

May 1, 2014

VIA HAND DELIVERY & ELECTRONIC MAIL

Luly E. Massaro, Commission Clerk
Rhode Island Public Utilities Commission
89 Jefferson Boulevard
Warwick, RI 02888

**RE: Docket 4366 - National Grid Electric and Gas Energy Efficiency Programs
2013 Year-End Report**

Dear Ms. Massaro:

Enclosed please find ten (10) copies of National Grid's¹ 2013 Energy Efficiency Year-End Report. This report summarizes the gas and electric results, program highlights, and customer experiences over the 2013 program year. A copy of this report has also been provided to the parties in this proceeding.

Thank you for your attention to our filing. Please feel free to contact me if you have any questions regarding this matter at (401) 784-7288.

Very truly yours,



Jennifer Brooks Hutchinson

Enclosures

cc: Docket 4366 Service List

¹ The Narragansett Electric Company d/b/a National Grid.

Certificate of Service

I hereby certify that a copy of the cover letter and/or any materials accompanying this certificate was electronically transmitted to the individuals listed below. Copies of this filing were hand delivered to the RI Public Utilities Commission and to the RI Division of Public Utilities and Carriers



Joanne M. Scanlon
National Grid

May 1, 2014

Date

**Docket No. 4366 - National Grid - 2013 Energy Efficiency Program Plan
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**The Narragansett Electric Company
d/b/a National Grid**

2013 Energy Efficiency Year-End Report

May 1, 2014

Table of Contents

Overview	3
Residential Programs.....	6
Overview.....	6
Residential New Construction.....	6
EnergyWise	8
ENERGY STAR® Lighting.....	9
ENERGY STAR® Appliances.....	10
Home Energy Reports.....	10
Rhode Island Energy Challenge: Find Your Four!.....	11
High Efficiency HVAC (electric & gas).....	12
Multifamily.....	14
Income Eligible Programs.....	14
Overview	14
Income Eligible Services.....	15
Commercial & Industrial Programs.....	15
Overview	15
Large Commercial New Construction	16
Large Commercial Retrofit.....	17
Small Business Direct Install.....	19
Pilots and Other Initiatives	19
Residential Products Pilot.....	19
Deep Energy Retrofit Pilot.....	20
Residential Energy Efficiency Education Programs.....	20
System Reliability Procurement	20
Financing.....	21
Rhode Island Comprehensive Marketing	22
Jobs Impacts.....	22
Shareholder Incentive.....	23

Attachments:

- Attachment 1: Electric Summary Tables of Year End Results
- Attachment 2: Gas Summary Tables of Year End Results
- Attachment 3: Case Studies
- Attachment 4: 2013 Employment Supported by Energy Efficiency in Rhode Island Report
- Attachment 5: 2013 RGGI Auction Proceeds Report

NATIONAL GRID

2013 ENERGY EFFICIENCY YEAR-END REPORT

Overview

2013 was a successful year for the Narragansett Electric Company d/b/a National Grid's (the "Company") energy efficiency (EE) portfolio of programs and initiatives. This Year-End report summarizes the gas and electric results, program highlights and customer experiences over the entire year. The electric and gas programs are described more fully in the "Settlement of the Parties," filed in Docket No. 4366 on November 2, 2012, and approved by the Rhode Island Public Utilities Commission (the "PUC") in Order No. 20911, issued December 21, 2012.

The primary goal set forth in the 2013 "Settlement of Parties" was to "create economic value and cost savings for Rhode Islanders through energy efficiency.¹" The charts below summarize the electric and gas program benefit cost ratios, savings and expenditures compared to planned benefit cost ratios, savings goals, and budgets respectively. The benefit cost ratios greater than 1 indicate that the Company's programs created positive value out of every dollar invested in 2013. This value represents an estimated annual electric bill savings of \$21.2 million and annual gas bill savings of \$4.0 million for Rhode Island customers. Another goal of the 2013 Plan was to achieve electric and gas savings targets established in the 2013 EE Program Plan, which were consistent with the goals established for 2013 in the Three Year Plan. The 2013 electric savings target was 158,820 MWh. At year's end, the Company achieved 159,035 MWh energy savings which represents 100% of that goal. The Company also established a benchmark of 23,183 annual kW savings and at year's end it had achieved 25,613 kW.

The 2013 gas savings target was 287,775 annual MMBtu. At year's end, the Company achieved 311,585 annual MMBtu which represents 108% of that goal. Detailed savings information can be found in Attachment 1, tables E-1, E-2 and Attachment 2, tables G-1 and G-2.

Additional cost and savings information can be found in Attachment 1, tables E-1 and E-3, and Attachment 2, tables G-1 and G-3.

	2013 Goal/Benchmark ²	2013 Actual ³	% of Goal
Electric			
Annual MWh Savings	158,280	159,035	100%
Annual kW Savings	23,183	25,613	111%
Lifetime Benefits (\$Mil)	\$185.1	\$192.4	104%
Benefit/Cost Ratio	2.27	2.24	99%
Gas			
Annual MMBtu	287,775	311,585	108%
Lifetime Benefits (\$Mil)	\$46.8	\$44.7	96%
Benefit/Cost Ratio	1.91	1.78	93%
	2013 Budget (\$Mil)⁴	2013 Actual (\$Mil)⁵	% of Goal
Electric			
Total Expenditures⁶	\$77.5	\$72.9	94%

¹Energy Efficiency Program Plan (EPP) for 2013, Settlement of the Parties, November 2, 2012, Docket 4366, page 1

²See 2013 EPP Settlement of the Parties, Docket No. 4366

³Actual savings in 2013

⁴See 2013 EPP Settlement of the Parties, Docket No. 4366

⁵Actual spend in 2013

⁶Includes implementation expenses, EERMC and OER costs, shareholder incentive, commitments, and evaluation expenses

Total Expenditures Excluding Commitments⁷	\$70.5	\$65.9	93%
Total Implementation Expenses⁸	\$66.3	\$62.3	94%
Gas			
Total Expenditures	\$19.5	\$19.5	100%
Total Implementation Expenses	\$18.3	\$18.4	101%

To achieve the primary goal described above, the Company employed four strategies initially introduced in the 2012-14 Energy Efficiency and System Reliability Procurement Plan (the “Three Year Plan”) in Docket 4284.

The first strategy was “Energy Efficiency is for Everyone.” It focused on broadening the portfolio of programs and removing participation barriers so that every Rhode Island customer could benefit and more would participate. The Company was successful in increasing participation in its programs throughout the year. For example, the Company made it easier for customers to participate by accepting online rebate submissions, offering gift cards instead of checks, and providing instant rebates for popular Wi-Fi and Nest thermostats. The Company also streamlined the application process for the Multi-Family program, creating a single point of contact for projects, which helped avoid customer confusion. Lastly, the Company began distributing Home Energy Reports to residents state-wide, helping to disseminate information on residential energy efficiency programs and encourage energy conservation actions through a usage comparison report.

The second strategy was “Reaching Customers Where They Live and Work.” In this strategy, the Company focused on bringing energy efficiency offerings to customers in ways that increased the value of energy efficiency specifically for them. In 2013, the Company continued to make strides with its Strategic Energy Management Plan (SEMP), signing a Memorandum of Understanding (MOU) with Rhode Island’s five largest hospitals, under the Lifespan Hospitals group. The Company also launched the Rhode Island Energy Challenge: Find Your Four! (Challenge) to build a community-based, grassroots campaign to educate customers about energy conservation, efficiency, and its residential programs. Furthermore, the Company worked diligently to target new customers by introducing a third-party vendor to encourage participation in the manufacturing and industrial sector, and expanded its residential new construction program through Renovation Rehabilitation services that enabled the Company to serve a number of homes that would not otherwise have participated.

The third strategy was innovation. The Company’s residential pilots provided the foundation for innovation by testing new methods and products like automatic temperature control, communicating thermostats, and building envelope measurement tools. Additionally, products that were tested in pilots in 2012, such as the behavioral pilot, were fully integrated into the programs for 2013. On the commercial side, the Company launched the code compliance support initiative and continues to pilot the Office-of-the-Future (OTF) initiative that targets tenant improvement office spaces. The Company also continued the System Reliability Procurement (SRP) pilot in 2013,

⁷Total expenditures excluding expenses from committed applications (electric programs only) as of December 2013

⁸Includes all DSM program-related expenses, i.e. incentives, administration and general expenses, marketing, sales, technical assistance and training. These are also net of the co-payment amounts paid directly by Small Business and Large Commercial program participants. This does not include the \$4.3 million dollars in 2012 carryover funds that was treated as an overspend and used to fund the Commercial and Industrial (“C&I”) Revolving Loan Fund as stated in the Company’s letter to the PUC dated August 8, 2013 “Docket 4366 – 2013 Energy Efficiency Program Plan Budget Management”.

examining whether energy efficiency measures such as Wi-Fi thermostats and smart plug-enabled window air conditioners can provide load relief in a targeted area. More information on SRP can be found in the 2014 System Reliability Report approved in Docket 4453.

The fourth strategy was economic growth. In addition to the bill savings and benefits described on the previous page, the Company also looked for new ways to add Rhode Island jobs. The Company continued to focus on increasing opportunities for independent energy efficiency and weatherization contractors. The Company also expanded financing for commercial and industrial projects, injecting another \$5.3 million in funds into the commercial and industrial (C&I) loan fund and partnering with the State on the Rhode Island Public Energy Partnership (RI PEP), where RGGI funds were designated for financing state and municipal projects. The Company quantified the impact of its 2013 energy efficiency programs in the 2013 Jobs Study, included in Attachment 4 of this report. The study concluded that 544.73 direct full-time equivalent (FTE) employees were supported in 2013 by energy efficiency programs in Rhode Island.

The following sections outline the highlights for the different programs and initiatives that comprise the 2013 Rhode Island Energy Efficiency Portfolio. Many activities undertaken in 2013 laid the foundation for inclusion in the 2014 Energy Efficiency Program Plan, which was approved by the PUC in Docket 4451, Order 21298 issued on December 24, 2013.

Residential Programs

Overview

In 2013, the residential sector was cost-effective with total resource B/C ratios of 1.82 for electric programs and 1.93 for gas programs. The Company spent approximately 107% of the electric residential implementation budget, achieved 106% of electric targeted annual energy savings and achieved 112% of electric targeted annual demand savings. The Company spent approximately 119% of the gas residential implementation budget and achieved 135% of gas targeted annual energy savings. The Company was able to dynamically administer the programs so that the sector had a strong finish in both fuel types. Additional details on spending and savings by program can be found in Attachment 1, tables E-1, E-2, E-3 and Attachment 2, tables G-1, G-2 and G-3.

Residential New Construction



The Rhode Island Residential New Construction (RI RNC) program strives to increase the number and quality of high-performing homes by offering no-cost plan analysis, inspection services, training, and technical assistance to help design and construct energy efficient new and renovated homes. The Program drives energy efficiency through a tiered financial incentive approach whereby units achieving greater efficiency over the baseline receive greater monetary performance incentives.⁹

The RI RNC program also provides rebates for the installation of energy efficient technologies and products including enhanced insulation, air sealing, and high-efficiency HVAC equipment (heating, ventilation, and air conditioning).

Overview of Performance

2013 was a successful year for the Rhode Island Residential New Construction Program. Even with the continued stall in the Rhode Island housing market, and with no increase in new housing permits compared to the other New England states, program participation increased from 2012.

- 473 participants, with 40% of participants achieved the highest savings categories of Tiers II and III (5% above goal)
- 17 homes achieved Tier III (a record high)
- 97 units achieved Energy Star Version 3 certification

Highlights

Rhode Island received national recognition in 2013 when a local builder participating in the RI RNC program completed the first home certified under the 2012 ICC 700 National Green Building Standard (NGBS). The home, designed to be nearly net-zero energy, includes the following, and many other, energy efficient features:

- Photovoltaic shingles for capturing solar energy.
- Heat pump water heater for heating hot water.

⁹The results of the Rhode Island 2011 Baseline Study informed the new construction baseline home. For renovations and rehabs, the baseline is the existing home plus code required improvements.

- Heat pump for heating and air conditioning.
- Electric heat recovery ventilator for circulating fresh, pre-heated air.

A RI RNC home in Exeter won the US Department of Energy (DOE) Housing Innovation Award and the builder was honored during a ceremony at the Solar Decathlon in Irvine, CA. The DOE Challenge Home designation award is presented to a select group of builders who are leading the industry transformation and their zero net-energy ready homes.

(http://energy.gov/sites/prod/files/2014/01/f6/hiawinner_caldwelljohnson_100213_1.pdf)

In 2013, the Company continued its support of the Builders Helping Heroes program by donating materials, labor, and technical support to the construction of a home in Burrillville, Rhode Island. While the home was not built in the National Grid territory, the Company remained committed to offering assistance to the RI Builders Association and the community in their support of Corporal Dubois (www.buildershelpingheroes.org).

Renovation/Rehabilitation (Reno Rehab) was officially incorporated into the RI RNC Program in 2013. A total of 278 units were enrolled in the program and 148 were completed in 2013, including The Lofts at Anthony Mill, a 140 year old mill building. This project presented a multitude of educational and savings opportunities, and the developer has since enrolled two additional mill properties into the Program(www.bradysullivan.com/apartments/anthony-mill).

The expanded offering of Reno Rehab services has allowed National Grid to serve a number of homes that would not otherwise have participated in energy saving programs. Offering RI RNC incentives and technical support throughout the renovation process resulted in significant whole house energy improvements for many of the Reno Rehab projects. For example, one project began as a conversion of a garage to a family room with a rear addition. In addition to complying with RI RNC requirements for the new section, the insulation levels in the attic, kneewall areas, and basement rim and band joists of the existing home were brought up to those same levels, increasing energy savings.

Networking

In addition to providing trainings throughout the year to builders, developers, architects, HVAC contractors, and clients, National Grid RI RNC participated in many events to promote energy efficiency, including:

- Rhode Island Building Officials Association
- Rhode Island Builders Association
- JLC (Journal of Light Construction) Live
- Rhode Island Home Show
- Green and Healthy Homes Initiative of Rhode Island
- North East Sustainable Energy Association Night
- Realtors Office, East Greenwich
- Coventry Lumber
- Rhode Island Nursery and Landscape Association's Green Market Festival

RI RNC broadened its influence in the building community in 2013 working directly with a number of new builders. In particular, RI RNC targeted builders focused on renovations, including Providence

Revival Building Company, Brady Sullivan, Resource Construction, Brusco Design, Chece Contracting and Red Oak Remodeling.

Education

Through partnership with J & R Construction, three on-site trainings were conducted for both Carinho High School and WACTC students. Students were engaged throughout the construction process, from the pre-evaluation phase to mid-point blower door testing, and final post work verification and testing. These trainings provided invaluable experience for the future builders of Rhode Island.

EnergyWise

EnergyWise is the gateway solution to in-home energy efficiency. By participating in a no-cost home energy assessment, customers learn about ways to reduce energy use within their home while also making their home more comfortable. During the assessment, auditors replace traditional lighting with energy efficient lighting, install advanced power strips in high energy use areas, address water savings opportunities, and assess heating equipment and appliances for efficiency. The auditor will also assess insulation levels within the attic, walls, and basement and identify opportunities to reduce air leakage of conditioned air. After the audit is completed, the information is compiled into a report that details recommendations for energy efficiency solutions and available incentives.

Overview of Performance

The EnergyWise program had a successful year meeting and exceeding its 2013 electric and gas savings goals respectively despite a significant increase from goals in 2013. Lag times between initial customer contact and home energy assessments being performed were reduced to the targeted fifteen days by year's end and an impressive average of over sixteen lighting products were installed in each single-family home.

Highlights

The EnergyWise program was successful in 2013 with a strong focus on outreach and enhanced energy savings. With the price of light emitting diode (LED) bulbs decreasing throughout the year, the program was able to install an average of three LED bulbs per household by year end.

The Company focused on using customer segmentation to increase participation. Customers were divided into two groups, those most likely to proceed with weatherization after receiving an audit, and those least likely to proceed. The Company then sent direct mail and email communication to the customers most likely to participate.



In 2013, consumer awareness of EnergyWise was enhanced by (i) the Rhode Island comprehensive campaign, which further highlighted National Grid's role as a provider of energy efficiency solutions, and (ii) the statewide launch of Home Energy Reports, which reinforced the benefits of home energy assessments as a first step in saving energy and money. Finally, EnergyWise specific awareness campaigns through the GetHouseFit campaign provided additional multiple points of consumer awareness.

A new method of targeting customers was introduced in 2013. National Grid's data analytics group determined that the best predictor of future participation for a specific program (weatherization) is past participants of that service (weatherization). By studying recent participation characteristics, the Company was able to target strong weatherization candidates. This new method led to more customers deciding to weatherize after receiving their initial audit.

In 2013, the Company was also able to test a Home Performance Contractor model where a contractor was selected to provide customer services from assessment through weatherization. Contractors participated in a request for information process and one vendor was selected for their unique marketing approach. Results of this pilot will be analyzed in 2014.

ENERGY STAR® Lighting

The ENERGY STAR® Lighting program is the work horse consumer product program for energy savings as well as the symbol for energy efficiency. The program is predominantly a mid-stream incentive program that works with manufacturers and retailers to reduce the cost of ENERGY STAR qualified lighting for consumers within retail stores. However, in 2013 the Company explored multiple channels for promoting and selling efficient lighting.

Overview of performance

The 2013 residential lighting program is another example of a well-implemented year of activity. It was able to reach over 150,000 customers in meeting its savings goals. Despite changing market conditions, the Company continues to administer the program in a way that keeps lighting at an attractive price point that demonstrates how easy it can be to save energy. This makes it an effective contributor to the Company's "Energy Efficiency is For Everyone" objective.

Highlights

In 2013, National Grid promoted energy efficient lighting through retail stores at over twenty community or business venues and through special marketing promotions.

Specifically, the Company found that using pop-up retailing for ENERGY STAR lighting, where National Grid partners set up a short-term, retail environment to sell energy efficient products and educate consumers, created a positive response as consumers were drawn to the colorful boxes containing a dozen lights. Most importantly, by having dedicated sales personnel working at events, consumers better understand the benefits of energy efficient lighting, including increased savings and longer lifetime over traditional lighting.

In 2013, National Grid worked with Deals in Rhode Island, an electronic local provider of discount products and services provided by the Providence Journal. One of the promotions, a six-pack of BR 30 LED bulbs, was one of the top five deals for 2013, illustrating the interest the public has in efficient lighting products.

The Company also worked with marketing to offer a Light up Your Library ENERGY STAR Lighting Makeover contest. The winners were the West Warwick Public Library of West Warwick, RI and Thayer Memorial Library of Lancaster, MA. They each will receive a \$15,000 ENERGY



STAR lighting makeover for their library. Children at the event had hands on activities to better understand how much power it takes to light up an incandescent bulb versus an energy efficient one.

ENERGY STAR® Appliances

The ENERGY STAR® Appliances program is run in collaboration with other regional program administrators to give all customers the opportunity to participate in a comprehensive set of measures. Customers can receive rebates for qualifying major appliances.

Overview of performance

The ENERGY STAR® Appliances program also had a very successful year highlighted by the “Funkiest Fridge in RI” contest which promoted refrigerator recycling to customers in a fun and tangible manner. There were also new customer facing services that facilitated rebate processing.

Highlights

The “Funkiest Fridge in RI” competition was an effort conducted by the Company to promote refrigerator recycling. This was a social media driven promotion where customers were asked to submit photos of their funky fridge and others could vote on the funkiest. The winner was able to throw the first pitch at a PawSox game.



In 2013 the Company simplified rebates by accepting online submissions. Gift cards were also used instead of traditional checks to reduce processing costs. Deals in Rhode Island was also used to successfully promote room air cleaners. Finally, National Grid partnered with a non-profit, Top Ten USA, to provide customers with an unbiased tool that identifies the most efficient appliance within specific appliance categories.

Home Energy Reports

Home Energy Reports (HER), a behavior-focused program nationally recognized for the last five years, was a new offering to all National Grid residential customers in 2013. National Grid has worked extensively with its vendor, Opower, in its MA and NY jurisdictions since 2009. The Rhode Island HER program, the first statewide behavior program in the country, uses historical energy usage benchmarking and social comparisons to encourage energy efficient behavior in the homes of residential customers. Over 215,000 households currently receive a report either via email or e-mail (nearly 50% receive a single report for both electric and gas), although every customer has online access to their usage information (www.nationalgridus.com/RIenergyreports), as well as direction and tips on how to save.

Overview of Performance

The HER program launched in April of 2013 as the first set of reports were delivered to customers' mailboxes and inboxes. In only nine months, the program helped customers save over 10,000 MWh and 135,000 therms, while delivering \$1.6 million in utility bill savings. In a recent survey, 96% of customers who recalled receiving HERs stated they read the reports to some degree, while 80% of customers reported they liked the HERs (this is 15% higher than the program vendor sees with other

utility clients across the country). By the end of 2014, the program is expected to help customers save an additional \$5.3 million on their bills.

Highlights

The aforementioned uniqueness of the program is built on the element that every National Grid residential customer has access to personalized energy usage information, including basic social comparison, and the ability to directly link with National Grid's other residential energy efficiency programs and services. Rhode Island is the first state in the country to take such a program completely statewide, and is also the first to experiment with other innovative program features, including:

- *Ability to opt-in:* Customers who were not receiving a report could opt-in online or via phone and begin receiving a report via mail or e-mail.
- *Rewards pilot:* A select group of customers received points for every kWh of electricity saved, which can then be applied for modest rewards (e.g. \$3-5 to Starbucks), or can be donated to different charities. In 2013, over half of customers who redeemed their rewards points elected to use those rewards as a donation to a charity.
- *New movers:* An exciting first for both National Grid and Opower, a specific program treatment was established for new movers into Rhode Island. Upon moving in and receiving utility service from National Grid, customers are provided with a tailored welcome packet that explains the HER program and provides immediate assistance in helping them save energy from the moment they move in. This is an important time to disseminate such information because many major decisions in a home that have an energy impact are made at this time.

Rhode Island Energy Challenge: Find Your Four!

Another new offering in 2013, the Rhode Island Energy Challenge: Find Your Four! (Challenge), is National Grid's community-based, grassroots campaign to educate customers about energy conservation and efficiency, and to link them to the Company's residential programs. The Challenge centers around the call-to-action of "Find Your Four," which tasks every individual to find four ways to save energy in the home, from unplugging a cell phone charger when it is not in use to signing up for a no-cost home energy assessment. The Challenge, through its vendor SmartPower, seeks to identify energy champions across the State and to use word-of-mouth and grassroots tactics to build awareness and follow-through on energy saving actions. The Challenge also established community-based competitions, whereby towns/cities, businesses, non-profits, and faith groups could compete against each other in getting 5-10% of their membership/employees/residents to officially take the Challenge pledge to be more efficient. The Challenge and all corresponding action items are housed on the Challenge's website, www.findyourfour.com.



Overview of Performance

The Challenge officially launched on May 29, 2013 with a kick-off event at the Roger Williams Park and Casino in Providence. The event brought together energy efficiency stakeholders from across the State to unite behind the “call-to-action” for all Rhode Islanders to understand and advocate for energy efficiency in the home. Those in attendance included Mayor Allan Fung of Cranston, Town Administrator Paulette Hamilton of North Smithfield, and leaders of



Rhode Island businesses, non-profits, and churches. Over the next seven months, over 1,100 households via the Challenge pledged to find four ways to save. In addition, three participating partners, the town of North Smithfield, the Arpin Group, and Blue Cross & Blue Shield of Rhode Island, all achieved the goal of signing up 5% of their residents or employees for the Challenge. Furthermore, the cross-promotion and awareness building of National Grid’s energy efficiency programs by the Challenge contributed to many of the Company’s residential programs exceeding their 2013 savings goals.

Highlights

Major highlights and successes of the Rhode Island Energy Challenge: Find Your Four! include:

- National Grid, SmartPower, and partners held or attended 57 community events and/or meetings, connecting with more than 3,200 Rhode Islanders.
- Over 500,000 customer communications were created to help build awareness for the Challenge and of the value of energy efficiency.
- 75% of Challenge participants who responded to a National Grid survey said that the Challenge made them more aware of energy use in the home, while over 90% said they took steps toward finding four ways to save in the home.

High Efficiency HVAC (Heating, Ventilation, and Air Conditioning)

The High-Efficiency HVAC programs (Gas Heat [heating] and CoolSmart [cooling]) provide a seamless customer experience that result in direct energy efficiency improvements. The program promotes the installation of high efficiency gas heating and electric cooling systems via tiered rebate levels for more efficient technologies including ductless mini-splits, Wi-Fi thermostats, and boiler reset controls. The program provides in-depth contractor training for design, installation, and testing of high efficiency systems. Furthermore, the program provides quality installation verification training, ensuring that all equipment is properly sized, installed, sealed, and performing optimally.

Overview of Performance

In 2013 the Rhode Island Gas Heat and CoolSmart programs exceeded savings goals as well as increased the number of contractors participating in the program. Contractor interest in the Gas Heat program has been steadily increasing over time, due to increased contractor support, training opportunities, and customer demand.

Highlights

In 2013, National Grid selected Conservation Services Group (CSG) to serve as the lead vendor for developing and implementing the Gas Heat program in Rhode Island. CSG, already the program

implementation contractor for the CoolSmart program, is now serving the entire HVAC program and is responsible for all HVAC-related trainings and contractor outreach. The opportunity to provide a single, comprehensive experience to Rhode Island contractors, and to demonstrate a renewed focus on building contractor engagement, has set the foundation for continued energy efficiency in the future.

Rebates for high efficiency HVAC equipment continued on a growth trend in 2013. Installation of electric heat pump water heaters, with high energy savings and a \$750 rebate, more than doubled compared to 2012 installation numbers. For gas incentives, the Early Boiler Replacement (EBR) rebate – replacement of an old working gas boiler with a new highly efficient model – also demonstrated an increase in sales. Several other rebate offerings gained traction in 2013 including ductless mini-split heat pumps and condensing gas boilers.

To improve the customer experience with the rebate program, instant rebates to the customer were implemented for the popular WI-FI thermostats (including Nest thermostats). Historically, rebates have been processed on-line or by mail. The instant rebate strategy attracts customers by streamlining the process and eliminating several time-consuming steps to receive a rebate check.

Quality Installation Verification (QIV) training sessions for electric efficiency measures were offered state-wide to educate HVAC contractors about the importance of right-sizing and down-sizing HVAC equipment. This training effort is paying dividends, as the program saw a 40% increase in QIV testing compared to 2012. QIV trainings were also offered around gas measures beginning in 2013, the first such trainings ever offered through the gas program.

CSG has been effective in developing relationships with supply houses and new upstream partners to help promote the CoolSmart and Gas Heat programs in addition to providing space for hosting the contractor training sessions throughout the year.



One of the program's 2013 highlights was the RI Gas Heat training held in November at the Cranston office of Robinson Supply. CSG presented "*Why Condensing Furnaces Need Proper Sizing*," a seminar also presented at the 2013 Gas Networks conference in Randolph, MA. This seminar included a live webinar with a presentation by Adtek, on their ACCA Manual J8 approved load calculation software "AccuCalc." The attendees were able to see the ease of using AccuCalc, and the design and sales capabilities of a proper load calculation. While Cool Smart has required proper sizing

with Manual J8 for several years, introducing this to the RI heating contractors is a giant step toward quality installation on the gas side.

Two other contractor trainings were hosted at Taco, a leader in the manufacturing of residential and commercial hydronic equipment, headquartered in Cranston, RI. Technical experts from Emerson Swan (factory representative for Taco in the northeast) provided training on "the System Approach to High Efficiency Heating." Participants also toured the Taco factory piping and assembly line and saw pump and control scenarios, as well as the production of the most popular pumps in the HVAC industry, from spools of wire to the paint booth.

Multifamily

The Multifamily program offering performed strongly in 2013. While program improvements will continue into 2014 as the Company seeks to provide a more holistic multifamily customer service, the customer experience has evolved and many features are now simplified. The program continues to provide coordinated services for multifamily buildings, both market-rate and income-eligible/affordable housing. The program also continues to utilize multiple funding streams across the Company's many energy efficiency portfolios – including residential electric, residential gas, and commercial gas.

Overview of Performance

The Multifamily program exceeded savings targets in 2013, reflecting the demand for multifamily services by Rhode Island customers, as well as the Company's ability to better enroll projects and to help customers complete efficiency upgrades for both in-unit and common area locations. In addition to achieving savings targets, the program excelled at improving process performance, continuing to build a stronger program that will provide long-term benefits for customers into the future. The "one point of contact" for customers, a priority for 2013, was successful and generated consistency and credibility for the program.

Highlights

In addition to the "one point of contact" commitment, another major highlight for the Multifamily program included the organization and execution of three separate multifamily customer focus groups. The goal of these focus groups was three-fold: to ensure customers correctly understand the participant process, to solicit feedback and ideas on how to improve the program offering, and to equip the Company with information that can be used to create more valuable tools and services.



Plumbing/Wire Penetrations (before)

Among the many efficiency projects completed in 2013, the work completed at Crescent Park Manor in Riverside, RI stands out as it will generate immediate benefits to the residents of the building. The manor received a significant air sealing upgrade, including the sealing of top plates, plumbing and wiring penetrations, dropped soffits plumbing, and duct chases. Furthermore, the areas with suspended ceiling

that lacked an effective vapor barrier were treated by first removing the existing attic insulation, and then installing insulation baffles at the perimeter as well as a foil faced vapor barrier. Finally, all seams were sealed with two-part foam and existing insulation was reinstalled for an effective pressure and thermal barrier.



Plumbing/Wire Penetrations (after)

Income Eligible Programs

Overview

In 2013, the Income Eligible program was cost-effective with total resource B/C ratios of 1.6 for electric programs and 1.54 for gas programs. The Company spent approximately 85% of the electric

low income implementation budget, achieved 101.9% of electric targeted annual energy savings and achieved 58% of electric targeted annual demand savings. The Company spent approximately 87% of the gas low income implementation budget and achieved 106% of gas targeted annual energy savings. Additional details on spending and savings by program can be found in Attachment 1, tables E-1, E-2, E-3 and Attachment 2, tables G-1, G-2 and G-3.

Income Eligible Services

The Income Eligible Services (IES) program helps low-income families and individuals reduce their electric and heating bills, save energy, and learn about energy efficiency. The Program focuses on training and enhancing technical knowledge of tradespeople to perform home energy assessments; installation of energy efficient lighting, appliances, heating systems, domestic hot water equipment, and weatherization measures.

In 2013, the program delivery model for IES underwent several changes. The most visible change was the new name – Income Eligible Services, replacing Single Family Low Income Services. Overall, IES built upon the foundation of Single Family Low Income Services with changes designed to enhance customer experience, improve program management, and increase support for local agencies delivering energy efficiency services. The most substantial change is a new model of program management – shifting from a sole, lead vendor, to a collaborative approach in which National Grid partners with the State Department of Human Services (DHS), Industry Partner CLEAResult, and the Local Community Action Program (CAP) agencies. The program continues to provide energy assessments and the installation of gas, electric, and other energy-saving measures at no cost to eligible customers.

Overview of Performance

Performance in 2013 started slowly and then gained momentum in July when CLEAResult joined as the Industry Partner under the new partnership model. CLEAResult focused on improving the effectiveness of the IES program by maintaining a strong relationship with DHS, leveraging IES program funds, establishing technical committees, developing manuals and protocols in association with DHS, maintaining program consistency and timely submission CAP invoices. Steady program accomplishments for the remainder of the year demonstrated the success of the partnership model. The last quarter had significant progress with both electric and gas performance exceeding 2012 final numbers for energy savings, spending by participant and percentage of budget spent.

Highlights

In 2013, the Weatherization Technical Committee (WTC) and the ASHRAE 62.2 Working Group were formed to explore and implement best practices throughout Rhode Island. These groups focused on the need for consistent audits and implementation of services, and are developing a relevant Operations Manual, Technical Manual and Field Guide (all based on the DOE Standardized Work System), all of which will be available to participating contractors. In addition, six statewide training programs were conducted to provide contractors with consistent methodology and processes, technical skills, and tools for timely completion of reviews and installations.

Commercial & Industrial Programs

Overview

In 2013, the Commercial & Industrial (C&I) DSM sector was cost-effective with total resource B/C ratios of 2.69 for electric programs and 1.73 for gas programs. The Company spent approximately

87% of the electric C&I implementation budget, achieved 96.5% of electric targeted annual energy savings and achieved 112.9% of electric targeted annual demand savings. The Company spent approximately 89% of the gas C&I implementation budget and achieved 94% of gas targeted annual energy savings. Additional details on spending and savings by program can be found in Attachment 1, tables E-1, E-2, E-3 and Attachment 2, tables G-1, G-2 and G-3.

Large Commercial New Construction

This program promotes energy efficient design and construction practices in new and renovated commercial, industrial, and institutional buildings. It also promotes the installation of high efficiency equipment in existing facilities during building remodeling and at the time of equipment failure and replacement. The program offers technical and design assistance and rebates to reduce the incremental cost of high efficiency equipment over standard efficiency equipment. Large Commercial New Construction is known as a “lost opportunities” program because a customer who does not install energy efficient equipment at the time of new construction or equipment replacement will likely never make the investment for that equipment or will make the investment at a much greater cost at a later time. Commissioning or quality assurance is also offered to ensure that the equipment and systems operate as intended.

Overview of Performance

Rhode Island’s economic recovery continue at a slow pace in 2013, creating continued challenges for the Company’s C&I energy efficiency programs. Despite these difficult circumstances, the Company met its 2013 electric New Construction program savings goals. The largest portion of which is attributed to the Bright Opportunities initiative, highlighted in a section below. At 91.7% the Company also had a solid year in New Construction Gas. Examples from both Electric and Gas are listed below.

Highlights

- The Company and the City of Newport, RI collaborated on the new Claiborne Pell School. The building uses a minimum of 20% less energy than code and has many features that will save money and provide occupant comfort well into the future. Some of these features include superior wall and roof insulation, superior window glazing, condensing boilers, displacement ventilation, and LED site lighting.
- The Company helped Seafreeze, Narragansett move from a hydrofluorocarbon based cooling system to a central ammonia based system. In addition to a savings of 322,000 kWh, the introduction of ammonia as a refrigerant neither contributes to global warming or ozone depletion.
- National Grid worked with the U.S. Navy to bring the Lighting Power Density (LPD) of Nimitz Dormitory down to an impressive 0.65 watt per square foot, saving the Navy tens of thousands of dollars per year over a system that merely met the energy code.

In the first quarter of 2012, the Company launched the much anticipated Bright Opportunities Rhode Island Commercial & Industrial Upstream Lighting Initiative (more commonly referred to as “Upstream Lighting.”) This initiative was designed to lower barriers to commercial and industrial customers adopting Energy Star certified LED lamps and Consortium for Energy Efficiency (CEE) approved high performance linear fluorescent lamps by eliminating the application required for a customer to acquire these products.

Through an agreement with participating electrical distributors, a portion of the higher cost of select eligible lamps is paid directly to the distributor by National Grid after the distributor successfully submits lamp and customer data. This means that commercial lighting customers get premium replacement technology for the price of a conventional product if they provide the required data. Customers have responded very positively to this new way to participate in the Company's initiatives.

In addition to being popular with customers, the initiative provided impressive savings for the Company's New Construction Program in 2013. More than 76% of the New Construction Program's goal, or 22,375 MWh, was achieved through this path.

In the second quarter of 2013, the Company launched the code compliance support initiative and hired a vendor to implement the supporting tasks like trainings and technical assistance to the building officials and the building professionals. Classroom trainings and project based technical support began in October 2013 and coincided with the adoption of the IECC 2012 building energy code. The Company also finalized the methodology to claim savings as a result of this effort.

In 2013, the Company completed the pilot stage of the Office-of-the-Future (OTF) initiative that targets tenant improvement office spaces. A contractor team was hired in the last quarter of 2013 to launch the OTF starting in 2014. The focus in 2013 was to determine design criteria, incentive package and marketing materials in order to launch it in 2014.

In the first quarter of 2013, the Company also continued to conduct New Construction trade ally forums. Following that, the rest of the year was spent in enhancing and modifying the features of the existing new construction program. Many enhanced features include design team incentives, a clearer owner incentive structure, participant handbooks and dedicated internal resources. All enhanced features are planned for a 2014 launch.

Large Commercial Retrofit

This is a comprehensive retrofit program designed to promote the installation of energy efficient electric equipment such as lighting, motors, and heating, ventilation and air conditioning (HVAC) systems in existing buildings. All commercial, industrial, and institutional customers greater than 200 kW average demand are eligible to participate. The Company offers technical assistance to customers to help them identify cost-effective conservation opportunities, and pays rebates to assist in defraying part of the material and labor costs associated with the energy efficient equipment.

Overview of Performance

Uncertainty in the business environment continued to affect customers' willingness to invest in non-core business improvements even if paybacks were attractive compared to other investments. However, efforts such as educating customers, making a concerted effort to understand a customer's needs, and enhanced incentives were influential counter-measures that drove the success in both the gas and electric areas of this program in 2013.

Highlights

Lighting continued to be a strong source of cost effective savings in 2013. Indoor and outdoor applications of LEDs continued their upward pattern as shown in the below examples.

- The Company helped the Dunkin Donuts Center in Providence complete a massive lighting upgrade from quartz halogen and metal halide to LED fixtures. This project will save the

center 1.55 million kWh in electricity per year as well. As an added bonus, this project should help the center reduce their maintenance costs.

- Eaton Corporation in East Providence engaged in a large lighting upgrade. National Grid was able to cover approximately 1/3 of the total cost and save the company 587,000 kWh per year.

The Company also successfully executed many non-lighting projects.

- Synagro in Woonsocket saved approximately 4.5 Million kWh through an innovative waste heat to electricity generation project.
- The Company assisted the Community College of Rhode Island (CCRI) in Warwick with the installation of an extensive Energy Management System (EMS) with several hundred control points. CCRI gained better control over three buildings and the project advanced more than 600,000 kWh toward the Company's electric Retrofit goal.

In addition, the Company pursued different strategies in pursuing energy efficiency for the following market sectors.

Manufacturing/Industrial: In 2013 the Company introduced a third party vendor to help promote energy efficiency and to help sell the concept of how to bring longer-term energy savings to this sector. In 2013, National Grid identified and worked with five of Rhode Island's large industrial customers. Assessments for three facilities were completed in 2013 with implementation planned in 2014. The goal for this pilot is to reduce the selected customers' energy usage between 3 to 5% of their current usage (both electric and gas), thereby reducing their utility costs.

Strategic Energy Management Plan (SEMP): In the last quarter of 2013, the Company signed a Memorandum of Understanding (MOU) with Rhode Island's five largest hospitals, under the Lifespan Hospitals group. In addition, the Company worked closely with Roger Williams University to develop a possible SEMP partnership with them. The Company continued to work with the two existing SEMP customers: Brown University and University of Rhode Island

Grocery stores: The third party implemented EnergySmart Grocer (ESG) Initiative was launched in the second quarter of 2012. In 2013, National Grid saved more than 1.2 million kWh for its grocery customers. An impressive 58% of these savings came from non-lighting measures.

Multifamily Buildings: National Grid now has a single point of contact for multifamily projects in Rhode Island who was hired in Q3 of 2013. There is also a single point of contact at RISE Engineering, our partner in serving master metered multifamily projects. This has reduced confusion among our customers concerning multifamily offerings. In addition to more focus on this area, National Grid has increased reporting transparency with a dedicated program line in our reporting that shows a separate goal, budget and progress to goals for Commercial Master Metered Multifamily gas. In 2013 this area was well over its target MMBtu goal.

Small Business Direct Install

This award winning program provides direct installation of energy efficient lighting and non-lighting retrofit measures, including gas measures. Customers with an average monthly demand of less than 200 kW are able to participate. The customer pays 30% of the total cost of a retrofit. This amount is discounted 15% for a lump sum payment or the customer has the option of spreading the payments over a two-year period - interest free.

Overview of Performance

2013 was another great year for the Small Business Direct Install (“SB/DI”) program and exceeded its electric savings goals. This is an indicator of the Company’s productive and cost-effective relationship with RISE Engineering Inc., its third-party vendor.

Highlights

In 2013, this program served a wide variety of customer types with many exciting projects. Successful projects were completed at community centers, museums, restaurants, and small manufacturing facilities, just to name a few. Lighting Emitting Diode (LED) lighting technology was an important part of this success and will continue to be well into the future. Customers were excited by the light quality, low maintenance, and energy savings that LED lamps and fixtures can provide.

Below is a small sample of the projects the Company helped its customers complete in 2013.

- **Boys and Girls Club in Warwick, RI** – This customer received enhanced rooftop unit controls to improve the function of the rooftop unit as well as the indoor air quality in the facility. RISE also installed interior and exterior lighting, upgraded energy efficient T8 lighting inside, and LED lighting on the exterior of the facility. All together this customer is projected to save over 68,000 kWh and 1,324 therms annually. The Warwick Boys and Girls club received over \$43,000 worth of incentives from National Grid. Additional funding (\$18,457) was provided using RGGI funds allocated by RI OER to help National Grid assist non-profits.
- **International Tennis Hall of Fame (Newport, RI)** – Work was completed to replace the 1000w Metal Halide lighting fixtures over their main interior tennis courts with efficient fluorescent lighting. In addition, screw-in LED lighting was installed throughout the facility. For \$74,000 in total project cost, the International Tennis Hall of Fame will save over 220,000 kWh per year.
- **International Artisan Millwork (Pawtucket, RI)** - Interior lighting was upgraded with high efficiency lamps and ballasts along with the use of occupancy sensors, and setback thermostats were installed throughout the facility. Additionally, the exterior lighting was upgraded to LED fixtures. More than 36,760 kWh saved will be saved annually at this site.

A larger list of project types and case studies in both Rhode Island and elsewhere in New England can be found at: <https://www1.nationalgridus.com/smallbusiness>

Pilots and Other Initiatives

Residential Pilots

National Grid completed the **EmPower Behavioral** pilot in Rhode Island during the 2013 calendar year. The program provided customers with multiple home technologies to control plug loads, control their HVAC, and the ability to see their homes electricity usage via in home display. The

Company will use the knowledge we gained from this pilot to determine future types of technology offerings which will provide benefits and savings to our customers.

The Company also completed the implementation of two communicating thermostat pilots that will be monitored for customer acceptance and savings during 2014. The pilots build on the Company's strategy to find innovative ways to inform customers about their energy usage and anticipated electric costs before they receive their monthly bill.

The **Home Energy Monitoring** pilot utilized a communicating thermostat to control a participants heating and cooling system as well as provide them with information on their electricity consumption and usage patterns. The system allowed the customer to set up a pre-defined budget which allowed them to be notified if their projected costs exceed the user defined budget.

The final ongoing pilot is the **Automatic Temperature Control** pilot. This pilot utilized all of the features of the Home Energy Monitoring pilot. In addition to these features, the system incorporates temperature control of the residence based on current external weather conditions as well as future anticipated weather patterns. While historically technologies focused purely on current weather conditions, this technology allow the Company to take into consideration future effects of wind, solar, and cloud conditions which may impact the operation of the HVAC system. The Company believes it can achieve higher levels of comfort and savings by providing this level of control for Rhode Islanders.

Deep Energy Retrofit Pilot

The Deep Energy Retrofit pilot is designed to determine the energy savings and market potential for super insulation retrofits in Rhode Island. In 2013, the pilot held a full-day workshop to recruit single-family and multi-family owners, builders, developers, and architects into the program. One single family home was completed in the DER Pilot in 2013 in Glocester. National Grid is offering roof, exterior wall, and basement DER measures in 2014 to coincidence with re-roofing, re-siding, and basement fit-out home upgrades.

Residential Energy Efficiency Education Programs

In 2013, National Grid continued its support of the energy education curriculum and teacher professional development in partnership with the National Energy Education Development (NEED) Project. Rhode Island teachers had the opportunity to attend full-day workshops that focused on the science of energy, energy efficiency, and the generation of electricity. The workshops, which hosted up to 30 teachers, allowed K-12 educators to improve and enhance their science and energy skills while helping students understand energy and ways to be more efficient at home and at school. In 2013, 50 Rhode Island educators participated in two workshops hosted in Providence.

Teachers received hands-on kits for the classroom and curriculum. The kits provided to teachers included topics such as Exploring Wind, Exploring Photovoltaics, Exploring Hydropower, Building Science and The Science of Energy. Educators were able to select the resources they felt were most appropriate for their classroom goals.

System Reliability Procurement

SRP is an important effort included in the Rhode Island Least Cost Procurement law, R.I.G.L. §39-1-27.7, which entails identifying transmission or distribution needs that can be deferred by non-wires alternatives (NWA) projects. These projects are customer-based and can include some measures that are also offered through the Company's statewide EE programs.

In 2012, the Company launched its first SRP project in the form of a pilot in Little Compton and parts of Tiverton called DemandLink™. Based on the plan detailed in the 2012 System Reliability Procurement Report, 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 1MW of load on the specific substation that serves that area by the end of 2017, thereby deferring the need to upgrade the substation by four years.

The pilot was approved for a second year by the PUC on December 18, 2012 and implemented throughout 2013. The Company introduced an expanded portfolio of measures targeted to customers with window air conditioning. This was an effort to broaden the eligibility of the existing population of customers from which load reductions are needed. The Company continued to leverage its statewide EnergyWise and Small Business Direct Install programs in the promotion and delivery of these measures. Additionally, the pilot's second year included a larger and more direct marketing campaign that included telemarketing and a community event in addition to direct mail and email outreach efforts. By the end of the 2013, preliminary results show that 132 Wi-Fi programmable controllable thermostats were installed in homes with central air conditioning and 145 plug load devices were installed in homes with window air conditioning units. Additional SRP details on 2013 activities and 2014 plans can be found in the Company's 2014 System Reliability Procurement Report filed in Docket 4453 and approved by the PUC on December 24, 2013.

Financing

The Company offered a variety of finance options to both commercial and residential customers. The two commercial revolving loans funds, both started in 2011, continued to allow customers to pay for their portion of an energy efficiency project through their monthly bills. The funds allowed participants to remain cash-flow positive and helped relieve pressure on the DSM charge by reducing incentive budgets.

In 2013, the Company offered approximately \$3.4 million in on-bill financing to 68 Large Commercial customers. Together, they saved more than 10,000 Annual MWh. At the end of 2013, the fund had a balance of \$6.1 million, money that will be available for more loans in 2014.

Of the 1,175 customers that participated in the Small Business Direct Install program, more than 900 received financing. Overall, the Small Business Revolving Loan fund was able to provide more than \$2.9 million in loans that led to 14,670 MWh in energy savings. At year end, the fund had a balance approximately \$2.6 million.

The Company continued offering a 0% interest Heat Loan to residential customers to finance their portions of residential energy efficiency projects. The interest buy-down program was initially funded by RGGI funds in 2011. In 2012, The RGGI funds had been fully utilized and the EnergyWise program began to provide the needed funds.

There are currently six lenders participating in the initiative: Citizens Union Savings Bank, Greenwood Credit Union, Coventry Credit Union, Bay Coast Bank, Navigant Credit Union and the Capital Good Fund. The Heat Loan can be used for Insulation and/or Air Sealing Upgrades, Energy Efficient Heating System Replacements, Duct Sealing and Duct Insulation, Energy Efficient Domestic Hot Water Systems, or ENERGY STAR® Thermostats. Depending on the lender, customers are eligible to receive 0% interest loans up to \$25,000 for period of up to 7 years.

Seven hundred and ninety six customers received Heat Loans in 2013, valued at approximately \$4.9 million. They are promoted during the EnergyWise home assessment, as well as on the Company's website. The Company offers a variety of finance options to all customers.

Rhode Island Comprehensive Marketing

In 2013, the Rhode Island comprehensive marketing campaign - Rhode Islanders Know - achieved its goal of increasing customer awareness of the availability of Energy Efficiency program offerings to National Grid Rhode Island customers. This determination is based on market research surveys conducted during the pre and post campaign time frame.

2013 was the third year that a statewide energy efficiency marketing campaign was implemented to convey general messaging regarding the availability of EE programs to National Grid customers. The goal of this awareness campaign was to support and amplify the efforts of individual energy efficiency program marketing tactics also in market during that time period. National Grid utilized propensity modeling and research findings to optimize marketing efforts and get the “right” product to the “right” customer at the “right” time with the “right” message in the “right” channel. Based on this research, mass media tactics included radio, print, digital, and cinema advertising. The 2013 Rhode Island Comprehensive campaign "Rhode Islanders Know" ran from April 15 through September 23, 2013.

Jobs Impacts

National Grid hired Peregrine Energy Group, Inc. to conduct a study of the job impacts from National Grid’s energy efficiency programs in 2013. 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 2013. 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-income energy efficiency services.

Peregrine determined that 544.73 full-time equivalent (FTE) employees had work in 2013 as a result of investments by National Grid in energy efficiency programs provided to its Rhode Island electricity and natural gas customers. 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 identified 814 companies and agencies involved in National Grid’s 2013 energy efficiency programs, 78% 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 or High Efficiency HVAC programs.

**Full-Time Equivalent (FTE) Employment Supported by
Energy Efficiency Programs in Rhode Island in 2013**

Programs	Total FTEs
Electric Programs	
Commercial and Industrial	160.24
Residential Income Eligible	23.31
Residential Non-Income Eligible	98.93
Gas Programs	
Commercial and Industrial	23.77

Residential Income Eligible	18.53
Residential Non-Income Eligible	150.78
National Grid EE Staffing	38.47
WAP/LIHEAP Income Eligible Programs	30.70
Total all 2013 Rhode Island FTEs	544.73

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 2013. Peregrine Energy Group calculated the labor hours required for each installation based on industry standards and discussions with contractor experts.

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. The study and a complete list of businesses are included as Attachment 4.

Shareholder Incentive

The Company's Shareholder Incentive earnings are determined by its performance against the established annual savings goals documented in the 2013 EEPP. The Company has earned a total of \$4,193,988 for the successful implementation of its energy efficiency programs in 2013.

The Shareholder Incentive is earned by sector. An incentive is earned if savings in a sector fall between 75% and 125% of the savings goal for the sector. An enhanced incentive up to 125% of the target incentive is available for achieving greater savings than the savings target. All sectors earned an incentive for their 2013 performance. Both gas and electric low income residential and gas and electric non-low income residential sectors earned over 100% of the target incentive.

More details on the Company's Shareholder Incentive achievements can be found in Attachments 1 and 2, tables E-4 and G-4.

Attachment 1

Electric Summary Tables of Year End Results

NATIONAL GRID ENERGY EFFICIENCY PROGRAMS IN RHODE ISLAND

Table E-1: Summary of 2013 Target and Year End Results

Sector and Program	(1) Demand Reduction (Annual kW)			(4) Energy Savings (Annual MWh)			(7) Customer Participation			(10) Implementation Expenses (\$ 000)			(13) Lifetime MWh		(14) \$/kWh	
	Target	Actual	Pct Achieved	Target	Actual	Pct Achieved	Approved Target	Actual	Pct Achieved	Budget	Actual	Pct Achieved				
Commercial & Industrial																
Large Commercial New Construction	4,985	8,003	160.5%	29,302	30,613	104.5%	1,260	2,271	180.2%	\$9,394.8	\$8,626.3	91.8%	345,104		\$0.025	
Large Commercial Retrofit	6,451	5,517	85.5%	47,600	41,707	87.6%	982	344	35.0%	\$11,785.6	\$9,814.1	83.3%	512,969		\$0.019	
Small Business Direct Install	4,443	4,414	99.4%	20,192	21,358	105.8%	1,667	1,175	70.5%	\$11,892.7	\$10,500.5	88.3%	253,657		\$0.041	
Community Based Initiatives - C&I										\$148.0	\$45.8	30.9%				
Commercial Pilots										\$319.2	\$160.0	50.1%				
Comprehensive Marketing - C&I										\$555.1	\$526.0	94.8%				
Finance Costs										\$1,080.0	\$1,000.0	92.6%				
SUBTOTAL	15,879	17,934	112.9%	97,093	93,679	96.5%	3,910	3,790	96.9%	\$35,175.6	\$30,672.6	87.2%	1,111,731		\$0.028	
Low Income Residential																
Single Family - Income Eligible Services	574	397	69.2%	4,131	3,735	90.4%	2,501	2,646	105.8%	\$5,942.5	\$5,000.6	84.1%	43,095		\$0.116	
Income Eligible Multifamily	318	122	38.3%	2,057	2,570	125.0%	3,100	5,370	173.2%	\$1,975.4	\$1,749.6	88.6%	26,931		\$0.065	
SUBTOTAL	893	519	58.2%	6,188	6,305	101.9%	5,601	8,016	143.1%	\$7,917.9	\$6,750.2	85%	70,026		\$0.096	
Non-Low Income Residential																
Residential New Construction	67	236	350.7%	883	753	85.3%	734	474	64.6%	\$1,139.4	\$1,343.6	117.9%	10,874		\$0.124	
ENERGY STAR® HVAC	308	585	190.1%	513	1,664	324.1%	2,090	3,049	145.9%	\$1,733.7	\$1,874.4	108.1%	20,716		\$0.090	
EnergyWise	55	2,094	3833.0%	7,059	11,434	162.0%	7,800	8,645	110.8%	\$6,935.9	\$8,036.5	115.9%	103,121		\$0.078	
EnergyWise Multifamily	145	70	48.0%	2,129	1,733	81.4%	3,700	3,539	95.6%	\$1,520.7	\$1,725.7	113.5%	19,320		\$0.089	
Home Energy Reports	2,834	527	18.6%	15,325	10,002	65.3%	246,500	207,015	84.0%	\$1,419.8	\$1,410.9	99.4%	10,002		\$0.141	
ENERGY STAR® Lighting	2,657	3,061	115.2%	24,757	28,376	114.6%	181,560	207,565	114.3%	\$4,584.6	\$5,093.5	111.1%	228,208		\$0.022	
ENERGY STAR® Products	347	587	169.2%	4,872	5,090	104.5%	24,450	28,152	115.1%	\$2,089.6	\$2,038.9	97.6%	38,372		\$0.053	
Energy Efficiency Education Programs										\$55.3	\$45.2	81.7%				
Residential Products Pilot										\$498.6	\$335.5	67.3%				
Community Based Initiatives - Residential										\$590.3	\$390.4	66.1%				
Comprehensive Marketing - Residential										\$1,590.4	\$1,485.2	93.4%				
SUBTOTAL	6,412	7,159	111.7%	55,538	59,051	106.3%	466,834	458,439	98.2%	\$22,158.2	\$23,779.8	107.3%	430,614		\$0.055	
Regulatory																
OER										\$544.4	\$536.5	98.5%				
EERMC										\$816.7	\$539.2	66.0%				
SUBTOTAL										1,361.1	1,075.8	79.0%				
TOTAL	23,183	25,613	110.5%	158,820	159,035	100.1%	476,345	470,245	98.7%	\$66,068.3	\$62,278.4	94.3%	1,612,371		\$0.039	
TOTAL BUDGET (15)										\$65,802.3	\$66,578.4	101.2%				
System Reliability Procurement										\$243.5	\$248.3	102.0%				

Notes

- (1)(4) Approved Target from 2013 EEPP, Attachment 5, Table E-6. In the 2013 Plan, the kW goal for EnergyWise was miscalculated. If the goal were consistent with the actual kW/kWh in 2013, it would have been approximately 1300 kW.
- (3) Pct Achieved is Column (2)/ Column (1).
- (6) Pct Achieved is Column (5)/ Column (4).
- (7) Approved Target from 2013 EEPP, Attachment 5, Table E-7
- (9) Pct Achieved is Column (8)/ Column (7).
- (10) Approved Implementation Budget from 2013 EEPP, Attachment 5, Table E-5 , adjusted to reflect "The Narragansett Electric Company, d/b/a National Grid 2013 Energy Efficiency Program Plan Transfer of Funds Request" dated December 20, 2013, and approved by the Division of Public Utilities and Carriers on January 3, 2014. The Small Business Direct Install program budget is increased by \$307,115 to reflect additional funding provided by OER for non-profit buildings.
- (11) Year To Date Implementation Expenses are net of finance, TA Copay and Municipal Copays offered in 2012 to Large Commercial New Construction and Large Commercial Retrofit.
- (12) Pct Achieved is Column (11)/ Column (10).
- (14) \$/lifetime kWh = Column (11)/Column (13)
- (15) Total Budget includes \$4.3 million dollars in 2012 carryover funds that was treated as an overspend and used to fund the Commercial and Industrial ("C&I") Revolving Loan Fund as stated in the Company's letter to the Commission dated August 8, 2013 "Docket 4366 – 2013 Energy Efficiency Program Plan Budget Management"

NATIONAL GRID ELECTRIC ENERGY EFFICIENCY PROGRAMS IN RHODE ISLAND
Table E-2: Summary of Value, kW, and kWh by Program
2013 Program Year

Commercial & Industrial	Value (000's)											kW Saved				MWh Saved		
	Total	Capacity					Energy					Non-Electric Benefits	Maximum Annual	kW Saved		Lifetime	Annual	Lifetime
		Summer	Winter	Trans	MDC	DRIPE	Winter		Summer		DRIPE							
							On Peak	Off Peak	On Peak	Off Peak								
Large Commercial New Construction	\$47,313	\$4,929	\$0	\$2,403	\$10,099	\$1,171	\$11,408	\$5,870	\$6,813	\$2,871	\$2,246	(\$497)	8,654	5,731	8,003	94,239	30,613	345,104
Large Commercial Retrofit	\$47,409	\$3,670	\$0	\$1,551	\$6,516	\$790	\$14,185	\$7,419	\$8,193	\$3,618	\$3,114	(\$1,647)	5,534	5,710	5,517	69,424	41,707	512,969
Small Business Direct Install	\$27,303	\$2,695	\$0	\$1,201	\$5,046	\$622	\$7,966	\$2,815	\$4,734	\$1,390	\$1,657	(\$822)	4,414	2,953	4,414	53,530	21,358	253,657
SUBTOTAL	\$122,025	\$11,294	\$0	\$5,155	\$21,660	\$2,584	\$33,559	\$16,104	\$19,740	\$7,878	\$7,016	(\$2,966)	18,603	14,394	17,934	217,193	93,679	1,111,731
Low Income Residential																		
Single Family - Income Eligible Services	\$9,177	\$292	\$0	\$109	\$459	\$41	\$789	\$963	\$451	\$479	\$227	\$5,366	391	773	397	4,879	3,735	43,095
Income Eligible Multifamily	\$2,481	\$46	\$0	\$25	\$106	\$12	\$651	\$549	\$278	\$222	\$175	\$417	252	390	122	2,152	2,570	26,931
SUBTOTAL	\$11,658	\$339	\$0	\$135	\$565	\$52	\$1,440	\$1,512	\$729	\$701	\$402	\$5,784	642	1,164	519	7,031	6,305	70,026
Non-Low Income Residential																		
Residential New Construction	\$4,731	\$380	\$0	\$105	\$443	\$32	\$202	\$248	\$118	\$118	\$48	\$3,037	236	161	236	4,996	753	10,874
ENERGY STAR® HVAC	\$6,975	\$574	\$0	\$197	\$827	\$83	\$413	\$351	\$391	\$186	\$119	\$3,834	585	365	585	8,973	1,664	20,716
EnergyWise	\$19,003	\$445	\$0	\$309	\$1,299	\$97	\$2,520	\$2,320	\$966	\$755	\$691	\$9,601	2,094	5,671	2,094	13,474	11,434	103,121
EnergyWise Multifamily	\$1,513	\$32	\$0	\$16	\$68	\$8	\$469	\$392	\$199	\$159	\$123	\$48	129	201	70	1,194	1,733	19,320
Home Energy Reports	\$746	\$11	\$0	\$13	\$53	\$0	\$170	\$215	\$97	\$105	\$83	\$0	527	2,100	527	527	10,002	10,002
ENERGY STAR® Lighting	\$21,646	\$924	\$0	\$560	\$2,354	\$227	\$4,386	\$5,111	\$2,424	\$2,442	\$1,583	\$1,635	3,061	6,122	3,061	24,584	28,376	228,208
ENERGY STAR® Products	\$4,120	\$140	\$0	\$104	\$437	\$38	\$732	\$846	\$435	\$415	\$292	\$682	587	672	587	4,521	5,090	38,372
SUBTOTAL	\$58,735	\$2,506	\$0	\$1,304	\$5,480	\$485	\$8,892	\$9,482	\$4,630	\$4,180	\$2,939	\$18,836	7,219	15,291	7,159	58,268	59,051	430,614
TOTAL	\$192,418	\$14,138	\$0	\$6,594	\$27,706	\$3,122	\$43,891	\$27,098	\$25,099	\$12,759	\$10,357	\$21,654	26,464	30,849	25,613	282,492	159,035	1,612,371

NATIONAL GRID ELECTRIC ENERGY EFFICIENCY PROGRAMS IN RHODE ISLAND
Table E-3: Summary of B/C Ratios, Value and Costs (\$000's)
2013 Program Year

	(1) Benefit/ Cost	(2) Total Value	(3) Program Implementation Expenses	(4) Customer Contribution	(5) Evaluation Expenses	(6) Shareholder Incentive
Commercial & Industrial						
Large Commercial New Construction	4.65	\$47,313.4	\$8,626.3	\$1,476.3	\$82.4	
Large Commercial Retrofit	2.92	\$47,408.8	\$9,814.1	\$6,319.9	\$129.7	
Small Business Direct Install	1.75	\$27,302.9	\$10,500.5	\$5,101.7	\$18.2	
Community Based Initiatives - C&I			\$45.8			
Comprehensive Marketing - C&I			\$526.0			
Commercial Pilots			\$160.0			
Finance Costs			\$1,000.0			
SUBTOTAL	2.69	\$122,025.1	\$30,672.6	\$12,897.9	\$230.2	\$1,536.8
Low Income Residential						
Single Family - Income Eligible Services	1.82	\$9,177.2	\$5,000.6	\$0.0	\$45.2	
Income Eligible Multifamily	1.42	\$2,481.1	\$1,749.6	\$0.0	\$1.1	
SUBTOTAL	1.60	\$11,658.4	\$6,750.2	\$0.0	\$46.3	\$483.2
Non-Low Income Residential						
Residential New Construction	3.43	\$4,731.3	\$1,343.6	\$0.0	\$37.2	
ENERGY STAR® HVAC	2.42	\$6,974.8	\$1,874.4	\$1,007.3	\$5.0	
EnergyWise	2.03	\$19,002.8	\$8,036.5	\$1,309.3	\$8.5	
EnergyWise Multifamily	0.87	\$1,513.4	\$1,725.7	\$4.1	\$1.1	
Home Energy Reports	0.53	\$746.3	\$1,410.9	\$0.0	\$0.9	
ENERGY STAR® Lighting	2.41	\$21,646.0	\$5,093.5	\$3,840.0	\$44.4	
ENERGY STAR® Products	1.33	\$4,120.3	\$2,038.9	\$1,056.5	\$2.6	
Energy Efficiency Education Programs			\$45.2		\$0.0	
Residential Products Pilot			\$335.5		\$8.3	
Community Based Initiatives - Residential			\$390.4		\$0.0	
Comprehensive Marketing - Residential			\$1,485.2		\$0.0	
SUBTOTAL	1.82	\$58,734.8	\$23,779.8	\$7,217.2	\$107.9	\$1,192.1
Regulatory						
OER			\$536.5			
EERMC			\$539.2			
SUBTOTAL			\$1,075.8			
TOTAL	2.24	\$192,418.3	\$62,278.4	\$20,115.1	\$384.5	\$3,212.2

Notes:

- (1) RI Total Resource Cost test Benefit/Cost Ratio = Total Value/(Program Implementation Expenses + Customer Contribution + Evaluation Cost + Shareholder Incentives).
- (2) Year-End Value Total from Table E-2.
- (3) Year-End Implementation Expenses by Program from Table E-1.
- (5) Evaluation Costs include outside contractor services.
- (6) Shareholder incentives from Table E-4.

NATIONAL GRID ELECTRIC ENERGY EFFICIENCY PROGRAMS IN RHODE ISLAND

Table E-4: National Grid 2013 EE Incentive Calculation

Incentive Rate: 5.00%

Sector	(1) Approved Spending Budget	(2) Target Incentive	(3) Annual kWh Savings Goal	(3a) Actual Spending	(3b) % of Approved Spending	(3c) Budget adjusted target kWh savings	(4) Threshold kWh Savings
Low Income Residential	\$8,029,015	\$401,451	6,188,112	\$ 6,796,511	84.6%	5,238,198	3,928,649
Non -Low Income Residential	\$22,423,802	\$1,121,190	55,537,956	\$ 23,887,703	106.5%	55,537,956	41,653,467
Commercial & Industrial	\$34,362,121	\$1,718,106	97,093,494	\$ 33,895,727	98.6%	97,093,494	72,820,120
Total	\$64,814,938	\$3,240,747	158,819,562	\$ 64,579,941		157,869,648	118,402,236

Sector	(5) Actual kWh	(6) % of Target Savings	(7) Savings Eligible for Incentive	(8) Total Earned Incentive	(9) % of Target Incentive Achieved
Low Income Residential	6,305,343	120.4%	6,305,343	\$ 483,236	120.4%
Non-Low Income Residential	59,051,455	106.3%	59,051,455	\$ 1,192,120	106.3%
Commercial & Industrial	93,678,663	96.5%	93,678,663	\$ 1,536,826	89.4%
Total	159,035,461		159,035,461	\$ 3,212,182	99.1%

Notes

(1) Budget from 2013 EEPP. Includes Implementation and Evaluation Expenses; excludes EERMC Costs, Commitments and Copays and Outside Finance Costs.

(2) Equal to the incentive rate (5.0%) x Column (1)

(3) Approved savings goal from 2013 EEPP

(3a) Actual spending includes actual Implementation Expenses from Table E-1 and Evaluation Expenses from Table E-3. It excludes EERMC costs and Outside Finance Costs. Includes \$4.3 million dollars in 2012 carryover funds that was treated as an overspend and used to fund the Commercial and Industrial ("C&I") Revolving Loan Fund as stated in the Company's letter to the Commission dated August 8, 2013 "Docket 4366 – 2013 Energy Efficiency Program Plan Budget Management"

(3b) Column (3a) / Column (1)

(3c) Column (3) * (3b), only if 100% of Target Savings were achieved in Column (3)

(4) 75% of Target kWh Savings

(5) Year End Savings from Table E-1

(6) Column (6) / Column (3c)

(7) If Column (7) is less than 75%, Column (8) = 0,

If Column (7) is between 75% and 125%, Column (8) = Column 6;

If Column (7) is greater than 125%, Column (8) = 125% of Column (3c) due to the incentive cap.

(8) The shareholder is calculated as follow, where SB is the Spending Budget in the sector:

From 75% of savings to 100% of savings: Shareholder Incentive = SB x (0.15 x % of savings achieved – 0.10)

From 100% of savings to 125% of savings: Shareholder Incentive = SB x (0.05 x % of savings achieved)

(9) Column (9) / Column (2)

TABLE E-5

NARRAGANSETT ELECTRIC COMPANY
2013 DEMAND - SIDE MANAGEMENT ADJUSTMENT AND BALANCE
12 month(s) of actuals 0 month(s) of estimates

Total C&LM Revenue/Expense for Jan-Dec 2013

	<u>Actual JAN</u>	<u>Actual FEB</u>	<u>Actual MAR</u>	<u>Actual APRIL</u>	<u>Actual MAY</u>	<u>Actual JUNE</u>	<u>6MTHS Y.T.D</u>
1. TOTAL REVENUE (A)	\$5,835,170	\$5,145,680	\$5,781,309	\$4,889,036	\$5,191,789	\$5,962,919	\$32,805,903
2. TOTAL EXPENSE (B)	\$1,584,205	\$2,791,389	\$5,250,788	\$4,909,427	\$4,119,902	\$6,642,185	\$25,297,896
3. Cash Flow Over/(Under)	\$4,250,965	\$2,354,291	\$530,522	(\$20,391)	\$1,071,887	(\$679,266)	\$7,508,008
4. Start of Period Balance (C)	\$8,901,995	\$13,164,713	\$15,536,357	\$16,087,035	\$16,087,812	\$17,182,188	\$8,901,995
5. End of Period Balance Before Interest	\$13,152,961	\$15,519,004	\$16,066,878	\$16,066,644	\$17,159,698	\$16,502,922	\$16,410,003
6. TOTAL INTEREST (D)	\$11,752	\$17,353	\$20,157	\$21,167	\$22,489	\$23,308	\$116,226
7. End of Period Balance After Interest	\$13,164,713	\$15,536,357	\$16,087,035	\$16,087,812	\$17,182,188	\$16,526,230	\$16,526,230
	<u>Actual JULY</u>	<u>Actual AUG</u>	<u>Actual SEPT</u>	<u>Actual OCT</u>	<u>Actual NOV</u>	<u>Actual DEC</u>	<u>ANNUAL TOTAL</u>
8. TOTAL REVENUE (A)	\$8,009,698	\$5,858,896	\$5,696,878	\$5,372,151	\$5,330,398	\$6,160,528	\$69,234,451
9. TOTAL EXPENSE (B)	\$6,061,538	\$1,903,260	\$4,903,265	\$5,311,431	\$7,788,467	\$11,418,215	\$62,684,072
10. Cash Flow Over/(Under)	\$1,948,160	\$3,955,636	\$793,613	\$60,720	(\$2,458,069)	(\$5,257,688)	\$6,550,379
11. Start of Period Balance (C)	\$16,526,230	\$18,499,164	\$22,484,501	\$23,311,754	\$23,407,099	\$20,982,152	\$8,901,995
12. End of Period Balance Before Interest	\$18,474,389	\$22,454,800	\$23,278,114	\$23,372,473	\$20,949,030	\$15,724,464	\$15,452,375
13. TOTAL INTEREST (D)	\$24,774	\$29,701	\$33,640	\$34,626	\$33,122	\$27,526	\$299,615
14. End of Period Balance After Interest	\$18,499,164	\$22,484,501	\$23,311,754	\$23,407,099	\$20,982,152	\$15,751,990	\$15,751,990
Income Eligible Residential Incentive							\$483,236
Residential Incentive							\$1,192,120
Commercial & Industrial Incentive							\$1,536,826
15. Total Incentives (D)							\$3,212,182
15a. End of Period Balance (minus incentive)							\$12,539,809
15b. Commitments(D)							\$7,000,000
15c. FUND BALANCE AT YEAR-END							\$5,539,809

(A) Revenue Report

(B) Source: SAP query

(C) "End of Period Balance Before Interest" from prior month.

(D) Incentives and commitments are estimated until year-end

TABLE E-6

NARRAGANSETT ELECTRIC COMPANY DBA NATIONAL GRID
2013 RGGI FUNDED ENERGY EFFICIENCY ADJUSTMENT AND BALANCE
LARGE & MEDIUM COMMERCIAL & INDUSTRIAL REVOLVING LOAN FUND
12 month(s) of actuals 0 month(s) of estimates

<u>Total Large C&I Revolving Loan Fund for Jan-Dec 2013</u>							
	<u>Actual JAN</u>	<u>Actual FEB</u>	<u>Actual MAR</u>	<u>Actual APRIL</u>	<u>Actual MAY</u>	<u>Actual JUNE</u>	<u>6MTHS Y.T.D</u>
1. TOTAL PAYMENTS RECEIVED (A)	\$1,052,746	\$77,187	\$74,221	\$100,104	\$1,157,474	\$124,707	\$2,586,439
2. TOTAL EXPENSE (B)	\$396,595	\$40,562	\$0	\$0	\$60,594	\$40,561	\$538,312
3. Cash Flow Over/(Under)	\$656,151	\$36,625	\$74,221	\$100,104	\$1,096,879	\$84,146	\$2,048,126
4. Start of Period Balance (C)	\$1,698,460	\$2,357,651	\$2,397,840	\$2,475,713	\$2,579,606	\$3,681,177	\$1,698,460
5. End of Period Balance Before Interest	\$2,354,611	\$2,394,276	\$2,472,061	\$2,575,818	\$3,676,485	\$3,765,324	\$3,765,324
6. TOTAL INTEREST (D)	\$3,040	\$3,564	\$3,652	\$3,789	\$4,692	\$5,585	\$24,322
7. End of Period Balance After Interest	\$2,357,651	\$2,397,840	\$2,475,713	\$2,579,606	\$3,681,177	\$3,770,908	\$3,770,908
	<u>Actual JULY</u>	<u>Actual AUG</u>	<u>Actual SEPT</u>	<u>Actual OCT</u>	<u>Actual NOV</u>	<u>Actual DEC</u>	<u>ANNUAL TOTAL</u>
8. TOTAL PAYMENTS RECEIVED (A)	\$120,119	\$4,396,160	\$169,722	\$125,097	\$130,280	\$193,915	\$7,721,731
9. TOTAL EXPENSE (B)	\$43,262	\$71,443	\$17,256	\$611,322	\$359,791	\$1,721,868	\$3,363,254
10. Cash Flow Over/(Under)	\$76,857	\$4,324,717	\$152,466	(\$486,225)	(\$229,511)	(\$1,527,954)	\$4,358,477
11. Start of Period Balance (C)	\$3,770,908	\$3,853,479	\$8,187,220	\$8,352,082	\$7,878,020	\$7,660,154	\$1,698,460
12. End of Period Balance Before Interest	\$3,847,765	\$8,178,197	\$8,339,687	\$7,865,857	\$7,648,509	\$6,132,201	\$6,132,201
13. TOTAL INTEREST (D)	\$5,714	\$9,024	\$12,395	\$12,163	\$11,645	\$10,344	\$85,607
14. End of Period Balance After Interest	\$3,853,479	\$8,187,220	\$8,352,082	\$7,878,020	\$7,660,154	\$6,142,545	\$6,142,545
15. FUND BALANCE AT YEAR-END							\$6,142,545

(A) On-Bill Repayments received

(B) New customer financing

(C) "End of Period Balance Before Interest" from prior month.

TABLE E-7

NARRAGANSETT ELECTRIC COMPANY
2013 RGGI FUNDED ENERGY EFFICIENCY ADJUSTMENT AND BALANCE
SMALL COMMERCIAL & INDUSTRIAL REVOLVING LOAN FUND

12 month(s) of actuals 0 month(s) of estimates

<u>Total Small C&I Revolving Loan Fund for Jan-Dec 2013</u>							
	Actual <u>JAN</u>	Actual <u>FEB</u>	Actual <u>MAR</u>	Actual <u>APRIL</u>	Actual <u>MAY</u>	Actual <u>JUNE</u>	6MTHS <u>Y.T.D</u>
1. TOTAL PAYMENTS RECEIVED (A)	\$220,319	\$247,302	\$246,743	\$245,520	\$273,361	\$155,025	\$1,388,269
2. TOTAL EXPENSE (B)	\$389,450	\$240,481	\$129,886	\$284,597	\$63,060	\$403,240	\$1,510,715
3. Cash Flow Over/(Under)	(\$169,131)	\$6,821	\$116,856	(\$39,078)	\$210,301	(\$248,215)	(\$122,445)
4. Start of Period Balance (C)	\$2,811,172	\$2,646,131	\$2,656,926	\$2,777,856	\$2,742,916	\$2,957,489	\$2,811,172
5. End of Period Balance Before Interest	\$2,642,041	\$2,652,952	\$2,773,783	\$2,738,778	\$2,953,216	\$2,709,274	\$2,709,274
6. TOTAL INTEREST (D)	\$4,090	\$3,974	\$4,073	\$4,137	\$4,272	\$4,250	\$24,797
7. End of Period Balance After Interest	\$2,646,131	\$2,656,926	\$2,777,856	\$2,742,916	\$2,957,489	\$2,713,524	\$2,713,524
	Actual <u>JULY</u>	Actual <u>AUG</u>	Actual <u>SEPT</u>	Actual <u>OCT</u>	Actual <u>NOV</u>	Actual <u>DEC</u>	ANNUAL <u>TOTAL</u>
8. TOTAL PAYMENTS RECEIVED (A)	\$270,563	\$140,980	\$194,418	\$234,603	\$186,665	\$267,637	\$2,683,134
9. TOTAL EXPENSE (B)	\$55,865	\$267,864	\$381,001	\$297,486	\$231,207	\$222,283	\$2,966,419
10. Cash Flow Over/(Under)	\$214,698	(\$126,884)	(\$186,583)	(\$62,883)	(\$44,542)	\$45,354	(\$283,285)
11. Start of Period Balance (C)	\$2,713,524	\$2,932,453	\$2,809,872	\$2,627,365	\$2,568,375	\$2,527,653	\$2,811,172
12. End of Period Balance Before Interest	\$2,928,222	\$2,805,569	\$2,623,290	\$2,564,482	\$2,523,834	\$2,573,007	\$2,573,007
13. TOTAL INTEREST (D)	\$4,231	\$4,304	\$4,075	\$3,894	\$3,819	\$3,825	\$48,945
14. End of Period Balance After Interest	\$2,932,453	\$2,809,872	\$2,627,365	\$2,568,375	\$2,527,653	\$2,576,833	\$2,576,833
15. FUND BALANCE AT YEAR-END							\$2,576,833

(A) On-Bill Repayments received

(B) New customer financing

(C) "End of Period Balance Before Interest" from prior month.

Attachment 2

Gas Summary Tables of Year End Results

NATIONAL GRID ENERGY EFFICIENCY PROGRAMS IN RHODE ISLAND

Table G-1: Summary of 2013 Target and Year End Results

Sector and Program	(1)	(2)	(3)	(4)	(5)	(6)	(7) (8) (9)			(10)	(11)
	Energy Savings (MMBtu)			Customer Participation			Implementation Expenses (\$ 000)				
	Approved Target	Actual	Pct Achieved	Approved Target	Actual	Pct Achieved	Approved Budget	Actual	Pct Achieved	Lifetime MMBtu	\$/Lifetime MMBtu
Commercial & Industrial											
Large Commercial New Construction	35,967	32,968	91.7%	170	155	91.4%	\$ 2,140.8	\$ 1,801.7	84.2%	592,689	\$ 3.04
Large Commercial Retrofit	123,451	117,284	95.0%	235	434	185.0%	\$ 3,092.6	\$ 2,904.1	93.9%	818,811	\$ 3.55
Small Business Direct Install	6,583	4,599	69.9%	209	110	52.6%	\$ 152.5	\$ 113.6	74.5%	46,302	\$ 2.45
Commercial & Industrial Multifamily	4,800	5,785	120.5%	600	1,976	329.3%	\$ 420.3	\$ 423.9	100.9%	109,674	\$ 3.87
Comprehensive Marketing - Commercial and Industrial							\$ 165.2	\$ 158.1	95.7%		
Commercial and Industrial Pilots							\$ 295.2	\$ 125.5	42.5%		
Finance Costs							\$ 300.0	\$ 300.0	100.0%		
SUBTOTAL	170,802	160,636	94.0%	1,213	2,675	220.5%	\$ 6,566.4	\$ 5,826.9	88.7%	1,567,475	\$ 3.72
Income Eligible Residential											
Single Family - Income Eligible Services	6,250	5,743	91.9%	400	398	99.5%	\$ 2,393.7	\$ 1,851.8	77.4%	114,868	\$ 16.12
Income Eligible Multifamily	16,562	18,477	111.6%	2,200	2,773	126.0%	\$ 1,646.0	\$ 1,646.4	100.0%	303,378	\$ 5.43
SUBTOTAL	22,812	24,220	106.2%	2,600	3,171	122.0%	\$ 4,039.7	\$ 3,498.3	86.6%	418,246	\$ 8.36
Non-Income Eligible Residential											
Energy Star® HVAC	19,544	41,638	213.0%	1,578	4,111	260.6%	\$ 2,334.6	\$ 2,903.6	124.4%	775,898	\$ 3.74
EnergyWise	30,333	55,251	182.2%	2,000	1,946	97.3%	\$ 3,502.9	\$ 4,529.7	129.3%	1,338,167	\$ 3.38
EnergyWise Multifamily	5,605	8,879	158.4%	700	984	140.6%	\$ 458.0	\$ 579.9	126.6%	127,055	\$ 4.56
Home Energy Reports	35,781	15,248	42.6%	136,475	122,334	89.6%	\$ 298.1	\$ 312.8	104.9%	15,248	\$ 20.52
Residential New Construction	2,900	5,713	197.0%	584	425	72.8%	\$ 343.1	\$ 215.4	62.8%	135,583	\$ 1.59
Comprehensive Marketing - Residential							\$ 174.6	\$ 179.6	102.9%		
Community Based Initiatives - Residential							\$ 60.0	\$ 59.6	99.3%		
Residential Products Pilot							\$ 166.5	\$ 10.5	6.3%		
SUBTOTAL	94,161	126,729	134.6%	141,337	129,800	91.8%	\$ 7,337.9	\$ 8,791.1	119.8%	2,391,950	\$ 3.68
Regulatory											
EERMC							\$ 225.6	\$ 161.2	71.4%		
OER							\$ 150.4	\$ 147.7	98.2%		
SUBTOTAL							\$ 376.0	\$ 308.8	82.1%		
TOTAL	287,775	311,585	108.3%	145,150	135,646	93.5%	\$ 17,944.0	\$ 18,425.1	102.7%	4,377,672	\$ 4.21

NOTES

(1) Approved Target from 2013 EEPP Attachment 6, Table G-6

(3) Pct Achieved is Column (2)/ Column (1).

(4) Approved Target from 2013 EEPP, Attachment 6, Table G-7. For C&I Programs, planned participation goal was the sum of planned measures. In 2013 reporting, C&I participation goal has been calculated from the average savings per participant and program savings goal.

(6) Pct Achieved is Column (5)/ Column (4).

(7) Approved Budget from 2013 EEPP, Attachment 6, Table G-5, adjusted to reflect "The Narragansett Electric Company, d/b/a National Grid 2013 Energy Efficiency Program Plan Transfer of Funds Request" dated December 20, 2013, and approved by the Division of Public Utilities and Carriers on January 3, 2014.

(9) Pct Achieved is Column (8)/ Column (7).

(11) \$/ Lifetime MMBtu is Column (8)/ Column (10)

NATIONAL GRID NATURAL GAS ENERGY EFFICIENCY PROGRAMS IN RHODE ISLAND
Table G-2: Summary of Value and MMBTU Saved by Program
2013 Program Year

	Value (\$000)			MMBTU Gas Saved	
	(1) Total Value	(2) Natural Gas Benefits	(3) Non-Gas Benefits	(4) Annual	(5) Lifetime
Commercial & Industrial					
Large Commercial New Construction	\$4,968	\$4,943	\$25	32,968	592,689
Large Commercial Retrofit	\$7,650	\$6,844	\$805	117,284	818,811
Commercial & Industrial Multifamily	\$1,010	\$1,001	\$9	5,785	109,674
Small Business Direct Install	\$589	\$360	\$230	4,599	46,302
SUBTOTAL	\$14,217	\$13,148	\$1,069	160,636	1,567,475
Low Income Residential					
Single Family - Income Eligible Services	\$2,191	\$1,049	\$1,142	5,743	114,868
Income Eligible Multifamily	\$3,611	\$2,748	\$863	18,477	303,378
SUBTOTAL	\$5,802	\$3,797	\$2,005	24,220	418,246
Non-Low Income Residential					
Energy Star® HVAC	\$9,362	\$7,005	\$2,357	41,638	775,898
EnergyWise	\$12,382	\$12,265	\$118	55,251	1,338,167
EnergyWise Multifamily	\$1,591	\$1,139	\$452	8,879	127,055
Home Energy Reports	\$132	\$132	\$0	15,248	15,248
Residential New Construction	\$1,261	\$1,226	\$35	5,713	135,583
SUBTOTAL	\$24,728	\$21,766	\$2,962	126,729	2,391,950
TOTAL	\$44,747	\$38,711	\$6,036	311,585	4,377,672

Notes:

- (1) Total Benefits equal Natural Gas Benefits plus Non-Gas Benefits.
(3) Non-Gas Benefits include electric benefits and non-resource benefits

NATIONAL GRID NATURAL GAS ENERGY EFFICIENCY PROGRAMS IN RHODE ISLAND
Table G-3: Summary of B/C Ratios, Value and Costs (\$000's)
2013 Program Year

	(1)	(2)	(3)	(4)	(5)	(6)
	Benefit/ Cost	Total Value	Program Implementation Expenses	Customer Contribution	Evaluation Expenses	Shareholder Incentive
Commercial & Industrial						
Large Commercial New Construction	2.19	\$4,967.8	\$1,801.7	\$436.5	\$32.2	
Large Commercial Retrofit	1.71	\$7,649.6	\$2,904.1	\$1,559.3	\$19.5	
Small Business Direct Install	4.37	\$589.4	\$113.6	\$20.9	\$0.5	
Commercial & Industrial Multifamily	2.04	\$1,009.9	\$423.9	\$72.3	\$0.1	
Comprehensive Marketing - Commercial and Industrial			\$158.1			
Commercial and Industrial Pilots			\$125.5			
Finance Costs			\$300.0			
SUBTOTAL	1.73	\$14,216.7	\$5,826.9	\$2,088.9	\$52.4	\$263.4
Income Eligible Residential						
Single Family - Income Eligible Services	1.17	\$2,190.8	\$1,851.8	\$0.0	\$16.2	
Income Eligible Multifamily	2.18	\$3,611.1	\$1,646.4	\$7.2	\$0.2	
SUBTOTAL	1.54	\$5,801.8	\$3,498.3	\$7.2	\$16.4	\$251.3
Non-Income Eligible Residential						
Energy Star® HVAC	1.79	\$9,361.7	\$2,903.6	\$2,303.0	\$8.9	
EnergyWise	2.17	\$12,382.3	\$4,529.7	\$1,168.0	\$1.0	
EnergyWise Multifamily	2.62	\$1,591.1	\$579.9	\$26.8	\$0.5	
Home Energy Reports	0.42	\$131.8	\$312.8	\$0.0	\$0.5	
Residential New Construction	5.48	\$1,261.1	\$215.4	\$0.0	\$14.8	
Residential Products Pilot			\$10.5		\$0.0	
Community Based Initiatives - Residential			\$59.6			
Comprehensive Marketing - Residential			\$179.6			
SUBTOTAL	1.93	\$24,728.1	\$8,791.1	\$3,497.8	\$25.7	\$467.1
Regulatory						
EERMC			\$161.2			
OER			\$147.7			
SUBTOTAL			\$308.8			
TOTAL	1.78	\$44,746.6	\$18,425.1	\$5,593.9	\$94.4	\$981.8

Notes:

- 1) RI Total Resource Cost test Benefit/Cost Ratio = Total Value/(Program Implementation Expenses + Customer Contribution + Evaluation Cost + Shareholder Incentives).
- (2) Year-End Value Total from Table G-2.
- (3) Year-End Implementation Expenses by Program from Table G-1.
- (5) Evaluation Costs include outside contractor services.
- (6) Shareholder incentives from Table G-4.

NATIONAL GRID NATURAL GAS ENERGY EFFICIENCY PROGRAMS IN RHODE ISLAND
Table G-4: National Grid 2012 EE Incentive Calculation

Incentive Rate:

5.00%

	(1)	(2)	(3)	(3a)	(3b)	(3c)	(4)
Sector	Approved Spending Budget	Target Incentive	Annual Savings Goal (MMBTU)	Actual Spending	% of Approved Spending	Budget Adjusted target MMBtu Savings	Threshold MMBtu Savings
Low Income Residential	\$ 4,078,728	\$ 203,936	22,812	\$ 3,514,645	86.2%	19,657	14,743
Non-Low Income Residential	\$ 7,474,199	\$ 373,710	94,161	\$ 8,816,758	118.0%	94,161	70,621
Commercial & Industrial	\$ 6,412,776	\$ 320,639	170,802	\$ 5,579,265	87.0%	170,802	128,101
Total	\$ 17,965,703	\$ 898,285	287,775	\$ 17,910,668	99.7%	284,620	213,465

	(5)	(6)	(7)	(8)	(9)
Sector	Actual MMBtu	% of Target Savings	Savings Eligible for Incentive	Earned Savings Incentive	% of Target Incentive Achieved
Low Income Residential	24,220	123.2%	24,220	\$251,280	123.2%
Non-Low Income Eligible Residential	126,729	134.6%	117,702	\$467,137	125.0%
Commercial & Industrial	160,636	94.0%	160,636	\$263,389	82.1%
Total	311,585	109.5%	302,558	\$981,807	109.3%

Notes:

- (1) Budget from 2013 EEPP. Includes Implementation and Evaluation Expenses. Excludes EERMC, OER, Finance Costs and Shareholder Incentive.
- (2) Equal to the incentive rate (5.0%) x Column (1).
- (3) Approved savings goal from 2013 EEPP
- (3a) Actual spending includes actual Implementation Expenses Table G-1, and Evaluation Expenses from Table G-3. Excludes Finance Costs.
- (3b) Column (3a) / Column (1)
- (3c) Column (3) * (3b), only if 100% of Target Savings were achieved in Column (3)
- (4) 75% of Target MMBtu Savings
- (5) Year End Savings from Table G-1
- (6) Column (5) / Column (3c)
- (7) If Column (6) is less than 75%, Column (8) = 0;
 If Column (6) is between 75% and 125%, Column (7) = Column 5;
 If Column (6) is greater than 125%, Column (7) = 125% of Column (3c) due to the incentive cap.
- (8) The shareholder incentive will be calculated as follow, where SB is the Spending Budget in the sector:
 From 75% of savings to 100% of savings: Shareholder Incentive = SB x (0.15 x % of savings achieved – 0.10)
 From 100% of savings to 125% of savings: Shareholder Incentive = SB x (0.05 x % of savings achieved)
- (9) Column (9) / Column (2)

TABLE G-5

NATIONAL GRID - RHODE ISLAND GAS
2013 DEMAND - SIDE MANAGEMENT ADJUSTMENT AND BALANCE
12 month(s) of actuals 0 month(s) of estimates

Total C&LM Revenue/Expense for Jan-Dec 2013

	<u>Actual JAN</u>	<u>Actual FEB</u>	<u>Actual MAR</u>	<u>Actual APRIL</u>	<u>Actual MAY</u>	<u>Actual JUNE</u>	6 MTHS Y.T.D
1. TOTAL REVENUE (A)	\$2,081,283	\$2,568,660	\$2,152,032	\$1,880,938	\$892,744	\$555,363	\$10,131,021
2. TOTAL EXPENSE (B)	\$1,008,864	\$804,117	\$1,041,329	\$1,348,789	\$1,176,986	\$974,643	\$6,354,727
3. Cash Flow Over/(Under)	\$1,072,420	\$1,764,544	\$1,110,702	\$532,149	(\$284,241)	(\$419,280)	\$3,776,294
4. Start of Period Balance	\$1,991,955	\$3,066,978	\$4,835,586	\$5,951,894	\$6,490,550	\$6,212,984	\$1,991,955
5. End of Period Balance Before Interest	\$3,064,375	\$4,831,522	\$5,946,289	\$6,484,044	\$6,206,309	\$5,793,705	\$5,768,250
TOTAL INTEREST	\$2,603	\$4,064	\$5,605	\$6,507	\$6,675	\$6,349	\$31,805
7. End of Period Balance After Interest	\$3,066,978	\$4,835,586	\$5,951,894	\$6,490,550	\$6,212,984	\$5,800,054	\$5,800,054
	<u>Actual JULY</u>	<u>Actual AUG</u>	<u>Actual SEPT</u>	<u>Actual OCT</u>	<u>Actual NOV</u>	<u>Actual DEC</u>	2013 Y.T.D
8. TOTAL REVENUE (A)	\$523,460	\$515,615	\$525,004	\$596,539	\$1,049,107	\$2,056,875	\$15,397,622
9. TOTAL EXPENSE (B)	\$1,657,011	\$1,178,426	\$1,284,108	\$1,566,424	\$2,019,750	\$4,459,042	\$18,519,487
10. Cash Flow Over/(Under)	(\$1,133,550)	(\$662,811)	(\$759,104)	(\$969,885)	(\$970,642)	(\$2,402,167)	(\$3,121,865)
11. Start of Period Balance	\$5,800,054	\$4,672,080	\$4,013,934	\$3,258,787	\$2,291,992	\$1,323,445	\$1,991,955
12. End of Period Balance Before Interest	\$4,666,504	\$4,009,269	\$3,254,831	\$2,288,902	\$1,321,349	(\$1,078,722)	(\$1,129,909)
TOTAL INTEREST	\$5,576	\$4,665	\$3,956	\$3,090	\$2,096	\$398	\$51,586
14. End of Period Balance After Interest	\$4,672,080	\$4,013,934	\$3,258,787	\$2,291,992	\$1,323,445	(\$1,078,324)	(\$1,078,324)
15. 2013 Residential Incentive (C)							\$251,280
2013 Income Eligible Residential Incentive (C)							\$467,137
2013 Commercial & Industrial Incentive (C)							\$263,389
2013 Total Incentives (C)							\$981,807
16. End of Period Balance (minus incentive)							(\$2,060,130)
17. Commitments							\$0
18. FUND BALANCE AT YEAR-END							(\$2,060,130)

(A) Revenue Report

(B) Source: SAP query

(C) This is the amount credited to the Company's General Ledger during this year.

Attachment 3

Case Studies

EnergyWise Program

Two Family Home — Woonsocket, RI

Walter Steenbergen had an energy assessment completed at his two family, stucco style, side-by-side duplex that was built in 1912. The Energy Specialist found that both units could benefit from additional attic insulation and air sealing. Upon completion of the work, Walter received a rebate of \$2,750 for each unit towards the cost of these energy efficiency improvements for a total rebate amount of \$5,500. In addition, he received replacement CFLs at no cost.

Energy Efficiency Solutions

- Air Sealing
- Insulation
- CFLs

Savings Summary

The Need – Improve efficiency and reduce utility costs.

The Solution – Installed insulation, CFL light bulbs, and sealed air leaks with the help of rebates and incentives from National Grid.

As a National Grid customer, you may be eligible for a Home Energy Assessment, at no cost to you. The assessment will measure your home's energy efficiency and put you on the path to reducing costs and saving big on home energy improvements.

The result:

Total Project cost	\$7,750
National Grid incentive	\$5,500
Annual kWh savings	3,003 kWh
Annual Therm savings	513 therms
CO2 Lifetime Reduction	5,993 tons
Annual cost savings	\$1,255 (electric & gas)



Woonsocket, RI

"I found my Energy Specialist to be thorough, knowledgeable, and very personable. He took a lot of time to explain the issues with our "historic" 100 year old home, which has many challenges in terms of architecture, access to un-insulated spaces, old mechanicals, etc."

- Walter Steenbergen, Homeowner

Connect with us on    

To schedule a home energy assessment: 1-888-633-7947 | www.nationalgridus.com/energywiseri

EnergyWise Program

Single Family Home — Warwick, RI

Leonard Belisles had an energy assessment completed at his Gambrel style home that was built in 1915. The Energy Specialist found that the home could benefit from additional attic insulation and air sealing. Upon completion of the work, Leonard received a rebate of \$1,298 towards the cost of these energy efficiency improvements. In addition, he received replacement CFLs at no cost.

Energy Efficiency Solutions

- Air Sealing
- Insulation
- CFLs

Savings Summary

The Need – Improve efficiency and reduce utility costs.

The Solution – Installed insulation, CFL light bulbs, and sealed air leaks in both units with the help of rebates and incentives from National Grid.

As a National Grid customer, you may be eligible for a Home Energy Assessment, at no cost to you. The assessment will measure your home's energy efficiency and put you on the path to reducing costs and saving big on home energy improvements.

The result:

Total Project cost	\$3,304
National Grid incentive	\$1,298
Annual kWh savings	146 kWh
Annual Therm savings	246 Gallons of Oil
CO2 Lifetime Reduction	5513.3 lbs
Annual cost savings	\$883 (electric & oil)



Warwick, RI

"Fantastic job! I would highly recommend the professional workers who did the work. The best people got sent out! I can already feel the difference: The heat gain from the sun lasts longer and when the heat is turned on, it stays warm longer between cycles."

- Leonard Belisles, Homeowner

Connect with us on    

To schedule a home energy assessment: 1-888-633-7947 | www.nationalgridus.com/energywiseri

Small Business Program

Mews Tavern

Mews Tavern

Originally a small fishermen's tavern which opened in 1947, owners Dave and Danny have transformed Mews Tavern into a legendary Rhode Island restaurant and bar. It's an authentic Celtic Pub where you can enjoy the best burger in South County and enjoy live entertainment. There is a great deal of history packed into Mews. People from all over come to visit this legendary establishment and now all patrons will drink and dine under their new energy efficient lighting that was installed after Mews took advantage of National Grid's Small Business Program. After a free energy evaluation they decided to move forward with recommended measures that helped decrease energy costs and their environmental impact.

Efficiency Improvements

Mews installed an Energy Management System and new energy efficient custom lighting.

The result:

Total Project Cost	\$28,159
National Grid Incentive	\$19,712
Cost to Customer	\$8,448
Estimated Annual Energy Cost Savings	\$10,439
Annual kWh Savings	77,750



Wakefield, RI

"Our business is very visual and detail-oriented. Good lighting is critical for doing our best work. Being able to improve our lighting and save on energy costs is just smart business for us."

—Bob Betti, VP of Manufacturing

Small Business Program

Wright's Dairy Farm and Bakery

Wright's Dairy Farm and Bakery

Northern Rhode Islanders have been enjoying Wright's Dairy Farm products since 1900. For generations the farm has delivered exceptional quality in dairy and pastry products and service to match.

National Grid's Small Business Services Program helped Wright's implement a lighting retrofit project that casts new light on old family traditions. By providing a free on-site energy assessment and paying up to 70% of project costs, the program made the energy efficiency improvements affordable and easy to implement.

Small Business Solutions

Efficient Mechanical Equipment and Systems

- High efficiency lighting systems

Savings Summary

The Need — Improve lighting throughout the facility without major capital expenditure.

The Solution — Install high efficiency lighting and spread Wright's share of the cost over 24 months on its electric bill, interest free.

Strategic Partners

RISE Engineering — Installation Contractor
1341 Elmwood Drive, Cranston, Rhode Island 02910

The result:

Total Project Cost	\$4,912
National Grid Incentive	\$3,443
Cost to Customer	\$1,469
Estimated Annual Energy Cost Savings	\$1,600
CO₂ Lifetime Reduction	7.6 tons



North Smithfield, RI

"This entire project went very smoothly. The contractors were excellent. The account representative was very knowledgeable. And we loved that we could spread out our cost on the monthly bill. Great job."

—Elizabeth Dulude

Attachment 4

2013 Employment Supported by Energy Efficiency in Rhode Island Report



ANALYSIS OF JOB CREATION from 2013 Expenditures for Energy Efficiency in Rhode Island by National Grid

Prepared for National Grid

April 29, 2014

Prepared by

Peregrine Energy Group, Inc.
2 Oliver Street
Boston, Massachusetts 02109

Table of Contents

Executive Summary.....	3
Introduction	5
Efficiency Workforce Overview.....	6
Program Support Service Providers	6
Direct Service Providers	8
Energy Efficiency Program Delivery	9
Residential Programs.....	9
Income Eligible Residential Programs	15
Commercial and Industrial Programs	17
Employment Impacts of National Grid Programs	22
Attachment A: Methodologies used for Assessing Employment	26
Program Support Service Providers	26
Direct Service Providers	26
Attachment B: Interview Guide	31
National Grid RI Labor Study	31
Organization Interviews	31
Attachment C: Participating Companies.....	32



Executive Summary

In 2013, National Grid spent a total of \$80,221,280.24 on electric and gas energy efficiency programs and services in Rhode Island. These programs aimed at reducing energy use, saving money for customers, improving the environment, and improving the health, comfort, and safety of homes and businesses. Delivering the 2013 energy efficiency programs required the active involvement of a broad range of workers across a wide array of businesses, including not-for-profits, contractors, plumbers, rebate processors, state agencies, engineering firms, marketing firms, and others.

In order to quantify the number of direct workers involved, National Grid commissioned Peregrine Energy Group, Inc. (Peregrine) to conduct a study of the job impacts of National Grid's energy efficiency programs delivered to Rhode Island electricity and natural gas customers in 2013. Peregrine determined that 544.73 full-time equivalent (FTE) employees had work in 2013 as a result of investments by National Grid in energy efficiency programs provided to its Rhode Island electricity and natural gas customers. 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 identified 814 companies and agencies involved in National Grid's 2013 energy efficiency programs, 78% 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 or High Efficiency HVAC programs. A full list of companies involved in the 2013 Rhode Island energy efficiency programs is included at the end of this report.

These findings confirm that job creation is an additional significant benefit that National Grid's investment in energy efficiency has contributed to Rhode Island's economy and to business owners and their employees that participate in and deliver these programs. 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. Since a "full-time equivalent" employee often represents the labor 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.

Employers whose workers were supported by these program included organizations across a broad range of companies involved in energy program design, management and delivery. These include National Grid itself, program design consultants, energy program management specialists, marketing and advertising specialists, equipment manufacturers and suppliers, equipment and appliance retailers, architectural firms and developers, engineers and energy analysts, installation companies and independent contractors, quality assurance inspection



companies, utility rebate processing houses, waste material recyclers, and program evaluators. In addition, Community Action Program agencies under contract to the state Department of Human Services delivered low-income energy efficiency services for the federal Weatherization Assistance Program (WAP).



Introduction

National Grid commissioned Peregrine Energy Group, Inc. (Peregrine) to conduct a study of the job impacts of National Grid's energy efficiency programs and services delivered to Rhode Island electricity and natural gas customers in 2013. The objective of the research was to count or estimate the number of direct jobs attributable to National Grid's 2013 energy efficiency programs to meet the requirements of General Law 39-2-1.2, enacted by the Rhode Island General Assembly in 2012.

In 2013, National Grid spent a total of \$80,221,280.24 on electric and gas energy efficiency programs in Rhode Island. It is important to note that this funding does not include the customer share of installation costs, finance dollars, or other leveraged funding from the Regional Greenhouse Gas Initiative (RGGI) and the Low Income Heating Assistance Program (LIHEAP).

National Grid's energy efficiency programs focus on delivering cost-effective energy savings to residential customers, low-income residential customers, small and large commercial businesses, and industrial customers in Rhode Island.

While job creation is not a formal goal of energy efficiency, this study illustrates the additional economic benefits that investments in energy efficiency contribute to Rhode Island and to the businesses participating in National Grid's programs. Peregrine was commissioned to find and count the full-time equivalent (FTE) employees engaged in all aspects of National Grid's 2013 energy efficiency programs. Peregrine assumed that one FTE equals 1,760 work hours, or the equivalent of one person working 8 hours a day for 220 work days in an average year.

Unlike the energy savings resulting from these programs that are analyzed, measured, and recorded, the labor component of energy efficiency improvements is only tracked, if it is counted at all, as an expense. Types of employees and number of hours worked to deliver programs and services are not captured, except by employers themselves for payroll and business planning purposes. For this reason, calculating job impacts can be more art than science.

The study's findings were developed through interviews with managers at energy services companies, equipment vendors, and contractors identified by National Grid for Peregrine or identified as sub-contractors by companies that Peregrine interviewed. These companies voluntarily shared information on how they staff their contracts and services and even researched payroll records to provide FTE counts. Where possible, the study names the companies that provided information to Peregrine.

Peregrine also completed a detailed review of National Grid's records of all energy efficiency measures installed in homes, apartment buildings, businesses, and industrial facilities



throughout Rhode Island in 2013. Peregrine then calculated typical labor hours required for each installation, based on industry standards and discussions with the contractors themselves and other experts, and extrapolated total FTE employment using total counts of measures installed.

The report is divided into four primary sections:

1. An Efficiency Workforce Overview that describes the types of companies and workers engaged in providing efficiency program-related services and support in Rhode Island
2. The Delivery Approach used for individual programs
3. Summary Counts of FTEs with observations on their significance
4. Attachments describing Peregrine's methodology in more detail, Peregrine's interview guide, and a listing of companies involved in the 2013 programs.

Efficiency Workforce Overview

Peregrine recognized two main categories of employers/employees that participated in the delivery of National Grid's energy efficiency programs. These categories are:

1. Program Support Service Providers: those involved in program planning and administration, marketing, rebate processing, and evaluation and market research.
2. Direct Service Providers: those responsible for sales, technical assistance and training, and for supplying and installing approved efficiency measures that National Grid promoted with incentives and rebates.

Program Support Service Providers

The Program support services provider category included: companies engaged to provide marketing, outreach, public information, and other related support services, including media placement and design of collateral marketing materials; specialized firms processing and paying out rebates offered for purchase and installation of install high efficiency equipment; and, evaluators of the overall performance of and savings associated with National Grid's programs.

National Grid

National Grid staff in this category included individuals engaged in program design, regulatory matters, administrative management of subcontractors, marketing support, and evaluation activities. Peregrine is reporting National Grid FTEs as a separate category for purposes of this study and not allocating them to specific programs or groups of programs.



Support Services Contractors

Peregrine interviewed the majority of lead vendors who supported National Grid in these activities to obtain information on their roles and responsibilities in program delivery and FTE counts. Often, these FTEs represented the aggregation of a small number of hours by many employees. This was due to the fact that the contractor's role may have been limited in duration and/or required contributions from a multi-disciplinary team. Depending on the nature of the services the vendor provided and whether the support provided could be associated with specific programs, contractor time was allocated according to the overall distribution of Gas and Electric budget dollars by program sector (Residential, Residential Low Income, Commercial and Industrial), or allocated to a specific program sector.

Program Planners and Administrators

The sub-category is primarily made of Vermont Energy Investment Corporation (VEIC) and its subcontractors Optimal Energy and Energy Futures Group. VEIC served as consultant to Rhode Island's Energy Efficiency and Resource Management Council and was paid for out of system benefits charges and the energy efficiency budget.

Marketers

Marketing consultants, including Kelliher Samets Volk (KSV) and Gardner Nelson, provided comprehensive marketing campaigns to generate awareness among customers about the breadth of National Grid's energy efficiency programs, campaigns directed at trade allies, or targeted campaigns that focused on specific programs like EnergyWise Residential ("Get House Fit"). Their role included media placement, organizing social media campaigns, and organizing phone messaging.

- KSV identified 11 individuals who touched the Rhode Island marketing account, including a brand manager, project manager, creative director, copywriter, production designer, art director, traffic manager, media director, associate media buyer, media strategist, and brand strategies. These individuals totaled 0.7 FTE in terms of total hours billed to National Grid.
- Gardner Nelson identified 13 individuals with project management, creative, media, and production specialties that were part of their Rhode Island National Grid team. All told, these individuals totaled 1 FTE.

Marketing FTEs were allocated across all programs.

Rebate Processors

National Grid contacted with Parago, based in Minnesota, to process rebates offered for a variety of energy efficient products. Parago also supported other National Grid programs in



Massachusetts and New York, as well as other clients nationwide. Parago scanned, data-entered, and validated rebate applications, processed payments, and cut and mailed checks. All told, Parago required 2.4 FTEs to support Rhode Island programs, with over 4,000 hours tracked for scanning, data entry, customer service, quality assurance, processing services, reward fulfillment, account management, and technology support.

Evaluators

Contracted firms specializing in utility program evaluation were also paid for out of energy efficiency program funds. These firms included DNV KEMA, Opinion Dynamics, and Cadmus Energy Services. Generally, outside evaluator time was attributed to specific programs and the FTEs associated with those hours added to program totals.

Direct Service Providers

The Direct Service Providers category was comprised of contractors hired by National Grid to deliver and promote Rhode Island energy efficiency programs, as well as equipment suppliers and installers. This category included, but was not limited to:

- **National Grid account managers** providing outreach and direct technical assistance to customers, particularly for large commercial and industrial retrofits, and new construction;
- **Energy services companies specializing in field services and installation program management** who were engaged by National Grid to deliver programs, providing schedulers, technical specialists, engineers, trades people, project managers, warehouse managers and materials handlers, supervisors, quality assurance inspectors, bookkeepers, and data handlers;
- **Energy services companies** hired by National Grid to engage, support, manage, and coordinate product suppliers and distributors, retail store offerings, and service networks;
- **Electrical and mechanical engineers** employed by contracted consulting firms and dispatched to identify potential projects, quantify savings, and recommend actions that customers should take;
- **Equipment suppliers and installation contractors** providing energy efficient equipment and approved materials across multiple market sectors for National Grid customers.

The role and contributions of these Direct Service Providers is described in detail in the next section.



Energy Efficiency Program Delivery

This section describes how National Grid's electric and gas energy efficiency programs and services were delivered in 2013.

National Grid's energy efficiency program delivery strategy varied for different market sectors and sub-sectors, based on fuel type, customer rate class, end-use technology, and whether the objective was to affect energy efficiency of current operations or to reduce energy use in new construction.

Residential Programs

In 2013, National Grid offered a variety of residential programs ranging from home energy audits to rebates for high efficiency appliances and lighting. These programs were designed to reduce energy use by electric and gas customers living in single family dwellings, 2 to 4 unit buildings, and larger multi-family residences. National Grid's residential programs were primarily delivered by contractors that specialized in supporting utility energy efficiency programs. The contractors' role was to educate a range of market players, buyers and sellers, and bring them in line with National Grid's energy efficiency objectives through education, training, and technical support. Information on each program's delivery mechanism is detailed below.

EnergyWise Single Family (gas and electric)

In 2013, EnergyWise offered customers living in single family (1 to 4 unit) homes a comprehensive assessment of their energy use, followed by recommendations of various ways to improve the energy efficiency of their home.

- Participants in this program received recommendations, technical assistance, and financial assistance to improve building insulation and replace inefficient lighting fixtures, appliances, and thermostats with high efficiency models.
- As part of the energy assessment, contractors installed energy efficient lighting, low-flow showerheads, faucet aerators, smart power strips, and refrigerator brushes.
- After the installation of insulation and heating equipment, quality assurance inspections were provided to confirm that equipment was installed properly.
- The program offered the RI Heat Loan, which provided 0% interest financing to eligible single family customers to support the adoption of recommendations made during the assessment. Customers who live in one to four unit single family residences were eligible for a 0% interest loan of a minimum of \$2,000 up to \$25,000 with terms up to seven years.
- In 2013 the program was extended to homes heated by oil and propane.



Delivery:

- National Grid contracted with RISE Engineering, based in Cranston, Rhode Island, to manage the EnergyWise Single Family program. In 2013, RISE employees included: a program manager, office and field staff supervisors, field auditors, field installers and technicians, field inspectors, intake staff and schedulers, warehouse and material management staff, electricians, quality assurance/quality control inspectors, and accounting and contract oversight personnel. In 2013, RISE field staff completed 7,800 audits, resulting in 2,350¹ customers proceeding with weatherization services (i.e. insulation and air sealing).
- As part of EnergyWise Single Family, RISE also helped customers to secure Heat loans to finance the installation of more efficient heating systems, hot water systems, and insulation upgrades. Through 2013, 1,501 loans were secured from private lending institutions, amounting to \$9,208,760² in energy efficiency projects.
- In 2013, 29 independent insulation contractors³ installed the insulation and air-sealing materials recommended by RISE, and independent heating contractors installed heating system components. Each insulation crew chief was BPI-certified.
- RISE received a program management fee for its services for this program that included a fee per audit, a fee per item installed by RISE staff, and a percentage mark-up (i.e. cost plus) on insulation work completed by contractors.

EnergyWise Multifamily (gas and electric)

In 2013, EnergyWise Multifamily provided comprehensive energy services to multifamily customers in buildings with five or more units, including energy assessments, incentives for heating and domestic hot water systems, cooling equipment, lighting, and appliances. These same services were offered to market rate and income-eligible multifamily properties. The programmatic approach for serving existing multifamily properties included using a designated primary point-of-contact to manage and coordinate services offered through the full portfolio of National Grid programs, including EnergyWise, Large Commercial Retrofit, Income Eligible Services (i.e. Low Income), and ENERGY STAR® HVAC.

Delivery:

RISE Engineering managed the EnergyWise Multifamily program for National Grid. RISE staff included a program manager, a technical services director, field coordinators, field auditors,

¹ Source: Peregrine interview with RISE Engineering

² Source: Peregrine interview with RISE Engineering

³ Source: Statistics on 2013 insulation projects provided by National Grid

² Source: Peregrine interview with RISE Engineering

³ Source: Statistics on 2013 insulation projects provided by National Grid



electricians, and project intake and coordination staff. This same staff was responsible for the Income Eligible Multifamily Program described below. A combined 3,700 multifamily units⁴ benefited from this program in 2013. RISE staff served as project managers for retrofit projects, meeting with building facility managers, making presentations to condominium boards and owners, and writing work orders and scopes of work (e.g. for air sealing, attic insulation, lighting fixtures, and even replacement refrigerators from retailers for low-income residents).

Independent contractors installed weatherization materials (insulation and air sealing) and heating equipment components. There were eight pre-qualified insulation contractors that bid on this work. This program was coordinated with the Commercial Multi-family program for gas heating systems.

RISE received a program management fee for its services for this program that included a fee per audit, a fee per item installed by RISE staff, and a percentage mark-up (i.e. cost plus) on insulation work completed by contractors.

Residential New Construction (gas and electric)

This program promoted the construction of high-performing energy efficient single family, multifamily, and low-income homes in both 1 to 4 unit buildings and multifamily buildings up to five stories. To that end, it educated builders, developers, housing agencies, tradesmen, designers, and code officials regarding the construction requirements, performance benefits, and costs for such buildings. In 2013, the program adopted a performance-based tier structure with corresponding financial incentives. It also captured savings from the Renovation/Rehabilitation and Deep Energy Retrofit offerings, both of which were pilots during 2012. Incentives paid were based on the percentage of improvement over an established baseline.

Changes driven by the Residential New Construction program improved lifecycle energy performance. This is primarily attributable to better materials selection and improved construction methods. Builders say that the incremental cost of these enhancements are more than offset by faster home sales and fewer call backs to address owner concerns.

Delivery:

For program year 2013, National Grid contracted with Conservation Services Group (CSG), based in Westborough, Massachusetts, to deliver this program. Staff located at the Westborough office focused on program management, data management, and administrative responsibilities,

⁴Source: RISE Engineering



while field and training personnel were based in Greenwich (Warwick), Rhode Island. Field personnel provided trainings and reviewed plans submitted by builders and developers. They also modeled proposed buildings and completed inspections that verified and certified that construction practices for participating buildings receiving performance ratings. In 2013, 473 units of housing and homes received HERS ratings⁵.

With approval from National Grid, Peregrine did not include labor hours for this program beyond the program implementation services provided by CSG. While incentives offered by National Grid influence the installation of more efficient materials and products in a new home, such installations do not substantially increase labor hours. The labor needed to construct a high-efficiency home is more or less the same for buildings that meet current code requirements. In addition, new homes would have been built without the intervention and support of the program, even though they would not achieve the same standards for efficiency in their design and function. Therefore, no construction labor component is counted for purposes of this study.

Education Programs (electric)

The Company promoted energy education to private and public schools and youth groups through the National Energy Education Development (N.E.E.D) Program. This program provided curriculum materials and training to students and teachers in grades K-12.

Funds provided for this effort did not result in any readily identifiable Rhode Island labor activity.

Residential Home Energy Reports (gas and electric)

National Grid began offering Home Energy Reports (HER) statewide to all residential customers in 2013. The Rhode Island HER program, the first statewide behavior program in the country, used historical energy usage benchmarking and social comparisons to encourage energy efficient behavior in the homes of residential customers. The program provided customers with access to personalized energy usage information and the ability to directly link with National Grid's other residential energy efficiency programs and services.

Delivery:

OPower, with offices in Arlington, Virginia, delivered the statewide HER program. Opower developed and distributed data-driven, software-generated reports to residential customers.

⁵ Source: Conservation Services Group



OPower was also tasked with creating an online engagement platform, documenting savings, and working with existing Company systems. OPower is staffed with behavioral scientists, marketing experts, engineers, and software product developers, with support staff, operating in cross-functional teams to develop and deliver these audit reports in Rhode Island and elsewhere across the U.S.

Residential Community Based Initiatives (gas and electric)

This initiative leveraged trusted community partnerships and developed targeted marketing strategies in order to promote all residential (and commercial) energy efficiency programs, in specific, targeted communities (or business sectors).

Delivery:

Connecticut-based Smart Power coordinated community-based initiatives, including the Rhode Island Energy Challenge, which encouraged communities to establish energy efficiency goals and take steps to achieve them. The program had a Rhode Island-based manager, supported by operations staff in Connecticut. At the community level, the program enlisted volunteers to promote participation, though these volunteers are not counted for purposes of this study.

ENERGY STAR® Lighting (electric)

ENERGY STAR® Lighting is a point-of-purchase initiative implemented jointly with other regional utilities. It provided discounts to customers for the purchase of ENERGY STAR® compact fluorescent lamps and fixtures and solid state lighting through instant rebates and special promotions at retail stores. A mail-order catalog and online store were also available to customers for lighting purchasing.

Delivery:

In 2013, National Grid hired The Cadmus Group of Waltham, Massachusetts to provide diversified marketing assistance and an awareness campaign for this initiative. Cadmus employed a staff of specialists to support this program, as well as the high efficiency appliance program described below. Cadmus, in turn, used sub-contractors to assist with media purchasing, public relations, and social media-oriented strategies.

Lockheed Martin Services, with an office in Marlborough, Massachusetts, was likewise engaged by National Grid to support the residential consumer lighting initiative, providing direct outreach and education to both product retailers and manufacturers, including having a full-time field representative based in Providence to work with retailers statewide.

Massachusetts-based Energy Federation, Inc. provided a product catalogue and online store for National Grid and other regional utilities to promote and supply qualified products and to



provide technical assistance to customers. This fulfillment function employed a manager, required a call center that took orders, and included warehouse personnel serving orders from Rhode Island customers, customers from elsewhere in New England, and nation-wide.

As outlined in the program description, ENERGY STAR® Lighting employed a number of avenues to encourage the purchase of energy efficient lighting to residential customers. Part of this region-wide initiative focused on retail outlets. However, retail outlet employees were not counted for this study since the sale of these products had no discernible incremental effect on store employment (i.e. it primarily resulted in different lighting choices by consumers).

ENERGY STAR® Appliances (electric)

In 2013, ENERGY STAR® Appliances was run in collaboration with other regional utilities to promote the purchase of high efficiency household appliances, including kitchen appliances, and electronics. These appliances carry an ENERGY STAR® label. The program also offered refrigerator recycling, which helped address a significant barrier to purchasing a more efficient refrigerator, while removing non-efficient units from the market, recycling their components, and capturing and properly disposing of refrigerants.

Delivery:

As was the case with ENERGY STAR® Lighting, ENERGY STAR® Appliances was primarily a retail-store based initiative. And as with ENERGY STAR® Lighting, the program was supported by The Cadmus Group and their sub-contractors for marketing and increasing consumer awareness, using a range of media and direct outreach strategies.

National Grid and the other regional utilities contracted with JACO Environmental to recycle refrigerators as part of the holistic strategy to encourage the purchase of energy efficient refrigerators. JACO has a regional facility in Franklin, Massachusetts for refrigerator collection, dismemberment, and recycling. JACO employed a local program manager to service the regional program, staffed a large warehouse in Franklin, and had staff dedicated to New England utility customers at its call center in Washington State. JACO employed Appliance Distribution, Inc. as a sub-contractor to pick up discarded refrigerators from customers, using two-person crews to bring them to the Franklin warehouse. In 2013, 6,074 Rhode Island refrigerators and freezers were collected⁶, according to JACO, and an estimated 95% of components of collected appliances were recycled.

⁶ Source: Peregrine interview with JACO



ENERGY STAR® HVAC (gas and electric)

The High-Efficiency HVAC programs (*Gas Heat* [heating] and *CoolSmart* [cooling]) promoted the installation of high efficiency gas heating and electric cooling systems via tiered rebate levels for more efficient technologies including ductless mini-splits, heat pumps, heat pump water heaters, boilers, furnaces, Wi-Fi thermostats, boiler reset controls, and furnaces equipped with high efficiency fans. The program provided in-depth contractor training for design, installation, and testing of high efficiency systems. Furthermore, the program provided quality installation verification training, ensuring that all equipment is properly sized, installed, sealed, and performing.

Delivery:

National Grid hired Westborough, Massachusetts-based Conservation Services Group (CSG) to deliver this Program, which included three related initiatives: Cool Smart, the Rhode Island Gas Heat Program, and Commercial Upstream Cooling. Both Cool Smart and RI Gas Heat Program focused on contractors, with Conservation Services Group providing training, technical support, and marketing assistance to help encourage customers to upgrade to higher efficiency systems. Cool Smart also provided quality control inspections. 1,476 Cool Smart rebates⁷ were approved in 2013. For Commercial Upstream Cooling, a circuit rider was used to provide field support.

Lockheed Martin Services was also involved in this program, promoting advanced thermostats and energy efficient water heaters to big box home improvement retailers.

Income Eligible Residential Programs

Income Eligible (low-income) programs were offered to National Grid customers in single family (1-4 unit) dwellings and multifamily (5 or more unit) buildings or developments that were eligible for the Low Income Heating Assistance Program (LIHEAP). Because this target audience was already being provided with some energy related assistance through federal and state programs, National Grid's strategy was to complement and support these existing programs. Specific 2013 Low Income Residential Programs, included:

Income Eligible Single Family (gas and electric)

The Income Eligible Single Family program provided low-income customers with home energy assessments, installation of energy efficient lighting, appliances, heating systems, domestic hot water equipment, and weatherization measures.

⁷ Source: Peregrine interview with Conservation Services Group



Delivery:

Income Eligible Single Family was delivered through local Community Action Program (CAP) agencies under contract to the Rhode Island Department of Human Services to deliver federally funded Weatherization Assistance Program (WAP) and the Low Income Heating Assistance Program (LIHEAP). All seven Rhode Island CAP agencies participated in and delivered Single Family Income Eligible Services. They provided three types of building audits: audits focused on lighting and appliances only that installed lighting products, audits providing detailed recommendations and work orders for insulation contractors, heating system installers, and fans; and comprehensive audits that did both. BPI-certified auditors completed building assessments and work orders. Special AMP (appliance management program) auditors installed lights and refrigerator measures.

Independent weatherization contractors installed the insulation and completed air sealing for the CAP agencies. These contractors were selected off a state-approved list and offered fixed pricing statewide for installed measures. Each agency had three to five insulation contractors it typically worked with. The CAP auditing staff inspected completed insulation work post-installation to ensure it was properly installed. Heating system upgrades were put out to bid to heating contractors, and heating contractors also were used for post-installation inspections.

In July 2013, CLEAResult, with offices in Providence, Rhode Island, became the manager of the Income Eligible Residential program, responsible for training, quality control, and oversight of National Grid-funded services and installations delivered through CAP agencies. CLEAResult also served as the conduit for National Grid payments to the CAP agencies. CLEAResult staffing included a program manager, a quality assurance / quality control inspector, and administrative support.

Income Eligible Multifamily (gas and electric)

In 2013, the Company consolidated energy efficiency offerings for low-income multifamily properties with five or more units into the Income Eligible Multifamily program. This suite of programs addressed both gas and electric opportunities, which were previously offered as part of EnergyWise or Large Commercial Retrofit. Comprehensive energy services available to these customers included energy assessments, incentives for heating and domestic hot water systems, cooling equipment, lighting and appliances. Services are coordinated with delivery of the EnergyWise Multifamily program, but tracked separately. Additionally, the Residential New Construction program worked with RI Housing, local housing authorities, and developers of income-eligible housing to encourage construction of energy efficient properties.

Delivery:

As was the case with EnergyWise Multifamily, RISE Engineering, based in Cranston, Rhode



Island, was the primary point-of-contact to coordinate Income Eligible Multifamily services. RISE staff serve as project managers for retrofit projects, meeting with building facility managers, making presentations to condominium boards and owners, and writing work orders and scopes of work (e.g. for air sealing, attic insulation, lighting fixtures, and even replacement refrigerators from retailers for low-income residents. Independent contractors installed weatherization materials (insulation and air sealing) and heating equipment components.

Commercial and Industrial Programs

In 2013, National Grid's Commercial and Industrial programs used a range of delivery mechanisms to accomplish National Grid's energy efficiency goals for new construction, retrofit and small business.

Small Business Direct Install (electric)

The Small Business Direct Install program provided direct installation of prescriptive and custom energy efficient lighting, non-lighting retrofit measures, and minor gas efficiency measures. Electric customers with average monthly demand of less than 200 kW were eligible to participate. The customer share of the cost was 30% of the total cost of a retrofit, with the remaining 70% as On Bill Repayment (OBR). The customer could choose to spread its share over a two-year period interest free and be billed monthly for the amortized amount (OBR).

The Direct Install program also included the SBS Coolers sub-program, which provided refrigeration controls and other refrigeration improvements to eligible customers. These measures included fan controls, cooler and freezer door heaters, smart defrost technology, EC motors, night shut off controls for novelty coolers, and LED lighting for refrigerator applications.

Delivery:

The Direct Install program's lighting and non-refrigeration measures were delivered by RISE Engineering of Cranston, Rhode Island, as the Regional Program Administrator or RPA, and sourced from one product vendor (Monro Distributing). Both RISE and Monro were selected through a competitive bidding process.

RISE had an exclusive contract to provide turnkey installation services to this sub-market, with a formal budget and annual goals. Approximately 1,000 customers participated in 2013⁸. RISE staff included employees responsible for marketing and lead generation and staffing an intake center that was responsible for pre-qualifying potential customers. RISE energy specialists performed

⁸ Source: RISE Engineering



field audits of customers' facilities; data entry staff used completed audits to generate proposals for customers. Audits also resulted in referrals to the Commercial and Industrial Gas Program, described below. RISE also employed Energy Source, LLC, based in Providence, Rhode Island, to assist with lead generation. When a customer accepted a proposal, RISE project managers took over, ensuring that sufficient product was available, issuing that product to installer/electricians, and ultimately closing out the work when the installation was completed. RISE maintained a warehouse for material distribution with warehouse managers and materials handlers. Electricians were a combination of RISE employees and sub-contractor, Superior Electric, employees. Customers could also elect to use their own preferred electrician, and a small number took advantage of this option. RISE also used two HVAC firms as controls subcontractors. Finally, RISE employed back office and accounting staff to service this program. In general, RISE employees supporting this program were salaried or hourly, while subcontractors were paid for installation work on a piece basis.

National Resource Management based in Canton, Massachusetts delivered the SBS Coolers sub-program. Staff included administration and support personnel, sales representatives, and equipment installers.

Veolia ES Technical Solutions LLC, based in West Bridgewater, Massachusetts, was under contract with National Grid in 2013 to recycle the fluorescent lamps and ballasts that were removed and replaced under the Rhode Island Small Business Direct Install program and other National Grid programs. Material to be recycled was packed by installers in packaging provided by Veolia. Each week, Veolia sent a truck to pick up package materials and brought them to the West Bridgewater facility where they were broken down for recycling or appropriate disposal of component parts. In 2013, approximately 70,000 lamps and 42,000 ballasts were brought to West Bridgewater from Rhode Island for recycling. The same facility also recycled lamps and ballasts from all other National Grid programs in New England and New York, as well similar material generated by other New England utilities' energy efficiency programs.

National Grid also hired Competitive Resources, based in Ashland, Massachusetts, to provide quality assurance inspections of small business projects. A total of 557 small business inspections were completed in 2013.⁹

Large Commercial Retrofit (electric)

Large Commercial Retrofit was a comprehensive retrofit program designed to promote the installation of prescriptive and custom configurations of energy efficient electric equipment

⁹ Source: Interview with Competitive Resources



such as lighting, motors, and heating, ventilation and air conditioning (HVAC) systems in existing buildings. All commercial, industrial, and institutional customers were eligible to participate. Participating customers tended to be larger (i.e. having a monthly demand of 200 KW or more) or were pursuing electricity saving measures that were not offered through the Direct Install program. National Grid offered technical assistance to customers to help them identify cost-effective conservation opportunities, and paid incentives to assist with defraying part of the material and labor costs associated with installing energy efficient equipment. Incentives available through this program were often less attractive than through the Direct Install program described above, with customers paying a larger percentage of the installed cost of measures.

Delivery:

The Large Commercial Retrofit program was primarily a market-based initiative with no formal program administrator or designated suppliers. Customers chose their own suppliers and installation vendors. National Grid offered technical assistance to customers to help them identifying cost-effective conservation opportunities, and paid rebates to assist in defraying part of the material and labor costs associated with the energy efficient equipment. While there was no lead vendor for the program, National Grid-approved project expeditors pursued, secured, and installed the majority of the lighting projects completed under this program.

Customers that were replacing equipment with more energy efficient technology initiated some of the Large Commercial Retrofit projects. Also, vendors of products and services, including the project expeditors mentioned above, used the program as a means to induce customers to upgrade existing systems to improve energy efficiency or purchase and install qualifying energy efficient equipment. These vendors included general energy contractors and energy services companies, as well as purveyors of energy saving technologies, such as energy management systems, advanced lighting systems, process equipment, combined heat and power projects, HVAC components, etc. The projects also included “custom” applications for incentives for projects that required modeling and special analysis to determine the electricity savings that would result and what level of incentive was justified.

In support of this program, National Grid contracted with consulting engineers who could be assigned at the request of an account manager to assist a customer with identifying potential custom projects and evaluate or model the energy savings that would result, including completing required program applications. In other situations, the customer could propose his own engineer with a scope of work that National Grid might elect to support. Additional like support was available from contracted engineers to witness project commissioning, confirm that the installed measures were operating and performing as anticipated, and ensure that predicted savings would be achieved.

In a similar vein, National Grid contracted with Portland, Oregon-based PECI, through its



Massachusetts office, to offer the Energy Smart Grocer sub-program. Working in 60 kW or larger supermarkets, PECI focused on refrigeration improvement and some lighting. PECI employed auditors and other technical staff to identify and develop refrigeration improvement projects, engage contractors to complete upgrades, provide technical support as needed, and perform quality assurance inspections of installations. In total, 69 projects were completed in 2013.¹⁰

Competitive Resources Inc. also completed an additional 30 inspections of large commercial retrofit installations.¹¹

Large Commercial New Construction (electric)

The Large Commercial New Construction program encouraged energy efficient design and construction practices in new and renovated commercial, industrial, and institutional buildings. The program also promoted the installation of high efficiency equipment in existing facilities during building remodeling and at the time of equipment failure and replacement. The program offered incentives to eliminate or significantly reduce the incremental cost of high efficiency equipment over standard efficiency equipment and provided technical support to assist customers to identify opportunities for incremental efficiency improvement in eligible buildings.

National Grid introduced the Commercial and Industrial Upstream Lighting program in Rhode Island to encourage customers to choose higher efficiency lighting products at the point of purchase. As with other New Construction efforts, the goal of this program is to bring the incremental cost of the more efficient products in line with now-conventional products so customers will opt for high efficiency and another lost opportunity will be avoided.

Delivery:

The New Construction program was administered internally by National Grid and provided both technical and design assistance to help customers identify efficiency opportunities in their new building designs and to help them refine their designs to pursue these opportunities. Outside consultants were brought in to assist customers to identify and incorporate energy efficiency solutions into new construction designs and to complete detailed studies that model and quantify energy savings. Commissioning or quality assurance was also offered to ensure that the equipment and systems operated as intended. For purposes of this study, as is the case with Residential New Construction, construction jobs associated with commercial new construction are not being counted. Construction-related employment does not measurably increase in these projects as a result of National Grid's involvement.

¹⁰ Source: Peregrine interview with PECI

¹¹ Source: Competitive Resources



The Upstream Lighting program is offered through numbers of distributors of lighting products. No incremental job increases were assumed for distributors as lighting would most likely have been purchased anyway. National Grid hired ECOVA to manage, support, and promote Upstream Lighting. ECOVA engaged manufacturers and calling on distributors. They offered incentives from National Grid to reduce list prices of certain energy efficient products to electrical contractors and businesses, with the goal of transitioning and transforming stocking behavior. ECOVA processed incentives and managed a quality assurance process to ensure that recorded sales were legitimate. National Grid also contracted with Competitive Resources to conduct inspections of five percent of installations (118 purchases) to confirm that product was installed.

Commercial and Industrial Gas Programs

Commercial and Industrial Gas programs supported installation of energy efficient gas heating and water heating systems, certain thermal envelope measures, and custom gas systems in existing buildings and in new construction. The program guidelines for measure eligibility were the same as for the Large Commercial Retrofit program and the New Construction program. Retrofit measures must demonstrate that they will result in added efficiency beyond existing still functional equipment. For new construction or with failed equipment, the “lost opportunity” rules apply. New equipment, to be eligible for incremental incentives, must exceed the efficiency of what codes require. All commercial, industrial, and institutional customers were eligible to participate.

The Commercial and Industrial Gas programs also offered technical assistance to customers to help them identify cost-effective conservation opportunities and paid incentives to assist in defraying part of the material and labor costs associated with the energy efficient equipment. In 2013, a total of 149 retrofit project and 40 new construction projects were completed and closed-out.¹²

Delivery:

RISE Engineering also served as National Grid’s Regional Program Administrator for gas programs. RISE employees working on this project included a program manager and project coordinator, mechanical and electrical engineers, field staff performing audits and minor installations, and administrative personnel and support staff.

¹² Source: RISE Engineering



RISE received leads from a variety of sources, including project expeditors, mechanical contractors, and suppliers of equipment such as steam traps. RISE would then generate a program application and as necessary or appropriate, review the customer proposal or undertake a scoping study. If the project proposed was acceptable (i.e. met National Grid's standards), RISE issued an offer letter to the customer authorizing the project to proceed. Customers had responsibility for arranging for and completing the installation. RISE performed and post-installation inspection and closed out the application so that the rebate could be issued.

Employment Impacts of National Grid Programs

Peregrine found that an estimated 544.73 full-time equivalent jobs or "FTEs"¹³ resulted from National Grid's Rhode Island energy efficiency programs in 2013. The table on the following page summarizes the job impacts of electric and gas energy efficiency programs, by program and by program sector. Program Support Service Provider FTEs have been allocated and integrated into individual program FTE counts and program sector FTE counts based on budgets. Smaller programs with limited FTE counts, including pilots and community initiatives were combined into the category titled "other". Community Action Weatherization Assistance program staff and National Grid staff are counted in the 544.73 total, but are presented separately in the table.

Based on interviews with companies directly involved in the implementation of National Grid's energy efficiency programs and an analysis of field delivery, Peregrine found that the number of individual workers employed as result of Rhode Island energy efficiency programs is far larger than the total FTEs. While we were not able to develop counts of the numbers of individuals participating, many companies, as described in the Energy Efficiency Program Delivery section, employed multiple individuals with specialized skills or discrete roles for only a portion of their annual hours.

For example, National Grid calculated that it had 38.47 FTE employees who worked on Rhode Island energy efficiency programs in 2013. This total is comprised of employees dedicated to Rhode Island, and also included numbers of National Grid employees with system-wide responsibilities and others whose primary responsibilities were in other states and contributed fractionally to the FTE total.

¹³ Peregrine has defined a FTE as 1,760 annual hours of employment (or 220 total days of employment per FTE).



2013 Full Time Equivalents by Program

PROGRAMS	2013 SPEND	TOTAL FTES
ELECTRIC PROGRAMS		
COMMERCIAL & INDUSTRIAL (C&I) TOTAL		160.24
Large Commercial New Construction	\$8,708,646	8.69
Large Commercial Retrofit	\$9,943,729	86.97
Small Business Direct Install	\$10,518,679	63.7
Other	\$731,788	0.88
LOW-INCOME RESIDENTIAL TOTAL		23.31
Single family Income Eligible Services	\$5,045,811	18.93
Income Eligible Multifamily	\$1,750,700	4.38
RESIDENTIAL TOTAL		98.93
Energy Wise	\$8,044,953	62.99
EnergyStar Appliances	\$2,041,439	13.45
EnergyWise Multifamily	\$1,726,756	4.32
Home Energy Reports - Residential	\$1,411,770	9.1
Residential New Construction	\$1,380,747	2.98
Energy Star HVAC	\$1,879,491	0.44
Energy Star Lighting	\$5,137,953	3.48
Other	\$2,219,430	2.16
NATURAL GAS PROGRAMS		
COMMERCIAL & INDUSTRIAL (C&I) TOTAL		23.77
Large Commercial New Construction	\$1,833,957	2.96
Small Business Direct Install - Gas	\$114,138	0.63
Large Commercial Retrofit	\$2,923,596	18.35
Commercial & Industrial Multifamily	\$423,992	1.68
Other	\$283,582	0.14
LOW-INCOME RESIDENTIAL TOTAL		18.53
Single family Income Eligible Services	\$1,868,029	14.26
Income Eligible Multifamily	\$1,646,616	4.27
RESIDENTIAL TOTAL		150.78
Energy Star HVAC	\$2,912,489	0.77
Energy Wise	\$4,530,725	145.02
EnergyWise Multifamily	\$580,404	1.67
Home Energy Reports - Residential	\$313,282	2.28
Residential New Construction	\$230,171	0.48
Other	\$239,229	0.55
COMMUNITY ACTION WEATHERIZATION STAFF		30.7
NATIONAL GRID STAFF		38.47
GRAND TOTAL		544.73



For some program service providers, whose business focus is utility program services, the number of FTEs and the number of staff contributing to those counts was almost the same. For example, RISE Engineering was the Regional Program Administrator for many of the largest programs offered in Rhode Island by National Grid, including EnergyWise Single Family and Multifamily, Small Business Direct Install, and the Commercial and Industrial Gas programs. The larger size of these programs enabled RISE to employ full-time staff to serve in specific program roles, such as auditors and inspectors. Also, similarities between staffing needs across multiple programs, e.g. engineering, materials handling, or accounting, allowed RISE to pool staff to provide higher levels of utilization and improved economies. Further, similarities in technical needs between programs, e.g. for electricians, allowed RISE to employ a baseline number of full-time technical specialists, but then supplemented them on an as needed basis with sub-contracted assistance.

As the table shows, the numbers of FTEs attributable to different programs was not necessarily proportionate to the relative size of program budgets. For example, the Large Commercial Retrofit program included a significant installed labor component because the program replaces fully functional equipment. This program had a larger FTE count per total budget compared to Commercial New Construction that includes initiatives like Upstream Lighting, which use incentives to change buyer choices and supplier behaviors, but does not increase labor since that lighting would have been changed out regardless. Likewise, the Residential New Construction program impacts the choice of materials, equipment, and construction techniques, but does not significantly increase amount of labor and time needed to construct the building.

Another factor influencing the number of FTEs associated with a program budget was whether the energy efficiency measures installed, on a per dollar spent basis, were more labor intensive or equipment intensive. For example, the largest proportion of the cost of weatherization to improve thermal performance and reduce air leakage in residential buildings (i.e. for installed insulation and air sealing) is for labor. The weatherization materials (e.g., cellulose insulation, caulking, foam) are simple and inexpensive. Therefore, program budgets that paid for insulation and air sealing resulted in more jobs counted per dollar invested than programs where installed measures were sophisticated, factory-manufactured equipment (e.g., an energy management system) where manufacturing employees are not counted.

A countermending force in terms of job impacts was the desire of all parties involved (regulators, National Grid, and installers) to improve the cost effectiveness of energy saved for each dollar spent. National Grid used a competitive bidding process to secure materials and labor vendors, requiring would be contractors to devise strategies to tighten their belts and budget their workforce cost effectively. Further, contractors were paid on a fixed fee or a performance basis, encouraging them to keep their costs down, not only to be more competitive, but also to maximize margins. Then, once a vendor was selected to deliver a program or perform an installation, unless compensated on an hourly basis, the vendor looked



for ways to maximize worker productivity. Perhaps the best example of this phenomenon is commercial lighting retrofits, where electrical contractors are paid by National Grid on a per unit installed basis, but pay electricians on an hourly basis. The net result is that electrical contractors have developed strategies for deploying teams of qualified electricians (including master electricians, journeyman electricians, and apprentices) that enables them to retrofit or replace lighting in ever decreasing amounts of time, resulting in less labor required overall for each dollar spend to achieve kWh reduction goals.

The last observation, generated as much from interviews with service providers as from the FTE counts, is about economies of scale and the impact it has on service delivery and job impacts in a smaller state like Rhode Island. National Grid provided many of the same programs in Rhode Island as it does in Massachusetts to a larger customer base. National Grid's ability to offer programs in Rhode Island as part of regional collaborations with other utilities, or across multiple states, greatly increases the cost effectiveness of Rhode Island programs, but reduces the number of FTEs that would otherwise be needed. One example of this scenario is found in the implementation of the Residential New Construction program. The program is administered by Conservation Services Group (CSG), which is the lead vendor for this program, and has Rhode Island-based staff that provide field services. However, CSG staff administering this program for Rhode Island also have the same responsibilities in Massachusetts. Those three full-time administrative staff persons only charge 10 percent of their time to the Rhode Island program, bringing the full benefits and expertise of program management without the cost of full-time managers. A number of contractors told Peregrine that they would not have been able to offer services of the same quality and at an acceptable price if they were not also under contract to provide similar services elsewhere in the region.



Attachment A: Methodologies used for Assessing Employment

Program Support Service Providers

National Grid

National Grid gave Peregrine a summary FTE count of its own employees engaged in Rhode Island energy efficiency programs. Responsibilities identified for these employees included program planning and development, program administration, regulatory affairs, marketing, evaluation, and market research. Peregrine is reporting National Grid FTEs as a separate category for purposes of this study and not allocating them to specific programs or groups of programs.

Support Services Contractors

Peregrine interviewed most of the larger contractors who supported National Grid in these activities, and they described their roles and responsibilities and provided FTE counts. Often, these FTEs represented the aggregation of small numbers of hours by many employees. This was either because the contractor's role was limited in duration and/or required contributions from a multi-disciplinary team. Depending on the nature of the services they provided and whether the support provided could be associated with specific programs, contractor time is allocated according to the overall allocation of Gas and Electric budget dollars by program sector (Residential, Residential Low Income, Commercial and Industrial), or allocated to a specific program sector.

Direct Service Providers

As noted above, interviews of primary contractors engaged by National Grid to support Rhode Island programs was a major source of information about type and number of personnel involved. Jobs counts reported by interviewed Direct Service Providers was supplemented with calculated FTE job numbers, based on counts of installed ECMs in 2013 by individual programs that were provided to us by National Grid or from other sources and average time (in man-hours or man-days) required for each installation. Where installations were completed by staff whose hours of work was tracked and provided to Peregrine, those numbers were used instead of calculated FTEs.

Residential Programs

EnergyWise Single Family

For the EnergyWise Single Family program, Peregrine spoke with RISE Engineering's program manager who provided an overview of how the program functions and counts of RISE



employees in various roles. RISE provided FTE counts for these staff. RISE was also helpful in sharing some general rules of thumb for how weatherization contractors and heating system installers staff site work. These numbers were borne out by direct interviews with a sample of the insulation installation companies and interviews with community action program supervisors with similar responsibilities for low-income residential services.

We learned that on average, it takes a crew made up of three insulation contractors two days to complete a weatherization job (insulation and air sealing). National Grid provided counts of numbers of insulation jobs completed by each participating insulation contractor, as well as the total number of square feet of insulation installed for Gas customers and for Electric customers. We used the total counts of insulation jobs and the average number of man-days required for each installation to estimate the total number of FTEs (assuming work 220 days per person per year) providing insulation services in 1-4 unit buildings. We then allocated this total number of FTEs to Gas and Electric programs based on the distribution of square foot of insulation installed for Electric customers (generally those heating with oil or propane) and Gas customers (those heating with gas) which is 29%/71%. Finally, we marked up each FTE total by 20% to account for contractor support and management staff.

For heating system installations, we learned that it requires a two-person team around four days on average to remove and replace a heating system. Peregrine secured counts of high efficiency heating systems and related equipment installed in 2013 from Parago Service Corp., which processes the incentives paid out for these installations. Since we had differentiated counts for replacements furnaces and boilers, we assumed that replacement furnaces would take less time to install than hydronic boilers (due to less piping work) and adjusted time estimates accordingly. Residential gas equipment was allocated to the Gas program and residential oil or propane heating equipment was treated as an expense of the Electric program, as are electric heat pump hot water heaters. We multiplied the average number of hours required for an installation by the total number of items installed. The total number of calculated hours was then divided by 1,760 hours to convert it to FTEs, and the FTEs were marked up by 20% to account for contractor support and management staff.

EnergyWise Multifamily Program

As with the EnergyWise Single Family program, Peregrine interviewed RISE's program manager and was provided with staffing counts. In addition to general program supervision, responsibilities included technical leadership, auditing, field coordination and inspections, and electrical installation work. Again, RISE was able to convert staff counts to FTEs associated with this particular program. As was the case with the EnergyWise Single Family program, Peregrine relied on installation counts from National Grid to determine numbers of individual measures that had been installed by independent insulation contractors and heating contractors in these buildings. And was the case for contractors installing ECMs in 1 to 4 unit buildings, these counts



were multiplied by average times for installations in hours or portions of hours, and the resulting total hour counts were divided by 1,760 hours per FTE to arrive at annual FTE counts.

Residential New Construction
Residential Home Energy Reports
Residential Community Based Initiatives
ENERGY STAR® HVAC

The residential programs in this grouping were all funded in 2013 by both residential Gas and Electric budgets. For all of these programs, there was no significant incremental labor impact associated with product installed or purchased. Peregrine generated FTE counts through interviews with individual businesses that provided support services (e.g. marketing assistance, informational mailings, technical assistance and training, quality assurance inspections). These businesses gave Peregrine staffing counts for 2013 from their accounting records. Total FTEs were then allocated to Gas or Electric based on the ratio of dollars in residential gas and electric budgets for each program.

ENERGY STAR® Lighting
ENERGY STAR® Appliances

Both of these programs were funded solely through the residential Electric budget. For both programs, there was no significant incremental labor impact associated with amount of product installed or purchased. Peregrine generated FTE counts through interviews with individual businesses that provided support services (e.g. marketing assistance, refrigerator recycling). These businesses gave Peregrine staffing counts for 2013 from their accounting records. Total FTEs were then allocated to the residential Electric budget.

Low Income Residential Programs

Income Eligible Single Family

FTE counts for this program were developed from direct interviews with CAP agencies that had lead responsibility for providing field services to qualified households. Each agency contacted provided numbers of staff in different roles. These staffing levels were verified by Department of Human Services. National Grid provided the counts of weatherization and heating system installations completed in 2013. CAP agencies provided guidance on contractor crew sizes and installation practices that Peregrine used to calculate FTE installers who did this work for this customer group.



Income Eligible Multifamily

Peregrine used the same approach to calculating FTEs for the Income Eligible Multifamily program as for the EnergyWise Multifamily program since both programs were administered by RISE Engineering and used the same delivery strategy.

Commercial and Industrial Programs

Small Business Direct Install

Peregrine used counts of employees provided in an interview with RISE Engineering, the regional program administrator, to generate FTEs for RISE staff involved in program management and measure installations and for their sub-contractors as well. No actual measure counts and calculated FTEs were used to compile job counts attributable to this program as all workers were accounted for without a piecework analysis.

National Resource Management (NRM) tallied total hours of individual support staff by responsibility. NRM also gave Peregrine average hours required for different types of installations performed, and Peregrine was able to use this information to generate annual FTE's required to install the numbers of measures reported by National Grid for the year.

Similarly, Veolia provided staffing numbers for lamp and ballast recycling services.

Large Commercial Retrofit (electric)

As described in the section on energy program delivery, the Large Commercial Retrofit program is the most market based of all Electric programs provided. There is no program administrator under contract to facilitate or organize installation work. Projects were initiated by customers or by businesses that have products or services they are trying to sell. National Grid does provide technical assistance support to customers selectively, in particular where they are developing "custom" solutions that require engineering to determine what needs to be doing and to determine what energy savings will result so appropriate incentive levels can be calculated.

Peregrine relied entirely on National Grids descriptions and counts of technical assistance and installations performed during 2013 to calculate workforce impacts. For technical assistance support provided by engineers under contract to National Grid, Peregrine took the total dollars paid out for this work and calculated how many hours of labor it represented at an assumed \$120 per hour. Total hours were then converted to FTEs.

Installation work performed was treated in a number of ways, depending on how much information was included in the datasets collected by National Grid. The labor cost component of projects is not identified to National Grid for these projects, only total cost. Projects that identified a specific technology group that the project fit into and provided counts of products



installed were the easiest to develop FTE estimates for. Using average installation times provided to us by installation vendors, Peregrine estimated workforce requirements and number of hours or days (for more labor intensive projects) per installation and converted this to FTEs. In doing these calculations, Peregrine did not distinguish between whether the contractor of record for the job was a customer, a general contractor, or an installation contractor. We assumed that installation contractors that were motivated to work as efficiently as possible were doing the installation work.

For larger, more complex custom projects, the energy efficiency project component of the total cost may only be a portion of the total project cost identified in the National Grid database so Peregrine used incentive levels paid out to tease out the total efficiency project cost. This required comparing incentives paid for simple projects and the complex custom projects covered by the program to determine the efficiency project size. Once the size of the efficiency project was determined, we could apply assumptions about the ratios of labor cost to material cost for different technologies and calculate the type and number of labor hours this represented, aggregate the total hours, and convert them to FTEs.

Commercial and Industrial Gas

The Commercial and Industrial Gas programs were managed for National Grid by RISE Engineering, and Peregrine interviewed RISE to secure counts of RISE employees and FTEs. A variety of contractors installed energy efficiency measures installed. Peregrine used measure counts that National Grid provided to calculate how many FTEs of labor they represented, applying average installation times provided to us by installation vendors, determining how many hours or days were required in aggregate, and converting these hours or days to full-time equivalent jobs.



Attachment B: Interview Guide

National Grid RI Labor Study Organization Interviews

Program:

Company:

Location(s) of office(s) providing services and role:

Interviewee/Position/Contact info:

Program overview:

How is program delivered?

Company function (i.e. services provided):

Staff assigned:

Roles	Number / FTE	Compensation (salary, hourly, piece, commission)
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Are there sub-contractors used?

Names	Roles	Compensation type	Contact info
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Are there contractors involved in delivery to NGrid customers?

Names	Roles	Compensation type	Contact info
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Does Program result in increased employment or additional hours for contractors?



Additional comments:



Attachment C: Participating Companies

The list includes contractors and subcontractors performing work directly for National Grid Energy Efficiency programs in 2013 that were counted in the FTE analysis and additional companies who assisted customers to secure equipment rebates, for example through the New Construction 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 814 companies, agencies, contractors and sub-contractors listed here, 637 (78%) 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. To find the Rhode Island companies, move the first appearance of "RI" in the far right column.

Greenlite	Irvine	CA
HD Supply	San Diego	CA
Search Partner Pro LLC	Oakland	CA
E Source Companies LLC	Boulder	CO
AMS GreenSolutions	Wilmington	CT
Best Energy Plumbing Heating Air Conditioning	Pawcatuck	CT
Chouinard Mechanical	Pomfret Center	CT
Competitive Resources Inc.	Yalesville	CT
Harrington Plumbing and Heating	Pawcatuck	CT
Home Tronics Lifestyles	Durham	CT
ICON International	Stamford	CT
JKMuir LLC	Durham	CT
Lantern Energy LLC	Norwich	CT
M Deshefy Plumbing LLC	North Stonington	CT
Mystic Plumbing and Heating	Mystic	CT
Self Propelled Scientific	Manchester	CT
Specialty Lighting Group	Centerbrook	CT
Techniart Inc.	Collinsville	CT
Total Refrigeration	West Suffield	CT
WJR Plumbing and Heating LLC	Voluntown	CT
American Council for an Energy-Efficient Economy	Washington	DC
Smartpower	Washington	DC
LED Source	Wellington	FL
Pro Unlimited Inc.	Boca Raton	FL
U Save LED (formerly ComNET)	Boca Raton	FL
Gas Technology Institute	Chicago	IL
Reed Construction Data	Carol Stream	IL
3-D Lighting	Franklin	MA
A & T Plumbing, Heating & Mechanical Co Inc.	North Dartmouth	MA



A&M Electrical Mechanical Inc.	Fall River	MA
Action Inc.	Fall River	MA
Advantage Weatherization	Quincy	MA
American Green Building Services Inc.	Dedham	MA
American Plant Maintenance	Woburn	MA
Andelman & Lelek	Norwood	MA
Anthony F Vieira III Heating and Air Conditioning	Attleboro	MA
Atlantic Power Services Inc.	Seekonk	MA
B2Q Associates Inc.	North Andover	MA
Barnett Heating And Cooling	Fall River	MA
Bruin Corp	North Attleboro	MA
Building Science and Construction	Braintree	MA
Camaras Heating and Conditioning Services	Westport	MA
Champion Resources	Ipswich	MA
Clarence P Rich Plumbing and Heating	Norton	MA
Conservation Services Group Inc.	Westborough	MA
Consigli Construction	Milford	MA
Consolidated Marketing Services	Burlington	MA
Consortium for Energy Efficiency	Boston	MA
Copland Mechanical Services Inc.	Attleboro	MA
Crown Supply Co, Inc. /Crown Electric	Milford	MA
Dan Baron	Seekonk	MA
Dave Silva	South Attleboro	MA
DMI Inc.	Needham	MA
Donald Dalpe Plumbing and Heating	Blackstone	MA
Dooley Heating	Attleboro	MA
Doug Machado	Swansea	MA
DW Smith Plumbing and Heating HVAC	Uxbridge	MA
EEL Lighting	South Chatham	MA
Efficient Tech Lighting Corp	Topsfield	MA
EM Corbeil Inc.	Millville	MA
ENE Systems Inc.	Canton	MA
Energy & Resource Solutions Inc.	North Andover	MA
Energy Federation Inc.	Westborough	MA
Energy Systems Design	Wayland	MA
Enernoc	Boston	MA
Environmental Systems Inc.	Attleboro	MA
FLM Plumbing and Heating	Seekonk	MA
Frank I Rounds	Randolph	MA
Fraunhofer USA	Cambridge	MA
George Obrien Co Inc.	South Dennis	MA
Germain Plumbing and Heating Inc.	Attleboro	MA



Graybar	Boston	MA
IBM Corp	Cambridge	MA
ICF Consulting Inc.	Lexington	MA
ICS Corp	Billerica	MA
Industrial Control Service Corporation	Chelmsford	MA
Insulate 2 Save	Fall River	MA
Interstate Electrical Services	Billerica	MA
J & S Plumbing and Heating Co	Attleboro	MA
JACO Environmental	Franklin	MA
Jalette Plumbing and Heating	Fairhaven	MA
Jaquez General Contractor	Lynn	MA
Jay Sheldons Heating	Seekonk	MA
JCI	Lynnfield	MA
Kaeser Compressor Inc.	South Easton	MA
KCG Energy LLC	Lexington	MA
Kelliher Samets Volk	Boston	MA
KEMA	Burlington	MA
Kyle Dias	Fall River	MA
Larry's Heating and Air Conditioning	Rehoboth	MA
LCI Energy	Ipswich	MA
Lexicon Energy Consulting Inc.	Lexington	MA
Itemor	Norwood	MA
Lockheed Martin Services	Burlington	MA
M Sardinha & Sons Plumbing and Heating Inc.	Fall River	MA
Machs Mechanical	Attleboro	MA
Michael A Muratori Heating and Cooling	Foxboro	MA
Miguel Plumbing and Heating	Swansea	MA
Mike Doucette Plumbing	North Attleboro	MA
MJ Electric Refrigeration LLC	Rehoboth	MA
National Resource Management	Canton	MA
NESCO	Canton	MA
New England Energy Management Inc.	Leominster	MA
New England Weatherization LLC	Attleboro	MA
Nexamp Inc.	Andover	MA
Next Step Living	Boston	MA
NORESCO	Westborough	MA
Northeast Efficiency Supply (NES)	Sutton	MA
Northeast Electrical Distributors	Brockton	MA
Northeast Energy Efficiency Partnerships	Lexington	MA
O'Neill Mechanical Services	Seekonk	MA
Opinion Dynamics Corp	Waltham	MA
Platinum Home Services Inc.	Fall River	MA



Quality Climate Control Inc.	Fall River	MA
R.G. Vanderweil Engineers LLP	Boston	MA
Reilly Electric	South Easton	MA
Renova Lighting System	Mansfield	MA
Retrofit Insulation Inc.	Seekonk	MA
RI Sheet Metal LLC	Rehoboth	MA
Richard Smith Plumbing and Heating	Swansea	MA
Rick Field	Raynham	MA
Ritchie's Insulation	Westport	MA
River Energy Consultants	Fall River	MA
Robert Fickert Plumbing & Heating	Lakeville	MA
Rockingham Electrical Supply	Amesbury	MA
Savio Lighting/TW Lighting	Needham	MA
SourceOne (A Veolia Energy Company)	Boston	MA
Stateline Fuel And Burner Service Inc.	Seekonk	MA
Steam Trap Systems	Amesbury	MA
Steve Dessert The Heating Man	Swansea	MA
Symmes Maini & Mckee Associates	Cambridge	MA
Tendril Networks Inc.	Newton Lower Falls	MA
The Cadmus Group Inc.	Waltham	MA
The Green Engineer Inc.	Concord	MA
The Green Machine Plumbing Heating Mechanical	Woburn	MA
The Heating Man	Rehoboth	MA
Theroux Mechanical	Attleboro	MA
TNZ Energy Consulting Inc.	Stoughton	MA
Triple B Plumbing Inc.	Seekonk	MA
TS Professional HVAC	Attleboro Falls	MA
UTS Energy Engineering	Quincy	MA
Veolia ES Technical Solutions LLC	Boston	MA
Victory Mechanical Services Inc.	Bellingham	MA
WESCO Distributors	Westborough	MA
William Matos Heating	Assonet	MA
Electrical Wholesalers	Stoughton	MA
Boyko Engineering	Gorham	ME
Helgeson Enterprises Inc.	White Bear Lake	MN
Sebesta Blomberg & Associates	Minneapolis	MN
Jacobs Engineering	St. Louis	MO
Exposure Control Technologies	Cary	NC
Ingersol Rand Co	Davidson	NC
Amerlux LLC	Fairfield	NJ
Clear Energy LLC	Bloomfield	NJ
Facility Solutions Group (FSG)	Perth Amboy	NJ



Ideas Agency Inc.	Blairstown	NJ
Gardner Nelson & Partners	New York	NY
Hudson Technologies Company	Pearl River	NY
Impressions ABA Industries	Mineola	NY
Integral Group	New York	NY
L & S Energy Services Inc.	Clifton Park	NY
LED Next Inc.	Westbury	NY
Parsons Brinckerhoff	New York	NY
Ram Marketing	Saint James	NY
Compressed Air Technologies Inc.	Monroe	OH
Questline Inc.	Columbus	OH
SAIC Energy Environment	Oklahoma City	OK
Ecobee Inc.	Toronto	ON
2-Sons Electric	East Providence	RI
A Barber Co	Warwick	RI
A Plus Electric	Rumford	RI
A Plus Plumbing Rooter and Heating Services	Providence	RI
A&C Burner Service/HVAC LLC	East Providence	RI
A&J Electric	Bristol	RI
A&M Compressed Air Products, Inc.	Johnston	RI
A. Perry Plumbing, Heating & Construction	Coventry	RI
A. Plumbing and Heating	East Providence	RI
A.H. Robert Plumbing & Heating	Warwick	RI
AAA Affordable Plumbing	North Providence	RI
Able Air	Pawtucket	RI
Absolute Haitian Corporation	North Kingstown	RI
Accurate Heating and Cooling LLC	Providence	RI
Acorn Maintenance	Warwick	RI
ACR Construction & Management Corp	Johnston	RI
Advance Electrical Corporation	Smithfield	RI
Advanced Burner and Boiler Services	Cumberland	RI
Advanced Comfort Systems Inc.	North Smithfield	RI
Aegis Energy Services	West Warwick	RI
Aero Mechanical Inc.	Providence	RI
Affordable Building & Weatherization	Providence	RI
Affordable Heating & Air Conditioning Services	North Providence	RI
Air Conditioning Services Of New England	Cranston	RI
Air Energy Inc.	West Warwick	RI
Air Masters HVAC Services of NE Inc.	Portsmouth	RI
Air Metalworks Ltd	Carolina	RI
Air Synergy LLC	Providence	RI
Aire Serv Heating & Air Conditioning	Pawtucket	RI



Air-Tech Heating and Air Conditioning	Rumford	RI
AJS Electric LLC	Cranston	RI
Al King	North Kingstown	RI
Albert S Gizzarelli Plumbing and Heating Inc.	Greenville	RI
Albert Ucci	Greenville	RI
Alhambra Building Co.	Warwick	RI
All Energy Services LLC	Pawtucket	RI
All In One Plumbing and Heating Inc.	North Scituate	RI
All Phase Heating Concepts LLC	Woonsocket	RI
All Seasons Heating and Air Inc.	Johnston	RI
All State Plumbing and Heating	Tiverton	RI
Allan Menard Plumbing LLC	Pawtucket	RI
Allen Plumbing and Heating	North Providence	RI
Alliance Energy Solutions	Cumberland	RI
Allied Plumbing and Heating	North Providence	RI
Allstate Electric Inc.	Newport	RI
Alpha Mechanical	East Providence	RI
Al's Plumbing and Heating	West Warwick	RI
Ameresco	Providence	RI
American Development Institute ADI Energy	Warwick	RI
American Heating Plumbing and Sprinkler Inc.	North Providence	RI
American Home Heating and Air Conditioning Inc.	Providence	RI
Amos House Builds	Providence	RI
Anchor Plumbing and Heating Co Inc.	Providence	RI
Anthony Januario Heating Co	Bristol	RI
APB Plumbing and Heating	Cumberland	RI
Applied Energy Engineering & Commissioning	Providence	RI
Apuzzo Plumbing and Heating	North Scituate	RI
AR Heating & Cooling Inc.	Providence	RI
Aramark	Providence	RI
Arden Engineering Constructors LLC	Providence	RI
Arema HVAC	Greenville	RI
Ariza Plumbing and Heating	Providence	RI
Armor Plumbing	Exeter	RI
Arrow Services Group	Warwick	RI
Arthur Desautels Master Pipe Fitter	West Greenwich	RI
Arthur Dipetrillo Plumbing and Heating	Johnston	RI
Arthur Lettieri	Providence	RI
ATC	Cranston	RI
Aten Energy Conservation LLC	Providence	RI
Atlantic Control Systems	Exeter	RI
Atlantic Supply LLC	Coventry	RI



Atlantis Comfort Systems Corp	Smithfield	RI
Atlas Insulation	North Scituate	RI
Autiello Plumbing and Heating LLC	Cranston	RI
Automatic Heating Equipment Inc.	Providence	RI
Automatic Temperature Control	Cranston	RI
Aztec Energy Partners	East Providence	RI
B & M Mechanical Inc.	East Providence	RI
B and B Consumers Natural Gas Service	Woonsocket	RI
B Lachapelle Home Improvements LLC	Lincoln	RI
B Z Electric	Warwick	RI
Barlow Heating LLC	Warwick	RI
Barrington Plumbing and Heating	Barrington	RI
Bay Plumbing Service Inc.	North Kingstown	RI
Baynes Electric	Westerly	RI
Bayside Construction	Jamestown	RI
BC Plumbing & Heating	Pascoag	RI
Beauchemin Design	North Smithfield	RI
Beaver River Heating and Cooling LLC	Wyoming	RI
Behan Bros Inc.	Middletown	RI
Bell and Piasczyk Plumbing and Heating	Narragansett	RI
Beneficial Energy Products Co	Pawtucket	RI
Berard Heating and Plumbing	Warwick	RI
Bermudez Plumbing and Heating	Pawtucket	RI
Bert Gardiner	Charlestown	RI
Bertrand Plumbing Inc.	Pascoag	RI
Bienvenido Rodriguez	Central Falls	RI
Bill Ellis Plumbing and Heating	Johnston	RI
Bill Francis	Barrington	RI
Bill Gardiner Plumbing And Heating LLC	East Providence	RI
Bill Harfst Plumbing and Heating	North Smithfield	RI
Bluestone Energy Services Ltd	Newport	RI
Bob Larisas Plumbing and Heating Inc.	Barrington	RI
Bob Martel Plumbing and Heating	Central Falls	RI
Bobby's Plumbing Inc.	North Providence	RI
Bodell Plumbing and Heating	South Kingstown	RI
Boston E Lab Inc.	Providence	RI
Boucher HVAC Inc.	Wakefield	RI
Brain's Heating Concepts Inc.	Tiverton	RI
Braswells Plumbing and Heating Inc.	North Kingstown	RI
Bristol County Plumbing and Heating LLC	Bristol	RI
Briteswitch LLC	Providence	RI
Bruno & Sons Electric	Providence	RI



BSH Heating and Appliance	Barrington	RI
Buckley Heating and Cooling	Wakefield	RI
Burners Plumbing and Heating Inc.	North Kingstown	RI
Burton Carpentry	Coventry	RI
Butler & Sons Plumbing and Heating Inc.	Providence	RI
BVCAP	Pawtucket	RI
BZ Electric Inc.	Pawtucket	RI
C & K Electric	Providence	RI
C and D Mechanical	Cranston	RI
C.J. Nemes Inc. Plumbing and Heating	Woonsocket	RI
CAAP (Formerly ProCap)	Providence	RI
Cadorette Plumbing and Heating	Slatersville	RI
Cal Supply Company	North Kingstown	RI
Calyx Retrofit LLC	Lincoln	RI
Capitol Plumbing Company	Cumberland	RI
Carbone Plumbing, Heating & Air Conditioning	Johnston	RI
Cardillo Plumbing and Heating	Coventry	RI
Carjon Air Conditioning and Heating	Providence	RI
Carl Pecchia Heating Contractor Inc.	Warwick	RI
Carlo Fossati Plumbing	Greenville	RI
Carousel Industries of North America	Exeter	RI
Carrier Corporation	Providence	RI
Carter Plumbing and Heating Co	Warren	RI
Casanna HVAC	Providence	RI
Cavaco Brothers Plumbing and Heating Inc.	East Providence	RI
CCAP	Cranston	RI
CCMS Lighting Inc.	Providence	RI
Ccorp Construction LLC	Johnston	RI
CD Heating Inc.	Cranston	RI
Cecil Moore	Greene	RI
Central Street Contractors	Central Falls	RI
Century Heating	Smithfield	RI
Cerreto Associates	East Greenwich	RI
Charland Enterprises Inc.	Pawtucket	RI
Charlies Heating LLC	North Kingstown	RI
Cipriano Plumbing and Heating	Wakefield	RI
Clearesult Consulting Inc.	Providence	RI
Climate Air	Warwick	RI
CMAGS HVAC Inc.	Warwick	RI
Cola Plumbing and Heating Inc.	North Kingstown	RI
Coldmasters Temperature Control	Providence	RI
Comfort Zone Inc.	Hopkinton	RI



Commercial Heating Service	Cumberland	RI
Connecticut Controls Corporation	Pawtucket	RI
Conserve-A-Watt	Smithfield	RI
Continental Engineering Inc.	Johnston	RI
Cooper Heating and Cooling LLC	Exeter	RI
Copperline Plumbing and Heating	Coventry	RI
Copy Stedman and Kazounis	Charlestown	RI
Corp Builders Inc.	Tiverton	RI
Creative Plumbing and Heating Inc.	Newport	RI
Crest Managementco Inc.	Exeter	RI
CRM Modular Homes	Johnston	RI
Cross Insulation	Cumberland	RI
Crown Petroleum Plumbing and Heating Inc.	Barrington	RI
Crystal Plumbing and Heating Inc.	Providence	RI
CT Controls	Providence	RI
Cummings Plumbing Co	Coventry	RI
Custom Plumbing and Heating Co	Newport	RI
CW Cummings Plumbing Co	Coventry	RI
D and D Metal Works Inc.	North Providence	RI
D and J Plumbing And Heating Inc.	Carolina	RI
D and V Mechanical Inc.	Westerly	RI
D.F. Pray	West Warwick	RI
Daluz Plumbing and Heating	West Warwick	RI
D'Ambra Construction	Warwick	RI
Damon Insulation	Riverside	RI
Daniel Ledoux	Pawtucket	RI
Daniels Plumbing	East Greenwich	RI
Dante Gonzales	Providence	RI
David Agnew Plumbing	East Providence	RI
David Maxwell	Warwick	RI
David W Bradley Plumbing and Heating Inc.	East Providence	RI
Davidsons Plumbing and Heating	Warwick	RI
De Vivo Plumbing and Heating	North Smithfield	RI
Defusco Restoration and Remodeling	Warwick	RI
Del Grande Inc.	Lincoln	RI
Delekta Plumbing and Heating Co.	Warren	RI
Delta Mechanical Contractors LLC	Warwick	RI
Delta T Distributors	Cranston	RI
Design Built Inc.	Providence	RI
Design Installation Service	West Warwick	RI
Desmarais Plumbing and Heating Inc.	Johnston	RI
DFS Plumbing Services	West Greenwich	RI



DG Plumbing	Cumberland	RI
Digregorio and Sons Inc.	North Kingstown	RI
Dimeo Construction Company	Providence	RI
Dirocco Plumbing Services LLC	North Providence	RI
DJ Medeiros Heating and Pipe Fitting	East Providence	RI
Don Jestings and Son LLC	Middletown	RI
Don Labriole	Coventry	RI
Donovan & Sons Inc.	Middletown	RI
Douglas McIntosh	North Providence	RI
DPS Plumbing and Heating	Hope	RI
Drivers Plumbing and Mechanical Inc.	Providence	RI
DS Plumbing	Coventry	RI
DSL and Sons Heating And Cooling LLC	Bradford	RI
Duff Electric	Providence	RI
Dupuis Energy	Pawtucket	RI
DWI Group	Cranston	RI
Dykeman Electric	Providence	RI
Dynamic Air Systems Inc.	East Providence	RI
E & M Sheet Metal Co	Warwick	RI
E A Marcoux And Son Inc.	Woonsocket	RI
E W Burman	Warwick	RI
E Whitford Plumbing Services	Exeter	RI
E2S Energy Efficiency Services LLC	Providence	RI
Earl Massey Electric	Providence	RI
Eastbay Community Action	Riverside	RI
Eastern Plumbing Co Inc.	North Kingstown	RI
Ecologic Spray Foam Insulation Inc.	Jamestown	RI
Ed Beaudoin Plumbing and Heating	Cranston	RI
Ed Skinner	Warwick	RI
Eddy's Construction	Providence	RI
Edge Services LLC	Cranston	RI
Edward Tomolillo Master Pipe Fitter	North Providence	RI
Emcor Services	Pawtucket	RI
Emery Electrical	Cranston	RI
Enercon Inc.	Cranston	RI
Energy Collaborative (EMC)	Smithfield	RI
Energy Conservation Inc.	South Kingstown	RI
Energy Efficient Exteriors Inc.	Lincoln	RI
Energy Electric Inc.	Providence	RI
Energy Management Collaborative LLC	Cranston	RI
Energy One Southern Mechanical Inc.	Warwick	RI
Energy Only	Cranston	RI



Energy Source	Providence	RI
EPM Plumbing	Woonsocket	RI
Eric A Soares	Middletown	RI
ESCO Energy Services Co.	Newport	RI
Eurotech Climate Systems LLC	Pawtucket	RI
Everett C Brown	North Smithfield	RI
Evergreen Plumbing and Heating Co Inc.	Warwick	RI
EW Burman	Providence	RI
Extreme Electric Inc.	Lincoln	RI
Falcon Hydraulics and Boiler Service	West Kingston	RI
FCI Engineering Group LLC	Providence	RI
Feula P&H	Johnston	RI
Fitzgerald Building and Remodeling	Riverside	RI
Five Star Plumbing and Heating	Johnston	RI
Fleet Plumbing and Heating Inc.	North Scituate	RI
Fletcher Heating	Ashaway	RI
Francis Heating and Hydronics	East Providence	RI
Frank Dimaio Heating LLC	Cranston	RI
Frank Knight Plumbing and Heating	Warwick	RI
Frank Lombardo and Sons	Providence	RI
Franks Plumbing and Heating Inc.	North Kingstown	RI
Fredrick Bailey Enterprises	Johnston	RI
Fressilli Plumbing Inc.	Riverside	RI
Fullport Plumbing and Heating	Rumford	RI
G Hill Plumbing and Heating Fire Protection	Westerly	RI
Gary Pagnozzi Plumbing and Heating	Johnston	RI
Gas Doctor LLC	Cranston	RI
Gas Master Inc.	Little Compton	RI
Gas Pro Inc.	Cumberland	RI
Gas Works	Westerly	RI
Gasman Inc.	Warwick	RI
Gem Air Services Inc.	Warwick	RI
Gem Mechanical Services Inc.	Lincoln	RI
Gerard Levesque Jr Plumbing and Heating	Coventry	RI
Gerster Trane	Providence	RI
Gexpro	Providence	RI
Gilbane Building Company	Providence	RI
Ginos Plumbing	Warwick	RI
Giorno Plumbing and Heating	Cranston	RI
GKT Refrigeration	Pawtucket	RI
Globex Industries	Providence	RI
Grainger Lighting Service	Warwick	RI



Greanseal Insulation	North Kingstown	RI
Green Performance	Greene	RI
Greener U Inc.	Providence	RI
Greenville Insulation Co., Inc.	Smithfield	RI
Greenwich Insulation	Coventry	RI
Greg Greenlaw	Pawtucket	RI
Grentech Energy Services Inc.	Cumberland	RI
Groves Energy	Hope	RI
Guardian Energy Management Solutions	Middleton	RI
Guy Clermont Plumbing And Heating	Cranston	RI
Harmony Design and Construction LLC	Cumberland	RI
Hart Engineering Corp	Narragansett	RI
Haven Plumbing and Heating Co Inc.	Cranston	RI
Hawkes Plumbing and Heating Co Inc.	Chepachet	RI
Heffernan Mechanical Services	Warwick	RI
HF Robinson & Sons Plumbing and Heating	Cranston	RI
HH Heating Complete Heating Systems	Lincoln	RI
Hilgrove Butterfield	Providence	RI
Hill Electrical Serives	Pascoag	RI
Hinckley Allen	Providence	RI
HK Heating Inc.	Greene	RI
Holden Plumbing and Heating Inc.	Foster	RI
Hope Air Systems	Briston	RI
Hope Anchor Plumbing Service	Providence	RI
Horizon Solutions LLC	Smithfield	RI
Houle Plumbing and Heating	Greene	RI
Howards Heating Service	North Kingstown	RI
Huntington Controls	Providence	RI
HVAC Inc.	Cumberland	RI
Ianniello Plumbing and Heating Co	Cranston	RI
Iasimone Plumbing, Heating & Drain Cleaning Inc.	North Providence	RI
Incontrol	Warwick	RI
Industrial Burner Service Inc.	Pawtucket	RI
Interstate Oil and Energy	Johnston	RI
Ironman Heating and Cooling	Riverside	RI
Iroquoian Plumbing and Heating Supplies	Providence	RI
Izzo & Sons Electric	Providence	RI
J & K Supplemental Plumbing Inc.	East Greenwich	RI
J & M Plumbing LLC	Coventry	RI
J Gallant Enterprises LLC	Greenville	RI
J Joyce Plumbing and Heating Inc.	Warwick	RI
JD Electric	West Warrick	RI



JD Mechanical Inc.	Greenville	RI
JD Mello Plumbing and Heating Inc.	Newport	RI
Jed Electric Inc.	North Kingstown	RI
Jeffrey Florio	North Providence	RI
Jenkins Construction Co	Middletown	RI
JH Plumbing And Heating	Foster	RI
Jim Amaral	East Providence	RI
JKL Engineering Co Inc.	Providence	RI
JMAC Plumbing and Heating Inc.	Warwick	RI
JN Jordan Plumbing and Mechanical	Shannock	RI
Joao Carvalho	Rumford	RI
Joe Chaves Heating and Plumbing	Middletown	RI
Joe Gruttadauria	Johnston	RI
Joe Palombo Plumbing Heating and Cooling	West Kingston	RI
Joe Soave	North Providence	RI
Joe Walsh Contractors	Exeter	RI
John E Jackson	Cumberland	RI
John Lowell	Foster	RI
John Nicholson Mechanical Contractor	North Scituate	RI
John S Babcock Plumbing Heating Unlimited	Ashaway	RI
Johnny's Oil and Heating Inc.	Providence	RI
John's Heating	Riverside	RI
Johnson & Johnson Plumbing and Heating Inc.	Saunderstown	RI
Johnson Controls Lighting Services	Lincoln	RI
Joseph Anthony	Rumford	RI
Joseph Giorno Plumbing and Heating	Cranston	RI
Joubert Heating and Air Conditioning	Warwick	RI
Just Heat	Portsmouth	RI
Kafin Oil Company Inc.	Woonsocket	RI
Kans Plumbing	Bristol	RI
Kens Heating All Your Gas And Oil Needs	Providence	RI
Kesslers Sheet Metal Co Inc.	Cranston	RI
Kevin Barry	Warwick	RI
Kevin Cilley	Westerly	RI
Kevin L Masse	Johnston	RI
KRA Inc.	North Scituate	RI
Kwik Plumbing and Heating Inc.	Johnston	RI
L & F Plumbing LLC	Cranston	RI
L C Contractor Services	Bristol	RI
L&B Remodeling	Warwick	RI
Lakewood Builders	Warwick	RI
Larry Giorgi Plumbing and Heating Inc.	North Providence	RI



Lavin Plumbing And Heating Co	Warren	RI
Lawrence Air Systems Inc.	Barrington	RI
Leddy Electric Inc.	Smithfield	RI
Lemay Framing and Remodeling	North Smithfield	RI
Leveille Electric	Smithfield	RI
Liberty Plumbing and Heating	Jamestown	RI
Lighthouse Contracting Services	Johnston	RI
Lighthouse Propane Inc.	East Greenwich	RI
Lincoln Energy Mechanical Services	West Warwick	RI
Loeb Lighting Services	Warwick	RI
Logan Dowd	Smithfield	RI
Lubera Plumbing	Coventry	RI
Luso Plumbing and Heating Inc.	Cumberland	RI
Lynch Corp	Cumberland	RI
M & G Correia's Plumbing & Heating	East Providence	RI
M Bennett Plumbing and Heating	Charlestown	RI
M Deltufo Plumbing and Heating Inc.	East Greenwich	RI
M Faria Plumbing and Heating	Cranston	RI
Major Electric Supply	West Warwick	RI
Maloney Oil Co Inc.	Pawtucket	RI
Manning Plumbing	Warwick	RI
Marc D Ledoux	North Kingstown	RI
Marcelino Nieves	Pawtucket	RI
Martel Plumbing and Heating	Lincoln	RI
Mastro Electric Supply Co Inc.	Providence	RI
Mastrocinque and Sons	Portsmouth	RI
Matt's Mechanical	Cumberland	RI
Mckee Brothers Oil Corporation	Cumberland	RI
MCL Home Improvement	Johnston	RI
Merit Service LLC	Warwick	RI
Metro Plumbing Co	Foster	RI
Michael Arthur Kowal	Warwick	RI
Michael Freitas Plumbing and Mechanical	Pascoag	RI
Michael Giuffre	West Warwick	RI
Michael Greene	North Kingstown	RI
Michael Petronelli Plumbing and Heating	Johnston	RI
Midstate Heating and Cooling	Hope Valley	RI
Mike Palumbow	Foster	RI
MJF Plumbing and Heating	Bristol	RI
Mlite Associates	Warwick	RI
MMT Home Improvements	Warwick	RI
Morgan Electric	Providence	RI



Morin Plumbing and Heating	Chepachet	RI
Morrair Heating and Air Conditioning	Warwick	RI
Mr. Rooter Plumbing	Warwick	RI
Munro Distributing	Cranston	RI
Murray Plumbing and Heating Inc.	Greenville	RI
Mutual Development Corp.	West Warwick	RI
Mutual Engineering Service Company	Warwick	RI
NALCO	Providence	RI
National Refrigeration Inc.	Warwick	RI
Neil Smith	Providence	RI
New England Insulation	Woonsocket	RI
New England Lighting	Woonsocket	RI
New England Restoration and Construction Services	Exeter	RI
Newbury New England LLC	Westerly	RI
Newport Plumbing and Heating Gas Co	Portsmouth	RI
Nexgen Mechanical Inc.	Warwick	RI
Nexrev Inc.	Middletown	RI
Nicolas Bermudez	Pawtucket	RI
Nightingale Plumbing and Heating	Providence	RI
Nite Oil Company Inc.	Tiverton	RI
Nolin Electric Incorporated	Providence	RI
Norbury Construction	Portsmouth	RI
North Atlantic Heating Inc.	Coventry	RI
Northeast Energy Reduction Corporation	Lincoln	RI
Northeast Noise Abatement	Warwick	RI
Novar	Woonsocket	RI
NRG Electrical Inc.	Harrisville	RI
NRM	Providence	RI
Oceanside Plumbing	Bradford	RI
Oliveira Plumbing and Heating LLC	Smithfield	RI
On The Side HVAC	Cranston	RI
Optimal Energy Inc.	Providence	RI
P & D Heating Inc.	Coventry	RI
Paradise Building and Plastering Co Inc.	Chepachet	RI
Patriot Plumbing Inc.	Coventry	RI
Paul Brassard Master Plumber	North Providence	RI
Paul Parenteau	Warwick	RI
PECI	Portsmouth	RI
Pellegrino Plumbing and Heating	Westerly	RI
Pelletier & Son Plumbing and Heating Inc.	North Kingstown	RI
Percivalle Electric	Warwick	RI
Peregrine Mechanical	East Providence	RI



Perez Plumbing And Heating LLC	Cranston	RI
Pete's Plumbing Inc.	North Smithfield	RI
Petrarca Plumbing and Heating	Warwick	RI
Petro Heating and Air Conditioning Services	Warwick	RI
Petronelli Plumbing and Heating	Johnston	RI
Pezzucco Construction	Cranston	RI
Phil Paul Plumbing and Heating	North Smithfield	RI
Philips Optimum	Warwick	RI
Philips Precision Plumbing LLC	Greene	RI
Phillip M Child Plumbing Heating Refrigeration	Bristol	RI
Phillips Plumbing and Mechanical Inc.	Cranston	RI
Phil's Heating and Air Conditioning	Westerly	RI
Phil's Propane	Tiverton	RI
Pickles Plumbing and Heating LLC	Mapleville	RI
Pinnacle Plumbing and Heating	Greenville	RI
Plumb Perfection	Johnston	RI
Plumbing and Heating Solutions LLC	Providence	RI
Plumbing R US	Newport	RI
Plumbing With Merritt	Warwick	RI
Polaris Plumbing and Heating Inc.	Johnston	RI
Potvin Electric Company	Cranston	RI
Pratt Plumbing and Heating LLC	Harrisville	RI
Precision Power	Woonsocket	RI
Premair HVAC	Warwick	RI
Premier Heating and Cooling	Lincoln	RI
Prism Consulting Inc.	North Kingstown	RI
Pro Plumbing RI	West Warwick	RI
Providence Mechanical Services LLC	Smithfield	RI
R E Coogan Heating Inc.	Warwick	RI
R Ianniello Plumbing And Heating Inc.	Johnston	RI
R W Bruno Heating And Cooling	Lincoln	RI
R.B. Queern & Co., Inc.	Portsmouth	RI
Ralph A DeVivo Jr Plumbing and Heating	North Smithfield	RI
Rawnsley Plumbing and Heating	Exeter	RI
Ray Christopher Plumbing and Heating	Foster	RI
Rayco Electric	Providence	RI
Raymond Degnan	North Providence	RI
Raymond J Reinsant	Lincoln	RI
Reddy Piping Concepts Inc.	Cranston	RI
Regan Heating & Air Conditioning Inc.	Providence	RI
Regency Energy Services	Cranston	RI
Reid & Son Remodeling	Warwick	RI



Reliable Plumbing and Mechanical Inc.	North Providence	RI
Remy Plumbing and Heating Inc.	Warren	RI
Renovate Earth	Westerly	RI
Resendes Heating Services LLC	Coventry	RI
Residential and Commercial Services LLC	Cumberland	RI
Restivos Heating and Air Conditioning	Johnston	RI
Rexel Electric & Datacom Supplies	Providence	RI
RF Heating and Cooling	Exeter	RI
Rhode Island Green Building Council	Providence	RI
Rhody Plumbing	Smithfield	RI
RI Blown In Cellulose Insulation Inc.	Providence	RI
RI HVAC Corporation	Pawtucket	RI
Richard A Lavey	Warren	RI
Richard Migliori	Newport	RI
Rise Engineering	Providence	RI
RJL Construction	Middletown	RI
RK Electric LLC	North Kingstown	RI
RK Plourd	Warwick	RI
Robert Colaluca Plumbing & Heating	Greenville	RI
Robert Dichiaro	Smithfield	RI
Robert Schnaible	Hope	RI
Robinson & Son Heating and Plumbing	East Greenwich	RI
Roger Buteau	Pawtucket	RI
Roger's Electric	Coventry	RI
Roland & Sons	Saunderstown	RI
Roland M Belanger Plumbing and Heating	Pascoag	RI
Ron Lima	Rumford	RI
Rossi Electric Company Inc.	Cranston	RI
RSC Plumbing LLC	Exeter	RI
RSS Installations	Coventry	RI
RST Heating and Air Conditioning	North Kingstown	RI
Ruggieri & Sons Mechanical Services	Richmond	RI
Russell Barron Plumbing	Cranston	RI
RW Bruno Heating and Cooling Inc.	Providence	RI
Ryan Electric	Providence	RI
S B Carbone Plumbing and Heating Company Inc.	Cranston	RI
Sakonnet Plumbing and Heating Inc.	Little Compton	RI
Sal Manzi & Son Plumbing and Heating Inc.	Cranston	RI
Sam Bliven Jr Plumbing and Heating Inc.	Westerly	RI
Santoro Electric Inc.	Warwick	RI
Sarra Engineering	Providence	RI



Sasa Energy LLC	Johnston	RI
Savard Oil Co Inc.	East Providence	RI
Schneider Laboratories	Richmond	RI
Schwagler & Sons Plumbing and Heating Inc.	Slatersville	RI
Scott Santerre	Narragansett	RI
Scott Smith	Riverside	RI
Shamrocks Plumbing	Pawtucket	RI
Shawmut	Providence	RI
Sheridan Electric	East Greenwich	RI
Siemens Industry	Cranston	RI
Sine Plumbing and Heating Co Inc.	East Providence	RI
Size Construction	Cranston	RI
Smalls Plumbing Inc.	Woonsocket	RI
Solar Tint	Warwick	RI
Sosa & Son Plumbing and Heating	Woonsocket	RI
South County Community Action	Wakefield	RI
South County Gas Service	Narragansett	RI
Sparts Plumbing	Rumford	RI
Speedy Plumbing	Johnston	RI
Spencers Plumbing	Warwick	RI
St Angelo Plumbing	Barrington	RI
State Of Rhode Island	Providence	RI
Statewide Insulation & Siding Co	North Smithfield	RI
Stedman & Kazounis Plumbing and Heating	Charlestown	RI
Stephen Freitas Plumbing and Heating	Lincoln	RI
Stephen Larochelle	Cumberland	RI
Steve Dupre Plumbing	Pawtucket	RI
Steve Lascola	Cranston	RI
Sun Plumbing and Heating Co	Chepachet	RI
Sunrise Plumbing And Heating	Johnston	RI
Sunshine Fuels and Energy Services Inc.	Bristol	RI
Sunsystems Inc. Building Co	Narragansett	RI
Super Green Solutions	North Kingstown	RI
Superior Comfort	Bristol	RI
Superior Electric	Warwick	RI
Superior Plumbing And Heating	Cranston	RI
Superior Plus Energy Services	Providence	RI
Supermarket Energy	North Smithfield	RI
Supply New England	Pawtucket	RI
Sustainable Energy Solutions	Providence	RI
Sylvania Lighting Services	Johnston	RI
T & T Plumbing And Heating Inc.	Hope Valley	RI



T A Gardiner Plumbing And Heating Inc.	Bristol	RI
T Gomes Heating and Cooling	Providence	RI
Tasso Plumbing And Heating Co	Middletown	RI
TBK Green Energy Consultants LLC	Providence	RI
TD Delmonico Plumbing	East Providence	RI
Temptec Mechanical	Providence	RI
The Elcon Group Inc./CCMS Lighting Inc.	Providence	RI
The Plumber Company Inc.	Johnston	RI
Thermal Home Energy Solutions	Cranston	RI
Therrien Mechanical Systems	Lincoln	RI
Thielsch Engineering	Cranston	RI
Thomas O'Brien Company LLC	Westerly	RI
Thomas P McGee Plumbing and Heating	North Smithfield	RI
Thomas S Cavaco & Sons LLC	East Providence	RI
Timothy Almonte	Cranston	RI
Todd Delmonico Plumbing	East Providence	RI
Tom Peters Plumbing and Heating Inc.	Portsmouth	RI
Tom Whitaker	Newport	RI
Tom's Plumbing and Heating	Manville	RI
Top Notch Plumbing and Heating	Cranston	RI
Tops Lighting (Electric Supply Company)	Providence	RI
Total Comfort Heating and Cooling	Tiverton	RI
Total Control HVAC LLC	Cranston	RI
TRAC Builders Inc.	Johnston	RI
Travers Plumbing and Heating Incorporated	Portsmouth	RI
Trico Realty & Remodeling	Cranston	RI
Tri-Town Community Action	Johnston	RI
TW Johnston Plumbing and Heating	West Warwick	RI
Tyce Engineering Sales and Leasing	Coventry	RI
UG Nasons Inc.	Middletown	RI
United Mechanical Inc.	Cranston	RI
United Refrigeration Inc.	Providence	RI
Universal Insulation	Providence	RI
V Letizia Plumbing and Heating	Providence	RI
V&L Construction	Providence	RI
Valcourt Heating Inc.	Little Compton	RI
Valley Heating and Cooling Inc.	Hope Valley	RI
Valley Plumbing and Heating	Cumberland	RI
Vaughn Oil Co Inc.	Smithfield	RI
Vicmir And Sons	Riverside	RI
Viking Supply Company	Westerly	RI
Villa Lighting	Middletown	RI



Vivona Plumbing And Heating Inc.	Portsmouth	RI
Wakefield Heating and Service LLC	Wakefield	RI
Waldo Plumbing and Heating LLC	Lincoln	RI
Walker Parking	Providence	RI
Walsh Electric	Cumberland	RI
Warner Appliance Service	North Kingstown	RI
Wayne J Griffin Electric	East Providence	RI
WE Hill Plumbing and Heating Inc.	Bristol	RI
Westbay Community Action	Warwick	RI
Wickford Appliance and Lighting Inc.	Pawtucket	RI
William J Lang	North Scituate	RI
William J Riley Plumbing and Heating	Warwick	RI
William N Harris Inc.	Providence	RI
WLS Lighting Systems Inc.	Lincoln	RI
WM Lamar and Sons Inc.	East Providence	RI
Woods Heating Service	East Providence	RI
World Enerem	Providence	RI
Zawadzki Plumbing and Heating Inc.	Warwick	RI
Zompa Plumbing and Heating	Barrington	RI
Coast Electric	Cranston	RI
The Electric Connection Inc.	Middletown	RI
Spirax Sarco Inc.	Blythewood	SC
Parago Services Corp	Lewisville	TX
SalesNexus LLC	Houston	TX
Opower Inc.	Arlington	VA
Vermont Energy Investment Corporation	Burlington	VT
Absher Construction Company	Puyallup	WA
Ecova Inc.	Spokane	WA
New Buildings Institute Inc.	White Salmon	WA
Northwest Energy Efficiency Council	Seattle	WA



Attachment 5

2013 RGGI Auction Proceed Report



Rhode Island
Regional Greenhouse Gas Initiative, Inc. Auction Proceeds Report
Presented by National Grid
May 1, 2014

Introduction

From the beginning the Regional Greenhouse Gas Initiative, Inc. (RGGI) through the end of 2013, Rhode Island (RI) has received approximately \$25.4 million from CO₂ Allowance Auctions.¹ As of January 2014, National Grid received \$12.4 million of those funds in order to expand energy efficiency (EE) efforts throughout the state. This report demonstrates the successes National Grid has had in the use of the RGGI auction proceeds that have been allocated to it, and provides justification for continued allocation of RGGI funds to support the objectives of cost effective Least Cost Procurement through implementation of National Grid's energy efficiency programs and services.

Background

The following table illustrates the RGGI proceeds that National Grid has received:

Auctions	Auction Year	Net Proceeds	EE Funding	Status	EE Initiatives
1-5	2008 - 2009	\$6,581,188	\$3,950,152	Received March 2010	Funded all 2010 EE Programs Saved 115,540 Lifetime MWh in 2010
			\$2,633,434	Received December 2010	Deep Energy Retrofit Pilot New Homes Tier III Pilot Heat Loan Small Business Revolving Loan Fund
6-10	2009 - 2010	\$5,043,347	\$4,034,678	Received January 2012	Small Business Revolving Loan Fund Large Commercial Revolving Loan Fund
11-14	2011	\$2,621,091	\$1,860,236	Received August 2013	RI Public Energy Partnership Community Buildings

Under the OER's 2009 Plan for the Allocation and Distribution of RGGI Proceeds ('2009 Plan') sixty percent of RGGI auction proceeds were allocated to utility energy efficiency programs to be used to fund all energy efficiency programs in 2010. Those funds were used to save 115,540 lifetime MWh. Preliminary results were reported to RGGI, Inc. in February, 2011, and to the OER in the RGGI Auction Proceeds Report submitted on March 1, 2011.

National Grid received forty percent of RGGI auction proceeds from Auctions 1-5 in December 2010. Those funds were used to launch the Deep Energy Retrofit pilot, Heat Loan and Small Business Revolving Loan fund in early 2011. National Grid provided results for 2011 in RGGI Auction Proceeds Report submitted in May 2012. The Deep

¹ Source: http://www.rggi.org/market/co2_auctions/results



Energy Retrofit pilot, Heat Loan and the Small Business Revolving Loan fund continued in 2012 and this report provides results for these initiatives.

Under the OER's 2012 Plan for the Allocation and Distribution of Regional Greenhouse Gas Initiative Auction Proceeds, the Company received \$1,860,236. As specified in the Plan, the proceeds were used to launch the Rhode Island Public Energy Partnership (RI PEP) and to support energy efficiency opportunities in community buildings.

This report provides results from both of the new initiatives in 2012. The results from prior allocations of RGGI funds have been described in prior Year End Reports.

Rhode Island Public Energy Partnership

RI PEP builds on a Department of Energy Grant and is intended to help state agencies and local governments attain high levels of energy savings and improved building operations. The primary objectives of RIPEP are to:

- Create a comprehensive inventory of energy consumption in public facilities, both state and municipally owned or managed;
- Implement energy efficiency measures in approximately 100 facilities and attain an average of 20% energy reduction; and
- Identify and mitigate barriers to efficiency improvements in the public sector. Initial priority will be given to water supply facilities, schools, and state buildings, followed by other municipal facilities.

The inventory will identify electric and natural gas efficiency opportunities and be used to prioritize and implement efficiency services offered by the Utility. The 2012 Allocation Plan added \$1,487,948 for RI PEP, to be administered by National Grid.

Through the end of 2013, National Grid has hired a public sector liaison and facilitated a number of scoping studies. The criteria and process for distribution of the funds have been developed by the OER in conjunction with National Grid. The inventory has been developed and funds have been committed. Disbursement was contingent on project completion and no RI PEP projects had been completed by year end 2013.

Community Buildings

Not for profit organizations typically do not have funds available to fund their portion of energy efficiency project costs. Recognizing this, the 2012 Plan allocated \$372,288 to energy efficiency projects at community buildings (a public building that houses a not for profit organization such as, but not limited to, boys and girls clubs, community healthcare centers and are used for public/community purposes).

Through the end of 2013, 67 energy efficiency projects at community buildings had been supported with supplemental incentives totaling \$303,851 from the RGGI allocation. These supplemental incentives allowed projects that would not have been otherwise completed due to lack of customer funds to have been completed and contributed 1,487,685 kWh of electricity savings (as well as 14,684 of therms gas savings from



projects that saved both gas and electricity, such as efficient air distribution). The balance of the allocation, \$68,437, was committed but not paid out by year end.

For more information about benefits please see the RI 2013 Energy Efficiency Year End Report, Table E-2, filed with the PUC in May 2014.

Spending & Reporting

The following table illustrates the 2011 and 2012 budgets and spending through December 31, 2013.

Auctions	Received	EE Funding	Initiative	Budget	2011 Spend	2012 Spend	2013 Spend
1 - 5	March 2010	\$3,950,152	Program Spending	\$ 3,950,152	\$ 3,950,152		
	December 2010	\$2,633,434	Heat Loan	\$ 449,463	\$ 146,698	\$ 302,765	
			Homes Tier III Pilot	\$ 65,000	\$ -	\$ -	
			Deep Energy Retrofit Pilot	\$ 260,000	\$ 27,848	\$ 297,152	
			Small Bus. Revolving Loan Fund	\$ 1,858,971	\$ 1,843,371	\$ 15,600	
6 -10	January 2012	\$4,034,678	Small Bus. Revolving Loan Fund	\$ 2,300,000	n/a	\$ 2,300,000	
			Large Bus. Revolving Loan Fund	\$ 1,734,678	n/a	\$ 1,734,678	
11-14	August 2013	\$1,813,732	RI Public Energy Partnership	\$ 1,487,948			\$ -
			Small Bus Community Bldgs	\$ 372,288			\$ 303,851
Total				\$12,478,500	\$ 5,968,069	\$ 4,650,195	\$ 303,851

Additionally, the Company submitted preliminary 2012 results of the RGGI initiatives and finance programs to OER in December 2012.