy solutions. We are proud of the contributions our work and our people make to the prosperity and wellbeing of our customers, communities and investors.

About RISE Engineering:

A pioneer in the delivery of turnkey energy efficiency services, RISE Engineering works with utilities and other energy program sponsors to offer residential, commercial, industrial, institutional and public sector energy users comprehensive efficiency services that reduce their environmental footprint and operating expenses.

To schedule your free energy assessment, call us at 1-888-633-7947.



The Result:

Total project cost	\$3,243
National Grid incentive	\$1,020
Cost to customer	\$2,223
Annual electric savings	1,400 kWh
Annual oil savings	235 gallons
Annual energy cost savings	\$1,146

"I paid for the energy efficiency work online with my credit card that earns points at L.L. Bean. I earned enough points to get a free down comforter... so my insulation warmed me twice!"

**-Carolyn Armington, Homeowner
Jamestown, RI**

Cut your energy cost with cogeneration

Energy-efficiency on a large scale

Managing the energy needs of a big facility can be a daunting prospect. National Grid routinely works with commercial, industrial, and municipal customers to reduce energy costs on a large scale. One way we achieve this is through cogeneration, or combined heat and power (CHP), a highly efficient form of energy conversion that generates heat and electricity simultaneously, then captures and reuses heat that would otherwise be wasted.

For qualifying customers with a large-scale facility or a multi-building complex with dependable electrical and thermal loads, National Grid can connect you with a CHP vendor to explore the feasibility of CHP installation. National Grid provides incentives to customers if the project qualifies under our CHP program guidelines.

Current Incentives for Combined Heat and Power:

The incentives for the CHP units are designed specifically with large-scale projects in mind, with higher incentives for projects that incorporate more standard building energy efficiency measures in advance of CHP project development.

Available incentives are as follows*:

Tier 1: \$900/Net kW for CHP with annual efficiency >55% and <60%.

Tier 2: \$1,000/Net kW for CHP with annual efficiency > or equal to 60%.

Tier 3: Reduce the site energy use at least 5% or identified by TA study - \$1,125/kW for CHP projects with annual efficiency >55% and <60%.

Tier 4: Reduce the site energy use at least 5% or identified by TA study - \$1,250/kW for CHP projects > or equal to 60% annual efficiency.

Eligibility Criteria:

- Performance Incentives are available for projects that are Net Annual KW over 1 MW and can be up to \$20/kW/yr for up to 10 years.
- Advanced Gas Technology Incentives are available for projects that qualify for gas driven projects.
- Maximum incentive of all three sources cannot exceed 70% of the project cost.
- Technical Assistance Engineering subsidy is available to study projects.

For more information about our incentives for CHP
call us at **1-800-787-1706** or visit **ngrid.com/ri-chp**

Appendix B:
2016 Energy Efficiency Vendors

The list includes contractors and subcontractors performing work directly for National Grid Energy Efficiency programs in 2016 that were counted in the FTE analysis and additional companies who assisted customers to secure equipment rebates, for example through the New Construction, upstream commercial lighting, or High Efficiency HVAC programs. The list also includes the Community Action Program agencies and their subcontractors involved with the delivery of the low-income program, whether under National Grid funding or WAP/LIHEAP/ARRA funding.

Of the 923 companies, agencies, contractors and sub-contractors listed here, 759 (82%) are either headquartered in Rhode Island, or have a physical presence in Rhode Island. The list is organized first by state (alphabetically), and then alphabetically by company name.

Vendor	Town	State
Association of Energy Services Professionals	Phoenix	AZ
Accurate Background, Inc.	Irvine	CA
Bigspeak Inc.	Santa Barbara	CA
Crownpeak Technology	Los Angeles	CA
PLMA	Vallejo	CA
Regency Lighting	Chatsworth	CA
E Source Companies LLC	Boulder	CO
FridgeTek Inc.	Carbondale	CO
Skumatz Economic Research Associates	Superior	CO
All-phase Electric Supply/Consolidated Electrical Distributors	Windsor	CT
AMS Greensolutions LLC	Willington	CT
Efficient Lighting Consultants	Newtown	CT
JK Muir LLC	Durham	CT
Richard Electric	Putnam	CT
Upland Construction Group	North Stonington	CT
Vandale Rd Electric Co Inc.	North Stonington	CT
Wattsaver Lighting Products Inc.	East Hartford	CT
American Council for an Energy-Efficient Economy	Washington	DC
Energy Solutions Center	Washington	DC
Smartpower	Washington	DC
A Led Lights LLC	Jacksonville	FL
Apollo Lighting	Fort Lauderdale	FL
Express Lighting, Corp.	Melbourne	FL
Pro. Unlimited Inc.	Boca Raton	FL
Hill Phoenix Inc.	Conyers	GA
LIGHTFAIR International	Atlanta	GA
National Energy Educational Development Need	Manassas	GA
Innerworkings Inc.	Chicago	IL
3-D Lighting	Franklin	MA
A & M Electrical Mechanical, Inc.	Fall River	MA
ACA NE	North Attleboro	MA
Action Inc.	Fall River	MA
Ahaesy Electric	Fall River	MA
Alternative Weatherization, Inc.	Fall River	MA
Andelman and Lelek Engineering Inc.	Norwood	MA
Appel Electric Co Inc.	Norwood	MA
Automated Building Systems, Inc.	Southborough	MA

B2Q Associates Inc.	Andover	MA
Baraby Electric	Fall River	MA
Baystate Energy Reduction	Sutton	MA
Beaupre Electric	Assonet	MA
Boston E Lab Inc.	Winchester	MA
Boston Light Supply, Inc.	Lynn	MA
Boston Scientific Corporation	Quincy	MA
Bristow Electric	Attleboro	MA
Bruin Corp	North Attleboro	MA
Bulbs.Com	Worcester	MA
Carlos A Magina Electrical Inc.	Seekonk	MA
Charles H Furman Electrician	North Attleboro	MA
Commonwealth Electrical	Worcester	MA
Compressed Air Technologies Inc.	Shutesbury	MA
Conservation Services Group Inc.	Westborough	MA
Consolidated Marketing Services	Burlington	MA
Consortium For Energy Efficiency	Boston	MA
Conventures Inc.	Boston	MA
CoolGreenPower LLC	Concord	MA
Da Melo Electric And Controls	North Dartmouth	MA
David J. Black Electric, LLC	Bellingham	MA
David Rossman	Westwood	MA
DMI	Wellesley	MA
Dorrance Electric, Inc.	Rehoboth	MA
Drolet Electric	North Attleboro	MA
Ecast Video LLC	Boston	MA
Ecova Inc.	Boston	MA
Efficient Buildings LLC	Bridgewater	MA
Electric Supply Center	Mansfield	MA
ENE Systems Inc.	Canton	MA
Energy & Resource Solutions Inc.	North Andover	MA
Energy Federation Inc.	Westborough	MA
Energy Machinery Inc.	Rockland	MA
EnergySavvy Inc.	Cambridge	MA
EnerNOC Inc.	Boston	MA
Fort Hill Companies	Boston	MA
G Feigo Electric Co	Westport	MA
GH Electrical Service	Attleboro	MA
Glynn Electric	Plymouth	MA
Graybar	Boston	MA
Greenleaf Associates Inc.	Weston	MA
Hannon Electric Inc	South Easton	MA

I.N.O Electric Service	Walpole	MA
IBM Corp.	Cambridge	MA
ICS Corp.	Tyngsborough	MA
Independent Electric Supply	Somerville	MA
Insulate 2 Save	Fall River	MA
J Lafretta Electric	North Attleboro	MA
James Cordeiro Jr Electrical Services	Fall River	MA
Jason Roia Electrical	Fall River	MA
John Landry Electrician	Somerset	MA
Jones Lang LaSalle Construction	Boston	MA
KEMA	Burlington	MA
Litemor	Norwood	MA
Lockheed Martin	Burlington	MA
Main Stream Mechanical	Amesbury	MA
Mike Bell Electrician	Seekonk	MA
Motus LLC	Boston	MA
National LED Distributors	Milton	MA
National Resource Management	Canton	MA
Navigant Consulting, Inc.	Boston	MA
NESCO (Needham Electric Supply)	Canton	MA
New England Energy Management Inc.	Leominster	MA
Nexant Inc.	Burlington	MA
NMR Group Inc.	Somerville	MA
Noble Electric, Inc.	Holliston	MA
Northeast Efficiency Supply (NES)	Sutton	MA
Northeast Energy Efficiency Partnerships	Lexington	MA
O'Brien & Neville Inc.	Holliston	MA
Opinion Dynamics Corporation	Waltham	MA
Opterra Energy Services	Norwell	MA
Oracle America	Cambridge	MA
Peregrine Energy Group	Boston	MA
Ralco Electric Inc.	Westport	MA
Raymond D. Melanson Electric	Swansea	MA
Raymond Melanson Electric	Swansea	MA
Raytheon Company	Waltham	MA
Reis Electric	Westport	MA
Rethinking Power Management	Boston	MA
Retrofit Insulation	Fall River	MA
River Energy Consultants	Fall River	MA
Robshaw Electric	Holliston	MA
Ryan Suart Electric	Fall River	MA
Sacks Exhibits	Wilmington	MA

Savio Lighting	Needham	MA
Standard Electric	Wilmington	MA
Steam Trap Systems	Amesbury	MA
Superior Energy Solutions	Swansea	MA
Swanson Construction	Attleboro	MA
Tabors Caramanis Rudkevich	Boston	MA
The Cadmus Group Inc.	Waltham	MA
The Symphony Of Light	Dedham	MA
TNZ Energy Consulting Inc.	Stoughton	MA
Veolia ES Technical Solutions LLC	Boston	MA
W R Plamondon Electrical Co	Westport	MA
Wiedenbach-Brown	Norwood	MA
WIPRO LTD.	Quincy	MA
ANTARES Group Inc.	Lanham	MD
APTEC LLC	Bethesda	MD
Earth Networks Inc.	Germantown	MD
Boyko Engineering Inc.	Gorham	ME
Douglas C Baston	Alna	ME
ARCA , Inc.	Hopkins	MN
PlotWatt	Durham	NC
Carter Events Plus LLC	Hampton	NH
Daniels Equipment Co Inc.	Auburn	NH
IMMI (International Marketing Management, Inc.)	Portsmouth	NH
National Energy and Light, Inc.	Nashua	NH
Clear Energy LLC	Bloomfield	NJ
CMC Energy Services Inc.	Cranbury	NJ
Ideas Agency Inc.	Blairstown	NJ
SHI International Corp.	Somerset	NJ
CDH Energy Corp.	Cazenovia	NY
Goldstein & Lee, P.C.	New York	NY
Illuminating Engineering Society	New York	NY
Integrated Marketing Services Inc.	Liverpool	NY
Ram Marketing	Saint James	NY
SPPRO Inc.	Bronx	NY
Questline Inc.	Columbus	OH
Research Into Action, Inc.	Portland	OR
Real Winwin Inc.	Philadelphia	PA
2 Sons Electric LLC	East Providence	RI
A & A Management	Providence	RI
A & C Burner Service HVAC	East Providence	RI
A & I Electric	Pawtucket	RI
A & L Plumbing Mechanical and Consulting	Westerly	RI

A & M Compressed Air Products Inc.	Providence	RI
A E Costa Electrical Contractor LLC	Warwick	RI
A Good Plumber	Hope	RI
A Perry Plumbing and Heating	Coventry	RI
A Plumbing and Heating	East Providence	RI
A.R. Heating and Cooling Inc.	Providence	RI
A1 Electrical Construction LLC	North Providence	RI
Able Electric, Inc.	Warwick	RI
ABM Enterprises Inc.	Exeter	RI
Ace Electric	Providence	RI
Aceto Plumbing LLC	Cranston	RI
Acme Electric Inc.	North Providence	RI
ACR Construction and Management Corporation	JOHNSTON	RI
Adams Plumbing and Heating	West Warwick	RI
Adell Construction LLC	Cranston	RI
ADJ Realty, Co.	Providence	RI
Advance Electrical Corporation	Providence	RI
Advanced Comfort Systems Inc.	North Smithfield	RI
Affordable Building and Weatherization, Inc.	East Greenwich	RI
Affordable Heating and Air Conditioning Services	Providence	RI
AFM Electric, LLC	Pascoag	RI
AIA and Sons Construction	Warwick	RI
Air Metalworks Ltd	North Providence	RI
Air Quality LLC	Warwick	RI
Air Tech Heating and Air Conditioning	Rumford	RI
Air Temp	Riverside	RI
Aire Serv Heating and Air Conditioning	Pawtucket	RI
Airhart Electric Inc.	Coventry	RI
AJS Plumbing and Heating	North Providence	RI
Aladdin Electric Co. Inc.	Johnston	RI
Alan Jerauld	North Providence	RI
Alan Menard Plumbing LLC	Pawtucket	RI
Alan Paul Electric	Warwick	RI
Albert S Koenig Electrician	Pawtucket	RI
All In One Plumbing Heating and Cooling	West Warwick	RI
All Phase Heating Concepts	Woonsocket	RI
All Points Construction	Riverside	RI
All Seasons Heating and Air Inc.	Johnston	RI
All Star Insulation	Providence	RI
Allen Plumbing and Heating	North Providence	RI
Allied Electrical Group	Providence	RI
Allied Fuel	Providence	RI

Alpha Electrical Contractors Inc.	Riverside	RI
Alpha Mechanical	East Providence	RI
AMCO Inc.	Woonsocket	RI
American Development Institute Inc.	Warwick	RI
American Electric Service Inc.	Cranston	RI
AMERITEST	North Providence	RI
Amity Electric	Wyoming	RI
AMS Development	Portsmouth	RI
AMTROL Inc.	West Warwick	RI
Anchor Plumbing and Heating Company Inc.	Providence	RI
Andrew R McMahon Electrician	Lincoln	RI
Angelo DeFeo	Providence	RI
Antaya Technologies	Warwick	RI
Anthony Berard	Cumberland	RI
Anthony Handyman	Woonsocket	RI
Antonys Quick Plumbing and Heating	Johnston	RI
Antonio J Improta LLC	Cranston	RI
Anytime Plumbing Service	Harrisville	RI
APB Plumbing and Heating	Cumberland	RI
Apple Valley Alarms	North Scituate	RI
APuzzo Plumbing and Heating	North Scituate	RI
AR Heating and Cooling Inc.	Cranston	RI
Arden Engineering Constructors LLC	Pawtucket	RI
Ardente Supply Co., Inc.	Providence	RI
Arkwright Inc.	Fiskeville	RI
Arthur W Adler	Bristol	RI
Aten Energy	Pawtucket	RI
Atlantic Control Systems	Exeter	RI
Atlantis Comfort Systems Corp	Smithfield	RI
Attaboy Electric LLC	Clayville	RI
Auburn Electric Company	Cranston	RI
Autiello Plumbing and Heating LLC	Cranston	RI
Automatic Heating Equipment Inc.	Providence	RI
AZ Corporation	Hopkinton	RI
B & B Consumers Natural Gas Service	Woonsocket	RI
B & K Electric, LLC	Cranston	RI
B & L Mechanical LLC	Woonsocket	RI
B Hughes Builders, Inc.	Barrington	RI
Baptista Electric	Cumberland	RI
Barlow Heating LLC	Warwick	RI
Barrington Plumbing and Heating	Barrington	RI
Bashaw Electric	East Greenwich	RI

Baum Energy	Warren	RI
Baynes Electric	Westerly	RI
Bayside Electric Company	Warwick	RI
Beacon Electric	East Providence	RI
Beauchemin Design	North Smithfield	RI
Berard Heating and Mechanical	Warwick	RI
Bermudez Plumbing and Heating	Pawtucket	RI
Bert Gardiner Plumbing	Charlestown	RI
Best Buy	Warwick	RI
Biello Electric Co	Fall River	RI
Bileau HVAC Inc.	Woonsocket	RI
Bill Gardiner Plumbing and Heating LLC	East Providence	RI
Bill Gornostai Electric	Warwick	RI
Bill The Plumber	North Smithfield	RI
Bills Heating Service Inc.	Warwick	RI
Blackstone Valley Community Action	Pawtucket	RI
Bob Larisas Plumbing and Heating Inc.	Barrington	RI
Bob Martel Plumbing and Heating	Central Falls	RI
Boiler Works	Coventry	RI
Boulevard Plumbing and Heating	Middletown	RI
Brada Manufacturing, Inc.	Warwick	RI
BRH Electric	East Providence	RI
Brian's Fire Alarm System Solutions, LLC	North Smithfield	RI
Brian's Heating Concepts, Inc.	Tiverton	RI
Briteswitch LLC	Warwick	RI
Brittain Electric Inc.	Jamestown	RI
Brookside Electric	Westerly	RI
Bruno & Son Electric Inc.	Providence	RI
Bryant's Lemme	Coventry	RI
BSH Heating and Appliance	Barrington	RI
BT Electric Company, Inc.	Glocester	RI
Buckley Heating and Cooling	Peace Dale	RI
Buono Electric	Johnston	RI
Burbanks Plumbing and Heating, Inc.	North Kingstown	RI
Butler and Sons Plumbing and Heating, Inc.	Providence	RI
BZ Electric, Inc.	West Warwick	RI
C & K Electric Company Inc.	Providence	RI
C & L Energy Corp	Cranston	RI
C Carr Electric LLC	Cumberland	RI
C&A	Block Island	RI
C.S.V. Mechanical Inc.	South Kingstown	RI
Cal Supply Co., Inc.	Cranston	RI

Caldwell & Johnson Inc.	North Kingstown	RI
Calyx Retrofit	Lincoln	RI
Carbone Plumbing Heating and Air	Johnston	RI
Carello Plumbing and Heating	East Providence	RI
Carjon Air Conditioning and Heating Inc.	Smithfield	RI
Carlino Electric Inc.	Coventry	RI
Carnevale Electric	Johnston	RI
Carter Plumbing and Heating Co.	Warren	RI
Cassana HVAC LLC	North Providence	RI
CBRE	Providence	RI
CCF LLC	Warwick	RI
CD Heating Inc.	Cranston	RI
Cecil E Moore Jr Inc.	Coventry	RI
Century Heating	Smithfield	RI
Chabot Associates Inc.	North Kingstown	RI
Chaput & Feeney, LLP	East Providence	RI
Charles Burton	Lincoln	RI
Charlie's Heating LLC	North Kingstown	RI
Chris Smaldone Electrician	Providence	RI
Christian Urban Electric	Pawtucket	RI
Christopher McCaughey	Smithfield	RI
Cimini & Associates	Westerly	RI
CJ Morin Electric	Lincoln	RI
CJS Plumbing and Heating Specialists, Inc.	Smithfield	RI
Clearesult	Providence	RI
Clermont Mechanical Plumbing & Heating Services	Glendale	RI
CMAGS Heating and Air Conditioning	Warwick	RI
Coast Modern Construction	Providence	RI
Coastal Electric Inc.	Newport	RI
Cobra Electric and Compaction Services, Inc.	Providence	RI
Cohen Heating Supply, Inc.	Providence	RI
Colaluca Plumbing and Heating	Johnston	RI
Comfort Systems, Inc.	Coventry	RI
Comfort Zone Inc.	Hopkinton	RI
Commercial and Residential Services	Johnston	RI
Commercial Electric, Inc.	East Providence	RI
Community Action Partnership of Providence	Providence	RI
Comprehensive Community Action	Cranston	RI
Computer Sciences Corporation	Warwick	RI
Construction Maintenance Services, Inc.	Lincoln	RI
Conti Brothers Inc.	Providence	RI
Continental Heating and Cooling Indoor Air Quality	Johnston	RI

Cooley Incorporated	Cranston	RI
Cotoia Electric	Johnston	RI
Cox Electric LLC	Narragansett	RI
Craig R Committo Electrician	Tiverton	RI
Cross Insulation	Cumberland	RI
Crown Supply Company Inc.	Providence	RI
Crystal Plumbing and Heating Inc.	Providence	RI
CSV Mechanical Inc.	Wakefield	RI
Custom Comfort	Woonsocket	RI
CW Cummings Plumbing Co.	Coventry	RI
D & D Electric Company	East Greenwich	RI
D & E Electric, Inc.	Warwick	RI
D & J Electric Corporation	Warwick	RI
D & J Plumbing and Heating Inc.	Cumberland	RI
D & L Service Inc.	Coventry	RI
D & S Construction Company	Lincoln	RI
D C ELECTRIC Co LLC	West Warwick	RI
D. Costa Electric Company LLC	East Providence	RI
D'Ambra Construction Co Inc.	Coventry	RI
Danfoss LLC	Johnston	RI
Danico LLC	North Providence	RI
Daniel Simoes Electric	Exeter	RI
D'antuono Electrician	Chepachet	RI
David Iannucci Electrician	Providence	RI
David J Loren	Warren	RI
David J O'Brian Electrician	North Kingstown	RI
David Seddon Electrician	Rumford	RI
David R Gince Electrician	Woonsocket	RI
Dayco Electric	Warwick	RI
DC Plumbing	Warwick	RI
Deal Electric	East Greenwich	RI
Degnan Plumbing and Heating	North Providence	RI
Delmonico Enterprises -Plumbing and Heating	Cranston	RI
Delta T	Warwick	RI
Desimone Electric	Cranston	RI
Desmarais Plumbing and Heating Inc.	Johnston	RI
Dessaint Electric Co Inc.	Warwick	RI
DiGregorio and Sons, Inc.	North Kingstown	RI
Dimery Electrical	Barrington	RI
Dionne and Sons	Coventry	RI
Dionne's Plumbing Systems	Cumberland	RI
Diorio Plumbing and Heating, Inc.	Barrington	RI

Direct Home Improvement	West Greenwich	RI
DiRocco Plumbing Services LLC	North Providence	RI
Donald Fournier Electrician	Providence	RI
Donald E. Lemay Electrician	Bristol	RI
Donovan and Sons Inc.	Middletown	RI
DPS Plumbing and Heating	Hope	RI
Drivers Plumbing and Mechanical Inc.	Providence	RI
DS Plumbing	Coventry	RI
DSA Mechanical	Barrington	RI
DSC Heating and Air Conditioning	North Kingstown	RI
DSL Properties, LLC	North Kingstown	RI
Dual Voltage Electric LLC	Johnston	RI
Dubes Plumbing	Woonsocket	RI
Dupuis Energy	Pawtucket	RI
Durante Electric	Lincoln	RI
DWI Group Ltd	Johnston	RI
Dynamic Air Systems Inc.	East Providence	RI
EA Marcoux and Son, Inc.	Woonsocket	RI
Eagle Electric	Ashaway	RI
East Coast Electric	Johnston	RI
Eastbay Community Action	Riverside	RI
Eastern Electric	Cranston	RI
Eastern Plumbing Co Inc.	North Kingstown	RI
Echo Electrical	Richmond	RI
Ecologic Spray Foam Insulation Inc.	Jamestown	RI
Econ Electric Contractors	Bristol	RI
Edward C Silva Plumbing and Heating	Middletown	RI
EG Electric Co.	East Greenwich	RI
EJM Electric	Middletown	RI
EKCO Tech Services LLC	Chepachet	RI
ELCO Electric Services Corporation	Cranston	RI
Electrical League of RI	Warwick	RI
Electrical Solutions	Providence	RI
Electrical Technologies	Providence	RI
Electrical Wholesaler Inc.	Cranston	RI
Elwin Palmer Electrician	Providence	RI
Emanuel Freitas	Pawtucket	RI
Emergency Response Plumbing Heating and Air Conditioning	Warwick	RI
Energiwise Inc.	East Providence	RI
Energy 4 Life Building Performance LLC	Smithfield	RI
Energy Conservation Inc.	South Kingstown	RI
Energy Efficient Exteriors, Inc.	Lincoln	RI

Energy Efficient Plumbing Technologies	Cranston	RI
Energy Electric Co, Inc.	Woonsocket	RI
Energy Geeks	North Smithfield	RI
Energy One Southern Mechanical	West Warwick	RI
Energy Source LLC	Providence	RI
Eurotech Climatesystems LLC	Pawtucket	RI
Evans	East Providence	RI
Eveready Electric	Barrington	RI
Evergreen Plumbing and Heating Co., Inc.	Warwick	RI
F & S Electric Inc.	Bristol	RI
Falcon Hydonics	West Kingston	RI
Feula Plumbing and Heating LLC	Johnston	RI
FG Lees and Son Plumbing and Heating	Providence	RI
Fico Electric	Johnston	RI
Figliozi Plumbing and Heating	Wakefield	RI
Fletcher Heating Burner Repairs	Ashaway	RI
FLOU PHCC First Quality Installations	Saunderstown	RI
Forcier Electrical	Cumberland	RI
Foster Electric, Inc.	Tiverton	RI
Foundry Associates	Providence	RI
Frank Flowers Electric	Cranston	RI
Frank Knight Plumbing and Heating	Warwick	RI
Frank Lombardo and Sons Inc.	Providence	RI
Frontier Mechanical LLC	Providence	RI
Fullport Plumbing and Heating	Rumford	RI
Furtado Lighting & Design LLC	Bristol	RI
G & B Electric	Exeter	RI
G & L Electric Inc.	Woonsocket	RI
G Hill Plumbing and Heating, Inc.	Westerly	RI
G M Perron and Son Plumbing and Heating	North Smithfield	RI
G Marc Electric	Pawtucket	RI
G. Gagnon & Sons Ltd	Cumberland	RI
Gambit Electric Inc.	Johnston	RI
Gary Fernandes Electrician	Woonsocket	RI
Gary Ficca Electrician	North Smithfield	RI
Gas Doctor	Providence	RI
Gas Master Inc.	Little Compton	RI
Gasman NC	Warwick	RI
GASTECH	Cranston	RI
Gem Plumbing and Heating Services Inc.	Lincoln	RI
George Gaulin Electrician	Cranston	RI
Ginos Plumbing	Warwick	RI

Giorno Plumbing and Heating	Cranston	RI
Globex Industries Inc.	Narragansett	RI
GM Control Systems Inc.	North Smithfield	RI
GM Perron and Son Plumbing and Heating	North Smithfield	RI
Grace Construction LLC	Providence	RI
Granite City Electric	Pawtucket	RI
Gravel Electric Inc.	Harrisville	RI
Greenwich Insulation	West Greenwich	RI
Greenwood Plumbing and Heating	Warwick	RI
Gregg Balnchette	North Smithfield	RI
Griff Electric LLC	Portsmouth	RI
Grillo Electric	Ashaway	RI
Gronski Plumbing and Heating, Inc.	Cranston	RI
Groom Energy Solutions	Providence	RI
Guy Clermont Plumbing and Heating	Cranston	RI
H & R Electric Contractor Inc.	Greenville	RI
Haley & Aldrich, Inc.	Providence	RI
Hawkes Plumbing and Heating Co Inc.	Chepachet	RI
HD Supply Facilities Maintenance	Warwick	RI
Heat Corporation	Warwick	RI
Heat Tech LLC	Warwick	RI
Henderson Electric	Warwick	RI
HF Robinson and Sons Plumbing and Heating	Cranston	RI
HH Heating	Lincoln	RI
Hill Electrical Services	Cumberland	RI
HK Heating Inc.	Greene	RI
HMC Construction LLC	Bristol	RI
Hodson Heating and Cooling	Harrisville	RI
Holland Electric	Peace Dale	RI
Horizon Solutions LLC	Smithfield	RI
Houle Plumbing and Heating	Greene	RI
Howard Saucier	Pawtucket	RI
HR Electrical Contractor Inc.	Providence	RI
Hughes Incorporated	North Kingstown	RI
Hutchins Electric	Greenwich	RI
Hynson Electrical Construction Inc.	Bristol	RI
Iasimone Plumbing-Heating & Drain Cleaning Inc.	North Providence	RI
Industrial Burner Service Inc.	Providence	RI
Innovative Plumbing and Heating Inc.	North Providence	RI
Interstate Electrical Services	Warwick	RI
Invensys Ene Inc.	Rumford	RI
Iron Mountain	Chepachet	RI

Iroquoian Plumbing and Heating	Providence	RI
Island Plumbing and Heating	Jamestown	RI
Izzo & Sons Electric	Providence	RI
J & A Electric	Providence	RI
J & J Electric	Warwick	RI
J & M Plumbing LLC	Coventry	RI
J Argenti & Sons Electric LLC	Johnston	RI
J D Electric	Cranston	RI
J Dasilva Plumbing and Drain Cleaning	Pawtucket	RI
J Fernandes HVAC	Cumberland	RI
J Joyce Plumbing and Heating Inc.	Warwick	RI
J Mac Plumbing and Heating	Warwick	RI
Jacks Electric Inc.	Jamestown	RI
Jacob Messier	Warwick	RI
Jacobson Energy Research LLC	Providence	RI
Jaedyn Construction and Restoration	Warwick	RI
James Rattray	Westerly	RI
Janton Electric Contractors	West Warwick	RI
Jatwire Electric LLC	Tiverton	RI
Jay Almeida Electrician	Johnston	RI
JC Electric Inc.	Wakefield	RI
JD Mechanical Inc.	Greenville	RI
JDV Electric	Cranston	RI
Jeff Berard Plumbing and HVAC	Warwick	RI
Jeffrey Reynolds	Westport	RI
JEM Construction Group, LLC	North Scituate	RI
Jenkins Heating	Smithfield	RI
Jeremy J Laury	Johnston	RI
Jerold M Weisman & Company	Warwick	RI
Jim Kelley Electrician	Warwick	RI
Jim Silvia Electrician	Tiverton	RI
JJ McNamara Electric	Providence	RI
JKL Engineering Company Inc.	Providence	RI
JMAC Plumbing and Heating Inc.	Warwick	RI
JN Jordan Plumbing LLC	Shannock	RI
JO Plumbing Septic and Drain Cleaning	Warwick	RI
Joe Chaves Heating and Plumbing	Middletown	RI
Joe Diorio Electric	Pawtucket	RI
Joe Lemay Electrician	Lincoln	RI
Joe the Plumber	Warwick	RI
Joe Vigneault Electrician	Riverside	RI
John Jackson	Cumberland	RI

John R Bileau HVAC	Woonsocket	RI
John Simard Electric Contractor	North Smithfield	RI
Johnny Home Solutions LLC	Central Falls	RI
Johnny Mack Electric	Narragansett	RI
Johnny's Oil and Heating Inc.	Providence	RI
Johnson and Johnson Plumbing and Heating Inc.	Saunderstown	RI
Johnston Electric Inc.	North Scituate	RI
Joseph Benoit	North Providence	RI
Joseph Botelho Electrician	Cranston	RI
Joseph Britto Jr.	Warwick	RI
Joseph C. Lopes II	Portsmouth	RI
Joseph Giorno Plumbing and Heating	Cranston	RI
Joseph Palomino Heating and Cooling	Richmond	RI
Joseph Piasczyk	Coventry	RI
Joseph Soave	North Providence	RI
Joseph Truppi Electric	Cranston	RI
Joseph RJ Lussier Electric	North Kingstown	RI
Joshua B Tait Electric	Riverside	RI
Jouberts Heating and Air Conditioning	Warwick	RI
Joun Strafach & Sons	Westerly	RI
JP Island General Services	Middletown	RI
Just Heat	Portsmouth	RI
Kafin Oil Company Inc.	Woonsocket	RI
KBA Contracting	Pawtucket	RI
KCCNE	Providence	RI
Kelly Electric	Cumberland	RI
Kens Heating	Providence	RI
Kent Country Electrical Services	Warwick	RI
Kevin Messier Electrical	Cumberland	RI
Kirkbrae Electric	Lincoln	RI
KME Electric, Inc.	Woonsocket	RI
Kwik Plumbing and Heating, Inc.	Johnston	RI
L & B Remodeling	North Providence	RI
L & F Plumbing Inc.	Cranston	RI
L & M Construction & Realty, LLC	Cranston	RI
LAD Electric LLC	Providence	RI
Lain Electric Co	Providence	RI
Lakeside Electric	Chepachet	RI
Lamplighter, Inc.	Little Compton	RI
Lance Plumbing and Heating	Scituate	RI
Landry and Martin Oil Co Inc.	Pawtucket	RI
Langan Plumbing and Heating	Woonsocket	RI

Larry Giorgi Plumbing and Heating Inc.	North Providence	RI
Lawrence Air Systems Inc.	Barrington	RI
Ledoux Electric	North Kingstown	RI
Lees Plumbing and Heating	Providence	RI
Leidos Engineering	Newport	RI
Leveille Electric	Smithfield	RI
Lighthouse Contracting Services	Johnston	RI
Lightning Electric	Riverside	RI
LJ Giorgi Plumbing and Heating, Inc.	North Providence	RI
Lombardo Electric Company	Warren	RI
Loom Studios	East Providence	RI
Luis Anastacio Electrician	East Providence	RI
Luke Beaudreault Plumbing and Heating	North Smithfield	RI
Luso Plumbing and Heating Inc.	Cumberland	RI
M & G Correias Plumbing and Heating Supplies	East Providence	RI
M & M Electric	Richmond	RI
M.J. Bouchard Heating and Air Conditioning	Greenville	RI
Madden Electric	Little Compton	RI
Maggiacomo Plumbing, Inc.	Cranston	RI
Magnetic Electric Inc.	Warwick	RI
Malone Plumbing and Heating Inc.	Cranston	RI
Manfredo Electric	Warwick	RI
Mansfield Heating, Inc.	East Greenwich	RI
Map Electric	Woonsocket	RI
Marciano Electrical Contractors	West Warwick	RI
Marinelli & Sons Electric	West Kingston	RI
Marisa Desautel	Providence	RI
Mark D'Andrea Electric, LLC	Portsmouth	RI
Mark Southwork Maintenance	Johnston	RI
Marsh Builders Inc.	Cumberland	RI
Martel Plumbing and Heating	Lincoln	RI
Martone Service Company	Narragansett	RI
Massed Electric Company	Warren	RI
Mastro Electric Supply Co Inc.	Providence	RI
Mastrocinque and Sons Plumbing and Heating LLC	Portsmouth	RI
Matt Electric	Greene	RI
Matthew A Marchetti	Cranston	RI
Matts Mechanical	Greenville	RI
Max & Jason Enterprises	Providence	RI
McCormick Electrical	North Kingstown	RI
McDonough Electric LLC	West Warwick	RI
MDR Enterprises LLC	Middletown	RI

Menard Electric	Manville	RI
Metro Electric	Woonsocket	RI
MH Electric	Cranston	RI
Michael - Rae Design LLC	Wyoming	RI
Michael Bowry	Cranston	RI
Michael Chace Electrician	Johnston	RI
Michael Freitas Plumbing and Mechanical	Pascoag	RI
Michael Moura	Riverside	RI
Michael R Lafleur	Smithfield	RI
Miller Mechanical Inc.	Rumford	RI
MJ Electric and Refrigeration	Pawtucket	RI
MJF Plumbing and Heating	Bristol	RI
MO Refrigeration	Warwick	RI
MoonWorks	Woonsocket	RI
Morgan Electric	Warwick	RI
Morra Electric Inc.	Johnston	RI
MP Samsky Corp.	North Smithfield	RI
Mr. Plumber LLC	East Providence	RI
Mr. Rooter Plumbing	Warwick	RI
MRC Electric	Woonsocket	RI
Multi State Electric Co.	North Providence	RI
Mutual Engineering Service Company	Warwick	RI
NAPPI Bros.	Bristol	RI
Nasons Heating Cooling Sheet Metal	Middletown	RI
Nathan Cordeiro Electrician	Cranston	RI
National Refrigeration Inc.	Warwick	RI
New England Boilder Works	Coventry	RI
New England Insulation	Woonsocket	RI
New England Plumbing Heating and Air LLC	Greenville	RI
Newport Electric	Portsmouth	RI
Newport Plumbing and Heating Gas Company	Portsmouth	RI
NGB Electric	Smithfield	RI
Nicholas Electric	Cranston	RI
Nightingale Heating	Providence	RI
Nolin Electric Incorporated	Providence	RI
Nordic Company Inc.	Riverside	RI
North Scituate Electric, Inc.	North Scituate	RI
Northeast Building Solutions	Cumberland	RI
Northeast Electrical Distributors	Cumberland	RI
Northern Electric	Harrisville	RI
Northern Energy Services Inc.	Providence	RI
Northern Power Electrical Services	North Scituate	RI

Ocean State Air Solutions	Portsmouth	RI
Ocean State Electric	Johnston	RI
Ocean State Mechanical, Inc.	Fiskeville	RI
O'Dowd Electric	Warwick	RI
Old Tyme Electric, Inc.	Pawtucket	RI
Omni Electric	Wakefield	RI
On Point Restoration LLC	Richmond	RI
O'Neil Electric Company	Warwick	RI
Optimal Energy	Providence	RI
P & S Electric Inc.	East Greenwich	RI
Pajan Services Inc.	North Providence	RI
Pariseault Builders Inc.	Warwick	RI
Parrella Electric	Providence	RI
Patrick Corrigan	Warwick	RI
Patrick Cunningham Electrician	Smithfield	RI
Patriot Plumbing and Heating	Coventry	RI
Paul Buono	Johnston	RI
Paul Manfredo Electric	Warwick	RI
Paul Musco	Cranston	RI
Paul Scotto Electrical	Portsmouth	RI
Paul G. Amaral Electrician	Tiverton	RI
PECI	Portsmouth	RI
Pellegrino Plumbing and Heating	Westerly	RI
Pemlico Plumbing	Warwick	RI
Percivalle Electric Inc.	Warwick	RI
Perrino Electric	Cranston	RI
Peter Bibby	Providence	RI
Peter Chilabato Sure Power Electrical	Portsmouth	RI
Peter Rodriques Electrician	Pawtucket	RI
Petes Electric Company Inc. .	Westerly	RI
Petro Home Services	Warwick	RI
Petronelli Plumbing and Heating	Cranston	RI
Pettee Electrical Contractor	Chepachet	RI
Petterson Electric	Warwick	RI
Phalanx Engineering, Inc.	Warwick	RI
Philips Precision Plumbing LLC	Greene	RI
Phillip J Bolster Plumbing and Heating	Wakefield	RI
Phillips Plumbing and Mechanical Inc.	Cranston	RI
Phil's Heating and Air Conditioning	Westerly	RI
Phoenix Property Management	Pawtucket	RI
Piazza Enterprises LLC	West Warwick	RI
Pickles Plumbing and Heating LLC	Mapleville	RI

Pinnacle Plumbing and Heating	Greenville	RI
Plumb Perfection	Johnston	RI
Plumbing and Heating by Joe Gruttadauria	Johnston	RI
Plumbing and Heating Solutions LLC	East Greenwich	RI
Potvin Enterprises Inc.	Warwick	RI
Power By Design Electrical Contracting LLC	Richmond	RI
Power Trip Electric Inc.	Hope	RI
Powercomm Systems	Warwick	RI
Pratt Plumbing and Heating LLC	Harrisville	RI
Precision Power	Wyoming	RI
Premair HVAC	Warwick	RI
Preventive Maintenance Solutions	Warwick	RI
Priority Plumbing and Heating Inc.	Providence	RI
Protect All Security Systems	Warwick	RI
Providence Mechanical Services LLC	Smithfield	RI
Quinn Electric, Inc.	Coventry	RI
R & G GENERAL CONTRACTING	CENTRAL FALLS	RI
R & J Manufacturing Company	Johnston	RI
R & M Electric Inc.	Coventry	RI
R.E. Coogan Heating Inc.	Warwick	RI
Ralph E Geiselman Plumbing and Heating	Pawtucket	RI
Ralph Ferra Plumbing	North Smithfield	RI
Rama Electric	Wakefield	RI
Ramos Electric	Providence	RI
Randall B Ayers	Warwick	RI
Ray Gagnon Electric, Inc.	Lincoln	RI
Ray Iasimone Plumbing	Johnston	RI
Raymond J Reinsant Plumbing and Heating	Lincoln	RI
RB Queern Co.	Portsmouth	RI
RC Plumbing and Heating	North Providence	RI
RCS Energy Services	Providence	RI
RD Construction	Cranston	RI
Reddy Piping Concepts Inc.	Cranston	RI
Regan Heating & Air Conditioning Inc.	Providence	RI
Regent Electric CO Inc.	Coventry	RI
Reliable Electric Corp.	Coventry	RI
Reliant Electric	Cranston	RI
Renaissance Sheet Metal LLC	Cranston	RI
Renewable Energy Solutions LLC	Warwick	RI
Resendes Heating Service LLC	Coventry	RI
Restivos Heating and Air Conditioning	Johnston	RI
Rexel Energy Solutions (Munro Distributing)	Cranston	RI

Rhode Island Builders Association	East Providence	RI
Rhode Island Insulation	Hope	RI
Rhode Island Sheet Metal LLC	Pawtucket	RI
Rhodes Technologies Inc.	Coventry	RI
Rhody Electric	Warwick	RI
RI Property MGT	Providence	RI
RI Rooter and Plumbing, Inc.	Johnston	RI
Ricci Electric	Cranston	RI
Richard Brochu	Manville	RI
Richard Gayer Electric	Bristol	RI
Richard Havey	Warren	RI
Richard J. Martino Jr	Smithfield	RI
Right View Electric, Inc.	East Providence	RI
Rightway Electric, Inc.	Providence	RI
Rise Engineering	Cranston	RI
Ritacco Electric LLC	Westerly	RI
RMS Ruggieri and Sons Mechanical LLC	Richmond	RI
RN Electric	North Providence	RI
Robert Davignon	Warwick	RI
Robert Dionne Electrical Contractor	Providence	RI
Robert E Bang Plumbing and Heating	Lincoln	RI
Robert F Audet Inc.	East Greenwich	RI
Robert Perrino Electric	Cranston	RI
Robert Rachiele Electrician	Coventry	RI
Robert Squizzero Plumbing and Heating	Cranston	RI
Robert Sweet HVAC	Warwick	RI
Roberts Electric	Pawtucket	RI
Robinson Plumbing Supply	Pawtucket	RI
Roland M Belanger Plumbing and Heating	Pascoag	RI
Roland Richard	Slatersville	RI
Ronald Vento Electrician	Johnston	RI
Ross Landy Electrician	Portsmouth	RI
Rossi Electric Company	Cranston	RI
Roy Lacroix	West Warwick	RI
RR Donnelley & Sons	North Kingstown	RI
Rumford Mechanical Systems LLC	Rumford	RI
Russ Lembo Electrician	Johnston	RI
Ryan Electric Construction	Warwick	RI
S & K Electric Inc.	Charlestown	RI
S & S Electric	Chepachet	RI
S. Desmarisais Plumbing and Heating	Johnston	RI
S.B. Carbone Plumbing and Heating Company Inc.	Cranston	RI

Sakonnet Plumbing and Heating Inc.	Little Compton	RI
Sal Manzi and Son Plumbing and Heating Inc.	Cranston	RI
Sam Bliven Jr Plumbing & Heating Inc.	Westerly	RI
Sanford Electric	Bristol	RI
Santoro Oil Company Inc.	Providence	RI
Santurri Electric	East Greenwich	RI
Sasa Mechanical Contractors Inc.	Johnston	RI
Savard Oil Company Inc.	East Providence	RI
Schneider-Electric	Kingston	RI
Schwegler and Sons Plumbing and Heating Inc.	North Smithfield	RI
Scott D Horne Electric	Burrillville	RI
Scott Gatta Electric	Johnston	RI
Seekonk Supply Inc.	Providence	RI
Sensible Air	Riverside	RI
Sensible Heating and Air Conditioning LLC	Hope Valley	RI
Shamrock Electric	Middletown	RI
Shamrocks Plumbing	Pawtucket	RI
Sharpe Building Associates, LLC	Providence	RI
Sheridan Electric Inc.	Warwick	RI
Siemens Industry	Cranston	RI
Simon Olean	Portsmouth	RI
Simon's Supply	Pawtucket	RI
Sine Plumbing and Heating Co Inc.	East Providence	RI
Social Enterprise Inc.	Providence	RI
Sosa & Son Heating Air Conditioning & Refrigeration	Woonsocket	RI
South County Community Action	North Kingstown	RI
South County Gas Service	Narragansett	RI
Speeby Plumber	Johnston	RI
Spencer's Plumbing	North Kingstown	RI
Stable HVAC Service and Installation	Pawtucket	RI
Standish Heating and Air Conditioning	Coventry	RI
Stanton Electric, Inc.	Cumberland	RI
Stateside Precision Group, LLC	Newport	RI
Statewide Construction Corp	Providence	RI
Statewide Insulation	North Smithfield	RI
Statewide Plumbing and Heating Co Inc.	Cranston	RI
Stedman & Kazounis Plumbing and Heating	Charlestown	RI
Stem Electrical	Warwick	RI
Stephen Andrea Fire & Electric, LLC	Coventry	RI
Stephen Larochelle	Cumberland	RI
Stephen Mellen	Wakefield	RI
Steven Cacia Electrician	Providence	RI

Steven Maymon	Warwick	RI
Steven P Marandola	West Warwick	RI
Suburban Electrical	Providence	RI
Sullivan & McLaughlin	Greenville	RI
Summit Electrical Contractors Inc.	Lincoln	RI
Sunshine Fuels and Energy Services, Inc.	Bristol	RI
Superior Comfort Inc.	Bristol	RI
Superior Electric	Providence	RI
Superior Fire & Electrical Services	North Providence	RI
Superior Insulation	Narragansett	RI
Superior LED Light Solutions	Warwick	RI
Superior Plumbing and Heating	Cranston	RI
Supply New England	Pawtucket	RI
SW & Sons Plumbing & Heating	Johnston	RI
Swajian and Son	Cranston	RI
Sylvander Heat and AC	East Greenwich	RI
Sylvania Lighting Services	Johnston	RI
Symmes Maini & McKee Asso	Providence	RI
T & T Construction	Providence	RI
T & T Plumbing and Heating Inc.	Hope Valley	RI
T Gomes Heating and Cooling	Warwick	RI
T. Murphy Electric	Cranston	RI
T.A. Gardiner Plumbing & Heating Inc.	Bristol	RI
Taco Comfort Solutions	Cranston	RI
TD Plumbing Co.	East Providence	RI
Tebano Electric	Bristol	RI
Tebo Electric Inc.	Woonsocket	RI
The Moore Company	Westerly	RI
The Plumber Company LP	Cranston	RI
Thermal Home Energy Solutions	Cranston	RI
Therrien Mechanical Systems	Lincoln	RI
Thielsch Engineering	Cranston	RI
Thomas P McGee Plumbing and Heating	North Smithfield	RI
TIM Inc.	Rumford	RI
Tom Whitaker	Newport	RI
Toms Plumbing LLC	Manville	RI
Toner Electric Company	Middletown	RI
Tops Lighting (Electric Supply Company)	Providence	RI
Total Comfort Heating and Cooling Inc.	Lincoln	RI
Total Construction Services Inc.	Providence	RI
TPF Electrical Services	Pawtucket	RI
TR Electric Inc.	Ashaway	RI

TRC Companies, Inc.	Providence	RI
Tri-Town Community Action	North Providence	RI
Tuma Insulations	Warwick	RI
UG Nasons Inc.	Middletown	RI
Universal Electric CO Inc.	Warwick	RI
US Electrical Services	Cranston	RI
Valcourt Heating Inc.	Tiverton	RI
Valley Heating and Cooling Inc.	Hope Valley	RI
Valley Plumbing and Heating	Kingston	RI
Valmer D Montoya Air Heating and Cooling Inc.	Central Falls	RI
Van's Electric Inc.	Bristol	RI
Vaughn Oil Company Inc.	Smithfield	RI
Venco Electric LLC	Cranston	RI
Ventura Construction	Middletown	RI
Vicmir & Sons Heating and Air Conditioning Controls	Riverside	RI
Viking Electric Inc.	Providence	RI
Vintage Plumbing	Riverside	RI
Vivona Plumbing and Heating Inc.	Portsmouth	RI
VSP Plumbing and Heating Inc.	West Greenwich	RI
W Francis Plumbing and HVAC	Bristol	RI
W.W. Grainger, Inc.	Warwick	RI
Wakefield Heating Service	Wakefield	RI
Waldo Plumbing and Heating LLC	Lincoln	RI
Wayne Electric Inc.	Bristol	RI
Wayne Fernandez Electrician	Providence	RI
WESCO Distribution Inc.	Smithfield	RI
Westbay Community Action	Warwick	RI
Wickford Appliance and Lighting Inc.	Pawtucket	RI
William Calia Electrician	Johnston	RI
William Francis	Bristol	RI
William J Riley Plumbing and Heating	Warwick	RI
Woods Heating Service	East Providence	RI
Wordell Heating & Cooling LLC	Little Compton	RI
WR Construction Inc.	Providence	RI
WSCHB LLC	Warwick	RI
Zawadzki Plumbing and Heating Inc.	Warwick	RI
Zompa Plumbing and Heating	Warren	RI
Calco Electrical Services	Greenville	RI
Calson Corporation	Johnston	RI
David McMullen DBA Mister Sparky	Portsmouth	RI
Blackhawk Engagement Solutions	Lewisville	TX
Compressed Air Challenge	Alexandria	VA

Opower Inc.	Arlington	VA
Kelliher Samets Volk	Burlington	VT
Vermont Energy Investment Corporation	Burlington	VT
New Buildings Institute Inc.	White Salmon	WA

ENDNOTES

¹ Macroeconomic Impacts of Rhode Island Energy Efficiency Investments: REMI Analysis of National Grid's Energy Efficiency Programs. November 2014. Available from: <http://www.rieermc.ri.gov/documents/2014%20Evaluation%20Studies/Macroeconomic%20Impacts%20of%20Rhode%20Island%20Energy%20Efficiency%20Investments.pdf>

² Calculations based on National Grid's Year-End Reports to the Rhode Island Public Utilities Commission.

³ Energy Efficiency Program Plan for 2017. Rhode Island Public Utilities Commission Docket No. 4654. Available from: [http://www.ripuc.org/eventsactions/docket/4654-NGrid-EEPP-2017\(10-17-16\).pdf](http://www.ripuc.org/eventsactions/docket/4654-NGrid-EEPP-2017(10-17-16).pdf)

⁴ http://www.ripuc.org/eventsactions/docket/4600-WGReport_4-5-17.pdf

⁵ <http://www.planning.ri.gov/documents/climate/EC4%20GHG%20Emissions%20Reduction%20Plan%20Final%20Draft%202016%2012%2029%20clean.pdf>



Solicitation Information

TITLE: Public Education in Energy Issues including Efficiency, Conservation and Resource Diversification and Management

Submission Deadline: Wednesday, July 5, 2017 @ 5:00 PM (Eastern Time)

Submit all required proposal documents to EERMC.RFP@gmail.com AND three (3) hardcopies to the Office of Energy Resources (Department of Administration, 4th Floor, One Capitol Hill, Providence, RI 02908) by the submission deadline above.

Pre-Proposal Conference: No

Questions concerning this solicitation may be addressed to becca.trietch@energy.ri.gov. Questions should be submitted in a *Microsoft Word attachment*. Please reference the RFP Title **Public Education in Energy Issues including Efficiency, Conservation and Resource Diversification and Management** on all correspondence. Questions received, if any, will be answered and posted on the Internet as an addendum to this solicitation. It is the responsibility of all interested parties to download this information. All questions must be submitted by **Monday, June 26, 2017 at 5:00 PM (Eastern Time)**.

SURETY REQUIRED: No

BOND REQUIRED: No

NOTE TO APPLICANTS:

Proposals received without all required proposal documents will result in disqualification.

SECTION 1 - INSTRUCTIONS AND NOTIFICATIONS TO PROPOSERS

The Rhode Island Energy Efficiency and Resource Management Council (EERMC) is seeking qualified applicants, with significant expertise in energy efficiency education and outreach, to submit proposals for achieving the goals and objectives outlined in the scope of work of this solicitation. The scope of work is described herein.

All responses to this solicitation must be received by **5:00 PM on Wednesday, July 5, 2017**. No awards will be made until all applications are received, reviewed and ranked in accordance with the review process.

The purpose of this solicitation is to assist the EERMC in its Purpose and Duty (RIGL §42-140.1-3) to “Promote public understanding of energy issues and of ways in which energy efficiency, energy conservation, and energy resource diversification and management can be effectuated.” A total of \$75,000 is available for this purpose. The EERMC reserves the right to make one, multiple or no awards based on the proposals received.

Funding for this activity is being provided by System Benefit Charge (SBC) funds, pursuant to RI General Laws § 39-2-1.2 and § 42-140.1.

Potential Respondents are advised to review all sections of this solicitation carefully and to follow instructions completely, as failure to make a complete submission as described elsewhere herein may result in rejection of the proposal.

Proposals which depart from or materially alter the terms, requirements, or scope of work defined by this solicitation will be rejected as being non-responsive.

All costs associated with developing or submitting a proposal in response to this solicitation, or to provide oral or written clarification of its content shall be borne by the Respondent. The EERMC assumes no responsibility for these costs.

Proposals are considered to be irrevocable for a period of not less than sixty (60) days following the opening date, and may not be withdrawn, except with the express written permission of the EERMC.

Proposals misdirected to other locations or which are otherwise not present in the Office of Energy Resources at the time of opening for any cause will be determined to be late and will not be considered. For the purposes of this requirement, the official time clock is in the Office of Energy Resources.

All pricing submitted will be considered to be firm and fixed unless otherwise indicated herein.

Respondents are advised that all materials submitted to the EERMC for consideration in response to this RFP will be considered to be public records, as defined in Title 38 Chapter 2 of the Rhode Island General Laws, without exception, and will be released for inspection immediately upon request, once an award has been made.

Interested parties are instructed to peruse the EERMC website [\(\)](#) on a regular basis, as additional information relating to this solicitation may be released in the form of an addendum to this RFP.

The Respondent should be aware of the State's Minority Business Enterprise (MBE) requirements, which addresses the State's ten percent (10%) participation by MBE's in all State procurements. For further information, contact the MBE Administrator, at (401) 574-8253 or visit the website at www.mbe.ri.gov. Upon tentative selection, the EERMC may require selected applicants to submit an MBE plan to the MBE office and demonstrate good faith efforts to achieve MBE participation.

Equal Employment Opportunity (RIGL 28-5.1) § 28-5.1-1 Declaration of policy. – (a) Equal opportunity and affirmative action toward its achievement is the policy of all units of Rhode Island state government, including all public and quasi-public agencies, commissions, boards and authorities, and in the classified, unclassified and non-classified services of the state employment. This policy applies in all areas where the state dollar is spent, in employment, public service, grants and financial assistance, and in state licensing and regulation. For further information, contact the Rhode Island Equal Employment Opportunity Office, at 222-3090 or via email raymond1@gw.doa.state.ri.us.

Subcontracts are permitted, provided that their use is clearly indicated in the Respondent's proposal, and the subcontractor(s) proposed to be used are identified in the proposal.

All Respondents are responsible for complying with any applicable Rhode Island laws.

Questions, in **Microsoft Word Format**, concerning this solicitation, may be e-mailed to the Office of Energy Resources at becca.trietch@energy.ri.gov no later than the date and time indicated on page 1 of this solicitation. Please reference the RFP title on all correspondences.

Responses to questions received, if any, will be provided, as an Addendum to this RFP, and posted on the EERMC website at [\(\)](#). It is the responsibility of all interested Respondents to download this additional information.

SECTION 2 – PROJECT DESCRIPTION

SUMMARY

The Rhode Island Energy Efficiency and Resource Management Council (EERMC) is seeking qualified applicants, with significant expertise in energy efficiency education and outreach, to submit proposals for achieving the goals and objectives outlined in the scope of work of this solicitation. The purpose of this solicitation is to assist the EERMC in its Purpose and Duty (RIGL §42-140.1-3) to “Promote public understanding of energy issues and of ways in which energy efficiency, energy conservation, and energy resource diversification and management can be effectuated.” A total of \$75,000 is available for this purpose. The EERMC reserves the right to make one, multiple or no awards based on the proposals received.

BACKGROUND

Least-Cost Procurement & National Grid Energy Efficiency Programs

Rhode Island’s 2006 Comprehensive Energy Conservation, Efficiency, and Affordability Act established the state’s landmark “Least-Cost Procurement” policy, which requires electric and natural gas distribution companies to invest in “all cost-effective” energy efficiency before the acquisition of additional supply. This law has supported the creation and on-going delivery of National Grid’s (the state’s primary utility) energy efficiency programs. These programs have been highly successful in achieving energy savings in residential, small business, commercial, industrial, multifamily, and income-eligible buildings.

As building owners and renters go through National Grid’s energy efficiency programs, they are educated about the financial and environmental benefits of energy efficiency. Although, these programs and their associated marketing have reached thousands of Rhode Islanders, the EERMC recognizes the need for further public education related to broader energy topics. For this reason, the EERMC is soliciting proposals to increase public knowledge of energy efficiency, conservation, resource diversity, and other relevant energy issues.

EERMC’s Communications Subgroup

At the start of 2017, the EERMC formed a subgroup consisting of Council members, the Office of Energy Resources (OER), and members of the EERMC’s consultant team. This group meets once per month to discuss EERMC communication, education, and outreach topics. The primary goal of the group is to streamline information for the full council and to coordinate and recommend outreach initiatives to the full council. Any selected respondent to this solicitation will be required to provide consistent updates to this subgroup (exact frequency to be determined) and will need to present to the full council once final results and outcomes from a project are achieved.

The EERMC’s Communications Subgroup is also responsible for overseeing the development of the EERMC’s Annual Report to the General Assembly and the on-going update and maintenance of the EERMC’s website. Any selected respondent will be required to provide information on project status and results, when requested, to inform the annual report and website content.

SCOPE OF WORK

The EERMC is seeking project proposals to assist in its Purpose and Duty (RIGL §42-140.1-3) to “Promote public understanding of energy issues and of ways in which energy efficiency, energy conservation, and energy resource diversification and management can be effectuated.” The goals, objectives, and requirements for this solicitation are as follows. If the applicant identifies a need for additional tasks or work activities, they may indicate such additions in their project proposals.

1. Goals & Objectives

- 1) To educate a significant portion of the Rhode Island public about the benefits of energy efficiency, conservation, resource diversification, management, and other modern-day energy topics.
- 2) To reach segments of the Rhode Island population that may not be directly reached through National Grid’s energy efficiency programs.
- 3) To provide public education on a wide range of modern, relevant, energy topics.
- 4) To expand, compliment and where possible leverage the educational and marketing work provided through National Grid’s energy efficiency programs. (It is important that this goal be achieved while avoiding duplicative efforts.)
- 5) To identify and expand effective communication pathways for the EERMC to better promote public understanding of energy issues now and in the future.
- 6) To complete the awarded educational plan or project within one-year selection.

2. Required Deliverables

- 1) A proposal and plan including a timeline to achieve the majority of goals and objectives listed above. The proposal must specifically address how it will or will not address each of the goals and objectives.
- 2) Any educational or informational materials generated with the support of EERMC funds will be shared with the EERMC and will be made available for future use by the EERMC.
- 3) Interim reports to the EERMC’s Communications subgroup. The frequency of these reports shall be negotiated with awardees. However, the EERMC reserves the right to receive both oral and written reports including information on, but not limited to, the following metrics:
 - a) Number of Rhode Island residents reached per sector
 - b) Verification of information conveyance and retention
 - c) Samples of informational and educational materials used
 - d) Dollars leveraged to complete the project
 - e) Budget status for the project
- 4) A final report and presentation to the full EERMC at the completion of the project. This report will summarize the achievements of the project, highlight any lessons learned, and present relevant metrics.

3. Expected Tasks & Timeline

- 1) Collect and prepare any necessary preliminary data. The EERMC would specifically like to gain information regarding current energy knowledge levels, if such information is appropriate and relevant to a proposed project.
- 2) Implement the proposed project plan to educate the general Rhode Island public or sectors of the public about energy efficiency and other broad energy topics.
- 3) Analyze and report on the impact achieved by the project.
- 4) Prepare Interim Reports (oral and/or written) for the EERMC Communications Subgroup
- 5) Prepare Final Report and presentation for the full council

Table 1. Anticipated Project Timeline

Milestone	Anticipated Date
RFP Release Date	June 2017
Submission of Questions & EERMC Responses on RFP	Late June 2017
Final Proposals Due	Early July 2017
Proposal Award Date	Mid-July 2017
Interim Reports	Rolling
Final Report	August 2018

SECTION 3 – PROPOSAL REQUIREMENTS

General Submission Requirements

Responses should be emailed to EERMC.RFP@gmail.com AND three hard-copies (an original plus two (2) copies) should be mailed or hand-delivered in a sealed envelope marked “RFP Title: Public Education in Energy Issues including Efficiency, Conservation and Resource Diversification and Management” to:

RI Department of Administration
Office of Energy Resources, 4th floor
Attn: Becca Trietch
One Capitol Hill
Providence, RI 02908-5855

NOTE: Proposals received after the above-referenced due date and time (first page of this solicitation) will not be considered. Proposals misdirected to other State locations or which are otherwise not presented in the Office of Energy Resources by the scheduled due date and time will be determined to be late and may not be considered. Proposals faxed or only emailed to the Office of Energy Resources will not be considered. The official time clock is located in the Office of Energy Resources.

Proposals should include the following:

- Proof of registration with the Secretary of State to do business in Rhode Island.

- Proposal in MS Word format or PDF format containing all the following information under the section headers indicated:

Proposal submissions should address the applicant's approach to the objectives outlined in the scope of work. All proposals submitted for this request must be submitted in the format described below, clearly labeling the sections as described. Please keep fonts to 11 point at a minimum. Proposals should be kept to a maximum of ten (10) pages (at 1.5 line spacing) including all sections listed below:

1. Overview

The Overview will concisely lay out the respondent's understanding of the scope of work, describe their proposed approach and explain how they are well suited to achieve the objectives.

2. Technical Proposal

Discuss your solution to the objectives and goals in the proposed scope of work. Include a description of your approach to the goals, reporting requirements, impact analysis, process evaluation, and recommendations. Indicate your ability to complete the scope of work within the established timeframe and provide a proposed schedule of deliverables/project milestones.

3. Qualifications & Experience

Please provide the following:

- **Company Profile:** Provide an overview of history, length of time in business, organizational and staff capacity, core competencies, and any other resources uniquely suited to recommending and implementing solutions to the scope of work outlined in this solicitation.
- **Relevant Experience:** Describe your experience with similar projects.
- **Examples of Prior Work:** If possible, reference two or three examples of previous projects that best display your ability and experience with work of a similar nature and specify the role your firm played in each project.
- **Reference Information:** Provide names, addresses, telephone numbers and permission to contact two former or current clients for which your organization has performed work in the last three years.

4. Project Management & Organization

List all staff and/or subcontractors proposed as members of the consultant team and the tasks they will perform on the account. Describe their duties, responsibilities, and concentration of effort applying to each. Please include resumes, curricula vitae or statements of prior experience and qualification (these may be provided as attachments not counting towards overall page limit). An organizational chart showing roles and responsibilities on the project is desirable. The team may include subcontractors;

however, the prime respondent will be solely responsible for the management and work-products of the team.

5. Cost Proposal

Please provide a signed Cost Proposal reflecting one, all-inclusive price for the scope of service. Please indicate any funds being leveraged. **The total budget available from the EERMC for the scope of work outlined in this solicitation is \$75,000. The EERMC reserves the right to award one, multiple, or no projects based on the proposals received.** The maximum budget must include any contractor expenses, including travel. Costs should be indicated as separate line items. Please include the following, by task and for each staff and/or subcontractor proposed as members of the project team: estimated personnel hours, hourly billing rates, other direct costs, and any other relevant information.

DRAFT

SECTION 4 - EVALUATION AND SELECTION

Proposals will be reviewed by a Technical Review Committee comprised of EERMC council members, members of the EERMC Consultant Team, and Office of Energy Resources staff. Any technical proposals scoring less than 60 points will be dropped from further consideration.

Proposals scoring 60 technical points or higher will be evaluated for cost and assigned up to a maximum of 30 points in the cost category, bringing the potential maximum score to 100 points.

The EERMC reserves the exclusive right to select the individual(s) or firm (vendor) that it deems to be in its best interest to accomplish the project as specified herein; and conversely, reserves the right not to fund any proposal(s).

Proposals will be reviewed and scored based upon the following criteria:

Scoring Criteria	Description	Possible Points
Technical Proposal	<ul style="list-style-type: none"> The quality of the Proposal demonstrates the candidate’s ability to provide superior expertise in public education and outreach regarding energy efficiency and broad energy issues The proposed approach meets the needs and criteria set forth in the RFP The proposal presents methods that will effectively educate the Rhode Island public about broad energy issues 	35
Qualifications & Experience	<ul style="list-style-type: none"> The candidate has completed similar projects and is qualified to undertake the scope of work outlined in the RFP References and prior work demonstrate the candidate’s ability to provide superior services 	25
Project Management & Organization	<ul style="list-style-type: none"> Proposal shows clarity of team management structure, the availability of senior staff to supervise and contribute to the work, and ability to complete deliverables in a timely fashion 	10
Total Possible Technical Points		70
Cost Proposal*	<ul style="list-style-type: none"> The candidate submits a reasonable and competitive pricing structure commensurate with the value offered The proposal leverages outside funds to increase overall impact 	30
Total Possible Points		100

*Cost is calculated as lowest responsive cost proposal divided by (this cost proposal) times 30 points

Memo



To: RI Energy Efficiency & Resource Management Council
From: Consultant Team *Policy & Strategic Planning Group*
Date: May 18, 2017
Subject: Report on PUC “Energy” Dockets

CONSULTANT TEAM



<i>Relevance of Topic</i>	The EERMC directed the Consultant Team to follow, support, and report on policy and regulatory issues relating to two key dockets with important implications for energy efficiency and the EERMC’s mandate. As a result of those dockets, new activities are being launched to help guide future regulatory direction that may have significant and ongoing impact on future energy efficiency planning.
<i>Content of memo</i>	The memo provides detail on the process and outcomes of the docket proceedings. The primary outcome was a new Benefit/Cost Framework that the PUC envisions being used to consistently analyze utility energy planning and investment proposals, including LCP activities. The Framework will be developed and improved incrementally over time and will be capable of evaluating the relative value proposition of diverse energy and infrastructure options on an “apples-to-apples” basis. The ultimate goal will be developing the ability for Rhode Island to deploy an optimized portfolio of resources and technology that provides maximum net benefits to customers, the system, and society. The other outcome was a set of rate design principles and recommendations. There was a high level of consensus achieved across the diverse stakeholders for implementing time-varying rate opportunities, pursuing location-based incentive and pricing strategies, and exploring low-income opportunities. The proposed rate design principles appear to be in line with LCP priorities, including continuing to incent customer investment in EE.
<i>Expected Outcome</i>	This memo is aimed at providing information for the EERMC to confirm the value and potential scale of ongoing monitoring of ensuing developments by the Consultant Team, as well as confirming an interest in future direct engagement if warranted.

Background

In 2014, Rhode Island enacted a Renewable Energy Growth Program (RIGL 39-26.6) to support the adoption and installation of distributed renewable energy resources in the state. The legislation included a requirement that the Rhode Island Public Utilities Commission “*open a docket to consider rate design and distribution cost allocation among rate classes in light of net metering and the changing distribution system that is expected to include more distributed-energy resources, including, but not limited to, distributed generation.*”

On July 2, 2015, the PUC opened Docket #4568 to comply with this legislative requirement; National Grid filed a rate design proposal in response. The EERMC and other bodies intervened in this proceeding, uniformly opposing National Grid’s proposed rate design. The EERMC argued that the tiered fixed distribution charge for residential and small commercial customers would decrease the incentive for them to participate in Least Cost Procurement programs and that it would impose costs that customers did not yet have adequate information to respond

to. The EERMC submitted both direct and rebuttal testimony in this proceeding. In the end, National Grid withdrew its proposed rate design, and the Docket was closed in July of 2016.

In part due to the outcome of this proceeding, the PUC initiated a more open-ended investigation into the electric distribution system. In February of 2016, in response to a request from PUC, the EERMC submitted comments on what was described as “...a Docket to Investigate the Changing Distribution System.” This proceeding became Docket #4600.

The link to the PUC website for this Docket is:

<http://www.ripuc.org/eventsactions/docket/4600page.html> .

The original comments submitted on behalf of the EERMC (2/19/16) can be found at:

[http://www.ripuc.org/eventsactions/docket/4600-EERMC-Comments\(2-19-16\).pdf](http://www.ripuc.org/eventsactions/docket/4600-EERMC-Comments(2-19-16).pdf)

At the instruction of the EERMC, Scudder Parker of the Consultant Team participated in nine Working Group sessions that were held in this proceeding—seven of them facilitated by Jonathan Raab Associates. The proceeding is now completed. The documents reviewed, used in, and developed in the course of the proceeding can be found at:

<http://www.raabassociates.org/main/projects.asp?proj=146&state=Services>

Finally, the full Docket #4600 Report of the Working Group can be found directly at:

<http://www.raabassociates.org/Articles/RI%204600%20Final%20WG%20Report%204-5-17.pdf>

The PUC and the EERMC were also clear that the Rhode Island State Energy Plan, the Docket #4600 Report, and the ongoing work of the System Integration Rhode Island (SIRI) group were important efforts already completed or under way in Rhode Island that addressed related issues. Furthermore, the hearing officers acknowledged that some of the issues addressed in Docket #4600 are directly relevant to the System Reliability Plan (SRP) and the process for adopting revised Standards for Least Cost Procurement (LCP) that will guide National Grid’s next 2018-2020 Three Year Plan.

Proceeding and Outcomes

The Docket #4600 proceeding took the form of a Facilitated Working Group, in which 13 active participants collaborated in good faith to achieve as broad a consensus as possible in the resulting report.

In its initial comments the EERMC emphasized three basic points that it believed should guide the #4600 proceeding:

- *The proceeding should maintain a strong and consistent focus on the principles of Least Cost Procurement and System Reliability as articulated in Rhode Island legislation.*

- *The full range of costs and benefits of all services, activities, and options for providing energy services should be fairly considered on a consistent basis.*
- *Incentives for guiding utility investment and providing customer benefit should reflect both of the first two policy principles.*

The Consultant Team wants to emphasize that the first two points were generally well addressed in the proceeding. In contrast, the third point was not, due to the consistent and firm guidance from the PUC and the facilitators that this particular proceeding was not intended to be focused on “the new structure of the utility.” There was some general discussion of the policy goals that should inform the proceeding, but these were not the direct focus of the deliberation. This was likely the result of the facilitators’ feeling that the discussion of “policy goals” and the consideration of the “new structure for the utility” were inextricably linked, and thus generally treated as “off topic.”

On the other hand, the Working Group acknowledged that both of those discussions need to take place, should be part of a larger discussion, and that new efforts should be advanced to enable those discussions. We therefore appreciate Governor Raimondo’s **Power Sector Transformation Initiative**, and we wish to recognize the guidance, support, and hard work that the Division of Public Utilities, the Office of Energy Resources, and the PUC are providing in support of this essential effort.

The link to the Power Sector Transformation Initiative is:

http://www.ripuc.ri.gov/utilityinfo/electric/PST_home.html

Thus, the first major focus of the Working Group was to answer three questions relative to how the benefits and costs of utility activities should be considered in future decision-making about the utility system:

- What are the costs and benefits that can be applied across any and/or all programs, and to what extent is each aligned with state policy?
- At what level should these costs and benefits be quantified—where physically on the system and where in cost-allocation and rates?
- How can we best measure these costs and benefits at these levels—what level of visibility is required on the system and how is that visibility accomplished? .

These questions are answered in substantial part in Chapter 2 of the Docket #4600 Report, while Appendix B includes a table (Benefit/Cost Framework) identifying the various cost and benefit components that may be applied to Rhode Island utility activities. For example, the table assesses the impacts of peak pricing during peak times on the system. The EERMC has already referred to this document in securing approval for in the newly adopted 2018-2020 Least Cost Procurement and System Reliability Standards, allowing these components to be included in the Rhode Island Benefit/Cost Test for energy efficiency in the upcoming Three-Year and 2018 Annual Energy Efficiency and System Reliability Plans. The Docket #4600 Benefit/Cost

Framework is consistent with the newly-proposed Rhode Island Benefit/Cost Test in the EERMC's LCP and SRP Standards, and contains an even more expansive set of benefits and costs. The Docket #4600 Report envisions building upon energy efficiency experience to learn how to apply this information to other resources such as demand response, distributed generation, and storage.

The second major focus of Docket #4600 derives directly from the history of debate about rate design in Docket #4568 and the need for clear principles to guide future rate design proceedings. Chapter 3 of the Working Group Report proposes specific principles for rate design and offers a discussion of the general consensus that emerged among parties that time-varying rates are the preferred approach for future rate design. This is consistent with the position the EERMC took in the Docket #4568 proceeding.

Finally, Chapter 4 clearly indicates that there is much more to be done in Rhode Island on these issues, including the following issues which the recent [Power System Transformation Initiative](#) has started to address.

- ✓ The need to address the [future utility business model](#) and the link to how rate design would be influenced by a new model.
- ✓ The need to address future [grid connectivity and functionality](#), including such matters as how to provide customers with better, real-time information about energy use.
- ✓ The importance of integrating distribution system planning with Least Cost Procurement, building on the System Reliability Planning the EERMC has supported for years.
- ✓ The need to address the potential benefits and challenges of supporting Beneficial Electrification of the heating and transportation sectors
- ✓ The need to develop new strategies to appropriately value distributed generation.

Conclusion and Next Steps

In conclusion, the Consultant Team recommends that the EERMC continue to monitor the progress of the Power Sector Transformation Initiative to see how it can fully include and advance the principles of Least Cost Procurement and System Reliability in Rhode Island. While the Consultant Team's 2017 scope of work only assumed active participation through the completion of Docket #4600 proceedings, we are within budget and scope to continue monitoring, at a high level, any ensuing developments of the Power Sector Transformation Initiative and will provide periodic updates to the EERMC on key issues and developments.

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National Grid Year-End Results 2016

RI EERMC

5/18/17

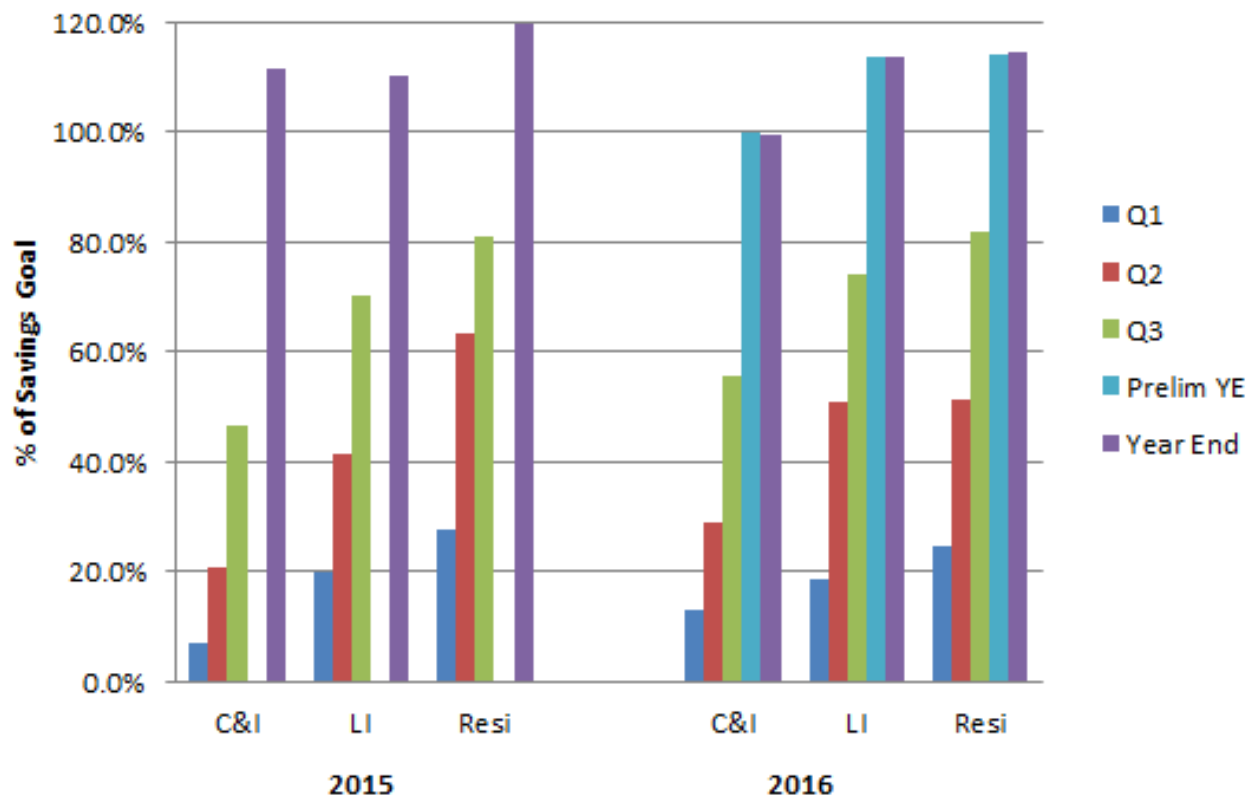


2016 Electric Sector Results

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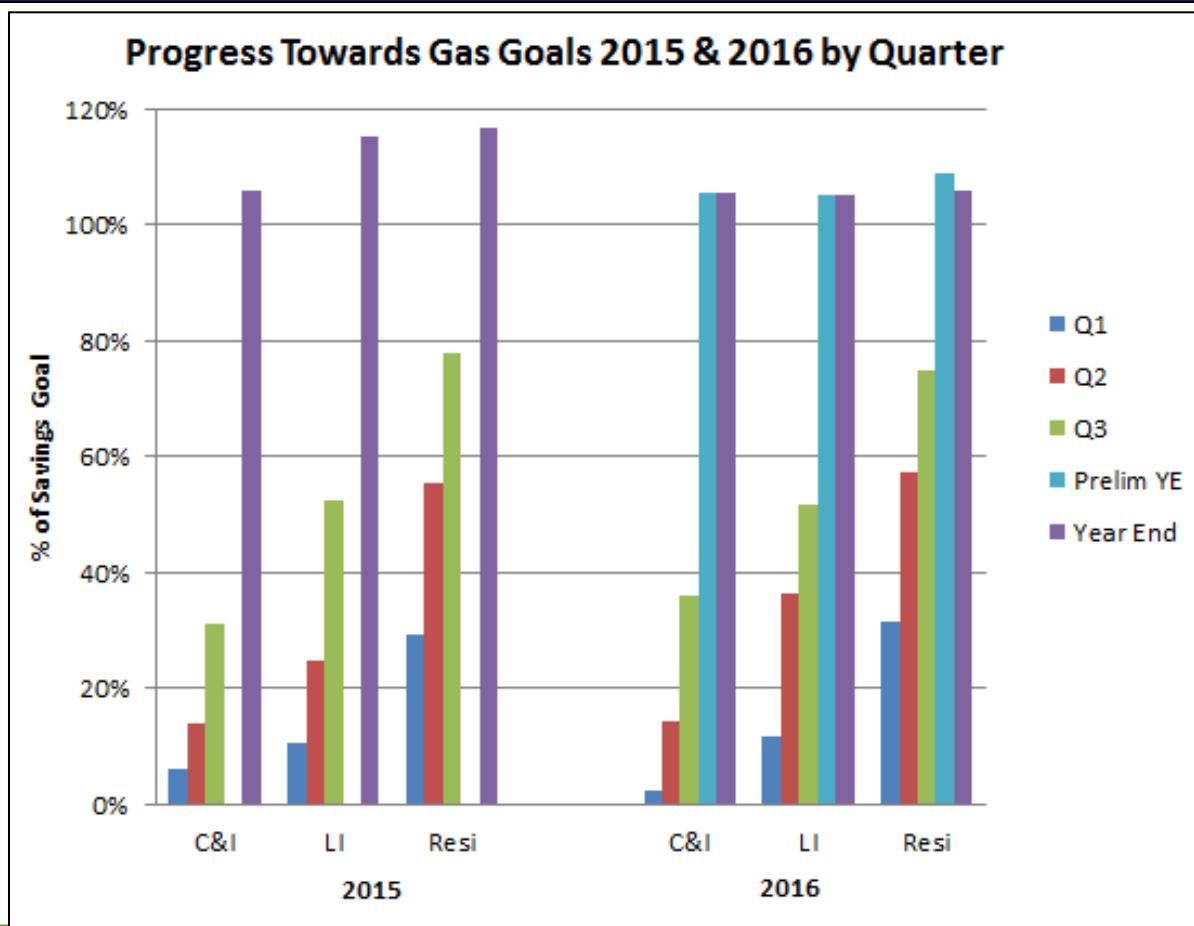
Progress Towards Electric Goals 2015 & 2016 by Quarter



2016 Gas Sector Results

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2016 Jobs Study

- Commissioned Peregrine Energy Group to develop counts of workers directly attributable to National Grid's programs.
 - Included interviews with lead vendors and analyzed labor assumptions for installed EE measures.
- 2016 Results
 - 702 FTE workers employed in 2016 from EE programs.
 - EE jobs are local jobs!
 - 923 companies and agencies involved in EE programs
 - 82% located in RI

2016 Jobs Study

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FTE Job Impacts by Market Sector: 2016, 2015, 2014, and 2013

	2016 FTEs	2015 FTEs	2014 FTEs	2013 FTEs
Electric Programs				
Residential Non-Income Eligible	104.0	125.4	109.0	98.8
Residential Income Eligible	42.3	37.0	38.6	24.1
Commercial and Industrial	241.1	210.0	199.5	142.6
Gas Programs				
Residential Non-Income Eligible	159.3	172.1	178.0	159.1
Residential Income Eligible	41.4	43.8	42.5	34.9
Commercial and Industrial	36.1	32.0	27.0	30.3
Community Action Agency staff	38.0	34.0	32.5	30.7
National Grid staff	39.9	41.6	38.9	38.5
TOTAL RHODE ISLAND FTE JOBS	702.2	695.8	666.1	558.9

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National Grid First Quarter 2017 Results

RI EERMC

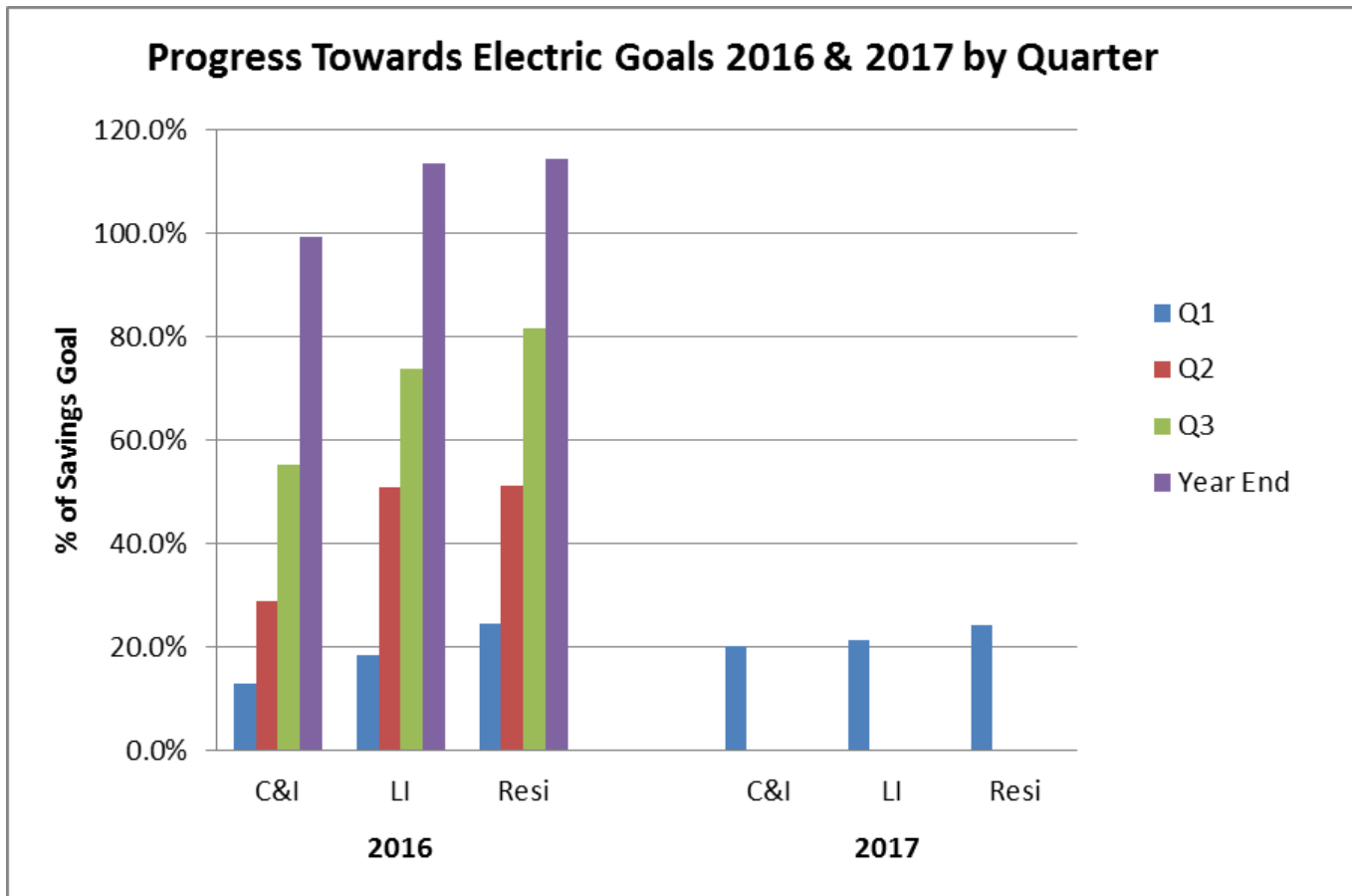
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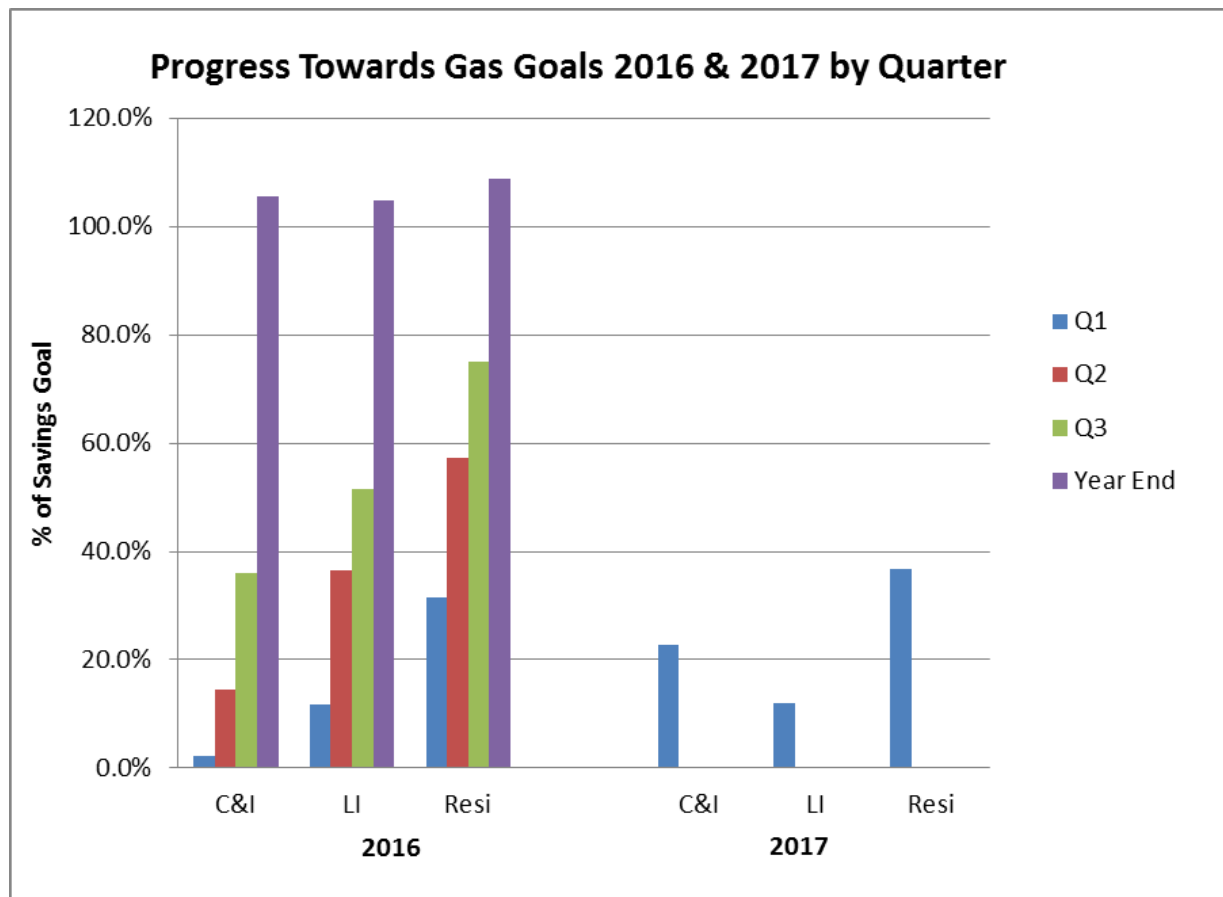
Q1 2017 Electric Sector Results

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Q1 2017 Gas Sector Results



Rhode Island Energy Efficiency

First Quarter 2017 | National Grid

May 11th, 2017

Overview

National Grid is off to a great start for the first quarter of 2017. The Company focused on reaching new participants in residential programs and creating new leads in the Commercial and Industrial (C&I) sector to develop a strong pipeline for 2017. Efforts are also focused on setting strong foundations for innovation in the next three years. At the end of the first quarter, the Company achieved 24.2% of the electric savings goal and 26.7% of the gas savings goal.

On the residential side, to promote participation in the Residential New Construction program, the Company worked with developers very closely and provided technical support to large multi-unit projects. On the commercial side, there was active participation in the Large Commercial Retrofit program with customers such as schools, warehouses, and manufactures.

To prepare for the next three years, the Company selected the new lead vendor for the multifamily programs based on key areas of consideration such as innovation/technological capabilities, customer management, retrofit experience, and cost competitiveness. On the C&I side, potential CHP projects and new Strategic Energy Management Planning (SEMP) initiatives are being scoped aggressively.

For the fourth 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 2017 RI Home Show from March 30th through April 2nd. With over 25,000 attendees, the Company aggressively promoted the EnergyWise Home Energy Assessment and received a remarkable 488 on-site requests for assessments.

EnergyWise was awarded the 2017 ENERGY STAR Partner of Year for Program Implementation for the leadership in energy efficiency and commitment to successful Home Performance with Energy Star (HPwES) program.

The 2016 Jobs Study was also finalized in the first quarter. The study found that National Grid's 2016 energy efficiency programs supported 702 full-time equivalent (FTE) workers. Most of the jobs created as a result of the energy efficiency investments were local because they were tied to installation of equipment and other materials. In fact, of the 923 companies and agencies involved in National Grid's 2016 EE programs, 82% were located in Rhode Island.

Based on the strong first quarter results, National Grid believes 2017 will be another successful year to come.

2017 Program & Initiative Updates

Residential New Construction (RNC)

- Residential New Construction had a strong first quarter with 232 completed units (one large mill renovation with 142 units).
- 35 homes achieved Tier II (minimum of 31% savings over the program baseline) and 3 homes achieved Tier III (minimum of 45% savings over the program baseline).
- 228 units enrolled in the program during the first quarter, which is 41% of the overall goal for the year. These newly enrolled projects have aggressive timelines and their progress may confirm whether these initial signs represent a potential turnaround in the market.
- Enrollment Highlight
 - A.R. Building Company enrolled additional phases of an existing project (Highland Homes) into the program and is poised to enroll a second project later in the year. This out of state developer was initially skeptical about the program but overcame their reluctance after meeting directly with National Grid representatives in 2015. The first 45-unit phase of their 180-unit project completed in 2016 and the RNC team provided a significant amount of technical support throughout the construction process to ensure they met programs standards. Plans for a second project, Kettle Point, as well as a third project, Reynolds Farm (the apartment phase) have been finalized and the developer intends to enroll both projects in the program. Overall, they will bring approximately 700 units to the program over the course of three years.

Income Eligible

- Weatherization Technical Committee meetings took place on February 9, 2017 and April 6, 2017. The Best Practices meeting took place on February 16th, 2017.
- The Company hosted a table for four days at the RI Home Show. Six Energy Fellows, volunteers from University of Rhode Island, were also on hand to work with customers and get hands on experience with customers.
- Implementation of the National Grid Background Check program continued in the first quarter, with an emphasis on specialty contractors (electricians, chimney service, disaster prep, etc.)
- The lead vendor worked with collaborative partners to deliver a first quarter training with John Krigger (Saturn Press) for Auditors and Crew Chiefs. This training is tied to the DOE Standard Work Specifications (SWS) and the RI low-income Weatherization Assistance Program (RI WAP/IES) Field Manual, ensuring consistent measure installation across the state.

EnergyWise

- 2,266 audits were completed through the first quarter, with carryover from 2016. The pipeline is much smaller than most winter periods. Marketing tactics will continue.

- 321 HEAT Loans were processed in the first quarter, totaling \$17 million loaned. The Company and the lead vendor are researching ways to reduce expense of Heat Loan for 2018.
- 563 gas weatherizations were completed through the first quarter.

EnergyWise and Income Eligible Multifamily

- The Company evaluated three strong proposals from four companies for lead vendor services during the first quarter. Among the areas of consideration were: innovation/technological capabilities, customer management, retrofit experience, and cost competitiveness. The companies who submitted the bids took part in a thorough interview process and selection was made in the beginning of the second quarter.
- The income eligible electric program is off to a strong 2017 with 28% of the savings goal achieved through the first quarter. The gas program saw a slow start to the year. However, pipeline for the gas budget is strong and the current savings does not take into consideration the heating system installations slated to begin May 2017.
- Like the income eligible program, the Market Rate gas program saw a slow start in 2017. However, the electric program had tremendous interest early 2017. The gas program does possess a good pipeline and the Company is encouraged that it will get on pace in the second quarter.
- The commercial and industrial multifamily program is on pace for a successful 2017 with approximately 20% of the goal achieved in the first quarter.

ENERGYSTAR® Lighting and Appliances

- Special Earth Month lighting promotions were designed for April in Home Depot and Lowe's. Promotions had enhanced incentives and additional signage.
- Two educational tables were set up in January in Westerly and Middletown, two educational tables were in February in North Kingstown and North Smithfield, and three educational tables took place in March with two in Cranston and one in Providence.
- Pool Pump agreements for 2017 have been completed with local distributors. Trainings with two manufacturers about the upstream program were completed in the first quarter. Outreach to pool dealers and suppliers is ongoing.

ENERGYSTAR® HVAC (Heating and Cooling)

- There was a large turnout for the Rhode Island Trade Ally Breakfast held on April 5th. General feedback was positive with interest in boiler controls and training opportunities.
- In effort to connect with more contractors, the program staffs attended the RI Plumbing and Mechanical Inspectors monthly meeting in East Providence. They will be working with the lead vendor to deliver training on outdoor reset controls.
- The lead vendor was successful in connecting with several HVAC and plumbing contractors while in attendance to the RI Home show. The

contractors were very pleased to have material to show prospective customers.

- The program's lead vendor continued to provide outreach and programmatic support to participating contractors to ensure they had the knowledge to effectively communicate the program offering to customers, and the technical expertise to offer quality installations.

Home Energy Reports

- During the first quarter, the program saved 42,005 MMBTUs (71% of filed goal) and 8,018 MWh (30.6% of filed goal). The gas program looks strong and is anticipated to surpass goal while the electric program is expected to come in right around target.
- Other notable efforts include:
 - Refilling 32,000 electric and dual fuel customers
 - Hosting trainings for Customer Service Representatives to educate customers on the program
 - Creating High Use Alerts to be sent later this spring/summer
 - Crafting a Re-Introduction module to familiarize customers with the purpose of the program

Community Initiative

- The Rhode Island Energy Challenge spent the first quarter celebrating the efforts of the 2016 winning towns during the Rhode Island Home Show, in addition to recruiting municipalities to take part in the 2017 campaign.
- Four towns will run approximately 6-month long energy efficiency promotional campaigns to increase energy audits, drive program participation, and create a lasting plan for the towns to follow after their participation in the campaign has ended. The towns will be announced in the second quarter.

Code Compliance Enhancement Initiative (CCEI)

- The Rhode Island building commission anticipated adopting a new energy code in 2016 but the Office of Regulatory Reform's request that all sections of the code undergo an economic analysis has resulted in a significant delay. The energy code was reviewed first and passed quickly and successfully. However, as there was no similar precedent for reviewing other sections of the code, the state issued an RFP to identify a third party to assist with developing an appropriate procedure. One bidder applied and is being asked to perform the work within a capped amount. If the bidder accepts, and both sides can agree on other terms (duration of project, etc.), they will move forward. If the bidder declines, the state will either re-write/re-submit a new RFP or hires two people to do the work.
- The timeline for adoption of the new energy code remains uncertain and if the review process extends into 2018, it is possible that the next code adopted in Rhode Island would be based on 2018 IECC.
- In 2017, the initiative will focus on outreach, trainings (in the form of classroom trainings, workshops, and field trainings), webinars, circuit Rider assistance, and third party inspection support.

- On February 17th, 2017 at the Rhode Island Builders Officials Association (RIBOA) – 2017 Annual Expo & Education Fair, a CCEI training was held for 21 attendees, mostly code officials. The training provided an overview of residential energy code requirements, including air leakage and duct leakage requirements, air barrier and insulation components, lighting, ventilation and compliance pathways.
- A residential training was held at JLC Live in Providence on March 24th. An overview of 2015 IECC was provided to 40 people. Representatives from the Company and the lead vendor staffed a booth for the two-day event, answering questions on the energy code and providing information on programs offered by National Grid.

Large Commercial New Construction

- Upstream initiatives:
 - Discussions continued around new upstream lighting technologies that will be added to the program.
 - Discussions continued around new upstream HVAC technologies that will be added to the programs. It is fairly possible that the Company will be offering circulator pumps as a measure by the end of the of third or fourth quarter of 2017.
- A Building Operator Certification (BOC) Level I class is scheduled for the fall in Providence.
- Company owned LED street lighting tariff went into effect on January 1st, 2017. Barrington, West Warwick, and Providence were in the process of installing LED street lights and controls. In addition, Bristol and Cranston were in the process of installing LED street lights.

Large Commercial Retrofit

- One customer plans to convert campus lighting to LEDs, which will bring 810,000 KW of savings. The project is expected to be completed in July. A retailer's warehouse and office space plans to move forward with a performance lighting project for 700,000 sq ft. This project consists of LED integrated control fixtures and an icloud base control system.
- A large manufacturer is working with Leidos under the Manufacturing Initiative on six HVAC related measures. These six projects could yield as much as 700,000 kWh for a relatively low incentive.
- The State Strategic Energy Management Planning (SEMP) initiative had an active first quarter. 15 scoping studies and two retrocomissioning studies were completed. In addition, the first project with On-bill Financing (OBR) for the State SEMP was signed.
- A manufacturer is up and running with a 1,250 KW CHP. A hotel will witness test in May. Three CHPs at hospitals are looking for approvals from their Board. Another manufacturer is just beginning to investigate the process. A 630 KW system for a waste water facility may be completed by the end of the year.

Small Business Direct Install

- The Small Business Direct Install program has started out the year with a strong first quarter performance and is primarily projected to deliver 95-100% of the savings goal.

Finance

- The company has been spending a good deal of time researching what the appropriate amount of OBR will be needed in 2018-2020 to meet the newly approved savings targets. Though these targets are not binding, the Company is using them as guideposts.

Pilots

- Design is underway for a Smart Lighting/Home Energy Solutions demonstration. Recruitment of customers will begin in June.
- 50% of the demand response goal has been achieved in the C&I Demand Response demonstration.

Evaluation

- Metering is in progress at customer sites for the C&I Comprehensive Design Approach Evaluation.
- Field metering has been completed for the C&I Custom Process study. Analysis is in progress.
- For the C&I Custom HVAC study, most site visits have been completed and the study is moving into the analysis phase.
- For the C&I Upstream Lighting study, the workplan and sample design are in progress.
- Both the Residential New Construction Baseline study and the Codes Attribution Evaluation study have completed project scoping and moved into the implementation phase. Site visits have begun for the Residential New Construction Baseline study.
- The Customer Participation study is also in its implementation and data analysis phase.

Upcoming Events:

- Community Connections - Pawtucket & Central Falls on May 18th from 6-8 pm.
- TEC-RI sessions:
 - Apr 27th: Going Beyond Lighting Upgrades and VFDs
 - May 25th: Solar & Financing Alternatives for Commercial Buildings

NATIONAL GRID ENERGY EFFICIENCY PROGRAMS IN RHODE ISLAND
 Table 1. Summary of Electric 2017 Target and Preliminary 1st Quarter Results

ELECTRIC PROGRAMS Sector and Program	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	Demand Reduction (Annual kW)			Energy Savings (Annual MWh)			Customer Participation			Expenses (\$ 000)			Lifetime savings, MWh	\$/kWh	Planned \$/kWh
	Target	Year To Date	Pct Achieved	Target	Year To Date	Pct Achieved	Target	Year To Date	Pct Achieved	Budget	Year To Date	Pct Achieved			
Commercial and Industrial															
Large Commercial New Construction	1,276	179	14.0%	14,270	1,090	7.6%	201	27	13.4%	\$5,121.4	\$730.3	14.3%	14,861	\$ 0.049	\$ 0.022
Large Commercial Retrofit	13,317	2,796	21.0%	77,611	17,522	22.6%	2,188	363	16.6%	\$23,708.4	\$4,119.8	17.4%	263,478	\$ 0.016	\$ 0.041
Small Business Direct Install	2,815	361	12.8%	12,136	2,602	21.4%	744	146	19.6%	\$8,831.4	\$1,619.7	18.3%	32,389	\$ 0.050	\$ 0.076
Commercial Demonstration and R&D										\$874.4	\$0.5	0.1%			
Finance Costs										\$1,300.0	N/A	N/A			
RI Infrastructure Bank										\$4,900.0	\$0.0	0.0%			
SUBTOTAL	17,408	3,336	19.2%	104,017	21,214	20.4%	3,133	535	17.1%	\$44,735.6	\$6,470.3	14.5%	310,728	\$ 0.021	\$ 0.046
<i>Subtotal with Finance</i>										\$44,735.6	\$6,470.3	14.5%	310,728	\$ 0.021	\$ 0.046
Income Eligible Residential															
Single Family - Income Eligible Services	652	125	19.1%	4,350	755	17.4%	2,625	638	24.3%	\$9,268.1	\$1,353.8	14.6%	8,808	\$ 0.154	\$ 0.200
Income Eligible Multifamily	145	38	26.3%	2,726	769	28.2%	2,894	2,288	79.1%	\$2,708.4	\$552.7	20.4%	5,579	\$ 0.099	\$ 0.097
SUBTOTAL	797	163	20.4%	7,076	1,525	21.5%	5,519	2,926	53.0%	\$11,976.5	\$1,906.6	15.9%	14,386	\$ 0.133	\$ 0.161
Non-Income Eligible Residential															
Residential New Construction	54	44	81.2%	1,065	258	24.2%	561	232	41.4%	\$1,045.3	\$152.5	14.6%	4,763	\$ 0.032	\$ 0.066
ENERGY STAR® HVAC	330	136	41.2%	1,376	346	25.1%	1,900	698	36.7%	\$1,669.5	\$353.5	21.2%	4,570	\$ 0.077	\$ 0.124
EnergyWise	376	41	10.9%	6,545	1,592	24.3%	9,000	2,851	31.7%	\$9,630.0	\$1,483.7	15.4%	14,514	\$ 0.102	\$ 0.166
EnergyWise Multifamily	288	40	13.9%	3,519	445	12.6%	4,000	1,207	30.2%	\$3,443.5	\$398.8	11.6%	3,627	\$ 0.110	\$ 0.111
ENERGY STAR® Lighting	5,466	1,277	23.4%	46,856	10,943	23.4%	279,425	88,931	31.8%	\$9,412.4	\$1,460.8	15.5%	99,862	\$ 0.015	\$ 0.038
Residential Consumer Products	705	48	6.8%	4,708	251	5.3%	14,700	1,339	9.1%	\$2,125.0	\$141.0	6.6%	1,933	\$ 0.073	\$ 0.081
Home Energy Reports	3,119	1,320	42.3%	26,184	8,018	30.6%	208,063	267,433	128.5%	\$2,447.0	\$18.4	0.8%	8,018	\$ 0.002	\$ 0.093
Energy Efficiency Educational Programs										\$40.0	\$0.0	0.0%			
Residential Demonstration and R&D										\$1,179.5	\$100.9	8.6%			
Community Based Initiatives - Residential										\$270.8	\$83.4	30.8%			
Comprehensive Marketing - Residential										\$535.4	\$11.0	2.1%			
SUBTOTAL	10,338	2,905	28.1%	90,254	21,854	24.2%	517,648	362,690	70.1%	\$31,798.4	\$4,204.1	13.2%	137,288	\$0.031	\$ 0.070
Regulatory															
EERMC										\$816.3	\$57.2	7.0%			
OER										\$816.3	\$214.9	26.3%			
SUBTOTAL										\$1,632.5	\$272.1	16.7%			
TOTAL	28,543	6,403	22.4%	201,347	44,592	22.1%	526,299	366,152	69.6%	\$ 90,143.1	\$ 12,853.0	14.3%	462,402	\$0.028	\$ 0.058
TOTAL With Finance										\$ 90,143.1	\$ 12,853.0	14.3%	462,402	\$0.028	\$ 0.058
RGGI										\$ 516.1	\$23.0	4.5%			
System Reliability Procurement										\$ 399.3	\$71.8	18.0%			

NOTES

- (1)(4)(7) Targets from Docket 4654 - Attachment 5, Table E-7 (electric)
- (3) Pct Achieved is Column (2)/ Column (1).
- (6) Pct Achieved is Column (5)/ Column (4).
- (7) 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 Budget includes Implementation and Evaluation budgets from Docket 4654, Attachment 5 Table E-2 (electric).
- (11) Year To Date Expenses include Implementation and Evaluation expenses.
- RGGI Expenses are counted separate as those funds were not part of the approved 2017 budget. Details on RGGI spend are found in Table 4.
- (12) Pct Achieved is Column (11)/ Column (10).
- (14) \$/lifetime kWh = Column (11)/Column (13)
- (15) Planned \$/lifetime kWh - Attachment 5, Table E-5 (electric)
- System Reliability Procurement targets from Docket 4654 - Attachment 5, Table E-7 (electric), not included in Expenses Total

NATIONAL GRID ENERGY EFFICIENCY PROGRAMS IN RHODE ISLAND
Table 2. Summary of Gas 2017 Target and Preliminary 1st Quarter Results

GAS PROGRAMS Sector and Program	(1) (2) (3) Energy Savings (MMBtu)			(4) (5) (6) Customer Participation			(7) (8) (9) Expenses (\$ 000)			(10)	(11)	(12)
	Approved Target	Year To Date	Pct Achieved	Approved Target	Year To Date	Pct Achieved	Approved Budget	Year To Date	Pct Achieved	Lifetime savings, MMBtu	\$/Lifetime MMBtu	Planned \$/Lifetime MMBtu
Commercial and Industrial												
Large Commercial New Construction	53,516	5,790	10.8%	149	42	28.2%	\$2,086.3	\$638.3	30.6%	117,564	\$ 5.43	\$ 3.93
Large Commercial Retrofit	187,938	48,994	26.1%	147	20	13.4%	\$5,830.5	\$826.9	14.2%	322,295	\$ 2.57	\$ 4.07
Small Business Direct Install	3,639	1,178	32.4%	86	33	38.9%	\$268.7	\$18.5	6.9%	7,099	\$ 2.61	\$ 7.74
Commercial & Industrial Multifamily	4,434	878	19.8%	806	251	31.1%	\$738.9	\$48.6	6.6%	9,362	\$ 5.19	\$ 12.82
Commercial Demonstration and R&D							\$73.8	\$0.6	0.8%			
RI Infrastructure Bank							\$100.0	\$0.0	0.0%			
Finance Costs							\$500.0	N/A	N/A			
SUBTOTAL	249,527	56,839	22.8%	1,188	346	29.1%	\$9,598.1	\$1,532.9	16.0%	456,319	\$ 3.36	\$ 4.50
<i>Subtotal With Finance</i>							\$9,598.1	\$1,532.9	16.0%	456,319	\$ 3.36	\$ 4.50
Income Eligible Residential												
Single Family - Income Eligible Services	11,032	2,468	22.4%	590	127	21.5%	\$3,640.6	\$611.8	16.8%	49,360	\$ 12.39	\$ 16.50
Income Eligible Multifamily	15,810	733	4.6%	2,709	878	32.4%	\$2,216.6	\$74.7	3.4%	8,933	\$ 8.36	\$ 7.94
SUBTOTAL	26,842	3,201	11.9%	3,299	1,005	30.5%	\$5,857.2	\$686.5	11.7%	58,293	\$ 11.78	\$ 11.72
Non-Income Eligible Residential												
EnergyWise	28,587	2,522	8.8%	2,250	663	29.5%	\$6,917.2	\$812.6	11.7%	45,417	\$ 17.89	\$ 14.63
Energy Star® HVAC	27,393	4,816	17.6%	2,104	466	22.1%	\$1,803.5	\$303.9	16.9%	79,915	\$ 3.80	\$ 10.82
EnergyWise Multifamily	11,518	480	4.2%	4,101	44	1.1%	\$1,823.6	\$70.6	3.9%	7,340	\$ 9.62	\$ 13.22
Home Energy Reports	59,164	42,005	71.0%	99,001	125,409	126.7%	\$497.0	\$111.2	22.4%	42,005	\$ 2.65	\$ 8.40
Residential New Construction	11,575	866	7.5%	373	72	19.3%	\$840.7	\$146.7	17.5%	21,625	\$ 6.78	\$ 8.30
Residential Demonstration and R&D							\$264.4	\$24.5	9.3%			
Comprehensive Marketing - Residential							\$69.8	\$3.9	5.6%			
Community Based Initiatives - Residential							\$79.6	\$22.3	28.0%			
SUBTOTAL	138,237	50,689	36.7%	107,829	126,654	117.5%	\$12,295.7	\$1,495.7	12.2%	196,302	\$ 7.62	\$ 12.58
Regulatory												
EERMC							\$304.3	\$18.0	5.9%			
OER							\$304.3	\$66.6	21.9%			
SUBTOTAL							\$608.5	\$84.6	13.9%			
TOTAL	414,606	110,729	26.7%	112,316	128,005	114.0%	\$ 28,359.5	\$ 3,799.7	13.4%	710,915	\$ 5.34	\$ 7.96
<i>Total with Finance</i>							\$ 28,359.5	\$ 3,799.7	13.4%	710,915	\$ 5.34	\$ 7.96

NOTES
(1)(4) Targets from Docket 4654 - Attachment 6, Table G-7 (gas).
(3) Pct Achieved is Column (2)/ Column (1).
Savings from the Codes and Standards initiative are not counted until year-end. Therefore, savings in the Commercial and Residential New Construction Programs may track lower each quarter.
(4) Participation was planned and is reported in 'net' terms which takes into account free-ridership and spillover.
(6) Pct Achieved is Column (5)/ Column (4).
(7) Approved Budget includes Implementation and Evaluation budgets from Docket 4654, Attachment 6 Table G-2 (gas).
(8) Year To Date Expenses include Implementation and Evaluation expenses.
(9) Pct Achieved is Column (8)/ Column (7).
(11) \$/lifetime MMBtu = Column (8)*1000/Column (10)
(13) Planned \$/lifetime MMBtu - Attachment 6, Table G-5 (gas).

**Table 3
National Grid
Revolving Loan Funds**

Large C&I Electric Revolving Loan Fund			Small Business Electric Revolving Loan Fund		
(1)	2017 Funds Available	\$13,661,388	(1)	2017 Funds Available	\$2,567,799
(2)	2017 Loan budget	\$11,000,000	(2)	2017 Loan Budget	\$4,400,000
(3)	Committed	\$8,068,443	(3)	Committed	\$84,625
(4)	Paid	\$1,477,363	(4)	Paid	\$876,929
(5)	Number of loans	48	(6)	Participants	204
(6)	Participants	22	(7)	Savings (MWh)	2,602
(7)	Savings (MWh)	3,132	(8)	Available	\$3,438,446
(8)	Available	\$1,454,194			
Rhode Island Public Energy Partnership (RI PEP)			C&I Gas Revolving Loan Fund		
(9)	2017 Funds Available	\$281,385	(1)	2017 Funds Available	\$1,479,707
(10)	Committed	\$9,076	(2)	2017 Loan budget	\$1,000,000
(11)	Paid	\$0	(3)	Committed	\$405,562
(12)	Repayments	\$98,713	(4)	Paid	\$252,306
(13)	Participants	1	(6)	Participants	7
(14)	Savings (MWh)	15	(7)	Savings (MMBtu)	1,388
(15)	Available	\$371,022	(8)	Available	\$342,132

Notes

- 1 Amount available as of January 1, 2017, including 2017 fund injections detailed in Table E-10 and G-10.
- 2 Budget adopted by Sales Team for 2017 operations. Budget includes projections of repayments made during 2017.
- 3 As of March 31, 2017
- 4 As of March 31, 2017
- 5 As of March 31, 2017
- 6 Unique customer names for large business and customer accounts for small business (not adjusted for net-to-gross).
- 7 As of March 31, 2017
- 8 Available funds as of March 31, 2017, not including repayments.
- 9 Funds available as of January 1, 2017
- 10 As of March 31, 2017
- 11 As of March 31, 2017
- 12 As of March 31, 2017
- 13 As of March 31, 2017
- 14 As of March 31, 2017
- 15 Available funds as of March 31, 2017

Table 4
2017 RGGI Budget and Spend

Initiative	2017 Budget	Spend
RI Public Energy Partnership Incentives	\$ 83,879	\$ -
Residential Delivered Fuels	\$ 21,484	\$ 21,484
Agricultural Delivered Fuels	\$ 240,116	\$ -
Heat Pump Study	\$ 170,597	\$ 1,543
Total	\$ 516,076	\$ 23,027

Notes

1. Budgets may differ from quarterly and annual RGGI reports delivered to the Office of Energy Resources as they represent funds available for program year 2017, net of previous year's spend.
2. Table only includes RGGI funds for specific initiatives. Does not include funds allocated to lowering the energy efficiency program charge or those allocated to loan funds.

PRESENTATION FOR



Rhode Island
Energy Efficiency and Resources
Management Council

EE FINANCING in RHODE ISLAND Update on Dunsky work 2017



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ENERGY CONSULTING

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DUNSKY ENERGY CONSULTING



EXPERTISE

- ▶ Energy Efficiency
- ▶ **Financing Strategies/Programs**
- ▶ Distributed Energy Resources
- ▶ Sustainable Transportation
- ▶ Greenhouse Gas Reductions

SERVICES

- ▶ Design and evaluation of programs, plans and policies
- ▶ Strategic & regulatory support
- ▶ Technical & analytical support
- ▶ Facilitation & consultation

CLIENTELE

- ▶ Utilities
- ▶ Governments
- ▶ Solution Providers
- ▶ Large consumers
- ▶ Non-profits

OUTLINE

EE FINANCING OVERVIEW (30 MINUTES)

RIIB AND NATIONAL GRID PRESENTATIONS

EXPANDING FINANCING COVERGE IN RI (25 MINUTES)

OVERVIEW

Dunsky's work for the EERMC began in 2014...

***2014-15:** Assessed the use of financing and prepared gap analysis for financing opportunities in RI*

***2016:** Input into RIIB programs, annual EE plan and National Grid process evaluations*

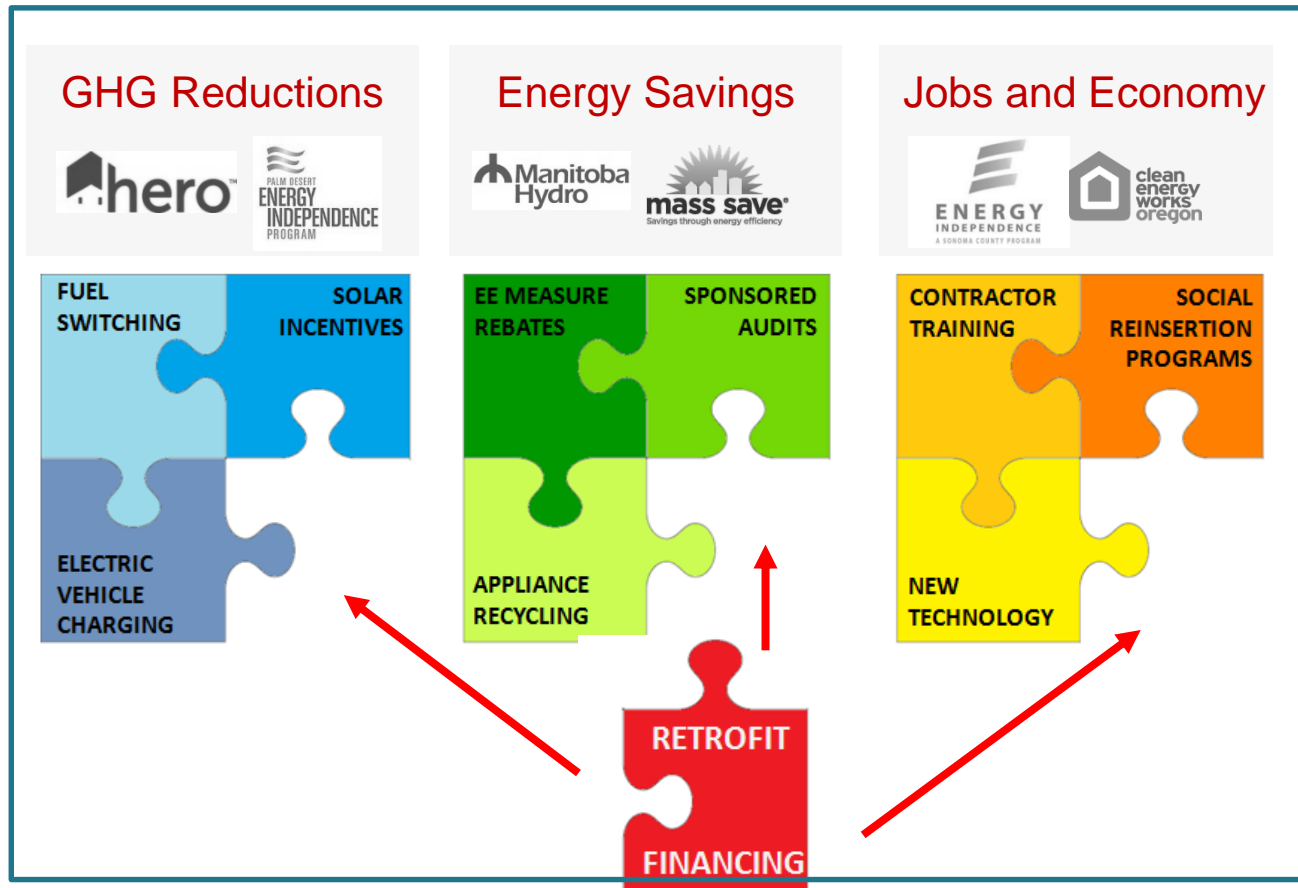
***Currently:** Assistance to assess financing provisions in 2018 EE Plan and 2018-20 3-Year Plan*

PART 1:
EE FINANCING
OVERVIEW

FINANCING OPTIONS



Financing is a valuable tool in the EE toolbox, to be combined with other strategies (including incentives) to meet end goals.





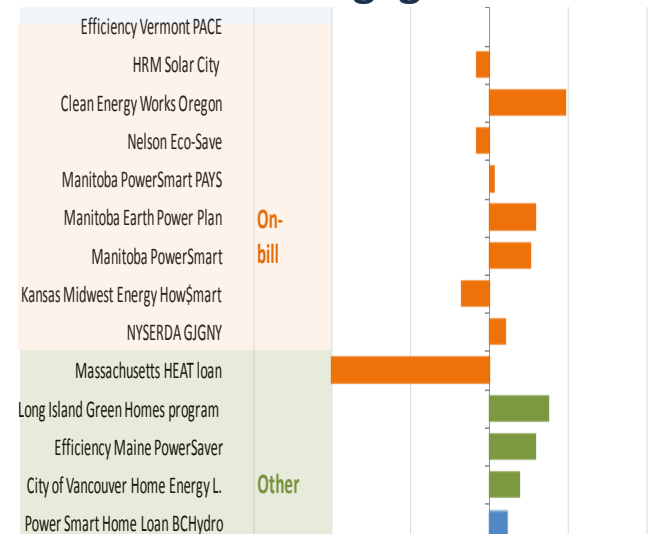
■ What EE financing offers:

1. **Increases Volume:** more projects, bigger projects, more measures
2. **Expands Access:** new markets, expanded underwriting
3. **Can Reduce Ratepayer Costs:** leveraging private capital, reduced incentives

■ Financing challenges and uncertainties

- ▶ Typically does not effectively (completely) replace incentives
- ▶ Financing for low-income market is a challenge
- ▶ Low interest rates (0%) is not essential to program uptake

Financing Program Interest Rates Relative to Mortgage Rates





Financing tools fall under **two broad categories**:

REPAYMENT MECHANISMS

- Property Assessed Clean Energy (PACE)
- Utility On-Bill Financing / On-Bill Repayment (OBF/OBR)
- Performance Based:
Pay-as-you-save (PAYS),
Energy service agreements (ESA)
- Equipment leases.

CREDIT ENHANCEMENTS

- Loan loss reserves (LLR);
- Loan guarantees
- Interest rate buy-downs (IRB)
- First Loss Bonds

Programs **may combine features from each category**, along with other effective origination and capitalization strategies.



EE Financing tools can effectively address *SOME* barriers customers face for EE improvements

Access to Capital / Initial Cost

- Loan Loss Reserves / Guarantees
- Lighter Underwriting (e.g. OBR)

Long Payback Periods

- Low interest rates (IRB)
- Transferability (PACE, OBR, Leases)

Hassle or Transaction Costs

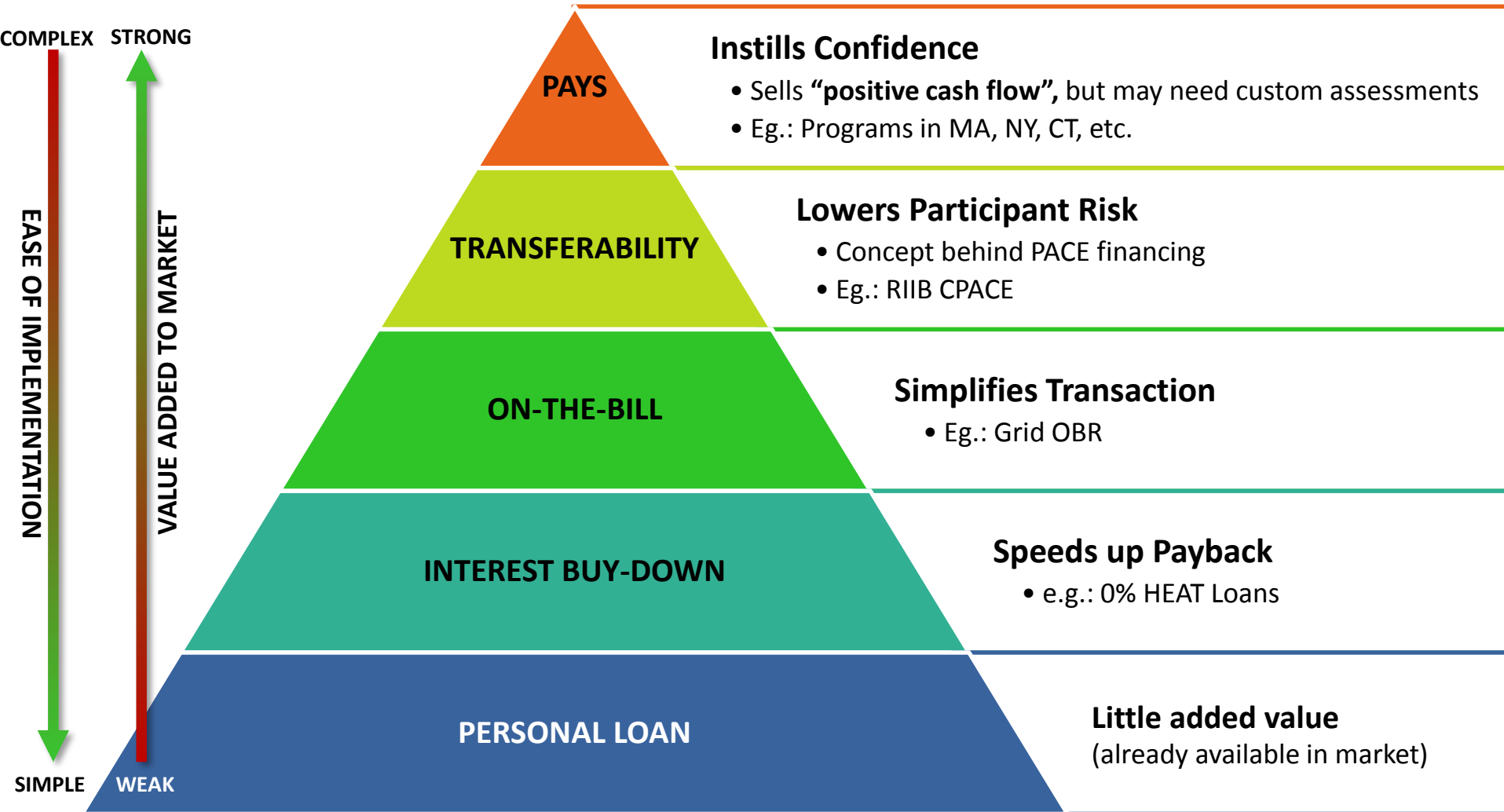
- Contractor Origination (PACE)
- Utility On-Bill Financing (OBR)

Savings Uncertainty

- Performance-Based Financing

Split Incentives (in some cases)

- PACE
- Leases





- **Benefits:** Did the financing create new savings?
 - ▶ Increased overall volume of financing/incentive programs
 - ▶ Larger projects, more projects, new measures
 - ▶ Increased lifetime savings (deeper savings)

- **Costs:** What was the cost to ratepayers?
 - ▶ Direct program costs
 - ▶ Financing (credit) risks

- **Coverage:** How well is the program covering the market?
 - ▶ Expanded access to financing
 - ▶ Consider equity and market sizes



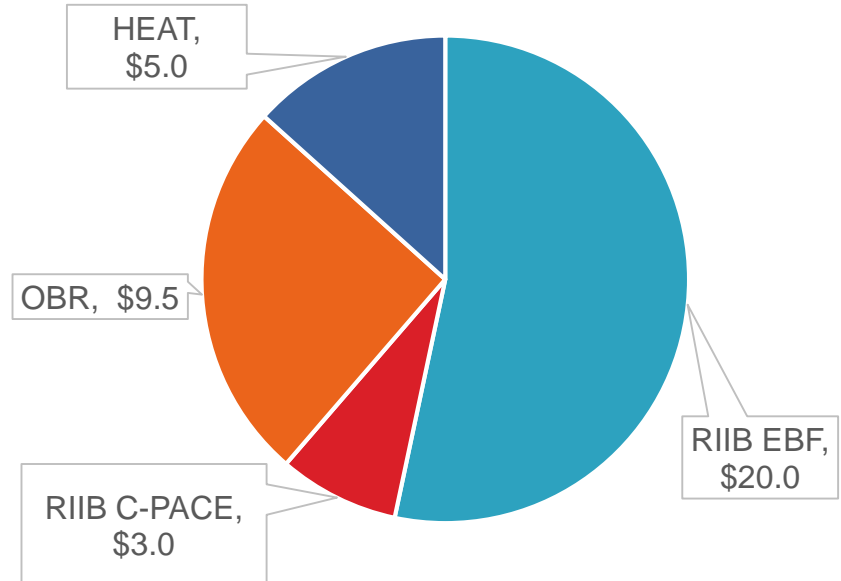
National Grid

- ▶ **Residential:** HEAT Loan – 0% Interest up to 7 years
- ▶ **Non-Residential:** On-Bill Repayment (OBR) – 0% Interest up to 5 years

Rhode Island Infrastructure RIIB

- ▶ **Efficient Building Fund:** Municipal, Low-interest, Long Term
- ▶ **C-PACE:** Property Assessed, Long Term
- ▶ *Both include renewables*

2017 Projected Financing Volumes (\$M)

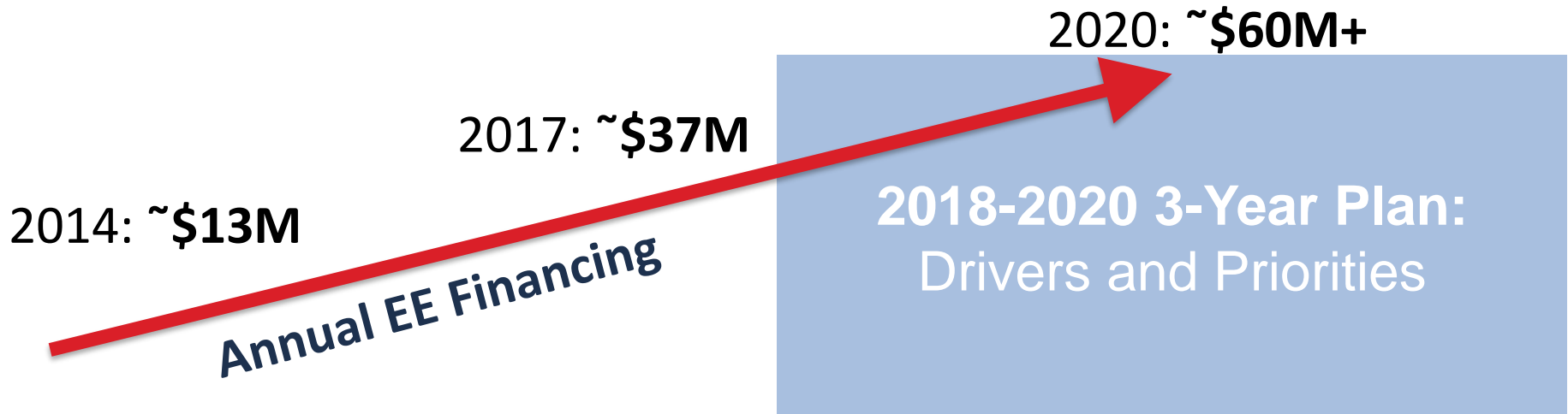


PART 2:
**EXPANDING
FINANCING
COVERAGE IN
RHODE ISLAND**



Three key ways that RI is seeking to improve market coverage

- 1. Increase program volume, impact, effectiveness:**
Appropriate funding allocations, evaluations, targets and reporting
- 2. Expand coverage and access:**
Aim to reach new target markets and project types
- 3. Reduce costs to ratepayers:**
Leverage private capital and integrate delivery with incentives





- Moving away from an EITHER/OR discussion – programs are complementary
- Grid Financing Strengths (Accessing EE Opportunities)
 - ▶ Project origination
 - ▶ Performance risk assessment
 - ▶ Integrating incentives with financing
- RIIB Financing Strengths (Long-Term Lending and Capitalization)
 - ▶ Credit risk assessment/underwriting
 - ▶ Leveraging private capital
- RIIB-Grid are setting an example of successful cooperation
 - ▶ Allow Grid to claim savings, but be agnostic on who should manage funds



**INCREASE VOLUME,
IMPACT, EFFECTIVENESS**



Overall Challenge: Little was known about the program effectiveness to drive EE uptake, or to assess the cost/benefits of OBR and HEAT loans

2016 Two Program Evaluations Performed:

1. Evaluation of the Large C&I (LCI) Sector Electric OBR
2. Process Evaluation of EnergyWise including HEAT Loan

Each included:

- ▶ Surveys with participants and program staff
- ▶ Assessment of how financing influenced customer decision-making
- ▶ Quantitative review of projects financed: measures, sizes (\$), customer types

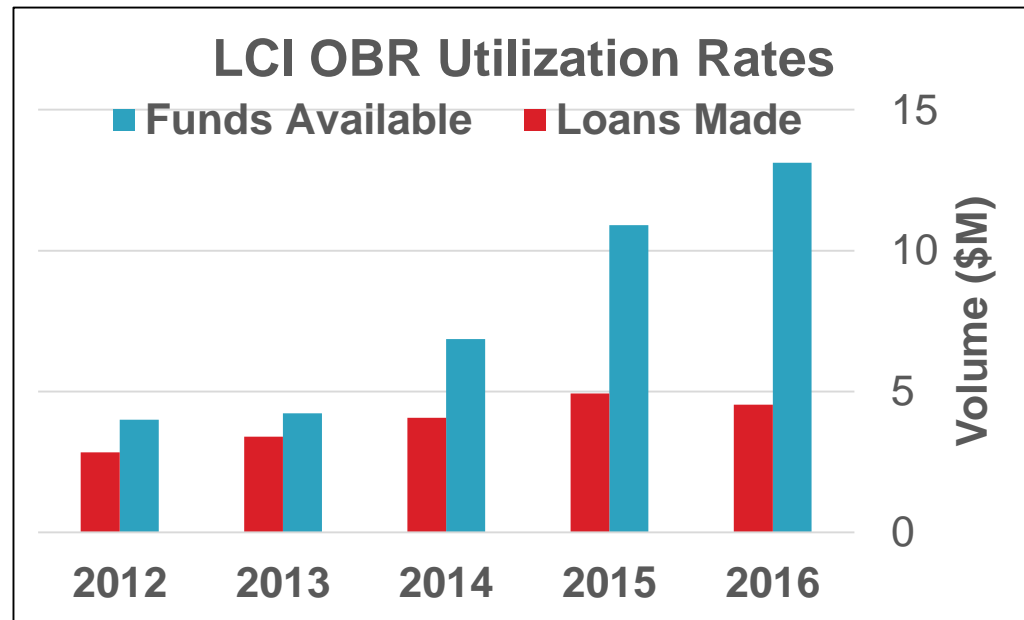
2017 and Beyond: Further evaluation efforts would be valuable, as well as consistent reporting on program progress.



- Customers like OBR, applies a relationship-based approach – *but it is used predominantly in the Public/Institutional Sector*
- Lighting is by-far the majority of the electric OBR (Over 90% of projects)
- At historical growth rates, LCI OBR revolving fund could be sufficient for years to come (2020+)

■ Next Steps:

- ▶ Consider pilot to reduce incentive cost
- ▶ Include all OBR in impact evaluation cycle
- ▶ Explore options for deeper savings, and more private buildings

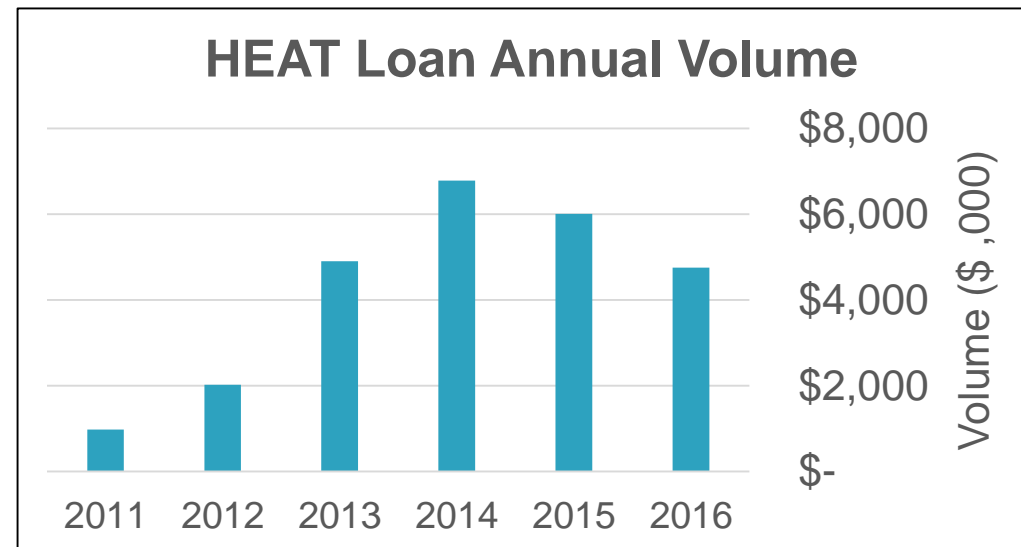




- HEAT Loan encourages weatherization project size increase of over 25%
 - ▶ Satisfaction with program is high and financing appears to address a key barrier for weatherization / HVAC upgrades
 - ▶ Cost of 0% financing to ratepayers is significant (over \$1,000/loan)
 - ▶ Unclear how much demand/access 0% financing supports

Next Steps:

- Further evaluation across weatherization and HVAC
- Explore ways to reduce cost and expand access





Program Balance Sheet (current reporting)

	Grid	RIIB
Fund available	✓	-
Loans paid	✓	✓
Repayments	✓	-
Defaults	-	-

Program Impacts (current reporting)

	Grid	RIIB
Participation	✓	✓
Ass. Incentives costs	-	✓
Annual Saving	✓	✓
Lifetime Savings	-	-



- Apples-to-Apples comparison of program impacts/utilization
- New indicators specific to financing benefits (e.g. depth of savings)
- **Next Step:** Establish regular reporting on all metrics for RIIB and Grid

EXPANDING COVERAGE AND ACCESS



RIIB has created new offerings that expand access to financing and leverage private capital (for Efficiency *and* Renewables)

■ Efficient Building Fund (EBF)

- ▶ New savings - projects were not being funded previously
- ▶ 5:1 leveraging of ratepayer money

■ C-PACE

- ▶ Potentially some new savings – integrates with incentives
- ▶ 100% Private capital
- ▶ Targeted marketing approach: e.g. long-term care

■ **Next Steps:** Tailored Single Family and Multi-Family long term financing options to come...

**REDUCE COST TO
RATEPAYERS**



Three strategies to reduce ratepayer costs

Pilot custom financing/incentive integration

- Develop a cash flow-based offering to participants in the **custom** program. Focus only on Day 1 cash savings.

**Consider Option:
OBR Custom Pilot**

Leverage private capital, instead of ratepayer capital

- Other sources of capital may include **third party lenders** – an industry that is well developed in New England – or the utility's own capital.

e.g. C-PACE, EBF

Build financing into the cost-effectiveness assessment

- Ensure that **financing/incentive programs** are design to be cost-effective.
- **Consider move away from 0% financing.**

e.g. HEAT loan

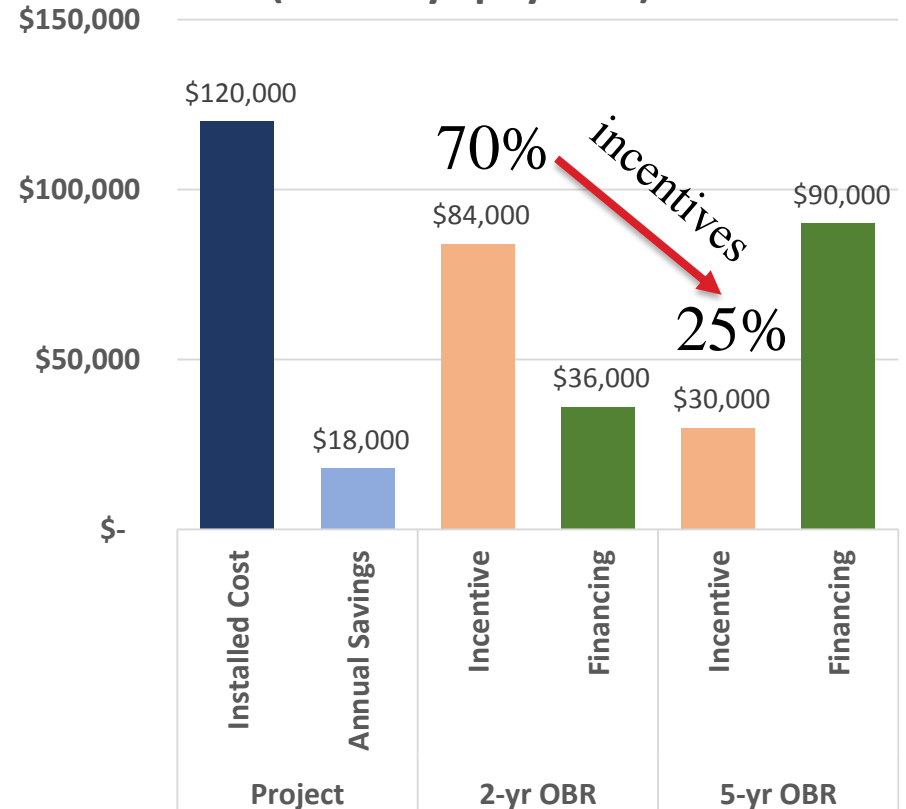
Financing and incentives are best viewed as complementary tools that can work together to increase uptake in some programs, and reduce ratepayer costs in other programs.



Next Steps:

- **Pilot:** Consider cashflow-based integration of incentives with OBR for portion of projects on custom track
- **Consider ways to lower HEAT costs:** HEAT is a rare examples 0% financing in the residential sector
- **Explore:** Further options for leveraging private capital
 - ▶ Source OBR funds from private lenders
 - ▶ New SF and MF financing products via RIIB and/or private lenders

Hypothetical LED Lighting Project
(with 7-yr payback)



WRAP-UP

FINANCING STATUS RI

WRAP-UP



- New programs filling market gaps / innovating ways to expand access
- Further Piloting/Evaluation needed to test strategies to reduce cost to rate-payer and increase volume/depth of savings

Program	RIIB		Grid				To Come...		
	EBF	C-PACE	OBR LCI	OBR SB	OBR Gov.	HEAT Loan	Multi Fam.	SF Long	State Bldg.
Increase impacts and volume	✓	✓	✓	✓	✓	X	-	-	-
Expanded coverage and access	✓	✓	-	-	-	✓	-	-	-
Reduced rate-payer cost	?	✓	?	?	?	?	-	-	-



What is a transition plan to move to best practice in the next 3-years?

- 1. Increase Volume, Impacts, Effectiveness:**
Evaluation and Reporting plan for existing programs. Better understand the costs and benefits, and opportunities for improvement.
- 2. Expand Access:**
Continue to explore ways that new products or alterations can capture new markets and measures.
- 3. Reduce Costs to Ratepayers:**
Pilot ways to reduce incentives through integrated cashflow financing and leverage more private capital.

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ENERGY CONSULTING



■ 2015 Recommendations

- ▶ **Residential:** Establish new program (RPACE) and integrate offerings
- ▶ **Non-Residential:** Improve reporting and conduct evaluations
 - *Develop long-term financing options to drive deeper improvements*
 - *Establish municipal sector program*

■ 2016 Evaluations and Input

- ▶ Process Evaluation of the OBR LCI Electric Program
- ▶ Provided input into target setting and 2017 EE Plan feedback

■ 2017 Ongoing Challenges and Opportunities

- ▶ Provide Feedback on 2018 Annual Plan
- ▶ Provide Feedback/Perspectives for 2018-2020 3-Year Plan

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PUC Financing Session

May 18th, 2017




3 Year Plan Financing Vision

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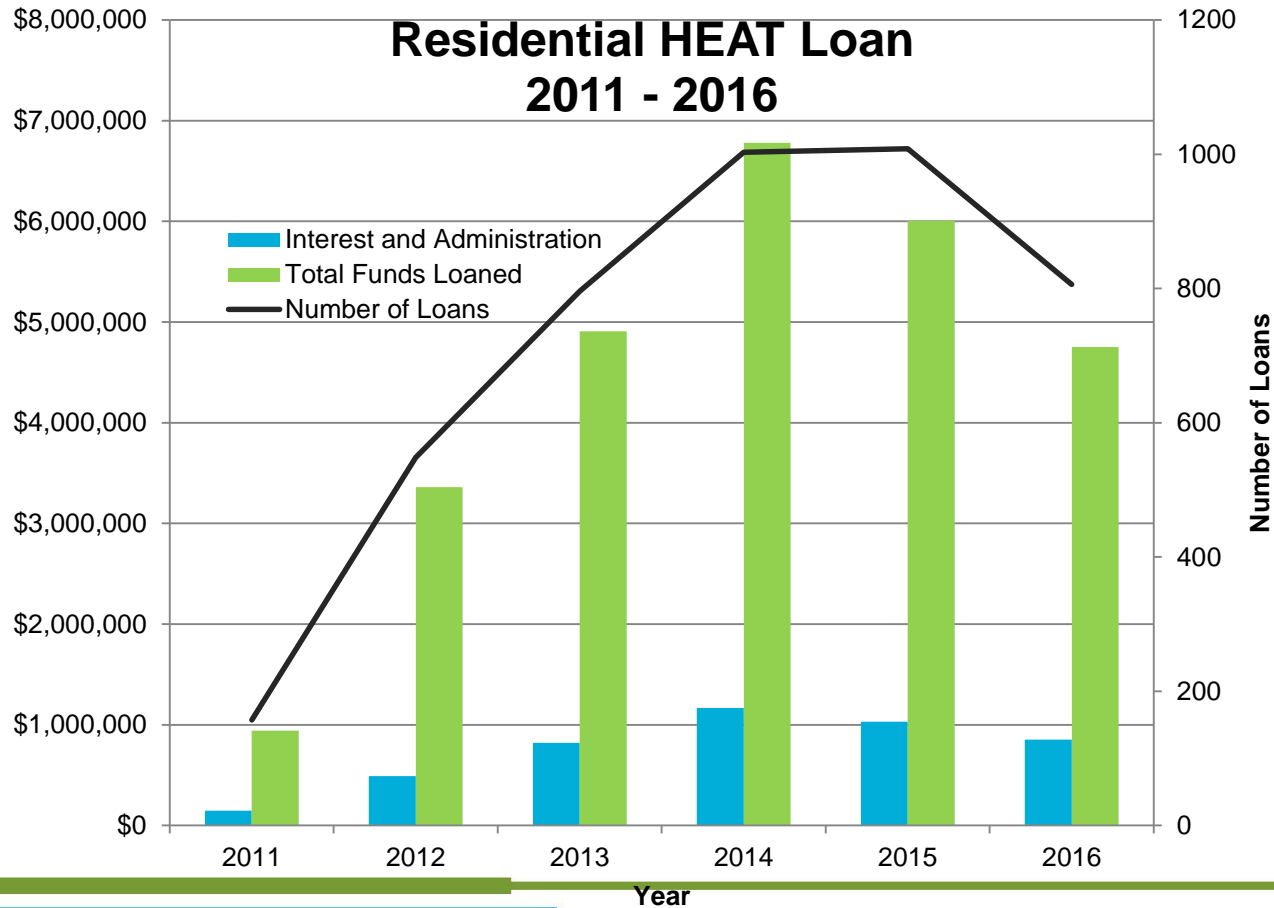
National Grid will offer a suite of financing options which will:

- **Decrease barriers for our customers who have not yet participated**
 - **Assist current participants in completing deeper energy efficiency projects**
 - **Guide customers to the right finance tools that meet their needs**
 - **Enable National Grid to meet the Council's aspirational energy savings goals**
- 

Residential HEAT Loan Summary

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HEAT Loan evaluation findings

Table 6-4: Income by Participant Group

HOUSEHOLD INCOME	AUDIT ONLY (N=108)	WEATHERIZATION (N=68)	LOAN (N=82)
Under \$50,000	20%	15%	18%
\$50,000 to under \$100,000	52%	54%	50%
\$100,000 or more	28%	31%	32%

- Heat Loan is predominantly used by customers with a household income under \$100,000
- 74% of customers do not use Heat Loan because they did not need a loan or did not want to take on more debt or commit to monthly payments
- If heat loan were not available, 65% of customers would have done a smaller project, delayed the project more than six months, or not done a project at all.

Heat Loan Three – Year Planning

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Heat Loan is an essential component to moving customers to take action

Increase Capital Good Fund funding

- **Provide capital so capital good fund can serve more customers.**
- **Acquiring capital is the largest barrier for not serving more customers**

Reduce administration costs

- **Tier loans so smaller amounts have shorter time period and smaller interest buy down**

Study OBR and opportunities to include residential loans

Continue to work with partners to offer a suite of financing services in RI

Historical Performance C&I

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	2014 (Toray)	2015	2016	2017
Financing paid	\$ 4,121,076	\$ 4,930,123	\$ 4,530,172	\$ 9,545,806*
Year End Balance	\$ 5,754,327	\$ 10,360,900	\$ 12,661,388	\$ 1,454,194

Where are we growing and changing?

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Listening and research

- **Customers**
 - How do they like to work with us? What are their barriers? (Financial and otherwise)
- **Stakeholders and other partners**
- **Sales Leads**
 - Ilene Mason
 - What is the function of financing?
 - Key findings about OBR financing
 - Unique aspects of OBR

Building on Success

- What have we seen to date?

Where are we growing and changing? Continued...

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We are growing, learning, and doing all at the same time!

Infrastructure Bank

- **General**
- **Efficient Buildings Fund**
- **C-PACE**

Dunksy

- **Recommendations and comments**
- **Actions taken**

Challenges

- **Many partners, many points of view**
- **Aligning priorities (Customer needs, Council's goals)**

Meeting Future Goals

The Company believes that future injections into the loan fund are critical to meeting its future goals. Past spending is not indicative of customer demand. In addition, increased certainty around fund injections will allow us to explore more sophisticated and strategic ways to deploy OBR funds.

	Large C&I Electric Revolving Loan Fund Q1	
(1)	2017 Funds Available	\$13,661,388
(2)	2017 Loan budget	\$11,000,000
(3)	Committed	\$8,068,443
(4)	Paid	\$1,477,363
(5)	Number of loans	48
(6)	Participants	22
(7)	Savings (MWh)	3,132
(8)	Available	\$1,454,194

We are still researching and developing OBR projections needed to make three year targets. This is in addition to other products in the market.

3 Year Planning Activities

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National Grid will:

- Continue to work with our partners and exchange ideas
- Continue to study OBR and fine tune the offering
- Continue to quantify what the optimal amount is among all financing vehicles in order to meet the Council's aspirational and national-leading targets
- Provide detailed quantitative analysis to the Collaborative and EERMC that detail the optimal cash-flow for OBR over the next three years.

Example 1 – Manufacturer

Using lighting as a pivot point

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- Had worked with us previously but, minimal participation 2008-2015
- No interest in projects resulting in less than a certain kWh savings
- Interested in a large lighting retrofit, but couldn't make the numbers work
- National Grid closed the gap with financing
 - A 1,300 net MWh project resulted from this collaboration
- Since that transaction the customer has or will be completing projects related to their cooling towers, their compressed air system, pumps, and exterior lighting. This was done with “capital saved on the lighting project from financing.”

Example 2 – Sm/Med Manufacturer

Customer re-engagement

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- Despite repeated efforts the customer had only done 2 projects over the past 10 years (approx. 300,000 kWh savings)
- Customer had a large amount of fluorescent on 24/7
- Despite knowing that this could be large energy user the customer was unmoved by previous offers
 - OBR was introduced into the equation and the customer went forward with a lighting and controls project that resulted in 600,000 net kWh in savings
- The sales lead say that there is now potential for further measures including more than 10,000 therms of gas savings

Example 3 – Municipality Town Politics

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- **Town in Washington county**
- **Applied to EBF, Town Manager vetoed**
- **Sales lead believes that the nine projects proposed would have move forward if sufficient OBR was available. It was not at the time.**
- **These nine projects were approximately 80% lighting and 20% non- lighting.**

Clean Energy Financing Public Utilities Commission Technical Session

May 18, 2017



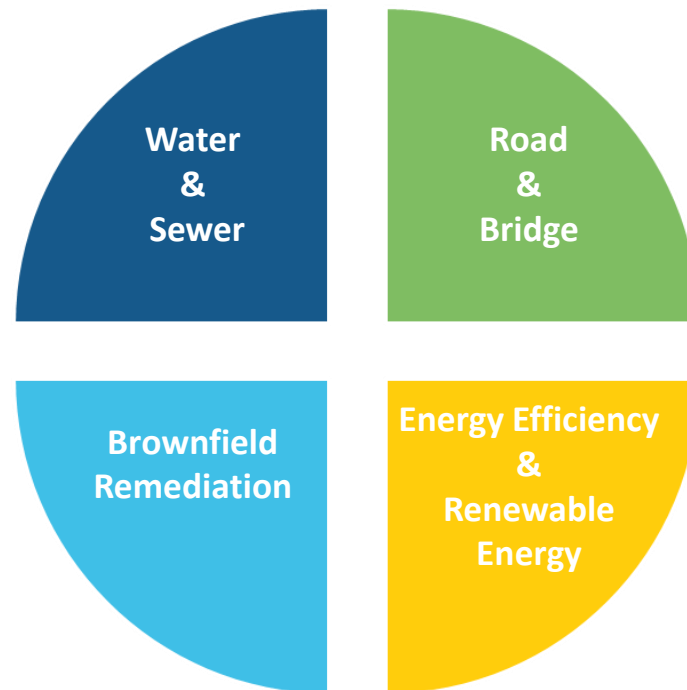
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- A. Rhode Island Infrastructure Bank Overview
- B. Rhode Island Infrastructure Bank Clean Energy Programs
- C. Efficient Buildings Fund – Administration, Results and Forecasts
- D. Technical Assistance
- E. Commercial Property Assessed Clean Energy
- F. Residential Financing Strategy
- G. Contact Information

A. Rhode Island Infrastructure Bank Overview

Who We Are

- Rhode Island Infrastructure Bank (RIIB) is a quasi-state agency responsible for overseeing infrastructure finance programs in the following areas:



Our Mission

Rhode Island Infrastructure Bank's mission is to support and finance investments in the State's infrastructure. RIIB does so through a variety of means, including the issuance of bonds, the making of loans and grants, and the engagement with and mobilization of sources of public and private capital. Through its activities RIIB fosters infrastructure improvements that enhance the environment, create jobs and promote economic development.

Product Overview

Clean Water State
Revolving Fund

Drinking Water State
Revolving Fund

Community Septic
System Loan Program &
Sewer Tie-In Loan Fund

Municipal Road &
Bridge Revolving Fund

Efficient Buildings Fund

Commercial/Residential
Property Assessed Clean
Energy

Brownfields Revolving
Loan Fund

Water Quality
Protection Fund

Business Model

- RIIB's business model is to leverage limited sources of capital in the private capital markets
- To achieve the lowest cost of funds, RIIB borrows in the tax-exempt bank and bond markets
- RIIB pools small transactions together to achieve the benefits of scale enabling us to obtain a higher credit rating while spreading the fixed costs of financing across a number of borrowers
- By leveraging, RIIB can invest in more projects today with a limited amount of capital up front
- RIIB will only invest in projects that are listed on a program project priority list developed by a state-agency partner (except for C-PACE)

B. Rhode Island Infrastructure Bank – Clean Energy Program Financing

Clean Energy Financing – May 2017

	Municipal	Commercial	Residential
Energy Efficiency - Programs	EBF / CWSRF / DWSRF	C-PACE	In Development
Renewable Energy - Programs	EBF / CWSRF / DWSRF	C-PACE	In Development
Energy Efficiency - Financing	\$9.8MM*	\$0.0MM	TBD
Renewable Energy - Financing	\$7.4MM*	\$1.2MM	TBD

*EBF Only

C. Efficient Buildings Fund (EBF)

Efficient Buildings Fund (EBF) Overview

- Jointly administered by the Office of Energy Resources (OER) and Rhode Island Infrastructure Bank (RIIB)
- EBF provides long-term, fixed-rate financing for comprehensive energy savings projects
- Financing structured in a way that allows projects to produce positive cash flow, net of debt service, for borrowers
- Investment goals are to reduce energy consumption in public buildings by >20%
 - Targeting investments that lead to electric and heating savings and/or investments for renewable energy generation

EBF Program Management

RI Office of Energy Resources Responsibilities

- Develops rules and regulations establishing the project eligibility criteria
- Solicits applications and develops a project priority list
- Oversees data collection on energy savings / generation for completed projects
- Conducts project reviews, including eligibility, environmental and programmatic compliance

Rhode Island Infrastructure Bank Responsibilities

- Develops rules and regulations establishing the project financing criteria
- Provides project financing for projects listed on OER's project priority list
- Disburses funds to borrowers in accordance with OER's review and approval

Project Eligibility

Energy Efficiency

- ***Energy Efficiency Project:*** one or more energy efficiency measures that are collectively cost effective.
- ***Energy Efficiency Measure:*** equipment or technology that reduces energy consumption.

Renewable Energy

- ***Solar photovoltaic systems:*** Only electric (PV) projects are eligible. Battery back-up systems are also eligible.
- ***Wind:*** Only systems that are 100kW or greater with a direct drive nacelle are eligible.

EBF History

- Created in July 2015 as an expansion of RIIB's programmatic responsibilities to include financing programs in the energy efficiency, renewable energy, and environmental remediation sectors
- EBF codified in Rhode Island General Laws § 46-12.2-4.2
- Rules and regulations developed throughout the fall of 2015 with input from a stakeholder working group¹
 - OER developed rules and regulations for the application process and PPL development
 - RIIB developed rules and regulations for project financing

(1) Rules and regulations for EBF attached to this submission

OER's Project Evaluation Criteria

Energy Efficiency Projects

- >20% total energy reduction
- Includes both electric and heating measures
- Includes non-lighting electric measures

All Applications

- Green initiatives
 - Baseline energy consumption
 - Strategic energy management plan
- Readiness to proceed
 - Commence construction within 90 days of loan closing
- Application quality & project strength

Solar PV & Wind Projects

- Energy output (kWh)
- Installed price per watt
- Criteria for other renewable technologies shall be determined as necessary

Additional Criteria

- Distressed community status

EBF Round 1 Results

- \$60 million in project applications submitted to OER
- \$25 million did not move forward for a variety of reasons, and some of these applications were resubmitted for Rd2
- \$17 million will be constructed and completed with other private sector capital sources

EBF Round 1 Transaction Profile

Communities Participating	6
Capital Allocated	\$17.2 MM (57% EE / 43% RE)
Energy Savings: Annual / Lifetime	25 MM / 375 MM kBTU
Percentage Energy Reduction	34.8%
EBF-Financed Renewable Energy Generation	4,000 MWh
Annual Cost Savings (Energy, Operations and Maintenance)	\$2 MM
Lifetime Net Cash Flow (after debt service)	\$20 MM
Jobs Created or Retained	263
Annual electric kwh saved	6,000 MWh

EBF Round 2 Applications

- Received approximately \$28 million in applications
- Anticipating \$20 million of efficiency projects to close financing in Summer 2017
- Initial estimates by CHA on the project applications show annual / lifetime savings of ~15,000 / 221,000 MWh across heating and electricity
- Anticipating \$6 million in renewable energy projects
- Estimated savings compared to baseline energy usage exceeded 25%

Sustainability of the Efficient Buildings Fund

- Seeing customer demand for annual energy efficiency investment running around \$20 MM per year
 - RI Dept. of Education school facility audits identified \$480mm of energy efficiency investments and \$247mm of renewable energy investments
- Seeking \$5 MM annually to support energy efficiency in public buildings
- The EBF program does not have a recurring source of capital
- The EBF program has been established to be self-capitalizing over time

D. Technical Assistance

Municipal Technical Assistance

- RIIB provides various technical assistance services outside of financing to help public entities identify their clean energy opportunities
- Provides an engineering consultant to work with public entities to review their energy portfolio and recommend a strategy to invest in energy efficiency projects
- Provides technical assistance to OER in EBF project application review and funding disbursement
- Partners with the US Department of Energy and their Wastewater Accelerator to facilitate better energy management approaches at wastewater treatment facilities

E. Commercial PACE

C-PACE – What is it?

New way to finance energy efficiency and renewables in commercial buildings

- 100% financing with no out-of-pocket expenses
- Long term – up to 25 years
- Cash flow positive projects
- Seamlessly combines financing with state, utility and tax incentives
- No personal guarantees
- C-PACE financing is transferable upon sale of the property

C-PACE Benefits to Building Owners

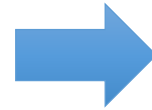
C-PACE enables building owners to meet investments needs who often lack:

- Capital budget to cover upfront costs
 - ✓ PACE requires no owner out of pocket expenses
- Sufficient credit quality for traditional financing
 - ✓ PACE underwriting is based on the property's financial health
- Ability to increase operating expenses
 - ✓ PACE financed projects are structured to generate immediate positive cash flow

C-PACE Promotes Installation of Comprehensive Projects

Old Way

Owner self-funded, short-term
payback focused

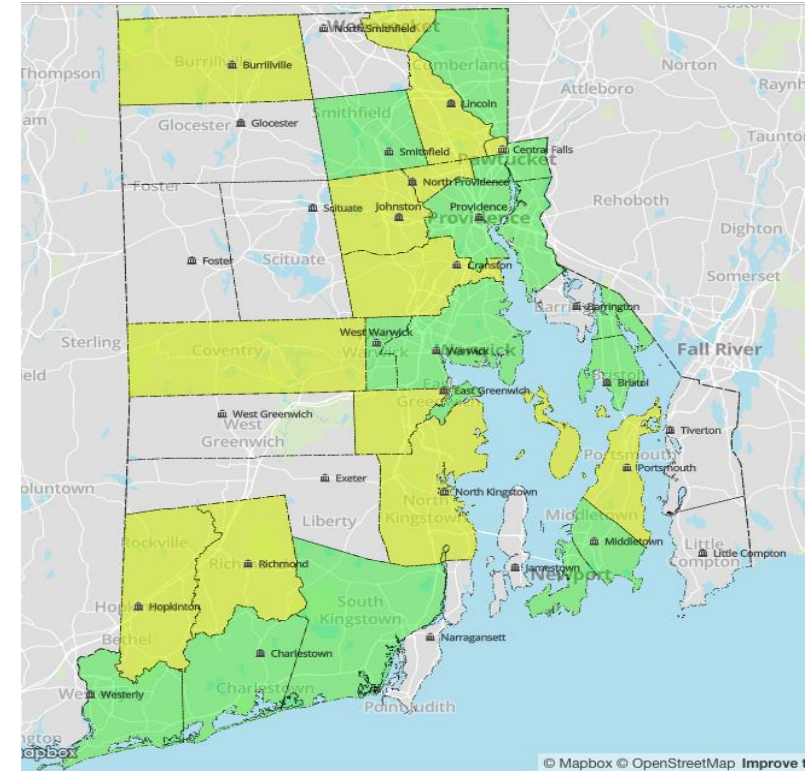


New Way

3rd party, long-term financed,
cash flow focused

Commercial PACE – Progress in RI

- C-PACE launched in May 2016
- First two projects closed in March 2017
- New construction pilot program launched in 2017
- 30 qualified EE & RE vendors
- 3 qualified lenders



- 14 municipalities have opted-in, 13 in-discussion

C-PACE New Construction Leads with Energy Efficiency

- C-PACE New Construction financing provides an incentive for the construction of more efficient buildings which reduce operational costs

"As Designed" Performance Exceedance above Energy Code	15%	20%	25%	30%
C-PACE Eligible Finance Amount as % of Total Eligible Construction Cost*	12.5%	15%	17.5%	20%

C-PACE Activity

- 107 active opportunities in pipeline
 - 40% have energy efficiency components to their project
- Long Term Care Initiative
 - Initial results show success, leading with energy efficiency opportunity
 - Actively engaged with four properties
 - Expecting first Long Term Care Facility, energy efficiency-only project to close in July 2017
 - Health Concepts, owners of 12 facilities actively engaged on energy efficiency
 - Comprehensive projects
- Lighting project moving forward with short-term C-PACE financing, didn't qualify for OBR
- Q2 / Q3 RI C-PACE actively taking a market sector project development approach in new markets

C-PACE Long-Term Care

- Four facility audits completed and currently engaging with Health Concepts, a owner that oversees twelve facilities
- On target to close two C-PACE projects in Q3 2017
- Early results show projects ranging from \$1M - \$2M
 - HVAC improvements and controls
 - Building envelop improvements, windows and roof enhancement w/solar
 - Lighting
 - Boiler replacement

F. Residential Financing Strategy

Residential Program Development

- Reviewing residential clean energy financing program opportunities for Rhode Island
 - Approximately 335,000 single family homes with a median home value of \$230,000
 - Average residential clean energy improvement projects range from \$5,000 to \$25,000
- Working closely with Dunsky Consulting, Rhode Island Housing and the EERMC to understand the landscape of financing programs nationwide
- Actively researching a single family residential financing program
 - Unsecured loan product: available for loans with 5 – 20 year terms
 - Secured loan product: R-PACE
- Reviewing unsecured loan product modeled after CTGB's Smart-E loan program

G. Contact Information

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