

May 31, 2013

VIA HAND DELIVERY & ELECTRONIC MAIL

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

**RE: Docket 4295 – National Grid Electric and Gas Energy Efficiency Programs
2012 Year-End Report**

Dear Ms. Massaro:

Enclosed please find ten (10) copies of National Grid's¹ 2012 Energy Efficiency Year-End Report. This report summarizes the gas and electric results, program highlights, and customer experiences over the 2012 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 4295 Service List
RI Collaborative Members (electronic version)

¹ The Narragansett Electric Company d/b/a National Grid (referred to herein as “National Grid” or the “Company”).

Certificate of Service

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



May 31, 2013

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**The Narragansett Electric Company
d/b/a National Grid**

2012 Energy Efficiency Year-End Report

May 31, 2013

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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: 2012 Employment Supported by Energy Efficiency in Rhode Island Report
- Attachment 5: 2012 RGGI Auction Proceeds Report

NATIONAL GRID

2012 ENERGY EFFICIENCY YEAR-END REPORT

Overview

Program Year 2012 was a challenging and 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. 4295 on November 1, 2011, and approved by the Rhode Island Public Utilities Commission (the "Commission") in Order No. 20596, issued December 22, 2011.

The primary goal set forth in the 2012 "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 2012. This value represents an estimated annual electric bill savings of \$12.6 million and annual gas bill savings of \$2.4 million for Rhode Island customers. 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.

	2012 Goal/Benchmark ²	2012 Actual ³	% of Goal
Electric			
Annual MWh Savings	128,570	119,666	93%
Annual kW Savings	23,930	19,947	83%
Lifetime Benefits (\$Mil)	\$176.4	\$140.1	79%
Benefit/Cost Ratio	2.47	2.24	91%
Gas			
Annual MMBtu	231,548	229,811	99%
Lifetime Benefits (\$Mil)	\$43.9	\$36.2	82%
Benefit/Cost Ratio	2.05	1.68	82%
	2012 Budget (\$Mil)⁴	2012 Actual (\$Mil)⁵	% of Goal
Electric			
Total Expenditures⁶	\$61.4	\$50.7	83%
Total Expenditures Excluding Commitments⁷	\$59.4	\$49.9	84%
Total Implementation Expenses⁸	\$55.9	\$46.2	83%
Gas			
Total Expenditures⁹	\$13.7	\$13.3	97%
Total Implementation Expenses¹⁰	\$12.8	\$12.2	95%

¹ Energy Efficiency Program Plan (EEPP) for 2012, Settlement of the Parties, November 1, 2011, Docket 4295, page 2

² See 2012 EEPP Settlement of the Parties, Docket No. 4295

³ Actual spending in 2012

⁴ See 2012 EEPP Settlement of the Parties, Docket No. 4295

⁵ Id., at p. 1

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

⁷ Total expenditures excluding expenses from committed applications (electric programs only) as of December 2012

⁸ Includes 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.

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. The Residential New Construction program created a new gateway for participation through its renovation/rehabilitation pilot. The EnergyWise program used Heat Loans to help many more customers afford to participate, the Energy Star Lighting program provided new fact sheets to help increase customer knowledge and awareness of lighting options, and the Energy Star Products program made participation fun through the “Oldest Refrigerator in Rhode Island” contest.

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 2012, the Company worked diligently on its Strategic Energy Management Plan (SEMP) to help develop long-term relationships with its large customers and, thus, align with their typical way of doing business. Additionally, the residential HVAC program continued on its path to become more streamlined by extending the responsibilities of its electric lead vendor, Conservation Services Group (CSG), to encompass the gas program operations.

The third strategy was innovation. The Company’s residential pilots provided the foundation for innovation by testing new methods and products like behavioral initiatives, communicating, Wi-Fi thermostats, and boiler load controls. Additionally, products that were tested in pilots in 2011, such as ECM pump motors and Wi-Fi thermostats, were fully integrated into the programs for 2012. In addition, the System Reliability Procurement (SRP) initiative began piloting ways in which 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 2013 System Reliability Report, approved in Docket 4367.

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 EnergyWise program implemented a new model, in which a network of independent contractors completed all single family weatherization jobs. Additionally, during 2012, a collaborative partnership between the State of Rhode Island and a new Single Family Income Eligible lead vendor defined the role for another Rhode Island industry partner.

Another goal of the 2012 Plan was to achieve electric and gas savings targets established in the 2012 EE Program Plan, which were consistent with the goals established for 2012 in the Three-Year Plan. The 2012 electric savings target was 128,570 MWh. At year’s end, the Company achieved 119,666 MWh energy savings, which represents 93% of that goal. The Company also established a benchmark of 23,930 annual kW savings, and at year’s end it had achieved 19,947 kW.

The 2012 gas savings target was 231,548 annual MMBtu. At year’s end, the Company achieved 229,811 annual MMBtu, which represents 99% 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.

The following sections outline the highlights for the different programs and initiatives that comprise the 2012 Rhode Island Energy Efficiency Portfolio. Many activities undertaken in 2012 laid the foundation for inclusion in the 2013 Energy Efficiency Program Plan (EEPP), approved by the

Commission in Docket 4366. Some of these activities are highlighted below as well, even though they are expected to yield results in 2013.

Residential Programs

Overview

In 2012, the residential sector was cost-effective with total resource benefit cost ratios of 2.12 for electric programs and 2.23 for gas programs. The Company spent approximately 83% of the electric residential implementation budget, achieved 104% of electric targeted annual energy savings, and achieved 78% of electric targeted annual demand savings. The Company spent approximately 111% of the gas residential implementation budget and achieved 93% of gas targeted annual energy savings. While many of the gas and electric programs experienced a slow start, overall progress improved throughout the year. 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 (RNC) program promotes the construction of high-performing, energy efficient, single and multi-family homes, as well as the education of builders, trades people, designers, and code officials. The program continuously advances caliber of building performance throughout the state, envisioning a housing market saturated with high-performing, zero-energy homes. Furthermore, the program is committed to reaching new builders and completing an increased number new construction projects across Rhode Island.

The program is fuel-neutral and provides participating builders with technical and marketing assistance. It is also structured in tiers to maximize participation while still offering incentives that allow for increased energy efficiency.

Overview of Performance

Rhode Island RNC program had a very successful year in 2012. In spite of fairly flat construction starts, the program met its participation target, and both 2012 pilots, “Reno/Rehab” (renovation and rehabilitation) and lighting, were well-received by customers, and helped to inform future program direction.

The participation benchmarks for Tiers I and II were exceeded and six projects qualified for Tier III, the highest tier of performance. Fewer 2012 units in the simpler Code Plus component of the program resulted in more units participating in higher Tiers, particularly Tier II, which delivers greater savings to both the



program and Rhode Island customers. Overall, the program reached more builders, architects, and developers than in past years, which led to increased participation in the program.

Highlights



The RNC program delivered several training sessions and presentations in 2012, addressing various topics and audiences. Examples include presentations to the Rhode Island Housing staff, advanced building training for builders, architects, and HVAC contractors, lunch and learn meetings with housing developers, code training for approximately 40 building officials, and full day training for vocational school students on ENERGY STAR® Homes Version 3.

The program was also represented at Journal of Light Construction (JLC) Live, the Rhode Island Home Show, the Rhode Island Builders Association's "Help the Heroes" golf tournament, and at the second Annual Home Show and Education Fair hosted by the Rhode Island Building Officials Association. These events provided great opportunities for National Grid to both network amongst industry participants, and to cross-promote other residential energy efficiency offerings and services.

Reno/Rehab Initiative: This effort proved to be a great point of entry into the larger program with initial engagement and subsequent discussions, and in some cases, influencing decisions to turn Reno/Rehab projects into full gut rehabilitations. Getting to the decision-makers early in the process ensured that whichever option was chosen, the program requirements were seamlessly incorporated into the specifications. The meetings facilitated by National Grid with vendors and affordable housing project teams were helpful in growing participation.

Furthermore, many new builders participated in the program directly because of the extensive outreach efforts of the Reno/Rehab initiative. Overall, almost 500 units were touched and about 100 of these became full gut rehabilitations that were served by the program, with the remaining units being directed either to the EnergyWise or Commercial & Industrial (C&I) Retrofit programs or the Deep Energy Retrofit pilot.



One example of the many success stories from the Reno/Rehab initiative is the Phoenix Medina project. Initial outreach suggested that Code Plus might be the best option, but Reno/Rehab was then considered and having weighed all the options, the owners decided to gut the buildings. Two buildings were served by the Deep Energy Retrofit pilot and 83 units enrolled in the Rhode Island RNC Program. The 12 units completed in 2012 scored HERS 49-57 and qualified for Tier II incentives.

Noteworthy Program Projects

After seven years of trying to bring Green Hill Builders into the program, Code Plus finally motivated this company to enroll 50-60 units, some of which may achieve Tier I. These projects will allow the builder to gradually improve building practices and achieve higher tiers in the future.

The Program is also working with two projects that are incorporating monolithic structural slabs. This strategy will help decrease overall construction costs and make ENERGY STAR® Version 3 simpler to attain.

High Efficiency HVAC (electric & gas)

The High Efficiency HVAC program (heating and cooling) demonstrates to customers and contractors the benefits of high-efficiency heating, water heating, cooling, and system controls. In addition, it facilitates the purchase of efficient equipment by offering rebates to offset the premium equipment's higher cost. The program offers an array of rebates ranging from ductless mini-splits to Wi-Fi thermostats to boiler reset controls. Many of these rebates are tiered in order to promote the most efficient heating and cooling equipment while also maximizing participation. Furthermore, the program provides installation services and quality control inspections, ensuring that all equipment is properly sized, installed, sealed and performing optimally. All rebates and services are provided with the goal of providing a seamless customer experience that seeks direct energy efficiency improvements.

Overview of Performance

In 2012, the program faced challenging gas and electric energy savings goals and participation targets. Although the program was not able to meet its electric or gas savings goals for the year, it performed very well in the latter half of the year as its newly-introduced measures and strategies began in the course of the year to help move the market and amass participation.

Highlights

Several new measures were introduced to the program in 2012, including the heat pump water heater and the Wi-Fi thermostat. The heat pump water heater, with high energy savings and a \$1000 rebate, was very popular with contractors and Rhode Island customers. It was so popular, that for a period of time in the fall, units were on backorder from retail stores. Wi-Fi thermostats also did well, and will be heavily promoted in 2013. The Company remains committed to moving the market toward the most efficient HVAC equipment, including heat pump water heaters, mini-split heat pumps, and condensing gas boilers.

Another area of success in 2012 was the introduction of strategies, led by the Early Boiler Replacement (EBR) and the programmable thermostat buy-down, to spur program performance. The EBR rebate, a generous incentive for gas customers replacing their old, working gas boiler with a new, highly efficient model, generated significant participation in the program. The thermostat buy-down, which included retail discounts at stores, such as Benny's and Building 19,



and websites like EFI e-commerce, was also extremely successful and represented a significant portion of the program's total energy savings in 2012. The Company will continue to employ this buy-down model in 2013 for the Wi-Fi thermostat.



The electric component of the program continued to execute Quality Installation Verification (QIV) classes across the state, explaining to HVAC contractors the importance and benefits of the right-sizing and down-sizing of HVAC equipment. This effort is paying dividends, as the program saw an increase of 32% in duct sealing production levels. These types of trainings will also be offered around gas measures beginning in 2013.

Finally, in the latter months of the year, the Company selected a new vendor, Conservation Services Group (CSG), to implement the gas component of the program. CSG, already the manager of the electric component of the program, will oversee the entire program and will be responsible for all HVAC-related trainings and contractor outreach in 2013. This is an excellent opportunity for the Company to offer a single, comprehensive experience to its Rhode Island customers, and a renewed focus on building contractor engagement and confidence.

EnergyWise

The EnergyWise program offers customers free home energy assessments of their homes and information on their actual electric usage. Participants in this program receive financial incentives to replace inefficient lighting fixtures, appliances, thermostats, and insulation levels with models that are more energy efficient. The program addresses baseload electric use as well as electric heat in all residential buildings. It also identifies additional energy saving measures in weatherization and heating system replacements.

Overview of Performance

The EnergyWise program had a successful year meeting and exceeding its 2012 electric and gas savings goals, respectively, despite a significant increase from goals in 2011. 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

2012 was a highly successful year for the EnergyWise program highlighted by program innovation and new product offerings. The program increased electric savings within the home energy assessment by installing advanced power strips in applicable installations. To showcase the transformation in the lighting market, one or two LED lamps were introduced into some households so that customers could learn and familiarize themselves with the new technology.

The year began with a new implementation model that required all weatherization on single family homes to be completed by a qualified network of independent contractors. This new process was well-received and the year ended with approximately twenty contractors working within the network. Toward the end of the year, the Company also established a home performance contractor network. Through a Request for Proposal (RFP) process, the Company recruited contractors who would provide both home energy assessments and weatherization services to provide the customer with a comprehensive experience. This effort will continue in 2013.

2012 was also the first full year of service for the Company's Heat Loan and it also was a major success. The Heat Loan provided zero-interest, energy efficiency financing to 548 residential customers. Over \$3.3 million was loaned out, enabling projects that spanned from heating systems, water heaters, and weatherization to move forward. Toward the end of the year, loans for customers with lower credit scores were introduced by the Capital Good Fund. This new collaboration provided financing to customers that may not have qualified for traditional loans.

Another exciting program enhancement was the GetHouseFit campaign. Marketing materials, education packets, and two auditor vehicles were labeled with the GetHouseFit message to encourage customers to make their house more energy efficient, or "fit" by requesting home energy assessments.



Customers were encouraged to take this step by the traditional phone method but also through a new, online request tool. Other program enhancements included weatherization services extended to tenants in rental properties, and the development of home energy assessment and Heat Loan videos to educate customers about the processes. The videos were posted on the Company's website.

Multifamily services greatly improved in 2012, successfully serving over 2000 units (both market rate and income eligible). By the third quarter, multifamily customers were benefitting from efforts to better coordinate services and offerings available through EnergyWise as well as other programs – most notably C&I Gas, the Reno/Rehab pilot of Residential New Construction, and High Efficiency Heating rebates. With coordinated meetings, including the integral involvement of Rhode Island Housing at many, customers were better able get a comprehensive view of all energy efficiency offers available to them. Owners of multifamily buildings were able to take advantage of new measures, including advanced smart strips and GU 24 pin-based LEDs for interior and exterior lighting.

ENERGY STAR® Lighting

The ENERGY STAR® Lighting 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 purchase discounted lighting equipment through catalogs and store buy-

downs, making it affordable for them to have advanced and efficient lighting technologies in their homes.

Overview of performance

The 2012 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 2012, National Grid promoted the light bulb finder application for smart phones which was awarded "Top 100 New Home Products for 2012" by This Old House. The application was featured in the November issue of This Old House and online at www.thisoldhouse.com. Light bulb finder allows consumers to easily view and select efficient lighting options to replace their traditional bulbs.

Videos and point-of-purchase information were used throughout the year to communicate changes in the lighting market. Instead of purchasing lighting based on the wattage, customers were being asked to purchase based on light output, or brightness, which is measured in lumens. Lighting color also became a factor for customers to consider in their purchase. The Company's tools and materials helped to increase knowledge and awareness around available lighting options. All these changes will continually be communicated to assist customers in selecting ideal lighting.

The Company also supported breast cancer research by sponsoring the Gloria Gemma Foundation and the Flames of Hope weekend. Additionally, special pink-based compact fluorescent bulbs were sold in retail stores with proceeds going to the Gloria Gemma Foundation.

In 2012, the Company also began a school fundraiser program promoting compact fluorescent lighting and advanced power strips. Each participating school receives an overview of the program and tips on how to improve energy efficiency at homes. All proceeds of the sale go directly back to the school.



ENERGY STAR® Appliances

The ENERGY STAR® Appliances program is also 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® Products program also had a very successful year highlighted by the “Oldest Fridge in RI” contest which promoted refrigerator recycling to customers in a fun and tangible manner. The program exceeded the planned goal while serving over 25,000 customers.

Highlights

The “Oldest Fridge in RI” competition was an effort conducted by the Company to promote refrigerator recycling. Customers turned in their old refrigerators and recorded the year they were made to see who had the oldest on in the state. The contest ended in a tie with two refrigerators turned in that were from 1939. During the contest period, more than 3,400 appliances were picked



up and recycled. Almost 7,000 units were recycled during the program year.

ENERGY STAR Appliances has the second largest number of residential participants after ENERGY STAR Lighting. The popularity of the program can be attributed to meeting consumer demand for electronics and household goods.

Income Eligible Programs

Overview

In 2012, the low income DSM sector was cost-effective with total resource benefit cost ratios of 2.09 for electric programs and 1.78 for gas programs. The Company spent approximately 63% of the electric low income implementation budget, achieved 86% of electric targeted annual energy savings, and achieved 74% of electric targeted annual demand savings. The Company spent approximately 62% of the gas low income implementation budget and achieved 72% 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 program was delivered by the State Energy Office and local Community Action agencies. It provided the same services as the EnergyWise program, described below, but no customer contribution is required for equipment installation.

Overview of Performance

Performance in 2012 marks a year of steady progress in Income Eligible Services. Energy savings and participation achievements were higher in 2012 compared with the past two years – a remarkable achievement considering higher program goals and some lingering effects of a major challenge from late 2011. In particular, achievement in the Providence territory demonstrated the success of collaboration in the face of challenges.

Highlights

Despite some lingering effects from a federal investigation of Providence Community Action Program (ProCAP) in late 2011, the energy savings goals in 2012 for the Providence territory were met by the end of the year. Neighboring Comprehensive Community Action Program (CCAP) graciously provided support by delivering services in Providence during the first half of the year in addition to responsibilities in their own territory. Green & Healthy Homes Initiative also worked closely with ProCAP to deliver services in the Olneyville and Valley neighborhoods. Making tremendous strides, ProCAP has fully re-staffed and trained new energy auditors to implement the program, and is at full capacity to continue work moving forward.

In 2012, National Grid initiated a Request for Information (RFI) followed by a Request for Proposals (RFP) for a new lead vendor for this program. The result of careful consideration was a new approach to program management that shifts away from a sole, lead vendor, to a collaborative relationship between an Industry Partner and the State of Rhode Island. Services will continue to be delivered through the CAPs and everyone is looking forward to the benefits this model will bring to customers, CAPs, and program implementation partners in 2013.

In light of production challenges in Providence, the most densely populated territory, a transfer of funds from Low Income Gas to C&I Gas was made with approval by the Division and EERMC. The amount totaling \$300,000 was used to serve low income multifamily buildings, several affiliated with Rhode Island Housing. This transfer contributed to the underspending relative to budget.

The program implemented new measures in 2012 including weatherization for mobile homes, heat pump hot water heaters, advanced power strips, and LED light bulbs, to expand the portfolio of offerings to this sector.

One customer's story serves as an example of the benefits available to all income eligible customers as well as the devotion and hard work of the CAPs. Tri-Town Community Action weatherization staff went above and beyond to serve a customer, who happened to be a Navy veteran, when he called with an emergency heating issue. Not only did the weatherization representatives restore heat to his home by providing a new furnace and insulation, but they also believed he might benefit from Tri-Town's other programs. As a result, they referred him to their Elder Care Management Department. National Grid applauds the efforts of Tri-Town and all the CAPs who provide the same benefits for Rhode Island residents.

Commercial & Industrial Programs

Overview

In 2012, the Commercial & Industrial (C&I) DSM sector was cost-effective with total resource benefit cost ratios of 2.32 for electric programs and 1.19 for gas programs. The Company spent approximately 88% of the electric C&I implementation budget, achieved 89% of electric targeted

annual energy savings, and achieved 85% of electric targeted annual demand savings. The Company spent approximately 89% of the gas C&I implementation budget and achieved 106% of gas targeted annual energy savings. Strong gas program performance was driven by both a number of large projects as well as the growing gas small business program, while electric energy savings appear to have been influenced by continuing economic conditions, as described in the next section.⁹ 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

The slow economic recovery environment in Rhode Island that continued in 2012 was a challenge for the Company’s C&I energy efficiency programs especially in the new construction area. Despite these difficult circumstances the Company made impressive progress towards its 2012 electric savings goals and much of it is attributed to the Bright Opportunities initiative, highlighted in a section below.

Highlights

All savings achieved in this program, both electric and gas, were achieved in a very cost effective manner. The Company had several great projects this year. For example, gas savings at the Boston Scientific Corp in Coventry accounted for 23% of our new construction goals (approximately 92,500 therms).

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 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 2012. More than 50% of the New Construction Program's goal, or 15,300 MWh, was achieved through this path.

In 2012, the Company completed the Rhode Island commercial buildings code compliance baseline study. This study was used as reference to develop a strategy for the Company's code compliance support initiative to the State of Rhode Island for 2013. The Company also developed a long-term strategy and key implementation components of the codes and standards initiatives along with a methodology to claim savings as a result of this effort. Details of this strategy can be found in the 2013 Energy Efficiency Plan.

With NSTAR in Massachusetts, the Company continued to test the Advanced Energy Office (AEO) Initiative (also known as Office-of-the-Future or "OTF") based on the guidelines developed by the AEO Consortium. There were some challenges in identifying tenant improvements sites that could be used as pilot spaces. The Company worked with two tenant spaces (both in Massachusetts) and created the design and savings package for these customers, and also collected incremental cost data. In 2013, with the addition of at least four more test spaces, the Company will gather enough data on energy and cost savings for office tenant improvement spaces, and this will help establish an offering specific to this market sector, both in Rhode Island and Massachusetts.

In the fourth quarter of 2012, the Company reached out to new construction trade allies and conducted focus group discussions. The main purpose of this feedback is to understand the current needs of the new construction market and to align our new construction program offerings to fit those needs. The Company continued these focus group discussions in the first quarter of 2013 and will make recommendations to modify the new construction offering.

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 countermeasures that drove the success in both the gas and electric areas of this program in 2012.

Highlights

Lighting continues to be strong source of cost effective savings. Indoor and outdoor applications of LEDs in 2012 continued their upward pattern. Examples of lighting and other projects are as follows:

- Biltmore Hotel, Providence saved approximately 1.6 Million kWh savings through a combination of lighting and Variable Speed Drive (VSD) retrofit.

- Aspen Aerogels gas retrofit accounting for 26% savings of our Retrofit goal (197,049 Therms).
- The company assisted the Providence Place Mall install the newest energy efficient lighting equipment that benefits the Mall, shoppers and everyone using the Mall parking garage. The Parking garage was retrofitted with 2,000 of the latest LED fixtures (replacing fluorescent fixtures), saving the Mall's owners more than \$165,000 in annual electric bills, with two million kWh savings. Company provided \$400,000 incentives to offset the cost of upgrade.

In 2012, the Company pursued different strategies in pursuing energy efficiency for the following market sectors:

- Manufacturing: The Company launched an initiative targeted at the largest manufacturing customers in Rhode Island. This initiative offered two levels of scoping studies. Six customers have participated in the two levels of scoping study offered through this initiative. The Company also spent the latter half of 2012 developing a pilot initiative with a dedicated vendor to serve the industrial customers in 2013.
- SEMP: The Company signed Memorandum of Understanding (MOU) with two Rhode Island universities in 2012, to pursue multiyear strategic energy management plans. Many energy efficiency projects were identified in 2012 for Brown University through this partnership. The Company had a kick-off meeting with University of Rhode Island (the second SEMP customer) in the first quarter of 2013.
- Grocery stores: The third party implemented EnergySmart Grocer (ESG) Initiative was launched in the second quarter of 2012. The implementation team spent a major portion of 2012 building connections with the RI grocery customers and conducting site surveys thus creating a robust pipeline of projects for 2013.
- Municipal Buildings: This pilot was launched in the latter half of 2012 and offered enhanced and fixed electric and gas incentives, with dedicated technical resources and project expeditors (PEX). Along with Office of Energy Resources (OER), the Company conducted a kick-off meeting with municipal officials. This pilot rolled into a program offering beginning 2013.
- Multifamily Buildings: In 2012, there were several planning meetings conducted internally and with stakeholders enabling the Company to offer a stand alone multifamily initiative in 2013, integrating residential and commercial multifamily spaces, with consistent offering between residential and commercial spaces, incorporating electric and gas measures.
- Datacenters: The Company conducted some exploratory projects with one vendor and developed new assessment tools and new ways to capture the interest of key customer decision makers. In addition, sites were identified to install wireless data loggers with the intention of creating a robust pipeline of projects in 2013.

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 or annual energy usage of less than 483,000 kWh are eligible 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

2012 was another great year for the Small Business Direct Install (SB/DI) program. It exceeded its savings aggressive goals with lower than expected implementation expenses. This is an indicator of the Company's productive and cost-effective relationship with RISE Engineering Inc., its third-party vendor. In addition, the program was able to serve hundreds more customers than was originally planned.

Highlights

In 2012, this program served a wide variety of customer types with many exciting projects. Successful projects were completed at restaurants, car dealerships, bakeries 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 we helped our customers complete in 2012.

- **Jan Companies:** National Grid worked with the Jan Companies of Cranston and upgraded their nineteen (19) Burger King locations statewide with exterior LED parking lot fixtures. The combined estimated savings of these 19 locations is over 500,000 kWh.
- **Chelo's Restaurants:** Chelo's is a family-owned chain of restaurants in RI. National Grid was able to reduce electric and gas consumption at each of their nine (9) locations. We were able to install pre-rinse spray valves, and replace their incandescent lighting with screw-in LED bulbs. The annual estimated savings for the lighting upgrade is over 280,000 kWh.
- **Westerly Toyota:** Westerly was one of the hardest hit areas of Rhode Island from SuperStorm Sandy. National Grid worked quickly with Valenti Toyota of Westerly in the 4th quarter to upgrade exterior lighting at their facility. The upgrade at this site will save upwards of 500,000 kWh annually.

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>

The "Main Streets" approach, which is detailed on page 90 of the 2012 EEPP, was a big hit among all businesses in 2012 including those in economically disadvantaged areas of Pawtucket, Providence, Woonsocket, West Warwick and Cranston. Savings achieved through this initiative helped these businesses reduce costs and improve customer and employee comfort in an economy that continues to struggle.

Pilots and Other Initiatives

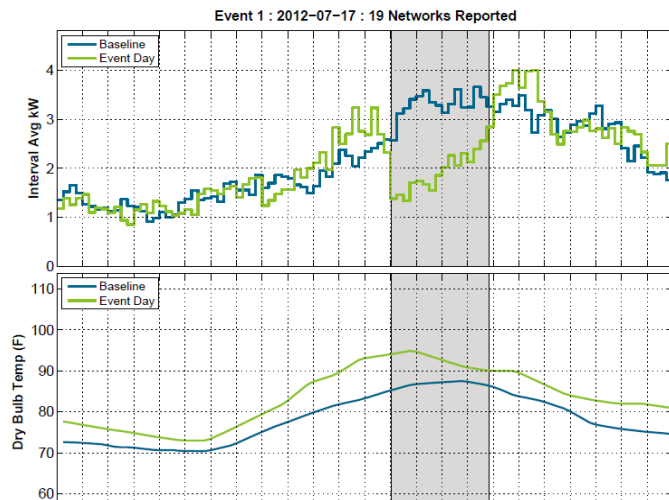
Residential Behavior Pilot

The Residential Behavior pilot was designed to determine the level of savings achievable through the integration of behavioral messaging and the installation of communicating mobile devices such as thermostats, in home displays (IHDs) and smart outlets. The pilot also aimed to determine the extent to which demand response events could be successful by communicating with the thermostats installed.

Launched in April, the Company recruited ninety participants. These participants had the ability to view their electric usage in real time through an IHD or internet portal with its associated estimated cost. They could also control their HVAC systems remotely by using mobile devices for communication. The Company was able to gather data on the frequency with which participants connected to the web portal to view their electrical usage as well as test the reliability and communication quality of the different technical devices.

Demand response events were also conducted in which actual data was collected on reductions in air conditioning load and patterns in customers opting out were observed.

The load reductions were measured at each individual household. Different deployment strategies and event structures were used during the events to ascertain the most effective methods.



Residential Products Pilot

Three, new pilots began in 2012: the Boiler Load Control pilot, The Home Energy Monitoring pilot and the Automatic Temperature pilot.



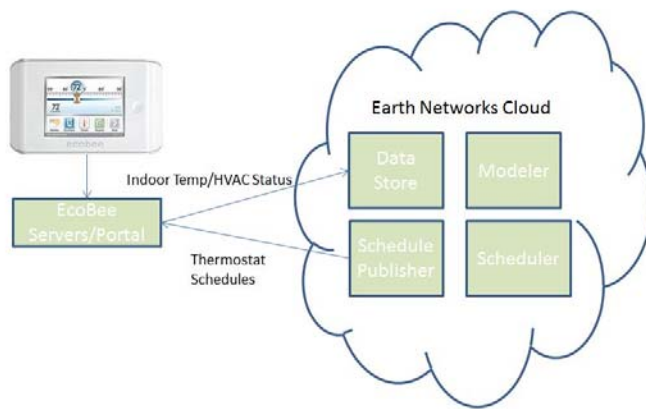
The Boiler Load Control pilot completed site installations and evaluations throughout the year. The boiler controls performed flawlessly in the field and showed that significant energy savings can be achieved.

The other two pilots both involved thermostats but had distinct strategies and goals associated with each. The Home Energy Monitoring pilot used a thermostat to control the HVAC system and serve as the communication device for an existing electric meter to present usage and cost information on a web portal or thermostat user interface. This enabled the participant to have a more in-depth knowledge of their energy consumption.



The Automatic Temperature pilot tested the savings potential of controlling temperatures based on projected weather conditions and allowing the units to be controlled during demand response

events. The units were also used to try to create a profile of each home's thermal envelope and thereby identify homes that needed additional air sealing or insulation. The units used advanced forecast modeling and profiling in addition to the standard communicating thermostat control parameters. This technology will also be tested to determine if customers are more comfortable during demand response events than traditional thermostat control technology.



Regional Greenhouse Gas Initiative Pilots

The Deep Energy Retrofit pilot is designed to determine the energy savings and market potential for super insulation retrofits in Rhode Island. In 2011, the pilot held a full-day workshop and also recruited single-family and multi-family owners, builders, developers and architects in the program. Two projects began in 2011. They include a two-family residence in North Kingstown and a three-family residence in Providence. Construction was completed in 2012. Two more projects are under review for a three-family in Providence and a single-family in Wakefield. Additional information is included in the 2012 RGGI Report, Attachment 5.



Residential Energy Efficiency Education Programs

National Grid has again supported the energy education curriculum and teacher professional development in partnership with the National Energy Education Development (NEED) Project. Rhode Island teachers have the opportunity to attend full-day workshops that focus on the science of energy, energy efficiency, and the generation of electricity. The workshops, hosted for up to 30 teachers, allow K-12 educators to improve and enhance their science and energy skills while helping students understand energy and ways to more efficient at home and at school. In 2012, 50 Rhode Island educators participated in 2 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.

Community-based Initiatives

In 2011 a Request for Information (“RFI”) was released to town planning departments and community-based organizations for participation in the Community-based Initiatives pilot. The goal of this pilot was to test the effectiveness of a locally focused, grassroots approach to promoting the residential and small business energy efficiency programs. The two participating organizations, People’s Power and Light and URI represented the towns of Cranston, East Providence, Warwick and South Kingstown in their outreach efforts and concluded all promotional activities on March 31, 2012.

Both organizations successfully engaged local politicians to promote energy efficiency, achieved local television and newspaper coverage, and hosted events ranging from farmers markets to Chamber of Commerce events, mall events, and high school football games. Students from URI and Brown University also canvassed neighborhoods promoting EnergyWise. Both community organizations found it more difficult to approach and sell to the commercial and industrial sector.

Lessons learned from the pilot included a conclusion that it was easier to achieve program targets with the lighting program and refrigerator recycling than with EnergyWise and residential weatherization. The feedback from the two participating organizations will be considered in redesigning community-based initiatives in the future.

Jobs Impacts

National Grid hired the New England Clean Energy Council (NECEC) Institute to conduct a study of the job impacts from National Grid’s energy efficiency programs in 2012. The study quantifies the number of workers or full time equivalent (FTE) employees in all aspects of energy efficiency in 2012, from independent contractors and plumbers to rebate processors and engineers. WAP/LIHEAP FTEs are mostly employed by the CAP agencies that deliver low income efficiency services. The study illustrates some of the economic impacts that energy efficiency has contributed to the state, including the businesses that participate in the programs. The study includes a list of approximately 500 businesses participating in energy efficiency. Approximately 70% of those businesses are located in Rhode Island. The following table illustrates the study’s findings:

2012 EE PROGRAMS	Total FTEs
Electric Programs	
Commercial and Industrial	185.48
Residential Low-Income	20.51
Residential Non-Low Income	98.35
Gas Programs	
Commercial and Industrial	65.38
Residential Low-Income	14.97
Residential Non-Low Income	85.42
National Grid EE Staffing	35.50
WAP/LIHEAP Low Income Programs	23.10
Total all 2012 Rhode Island FTEs	528.71

The study's findings were determined through interviews with certain vendors and a detailed review of all energy efficiency measures installed in homes, apartment buildings, businesses and industries throughout the state in 2012. NECEC Institute calculated the direct labor hours for each installation based on industry standards and discussions with contractor experts.

One FTE equals 1,575 work hours, or the total of one person working 7.5 hours a day for the 210 work days in an average year. This means that the number of actual workers spending at least some of their time on Rhode Island energy efficiency programs is far greater than the 528 FTEs identified.

The study will benefit those who work in workforce development, training or those interested in the state's green jobs. The study is included as Attachment 4.

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 EE programs

In 2012, the Company launched its first SRP project in the form of a pilot in Little Compton and parts of Tiverton. 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 a specific substation by the end of 2017, thereby deferring the need to build a new substation by four years.

This pilot was approved by the Commission on February 29, 2012 and implemented throughout the remainder of the year. The Company collaborated with its statewide EnergyWise and Small Business Direct Install programs in the promotion and delivery of this pilot. By the end of the 2012, 31 Wi-Fi programmable controllable thermostats were installed in 26 residential homes. Additional SRP details on 2012 activities and 2013 plans can be found in the Company's 2013 System Reliability Procurement Report filed in Docket 4367 and approved by the Commission on December 18, 2012.

Financing

The Company offers a variety of finance options to all customers.

In 2012, the Company offered approximately \$2.8 million in on-bill financing to 84 Large Commercial customers. Together, they saved more than 9,600 Annual MWh. The Providence School Department was able to complete lighting retrofits at 14 buildings, saving more than 1,600 Annual MWh.

The Company continued capitalizing the sustainable loan fund for large C&I customers that began in 2011. The Company received \$1.7 million in RGGI funds in January 2012 specifically for large customer finance with on-bill repayment. More information is included in the 2012 RGGI Auction Proceeds Report, included as Attachment 5. The RGGI funds were part of the revolving loan fund and lent to 64 of the 84 customers who will save 6,440 MWh annually. In December 2012, the Company added \$1 million from the 2012 Plan that was intended for Outside Finance. These funds will be lent to customers in 2013 along with revolving finance funds that were not committed to customers.

The Company has always offered financing to Small Business Customers to cover their portion of the costs of completing an energy efficiency project. These customers have historically been able to pay back their financing through on-bill repayment. In previous years, the Small Business program funded the on-bill repayment using copayments from the DSM fund. In 2011, the Company successfully created a revolving loan fund for small business customers using \$1.8 million of RGGI proceeds; this is in place of the copayments from the DSM fund. In 2012, the Company received \$2.3 million from RGGI funds and included that in the revolving loan fund. Those funds were lent to customers in 2012. The revolving loan fund continues to receive payments from customers as they began their two-year terms. The revolving loan fund reached a point that additional funds were not requested in the 2013 Plan to offer small business customers on-bill copayments. At year end, the fund had \$2.8 million revolving through it which will be lent to customers in 2013. Moving from the old system of copayments to this revolving loan fund has been successful and helped incrementally lower the EE Customer Charge in 2013.

1,707 customers participated in the Small Business Direct Install program, the majority receiving finance totaling more than \$2.3 million. Overall, the program was able to save 19,008 MWh.

The Company continued offering a 0% interest Heat Loan to residential customers to finance their portion of residential energy efficiency projects. The interest buy-down program was initially funded by RGGI funds in 2011. The RGGI funds were completed in 2012 and the Heat Loan continued using EE funds within the EnergyWise program.

There are currently two lenders participating in the program, Navigant Credit Union and Citizens-Union Savings Bank. The Heat Loan can be used for Insulation and/or Air Sealing Upgrades, Energy Efficient Heating System Replacement, Duct Sealing and Duct Insulation, Energy Efficient Domestic

Hot Water System, ENERGY STAR® Thermostat(s). Customers are eligible to receive 0% interest loans up to \$25,000, for period of up to 7 years.

Five hundred forty-eight customers received Heat Loans in 2012, valued at approximately \$3.3 million. They are promoted during the EnergyWise home assessment, as well as on the Company's website, where customer-friendly guidance and program FAQs also exist to keep customers well informed. More information about the Small Business Revolving Loan Fund and the Heat Loan are available in Attachment 5.

Rhode Island Comprehensive Marketing

In 2012, the Rhode Island Comprehensive Marketing program achieved its goal of increasing awareness of the availability of Energy Efficiency program offerings in Rhode Island. This determination is based on market research testing conducted pre, mid and post campaign.

2012 was the second year that awareness was measured and a statewide campaign was implemented conveying a general message regarding the EE programs to the customers. The use of mass media such as radio, and more tactical media such as outdoor and digital, served as conduits for leading customers to the Rhode Island EE page on the Company's website.

This program amplified the efforts of the individual program communication strategies in the market. The Rhode Island comprehensive media plan reached 88% of our target 5 times on average. The use of seasonal messages provided tactical support for the program communications in the market. Front-loading and consolidating the media activity provided greater support for the individual program messaging helping to generate participation and savings within the calendar year.

Shareholder Incentive

The Company's Shareholder Incentive earnings are determined by its performance against the established annual savings goals documented in the 2012 EEPP. The Company has earned a total of \$3,055,447 for the successful implementation of its energy efficiency programs in 2012.

The Shareholder Incentive is earned by sector. An incentive is earned if savings in a sector fall between 60% 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. A cost efficiency feature of the incentive design can adjust the calculated incentive under certain conditions, for example if a sector achieves more than 100% of its savings while spending less than 95% of its budget¹⁰. All sectors earned an incentive for their 2012 performance. Two sectors (electric residential non-low income and gas commercial sectors) earned an enhanced incentive.

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

¹⁰ Full details on the incentive design are found in the 2011 EEPP, Settlement of the Parties, Docket No. 4209, pages 21 and 22.

Attachment 1

Electric Summary Tables of Year End Results

NATIONAL GRID ENERGY EFFICIENCY PROGRAMS IN RHODE ISLAND

Table E-1: Summary of 2012 Target and Year End Results

Sector and Program	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Demand Reduction (Annual kW)			Energy Savings (Annual MWh)			Customer Participation			Implementation Expenses (\$ 000)				
Commercial & Industrial	Target	Actual	Pct Achieved	Target	Actual	Pct Achieved	Approved Target	Actual	Pct Achieved	Budget	Actual	Pct Achieved	Lifetime MWh	\$/kWh
Large Commercial New Construction	8,011	5,236	65.4%	30,346	20,898	68.9%	2,365	1,410	59.6%	\$8,834.4	\$5,011.7	56.7%	237,013	\$0.021
Large Commercial Retrofit	5,708	5,606	98.2%	39,928	38,398	96.2%	365	529	144.9%	\$9,708.5	\$11,231.7	115.7%	467,010	\$0.024
Small Business Direct Install	3,982	4,246	106.6%	17,984	19,008	105.7%	1,443	1,707	118.3%	\$10,231.3	\$9,014.8	88.1%	209,164	\$0.043
Community Based Initiatives - C&I										\$200.0	\$43.6	21.8%		
Comprehensive Marketing - C&I										\$330.0	\$304.4	92.2%		
Outside Financing Costs										\$1,000.0	\$1,000.0	100.0%		
SUBTOTAL	17,701	15,087	85.2%	88,258	78,305	88.7%	4,173	3,646	87.4%	\$30,304.1	\$26,606.2	87.8%	913,188	\$0.029
Low Income Residential														
Single Family Low Income Services	482	355	73.6%	3,960	3,404	85.9%	2,501	2,654	106.1%	\$5,615.4	\$3,549.0	63.2%	33,773	\$0.105
SUBTOTAL	482	355	73.6%	3,960	3,404	85.9%	2,501	2,654	106.1%	\$5,615.4	\$3,549.0	63.2%	33,773	\$0.105
Non-Low Income Residential														
Residential New Construction	246	144	58.6%	812	671	82.6%	405	406	100.2%	\$1,036.0	\$1,259.0	121.5%	10,066	\$0.125
Electric HVAC	2,085	701	33.6%	1,964	895	45.5%	3,709	1,397	37.7%	\$2,477.0	\$1,868.0	75.4%	12,876	\$0.145
EnergyWise	798	730	91.5%	8,432	8,361	99.2%	13,017	12,871	98.9%	\$7,541.5	\$5,812.4	77.1%	86,933	\$0.067
ENERGY STAR® Lighting	2,110	2,364	112.0%	20,174	22,533	111.7%	160,000	153,879	96.2%	\$4,507.4	\$3,675.9	81.6%	187,771	\$0.020
ENERGY STAR® Appliances	507	566	111.4%	4,971	5,499	110.6%	19,080	26,498	138.9%	\$2,045.4	\$1,899.1	92.8%	43,719	\$0.043
Energy Efficiency Education Programs										\$75.0	\$75.3	100.5%		
Residential Behavior Pilot										\$230.8	\$216.2	93.7%		
Residential Products Pilot										\$314.7	\$157.2	50.0%		
Community Based Initiatives - Residential										\$156.6	\$127.6	81.5%		
Comprehensive Marketing - Residential										\$920.0	\$847.6	92.1%		
SUBTOTAL	5,747	4,504	78.4%	36,352	37,958	104.4%	196,211	195,051	99.4%	\$19,304.3	\$15,938.4	82.6%	341,365	\$0.047
System Reliability Procurement														
										\$221.0	\$61.8	27.9%		
SUBTOTAL										\$221.0	\$61.8	27.9%		
TOTAL	23,930	19,947	83.4%	128,570	119,666	93.1%	202,885	201,351	99.2%	\$55,444.8	\$46,155.4	83.2%	1,288,325	\$0.036

Notes

(1)(4) Approved Target from 2012 EEPP, Attachment 5, Table E-6

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

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

(7) Approved Target from 2012 EEPP, Attachment 5, Table E-7

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

(10) Approved Implementation Budget from 2012 EEPP, Attachment 5, Table E-5

For Large Commercial New Construction and Large Commercial Retrofit, the implementation budget excludes commitment budgets of \$1,000,000 and \$1,000,000, respectively.

(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)

NATIONAL GRID ELECTRIC ENERGY EFFICIENCY PROGRAMS IN RHODE ISLAND
Table E-2: Summary of Value, kW, and kWh by Program
2012 Program Year

	Value (000's)											kW Saved				MWh Saved		
	Total	Capacity					Energy					Non-Electric Benefits	Maximum Annual	Winter	Summer	Lifetime	Annual	Lifetime
		Generation		Trans	MDC	DRIPE	Winter		Summer		DRIPE							
Commercial & Industrial		Summer	Winter							On Peak		Off Peak	On Peak	Off Peak				
Large Commercial New Construction	\$26,419	\$2,454	\$0	\$1,336	\$5,613	\$465	\$6,295	\$3,321	\$3,784	\$1,619	\$1,633	(\$100)	5,074	3,542	5,236	58,047	20,898	237,013
Large Commercial Retrofit	\$39,670	\$3,097	\$0	\$1,532	\$6,439	\$744	\$13,323	\$6,028	\$7,486	\$2,863	\$3,124	(\$4,967)	5,606	4,885	5,606	69,546	38,398	467,010
Small Business Direct Install	\$20,522	\$1,946	\$0	\$1,015	\$4,265	\$458	\$7,200	\$1,540	\$4,287	\$759	\$1,510	(\$2,457)	4,246	2,448	4,246	45,884	19,008	209,164
SUBTOTAL	\$86,611	\$7,497	\$0	\$3,883	\$16,317	\$1,666	\$26,818	\$10,889	\$15,557	\$5,241	\$6,268	(\$7,525)	14,925	10,875	15,087	173,477	78,305	913,188
Low Income Residential																		
Single Family Low Income Services	\$7,875	\$173	\$0	\$81	\$341	\$26	\$596	\$733	\$342	\$363	\$203	\$5,017	355	806	355	3,699	3,404	33,773
SUBTOTAL	\$7,875	\$173	\$0	\$81	\$341	\$26	\$596	\$733	\$342	\$363	\$203	\$5,017	355	806	355	3,699	3,404	33,773
Non-Low Income Residential																		
Residential New Construction	\$4,062	\$202	\$0	\$61	\$254	\$18	\$178	\$218	\$105	\$109	\$46	\$2,871	144	126	144	2,909	671	10,066
Electric HVAC	\$3,153	\$351	\$0	\$182	\$766	\$61	\$341	\$160	\$220	\$97	\$71	\$903	701	969	701	8,278	895	12,876
EnergyWise	\$16,791	\$180	\$0	\$80	\$335	\$29	\$1,575	\$1,923	\$878	\$883	\$557	\$10,352	730	1,278	300	7,095	8,361	86,933
ENERGY STAR ® Lighting	\$17,093	\$608	\$0	\$427	\$1,792	\$125	\$3,313	\$4,123	\$1,928	\$2,022	\$1,312	\$1,446	2,364	4,727	2,364	19,021	22,533	187,771
ENERGY STAR ® Appliances	\$4,517	\$130	\$0	\$105	\$441	\$36	\$764	\$960	\$460	\$470	\$335	\$817	566	617	566	4,652	5,499	43,719
SUBTOTAL	\$45,617	\$1,471	\$0	\$854	\$3,588	\$268	\$6,171	\$7,384	\$3,591	\$3,581	\$2,320	\$16,389	4,504	7,717	4,074	41,955	37,958	341,365
TOTAL	\$140,104	\$9,141	\$0	\$4,819	\$20,246	\$1,960	\$33,584	\$19,006	\$19,490	\$9,185	\$8,792	\$13,881	19,785	19,399	19,517	219,131	119,666	1,288,325

NATIONAL GRID ELECTRIC ENERGY EFFICIENCY PROGRAMS IN RHODE ISLAND

**Table E-3: Summary of B/C Ratios, Value and Costs (\$000's)
2012 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	4.83	\$26,419.1	\$5,011.7	\$386.8	\$69.5	
Large Commercial Retrofit	2.22	\$39,670.1	\$11,231.7	\$6,287.8	\$319.6	
Small Business Direct Install	1.84	\$20,522.2	\$9,014.8	\$2,112.2	\$11.0	
Community Based Initiatives - C&I			\$43.6		\$0.0	
Comprehensive Marketing - C&I			\$304.4		\$0.0	
Outside Financing Costs			\$1,000.0			
EERMC - Large C&I			\$343.0			
SUBTOTAL	2.32	\$86,611.3	\$26,949.3	\$8,786.9	\$400.0	\$1,166.0
Low Income Residential						
Single Family Low Income Services	2.09	\$7,875.2	\$3,549.0	\$0.0	\$3.2	\$212.4
Non-Low Income Residential						
Residential New Construction	3.07	\$4,062.3	\$1,259.0	\$0.0	\$63.7	
Electric HVAC	1.47	\$3,152.9	\$1,868.0	\$281.4	\$1.4	
EnergyWise	1.98	\$16,791.2	\$5,812.4	\$2,568.8	\$93.8	
ENERGY STAR ® Lighting	3.76	\$17,093.3	\$3,675.9	\$779.1	\$86.1	
ENERGY STAR ® Appliances	2.09	\$4,517.5	\$1,899.1	\$257.9	\$7.8	
Energy Efficiency Education Programs			\$75.3		\$0.0	
Residential Behavior Pilot			\$216.2		\$12.1	
Residential Products Pilot			\$157.2		\$3.8	
Community Based Initiatives - Residential			\$127.6		\$2.5	
Comprehensive Marketing - Residential			\$847.6		\$0.0	
EERMC - Residential			\$289.0			
SUBTOTAL	2.12	\$45,617.2	\$16,227.4	\$3,887.2	\$271.2	\$1,091.1
TOTAL	2.24	\$140,103.7	\$46,725.7	\$12,674.0	\$674.5	\$2,469.4

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 2012 EE Incentive Calculation

Incentive Rate: 4.40%

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	\$5,615,389	\$247,077	3,960,083	\$ 3,552,220	63.3%	3,960,083	2,376,050
Non -Low Income Residential	\$19,837,721	\$872,860	36,352,102	\$ 16,209,690	81.7%	29,703,831	17,822,298
Commerical & Industrial	\$29,868,045	\$1,314,194	88,257,940	\$ 26,006,236	87.1%	88,257,940	52,954,764
Total	\$55,321,155	\$2,434,131	128,570,125	\$ 45,768,146		121,921,854	73,153,112

Sector	(5) Target Incentive Per kWh	(5a) Adj Target Incentive Per kWh	(6) Actual kWh	(7) % of Target Savings	(8) Savings Eligible for Incentive	(9) Total Earned Incentive	(10) % of Target Incentive Achieved
Low Income Residential	\$0.062	\$0.062	3,403,528	86%	3,403,528	\$ 212,353	86%
Non-Low Income Residential	\$0.024	\$0.029	37,958,128	128%	37,129,788	\$ 1,091,075	125%
Commerical & Industrial	\$0.015	\$0.015	78,304,501	89%	78,304,501	\$ 1,165,984	89%
Total			119,666,157		118,837,817	\$ 2,469,411	101%

Notes

- (1) Budget from 2012 EEPP. Includes Implementation and Evaluation Expenses; excludes EERMC Costs, Commitments and Copays and Outside Finance Costs.
- (2) Equal to the incentive rate (4.40%) x Column (1)
- (3) Approved savings goal from 2011 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.
- (3b) Column (3a)/ Column (1)
- (3c) Column (3) * (3b), only if 100% of Target Savings were achieved in Column (3)
- (4) 60% of Target kWh Savings
- (5) Column (2)/ Column (3)
- (5a) Column (2)/ Column (3c)
- (6) Year End Savings from Table E-1
- (7) Column (6)/ Column (3c)
- (8) If Column (7) is less than 60%, Column (8) = 0.
If Column (7) is between 60% and 125%, Column (8) = Column 6;
If Column (7) is greater than 125%, Column (8) = 125% of Column (3c) due to the incentive cap.
- (9) Column (8)*Column (5a)
- (10) Column (9) / Column (2)

Table E-5

NARRAGANSETT ELECTRIC COMPANY
2012 DEMAND - SIDE MANAGEMENT ADJUSTMENT AND BALANCE
12 month(s) of actuals 0 month(s) of estimates

Total C&LM Revenue/Expense for Jan-Dec 2012

	<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)	\$3,830,409	\$3,692,537	\$3,698,980	\$3,484,968	\$3,664,458	\$4,059,656	\$22,431,009
2. TOTAL EXPENSE (B)	(\$884,208)	\$3,083,928	\$2,824,208	\$72,348	\$4,704,853	\$2,322,842	\$12,123,971
3. Cash Flow Over/(Under)	\$4,714,617	\$608,609	\$874,772	\$3,412,619	(\$1,040,394)	\$1,736,814	\$10,307,038
4. Start of Period Balance (C)	\$14,670,934	\$19,432,698	\$20,097,345	\$21,031,203	\$24,510,224	\$23,540,553	\$14,670,934
5. End of Period Balance Before Interest	\$19,385,551	\$20,041,307	\$20,972,117	\$24,443,822	\$23,469,830	\$25,277,367	\$24,977,972
6. TOTAL INTEREST (D)	\$47,147	\$56,038	\$59,085	\$66,402	\$70,723	\$72,553	\$371,948
7. End of Period Balance After Interest	\$19,432,698	\$20,097,345	\$21,031,203	\$24,510,224	\$23,540,553	\$25,349,920	\$25,349,920
	<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)	\$4,869,065	\$4,940,935	\$3,687,626	\$3,702,527	\$3,661,940	\$3,723,637	\$47,016,738
Program Expense	\$2,619,978	\$3,141,079	\$3,693,980	\$5,129,727	\$4,564,832	\$15,181,349	\$46,445,502
ISO FCM Expense	\$1,323	\$404	(\$964)	\$203	\$542	\$598	\$11,520
RGGI 60% Expense	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Expense	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9. TOTAL EXPENSE (B)	\$2,621,301	\$3,141,483	\$3,693,015	\$5,129,930	\$4,565,375	\$15,181,947	\$46,457,022
10. Cash Flow Over/(Under)	\$2,247,764	\$1,799,452	(\$5,389)	(\$1,427,404)	(\$903,435)	(\$11,458,310)	\$559,716
11. Start of Period Balance (C)	\$25,349,920	\$27,677,079	\$29,562,739	\$29,646,826	\$28,307,281	\$27,488,660	\$14,670,934
12. End of Period Balance Before Interest	\$27,597,685	\$29,476,531	\$29,557,350	\$28,219,422	\$27,403,846	\$16,030,350	\$15,230,651
13. TOTAL INTEREST (D)	\$79,394	\$86,208	\$89,476	\$87,859	\$84,814	\$66,432	\$866,131
14. End of Period Balance After Interest	\$27,677,079	\$29,562,739	\$29,646,826	\$28,307,281	\$27,488,660	\$16,096,782	\$16,096,782
15. Total Incentives (D)							\$2,469,412
15a. End of Period Balance (minus incentive) (E)							\$12,627,370
15b. Commitments(D)							\$849,575
15c. FUND BALANCE AT YEAR-END (E)							\$11,777,795

(A) Revenue Report

(B) Source: PeopleSoft query

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

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

(E) At Year End, \$1,000,000 was moved from the Large C&I Program to the Large OBR program which has a separate fund balance.

Table E-6

NARRAGANSETT ELECTRIC COMPANY DBA NATIONAL GRID
2012 RGGI FUNDED ENERGY EFFICIENCY ADJUSTMENT AND BALANCE
LARGE & MEDIUM COMMERCIAL & INDUSTRIAL REVOLVING LOAN FUND
12 month(s) of actuals 0 month(s) of estimates

Total Large C&I Revolving Loan Fund for Jan-Dec 2012

	<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)	\$1,734,678	\$0	\$0	\$0	\$0	\$0	\$1,734,678
2. TOTAL EXPENSE (B)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3. Cash Flow Over/(Under)	\$1,734,678	\$0	\$0	\$0	\$0	\$0	\$1,734,678
4. Start of Period Balance (C)	\$945,000	\$2,685,206	\$2,693,396	\$2,701,611	\$2,709,850	\$2,718,116	\$945,000
5. End of Period Balance Before Interest	\$2,679,678	\$2,685,206	\$2,693,396	\$2,701,611	\$2,709,850	\$2,718,116	\$2,718,116
6. TOTAL INTEREST	\$5,528	\$8,190	\$8,215	\$8,240	\$8,265	\$8,290	\$46,728
7. End of Period Balance After Interest	\$2,685,206	\$2,693,396	\$2,701,611	\$2,709,850	\$2,718,116	\$2,726,406	\$2,726,406
	<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)	\$0	\$9,584	\$16,825	\$36,674	\$15,305	\$65,414	\$1,878,481
9. TOTAL EXPENSE (B)	\$0	\$217,984	\$20,215	\$19,261	\$13,495	\$1,945,430	\$2,216,386
10. Cash Flow Over/(Under)	\$0	(\$208,400)	(\$3,390)	\$17,413	\$1,810	(\$1,880,016)	(\$337,905)
11. Start of Period Balance (C)	\$2,726,406	\$2,734,721	\$2,534,344	\$2,538,679	\$2,563,862	\$2,573,495	\$945,000
12. End of Period Balance Before Interest	\$2,726,406	\$2,526,321	\$2,530,954	\$2,556,092	\$2,565,672	\$693,478	\$693,478
13. TOTAL INTEREST	\$8,316	\$8,023	\$7,725	\$7,770	\$7,823	\$4,982	\$91,365
14. End of Period Balance After Interest (D)	\$2,734,721	\$2,534,344	\$2,538,679	\$2,563,862	\$2,573,495	\$698,460	\$1,698,460
15. FUND BALANCE AT YEAR-END (D)							\$1,698,460

(A) On-Bill Repayments received

(B) New customer financing

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

(D) Includes \$1,000,000 transferred from the Large C&I DSM Program

Table E-7

NARRAGANSETT ELECTRIC COMPANY
2012 RGGI FUNDED ENERGY EFFICIENCY ADJUSTMENT AND BALANCE
SMALL COMMERCIAL & INDUSTRIAL REVOLVING LOAN FUND
12 month(s) of actuals 0 month(s) of estimates

Total Small C&I Revolving Loan Fund for Jan-Dec 2012

	<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)	\$2,572,469	\$104,873	\$118,334	\$129,826	\$94,258	\$87,055	\$3,106,815
2. TOTAL EXPENSE (B)	\$423,382	\$78,138	\$162,467	\$203,718	\$144,165	\$157,210	\$1,169,080
3. Cash Flow Over/(Under)	\$2,149,088	\$26,734	(\$44,132)	(\$73,892)	(\$49,907)	(\$70,155)	\$1,937,735
4. Start of Period Balance (C)	\$1,044,086	\$3,199,636	\$3,236,170	\$3,201,840	\$3,137,601	\$3,097,187	\$1,044,086
5. End of Period Balance Before Interest	\$3,193,174	\$3,226,370	\$3,192,037	\$3,127,948	\$3,087,693	\$3,027,032	\$3,027,032
6. TOTAL INTEREST (D)	\$6,462	\$9,800	\$9,803	\$9,653	\$9,494	\$9,339	\$54,550
7. End of Period Balance After Interest	\$3,199,636	\$3,236,170	\$3,201,840	\$3,137,601	\$3,097,187	\$3,036,371	\$3,036,371
	<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)	\$114,695	\$138,926	\$106,348	\$193,515	\$146,392	\$179,572	\$3,986,262
9. TOTAL EXPENSE (B)	\$116,091	\$145,874	\$260,900	\$255,691	\$180,809	\$198,833	\$2,327,279
10. Cash Flow Over/(Under)	(\$1,396)	(\$6,948)	(\$154,552)	(\$62,176)	(\$34,418)	(\$19,261)	\$1,658,983
11. Start of Period Balance (C)	\$3,036,371	\$3,044,234	\$3,046,560	\$2,901,064	\$2,847,641	\$2,821,856	\$1,044,086
12. End of Period Balance Before Interest	\$3,034,975	\$3,037,286	\$2,892,008	\$2,838,888	\$2,813,224	\$2,802,595	\$2,802,595
13. TOTAL INTEREST (D)	\$9,259	\$9,274	\$9,056	\$8,753	\$8,633	\$8,577	\$108,103
14. End of Period Balance After Interest	\$3,044,234	\$3,046,560	\$2,901,064	\$2,847,641	\$2,821,856	\$2,811,172	\$2,811,172
15. FUND BALANCE AT YEAR-END							\$2,811,172

(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 2012 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	39,485	27,668	70.1%	51	120	233.9%	\$ 2,008.6	\$ 1,668.2	83.1%	468,898	\$ 3.56
Large Commercial Retrofit	75,814	95,485	125.9%	115	436	379.4%	\$ 2,700.5	\$ 2,587.4	95.8%	930,186	\$ 2.78
Small Business Direct Install	5,013	4,853	96.8%	158	160	101.1%	\$ 110.6	\$ 40.4	36.5%	33,707	\$ 1.20
Comprehensive Marketing - C&I							\$ 121.0	\$ 102.3	84.5%		
EERMC Assessment-C&I							\$ 59.3	\$ 67.3	113.5%		
SUBTOTAL	120,312	128,006	106.4%	324	716	220.7%	\$ 5,000.0	\$ 4,465.5	89.3%	1,432,791	\$ 3.12
Income Eligible Residential											
Single Family Low Income Services	7,697	5,516	71.7%	430	388	90.2%	\$ 1,765.8	\$ 1,090.2	61.7%	110,314	\$ 9.88
SUBTOTAL	7,697	5,516	71.7%	430	388	90.2%	\$ 1,765.8	\$ 1,090.2	61.7%	110,314	\$ 9.88
Non-Income Eligible Residential											
Energy Star® HVAC	79,712	56,631	71.0%	12,211	6,553	53.7%	\$ 2,975.9	\$ 2,796.1	94.0%	919,475	\$ 3.04
EnergyWise	23,827	39,659	166.4%	2,000	4,024	201.2%	\$ 2,701.1	\$ 3,734.1	138.2%	838,003	\$ 4.46
Residential Products Pilot							\$ 134.1	\$ 73.9	55.1%		
Comprehensive Marketing - Residential							\$ 130.0	\$ 119.7	92.1%		
EERMC Assessment-Residential							\$ 92.5	\$ 101.5	109.8%		
SUBTOTAL	103,540	96,290	93.0%	14,211	10,577	74.4%	\$ 6,033.6	\$ 6,723.8	111.4%	1,757,478	\$ 3.83
TOTAL	231,548	229,811	99.3%	14,965	11,681	78.1%	\$ 12,799.4	\$ 12,279.6	95.9%	3,300,583	\$ 3.72

NOTES

(1) Approved Target from 2012 EEPP Attachment 6, Table G-6

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

(4) Approved Target from 2012 EEPP, Attachment 6, Table G-7. For C&I Programs, planned participation goal was the sum of planned measures. In 2012 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).

(8) Approved Budget from 2012 EEPP, Attachment 6, Table G-5

(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
2012 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	\$3,894	\$3,894	\$0	27,668	468,898
Large Commercial Retrofit	\$8,487	\$7,658	\$829	95,485	930,186
Small Business Direct Install	\$614	\$276	\$338	4,853	33,707
SUBTOTAL	\$12,995	\$11,828	\$1,167	128,006	1,432,791
Low Income Residential					
Single Family Low Income Services	\$2,053	\$976	\$1,077	5,516	110,314
SUBTOTAL	\$2,053	\$976	\$1,077	5,516	110,314
Non-Low Income Residential					
Energy Star® HVAC	\$10,356	\$8,032	\$2,325	56,631	919,475
EnergyWise	\$10,833	\$7,428	\$3,405	39,659	838,003
SUBTOTAL	\$21,189	\$15,460	\$5,729	96,290	1,757,478
TOTAL	\$36,237	\$28,264	\$7,973	229,811	3,300,583

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)
2012 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	1.59	\$3,894.2	\$1,668.2	\$636.2	\$143.9	
Large Commercial Retrofit	1.06	\$8,486.6	\$2,587.4	\$5,245.6	\$162.4	
Small Business Direct Install	11.17	\$614.4	\$40.4	\$5.7	\$8.9	
Comprehensive Marketing - C&I			\$102.3			
EERMC - C&I			\$67.3			
SUBTOTAL	1.19	\$12,995.3	\$4,465.5	\$5,887.6	\$315.1	\$285.5
Income Eligible Residential						
Single Family Low Income Services	1.87	\$2,052.7	\$1,090.2	\$0.0	\$4.7	
SUBTOTAL	1.78	\$2,052.7	\$1,090.2	\$0.0	\$4.7	\$55.7
Non-Income Eligible Residential						
Energy Star® HVAC	2.42	\$10,356.4	\$2,796.1	\$1,483.3	\$0.0	
EnergyWise	2.32	\$10,832.8	\$3,734.1	\$911.2	\$22.5	
Residential Products Pilot			\$73.9		\$0.1	
Comprehensive Marketing - Residential			\$119.7			
EERMC - Residential			\$101.5			
SUBTOTAL	2.23	\$21,189.3	\$6,825.4	\$2,394.5	\$22.6	\$244.9
TOTAL	1.68	\$36,237.2	\$12,381.1	\$8,282.1	\$342.4	\$586.0

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: 4.40%

	(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	\$ 1,465,827	\$ 77,696	7,697	\$ 1,094,906	74.7%	7,697	4,618
Non-Low Income Residential	\$ 5,983,762	\$ 263,286	103,540	\$ 6,746,333	112.7%	103,540	62,124
Commercial & Industrial	\$ 5,513,505	\$ 229,400	120,312	\$ 4,713,352	85.5%	102,851	61,711
Total	\$ 12,963,094	\$ 570,382	231,548	\$ 12,554,591	96.8%	214,088	128,453

	(5)	(5a)	(6)	(7)	(8)	(9)	(10)
Sector	Target Incentive Per MMBtu	Adj Target Incentive Per MMBtu	Actual MMBtu	% of Target Savings	Savings Eligible for Incentive	Earned Savings Incentive	% of Target Incentive Achieved
Low Income Residential	\$ 10.09	\$10.09	5,516	71.7%	5,516	\$55,680	72%
Non-Low Income Eligible Residential	\$ 2.54	\$2.54	96,290	93.0%	96,290	\$244,851	93%
Commercial & Industrial	\$ 1.91	\$2.23	128,006	124.5%	128,006	\$285,505	124%
Total	\$ 2.46	\$2.66	229,811	107.3%	229,811	\$586,036	103%

Notes:

- (1) Budget from 2012 EEPP. Includes Implementation and Evaluation Expenses.
- (2) Equal to the incentive rate (4.40%) x Column (1).
- (3) Approved savings goal from 2012 EEPP
- (3a) Actual spending includes actual Implementation Expenses Table G-1, and Evaluation Expenses from Table G-3
- (3b) Column (3a)/ Column (1)
- (3c) Column (3) * (3b), only if 100% of Target Savings were achieved in Column (3)
- (4) 60% of Target MMBtu Savings
- (5) Column (2)/ Column (3)
- (5a) Column (2)/ Column (3c)
- (6) Year End Savings from Table G-1
- (7) Column (6)/ Column (3c)
- (8) If Column (7) is less than 60%, Column (8) = 0.
 If Column (7) is between 60% and 125%, Column (8) = Column 6;
 If Column (7) is greater than 125%, Column (8) = 125% of Column (3c) due to the incentive cap.
- (9) Column (8)*Column (5a)
- (10) Column (9) / Column (2)

Table G-5
NATIONAL GRID - RHODE ISLAND GAS
2012 DEMAND - SIDE MANAGEMENT ADJUSTMENT AND BALANCE
12 month(s) of actuals 0 month(s) of estimates

Total C&LM Revenue/Expense for Jan-Dec 2012

	<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)	\$1,893,918	\$2,002,496	\$1,759,972	\$1,134,782	\$873,328	\$522,793	\$8,187,290
2. TOTAL EXPENSE (B)	\$235,149	\$454,413	\$1,271,326	\$650,709	\$873,128	\$713,601	\$4,198,326
3. Cash Flow Over/(Under)	\$1,658,769	\$1,548,083	\$488,646	\$484,073	\$200	(\$190,808)	\$3,988,964
4. Start of Period Balance	\$5,229,643	\$6,894,723	\$8,450,795	\$8,948,498	\$9,442,145	\$9,452,181	\$5,229,643
5. End of Period Balance Before Interest	\$6,888,412	\$8,442,807	\$8,939,441	\$9,432,571	\$9,442,345	\$9,261,373	\$9,218,607
TOTAL INTEREST	\$6,311	\$7,988	\$9,057	\$9,573	\$9,836	\$9,747	\$52,513
7. End of Period Balance After Interest	\$6,894,723	\$8,450,795	\$8,948,498	\$9,442,145	\$9,452,181	\$9,271,120	\$9,271,120
	<u>Actual JULY</u>	<u>Actual AUG</u>	<u>Actual SEPT</u>	<u>Actual OCT</u>	<u>Actual NOV</u>	<u>Actual DEC</u>	2012 Y.T.D
8. TOTAL REVENUE (A)	\$470,793	\$478,385	\$489,088	\$565,621	\$1,189,802	\$1,767,775	\$13,148,754
Residential Expense	\$652,545	\$438,589	\$380,069	\$715,404	\$541,153	\$1,596,719	\$6,855,703
Low Income Residential Expense	\$91,182	\$192,991	\$107,537	\$146,264	\$89,599	\$309,230	\$1,179,958
Comm & Ind Expense	<u>\$196,624</u>	<u>\$183,551</u>	<u>\$429,335</u>	<u>\$693,654</u>	<u>\$335,750</u>	<u>\$1,517,936</u>	<u>\$4,780,797</u>
9. TOTAL EXPENSE (B)	\$940,351	\$815,131	\$916,940	\$1,555,323	\$966,502	\$3,423,884	\$12,816,458
10. Cash Flow Over/(Under)	(\$469,558)	(\$336,746)	(\$427,852)	(\$989,702)	\$223,300	(\$1,656,109)	\$332,296
11. Start of Period Balance	\$9,271,120	\$8,810,974	\$8,483,230	\$8,063,992	\$7,082,175	\$7,312,969	\$5,229,643
12. End of Period Balance Before Interest	\$8,801,561	\$8,474,228	\$8,055,378	\$7,074,290	\$7,305,475	\$5,656,859	\$5,561,939
TOTAL INTEREST	\$9,413	\$9,003	\$8,614	\$7,885	\$7,494	\$6,755	\$101,676
14. End of Period Balance After Interest	\$8,810,974	\$8,483,230	\$8,063,992	\$7,082,175	\$7,312,969	\$5,663,614	\$5,663,614
15. 2012 Residential Incentive (C)							\$244,851
2012 Low Income Residential Incentive (C)							\$55,680
2012 Commercial & Industrial Incentive (C)							\$285,505
2012 Total Incentives (C)							\$586,036
16. End of Period Balance (minus incentive)							\$5,077,578
17. Commitments							\$0
18. FUND BALANCE AT YEAR-END							\$5,077,578

(A) Revenue Report

(B) Source: PeopleSoft query

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

Attachment 3

Case Studies

EnergyWise Program

Single Family Home — North Providence, Rhode Island



Everyone was on time, knowledgeable, and polite. The work was well done and improved the efficiency, comfort, and quality of my home.”

- Mary Hoffman, Homeowner

Mary Hoffman had an in-home energy assessment completed at her Ranch style home located in North Providence, RI. The home has 1,350 square feet of living space. Upon completion of the work, Mary received over \$1,900 in incentives and rebates towards the energy efficiency improvements made in her home.

Project Summary

- ◆ 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 throughout the home with the help of rebates and incentives from National Grid.

Project Cost	\$2,280.99
National Grid Incentive	\$1,903.19
Cost to Customer:	\$377.80
Annual Cost Savings:	\$229.51

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.

You'll receive a visit from an Energy Specialist who will:

- ◆ evaluate your home's energy use, from detecting air leakage to checking insulation levels and heating systems
- ◆ provide you with a personalized summary of energy-saving recommendations
- ◆ discuss available rebates and incentives such as 25% or 75%, up to a maximum of \$2750 depending on your fuel type, for the cost of insulation and air sealing improvements



EnergyWise Program

Single Family Home — Cranston, Rhode Island



You were all cheerleaders for energy savings! From the Energy Specialist who taught me things about my home that I didn't know, to the courteous, on-time installers, to the enthusiastic final inspector. My heating and electric bills were astronomical, almost unaffordable. I'm really happy I called National Grid for their EnergyWise program.

- Cheryl Carbone, Homeowner

Cheryl Carbone had an energy assessment completed at her Colonial style home, which was built in the 1980s. The Energy Specialist found that the home could benefit from additional attic insulation, duct sealing, and air sealing. Upon completion of the work Cheryl received a rebate of \$2,750 towards the cost of these energy efficiency improvements. In addition, she received replacement CFLs at no cost.

Project Summary

- ◆ Duct Sealing
- ◆ 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 throughout the home with the help of rebates and incentives from National Grid.

Project Cost	\$3,253.90
National Grid Incentive	\$2,750.00
Annual kWh Savings	3,173 kWh
Annual Therm Savings	266 therms
Annual Cost Savings	\$892.76 (Electric & Gas)

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.

You'll receive a visit from an Energy Specialist who will:

- ◆ evaluate your home's energy use, from detecting air leakage to checking insulation levels and heating systems
- ◆ provide you with a personalized summary of energy-saving recommendations
- ◆ discuss available rebates and incentives such as 25% or 75%, up to a maximum of \$2750 depending on your fuel type, for the cost of insulation and air sealing improvements



Attachment 4

2012 Employment Supported by Energy Efficiency in Rhode Island Report

Direct Full-Time Equivalent (FTE) Employment Supported by Energy Efficiency Programs in Rhode Island in 2012



May 23, 2013

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I. Acknowledgements

This research would not have been possible without the engaged participation of people throughout the energy efficiency community in Rhode Island. A quick look at Appendix D reveals a committed group of nearly 600 companies, agencies and not-for-profit organizations working hard every day to bring the environmental, social and economic benefits of energy efficiency improvements to Rhode Island. We are all in their debt.

We would like to extend our gratitude to everyone who helped us understand the structure and delivery systems of energy efficiency programs in Rhode Island; and who assisted in the process of developing, refining, and testing methodologies for accurately counting direct Full Time Equivalents (FTEs). To anyone whom we fail to mention, our deepest apologies. Please know that we appreciate your assistance, and your work.

Our first thanks goes to the Rhode Island energy efficiency program at National Grid. National Grid also provided the funding that made this study possible. As noted in this report, there were fully 60 staff people at National Grid who contributed at least 15% of their time to energy efficiency in Rhode Island in 2012, totaling 35.5 FTE workers.

We would like to especially acknowledge Rachel Henschel and Jeremy Newberger. Rachel was an indispensable source of information, critical analysis, help with networking, careful editing and technical assistance. Jeremy was an exceptional contract officer who provided patient leadership and guidance to the project.

We extend our thanks also to Vin Graziano and the entire staff at RISE Engineering; especially Brian Kearney, Domenic Musco, Paul Radion, and Ralph Carroccio.

We are very grateful for the help and encouragement we received from leadership and staff at the Rhode Island Office of Energy Resources and from many of Rhode Island's Community Action Program (CAP) agencies. Their help was essential to the project.

We were fortunate to have an excellent research team. A huge thanks to independent researchers Bruce Ledgerwood and Art Willcox, who have now assisted us with three energy efficiency FTE studies.

We deeply appreciate assistance received from Mary Hogan at Paradigm Partners and Rob Gough at Sproutreach. Abbey Strauss and Kelsey LaFreniere from the NECEC staff were invaluable. Kevin Doyle, Principal of Green Economy, led the research team, and managed the project for the Institute.

Andrew Wilson
Executive Director
New England Clean Energy Council Institute

II. Executive Summary and Project Scope

In 2012, National Grid and its customers invested over \$83,000,000 in a broad array of energy efficiency actions in Rhode Island aimed at reducing energy use, improving the environment, saving money for customers, and improving the health, comfort and safety of homes and businesses. In addition to these benefits, however, energy efficiency programs also directly supported jobs for people at hundreds of businesses, primarily in Rhode Island. These professionals and trades people plan, design, promote, manage, finance, install and evaluate energy efficiency upgrades through these programs.

In an effort to quantify the number of direct “Full Time Equivalent” workers supported by energy efficiency programs in Rhode Island in 2012, National Grid contracted with a workforce research team from the New England Clean Energy Council Institute. The NECEC Institute carried out a similar study in 2012 for the program administrators of energy efficiency programs at utilities in Massachusetts, including National Grid.

The NECEC Institute team was also charged with identifying lead vendors, contractors and subcontractors involved in the 2012 energy efficiency programs; either as service providers or as participants in training and education efforts. National Grid delivers its programs through this extensive network of dedicated professionals. This study names and acknowledges these companies in Appendix D, with their locations noted.

Working from data about energy efficiency work across all programs, we found that:

- 528.71 direct Full-Time Equivalent (FTE) workers were supported in 2012 by energy efficiency programs in Rhode Island (See Table on page 21);
- 598 companies and agencies were involved in the programs, including 424 (71%) with headquarters or offices in Rhode Island;
- Commercial and Industrial energy efficiency programs (gas and electric) supported 48% of the direct 2012 Rhode Island FTEs, while 35% of FTEs were supported by “non low-income” Residential programs;
- The total energy efficiency payroll for Rhode Island programs was an estimated \$27,181,115; with average annual earnings (including taxes) of \$51,410 per FTE.

The NECEC Institute count of 528.71 direct “FTEs” supported by 2012 is not the same as a count of all of the individual workers involved in delivering energy efficiency in Rhode Island. A single “FTE” represents 1,575 hours of work (the total number of work hours in an average year). It’s usual that many people contribute only a portion of their work year to energy efficiency program activity. These hours are aggregated together in FTE counts. Therefore, the actual number of individual workers who contribute to energy efficiency success in Rhode Island is far greater than 528.71.

III. 2012 Energy Efficiency Program and Program Delivery Descriptions

A. Residential Programs

National Grid and its partners offered a variety of different residential energy efficiency programs in Rhode Island in 2012, including:

Residential Buildings Efficiency Programs

- EnergyWise Program (Gas and Electric)
- Single Family Low-Income Services (Gas and Electric)
- Residential New Construction (Gas and Electric)
- Information and Education Programs (Electric Only)
- Community Initiative (Electric, cross-sector with C&I)
- Residential Pilots (Gas and Electric)
- Deep Energy Retrofit (RGGI)

Residential Efficient Products Programs

- ENERGYSTAR®-Lighting (Electric Only)
- ENERGYSTAR®--Appliances (Electric Only)
- ENERGYSTAR®---HVAC Program (Gas and Electric)
- Comprehensive Marketing-Residential (Gas and Electric)

Each of these programs is described briefly below. The program descriptions in this section draw heavily from National Grid planning documents, marketing materials, and the Rhode Island energy efficiency section of National Grid's website at: <https://www1.nationalgridus.com/EnergyEfficiencyPrograms>.

As will be seen, each of these programs is delivered through different networks of lead vendors, contractors and subcontractors to meet the energy efficiency needs of residential gas and electric customers throughout Rhode Island. The full list of all of the contractors in the 2012 system can be found in Appendix A.

1. Residential Buildings Efficiency Programs

a. EnergyWise Program (Gas and Electric) Description and Delivery

First offered in 1998, the EnergyWise Program provides energy efficiency improvements to customers in existing multifamily and single-family residences in Rhode Island. Participants receive comprehensive assessment of their energy use from expert auditors, followed by recommendations about various ways to improve the energy efficiency of their home or building.

Each assessment includes the "no cost" installation of measures including CFLs, low-flow showerheads and faucet aerators. Beginning with that assessment, the process is designed to reinforce the benefits of implementing recommended measures.

Participants in the program are offered financial incentives for cost effective gas and electric measures to replace inefficient lighting fixtures, lamps, appliances, thermostats, and insulation levels with versions that are more energy efficient. Where appropriate, customers are also encouraged to participate in ENERGYSTAR[®]---HVAC Program.

In addition to incentives for weatherization for electric and gas customers (see detail below), *EnergyWise* also offered incentives in 2012 to customers who heat with deliverable fuel sources.

RI Heat Loan, which provides 0% interest financing to eligible customers, is offered through the program to support customer adoption of energy efficiency products and services that are recommended during the assessment. The Heat Loan program is described in greater detail, below.

The *EnergyWise* program also provides services to multifamily properties including low-income multifamily properties. Multifamily facilities of five or more units are eligible if they have not already participated in the program in the past five years. All customer co-payments are waived for any measure installed in Public Housing Authorities as well as other low-income state and federally funded multifamily facilities.

EnergyWise Program (Gas and Electric) Delivery

The single family component of this program is delivered in three steps: energy assessments, installation, and quality assurance/quality control. National Grid uses a “lead vendor” energy assessment model, which is designed to minimize administrative costs, and guarantee customer equity. The lead vendor for the Rhode Island program is RISE Engineering (hereinafter RISE).

As the lead vendor, RISE is responsible for conducting all energy assessments of single and multifamily customers (which include the direct installation of selected measures); coordinating all work resulting in additional energy efficiency measures offered through the program; and for performing all of the central administrative functions.

In 2012, more than 6,500 single family homes received energy assessments, and 96 unique multi-family buildings had retrofits, including 39 low-income buildings.

In 2012, independent, third party, BPI-qualified, weatherization contractors worked as subcontractors to the lead vendor for all single-family post-assessment work. More than 1,600 single family buildings received post-assessment work during the year. This work was distributed via a merit-based process to the approved list of qualified contractors.

Weatherization contractors who participated as subcontractors to the lead vendor in the single family *EnergyWise* program promoted and marketed the program through their own efforts and then were allowed to “tag” identified customers to provide services.

“Tagging” is achieved through appropriate signed documentation between the contractor and the customer, which is then provided to the lead vendor, who conducts an assessment on the home and assigns the work to the contractor.

Approved, BPI-certified participating contractors in the EnergyWise program included at least the following companies:

- Aten Energy Conservation, Providence, RI
- Beauchemin Design, Inc., North Smithfield, RI
- Bruin Corp. of Attleboro, North Attleboro, MA
- Cross Insulation, Cumberland, RI
- Ecologic Spray Foam Insulation, Inc., Jamestown, RI
- Globex Industries, Inc., Narragansett, RI
- Greenwich Insulation, Coventry, RI
- GreenSeal, Inc., North Kingston, RI
- Installed Measures, West Warwick, RI
- Insulate2Save, Fall River, MA
- Lantern Energy, LLC, Norwich, CT
- New England Insulation, Woonsocket, RI
- New England Weatherization, Attleboro, MA
- Retrofit Insulation, Inc., Seekonk, MA
- RI Insulation, Scituate, RI
- Richie’s Insulation, Westport, MA
- Statewide Insulation and Siding Co., North Smithfield, RI
- Superior Insulation, Warwick, RI
- Sustainable Energy Solutions, LLC, Providence, RI
- Thermal Home Energy Solutions, LLC, Cranston, RI

The lead vendor performs quality checks on weatherization jobs to ensure quality installation, energy savings maximization and customer satisfaction.

For larger multifamily facilities, major weatherization measures are put out to competitive bid. “Major measures” include lighting upgrades, programmable thermostats, replacement of inefficient refrigerators, heat pump testing and tune ups, duct sealing and insulation for electrically and gas heated facilities.

All homes or facilities are eligible to receive lighting fixture upgrades and refrigerator replacement measures as identified through the energy assessment.

National Grid does not require a co-payment for lighting fixtures/lamps installed in single-family homes nor the living units of multifamily homes, to avoid lost opportunities.

As in recent years, National Grid’s program in 2012 committed to delivering a comprehensive and seamless delivery model intended to maximize ease-of-use and

value to all customers. This has called for integration of services to both gas and electric customers. For single-family households, customers are presented with an energy assessment, regardless of their heating fuel. After the assessment is completed, the energy assessment vendor and National Grid complete necessary follow up actions. Oil and propane customers are also eligible for weatherization incentives and the subcontractors listed above complete these assignments as well as those for gas and electric customers.

For multifamily buildings, the comprehensive building analysis is funded by either gas or electric energy efficiency funds (but not both), enabling National Grid to serve more buildings, through its lead vendor and that vendor's network of approved subcontractors. Electric or gas funds are used to provide funding for electric or gas measures including insulation, showerheads, aerators, air sealing, lighting, refrigerator replacement, duct insulation and duct sealing.

Master metered multifamily gas weatherization, heating system replacements, or comprehensive gas retrofits are served through the Large Commercial Retrofit program. Individually metered multifamily gas weatherization is served by *EnergyWise*.

It's important to note that not all multifamily properties have the same attributes. The strategy in 2012 aimed to identify and deliver bundled residential and commercial energy efficiency measures, both gas and electric, seamlessly to customers in a cost-effective, customer-friendly way.

Finally, the delivery system for the *EnergyWise* program requires independent overview of quality control/quality assurance. Through a third party quality assurance system, National Grid closely monitors the audit and installation processes. The third party monitors 10% of the program goals for both single and multifamily dwellings.

Heat Loan Program (for Single Family 1-4 unit residences)

The Heat Loan program provided 0% interest loans for weatherization and high efficiency heating systems to residential customers in Rhode Island. The primary goal of the Heat Loan program is to provide affordable financing for residents who do not qualify for low income heating assistance but cannot manage the upfront costs of efficiency measures on their own. National Grid works with local banks to ensure customer satisfaction and stimulate local economic growth. In 2012, the participating lenders in the program included Navigant Credit Union and Bay Coast Bank. These lenders handled more than 550 Heat Loans in 2012, with a total value of \$3.6 million lent to residents. The program expanded to include additional lenders in 2013.

Customers who live in one to four unit single-family residences are eligible for a 0% interest loan of a minimum of \$2,000 up to \$25,000 with terms up to seven years and can be applied towards a variety of energy efficiency upgrades, including: insulation

and/or air sealing upgrades, duct sealing and duct Insulation, ENERGYSTAR[®] thermostats, heating system replacements, and domestic hot water systems.

b. Single Family Low Income Program (Gas and Electric)

The residential income eligible program provides eligible customers with a variety of energy savings measures installed in their homes at no cost. Heating and electricity bills frequently pose a difficult burden to income-strapped customers who often pay a high percentage of their income to cover their energy costs. Customers who are eligible for the Low Income Heating Assistance Program (LIHEAP), also known as “fuel assistance”, and who live in 1-4 unit buildings, are eligible. The program is a federal government program, administered by the State of Rhode Island.

In addition to this program, low-income customers in multifamily units are served through the *EnergyWise* and Large C&I Retrofit programs. Low-income new construction is served through the Residential New Construction program.

Delivery

In 2012, the services of this program were administered by National Grid’s partners at the State of Rhode Island. Energy efficiency funds from National Grid are bundled with federal government funds by Community Action Programs (see below) to serve the largest possible number of eligible customers with the widest array of energy saving opportunities, through a single program.

During the year, lead vendor responsibilities shifted from the Rhode Island Office of Energy Resources (OER), to the Rhode Island Department of Human Services (DHS). The remainder of this section will refer to “the State” or “the State of Rhode Island” to reflect the involvement of both agencies.

The State has a long history of working with local Community Action Programs (CAPs) across the state providing cost-effective energy saving services to its residents. The State manages the work conducted by participating CAPs for the delivery of energy efficiency services.

The CAP agencies include:

- Comprehensive Community Action Program, Cranston, RI
- Eastbay Community Action, East Providence, RI
- Tri-Town Community Action, Johnston, RI
- Blackstone Valley Community Action Program Pawtucket, RI
- Providence Community Action Program, Providence, RI
- South County Community Action, South Kingstown, RI
- Westbay Community Action, Warwick, RI

Local agencies are the primary link between program eligibility and the customers who can take advantage of the program. Once eligibility is determined by the local agency, the customer is informed of steps involved in gleaning energy savings in their homes.

Customers are also informed of the process to receive energy saving services, including the scheduling of any visits from local agencies, and any approved energy professionals who install energy savings measures.

c. Residential New Construction Program

The Residential New Construction Program promotes education of builders, the trades and designers along with the construction of energy efficient homes. The program is “fuel neutral”, and therefore serves all electric, gas and oil energy efficiency needs.

It consists of tiered incentives and provides participating builders with technical and marketing assistance. The tiered incentive offering allows for increased energy efficiency and greater program participation. New Construction projects that fall outside the residential guidelines are referred to the Commercial New Construction Program.

National Grid provides outreach and education of builders, contractors, architects, realtors, developers, “trade allies” and code officials regarding the energy saving benefits and value of participating in the New Construction Program.

Delivery

The program is administered through a Home Energy Rating System (HERS) implementation contractor (IC) selected through a competitive bid process. The IC oversees the day to day operations of the program, is responsible for tracking and reporting program results to National Grid, performs field verifications and testing, and advises on program enhancement opportunities. Quality assurance (QA) is performed by third party inspectors selected through a competitive bid process.

d. Other programs, pilots and initiatives

Community Initiative (Gas and Electric) Program

The Community Initiative is designed to leverage existing community relationships such as local agencies, schools or church groups focused on saving energy to increase participation in energy efficiency programs. It promotes EnergyWise, Small Business, ENERGY STAR® Lighting and ENERGY STAR® Appliances, Refrigerator Recycling. By using a grassroots approach, customers that have not been previously targeted will hear the Rhode Island energy efficiency message.

In 2012, University of Rhode Island and People’s Power and Light delivered initiatives

aimed at achieving specific goals in selected local communities. The selected organizations attended appropriate training at the program level, and collaborated with National Grid to report progress and troubleshoot issues. The organizations also coordinated with National Grid's Jurisdictional Group and Media Relations.

As part of the program design, each organization created a marketing approach to recruit customers using their unique community channels. Approaches varied, but included press releases, involvement of local politicians such as Mayors or Representatives, door-to-door canvassing, energy efficiency events, piggy-backing on community events, web site development for cities/towns, and other activities focused on spreading the word about available residential and small business programs.

Information and Education Programs (Electric Only)

In 2012, National Grid continued to support energy efficiency education programs in schools with an objective of educating students who will, in turn, teach their family and community members. The two programs targeted below use applied learning techniques. These keep students connected to their communities by promoting the application of their new knowledge to real life situations.

National Grid continued sponsorship of the National Energy Education Development (NEED) project in 2012. NEED is a nonprofit education association that works with thousands of schools nationwide to promote energy conscious education through its "kids teaching kids" model. National Grid supports NEED by providing educational materials to teachers and students. One of the notable topics included in the provided materials is Monitoring and Mentoring, which helps students learn about their personal role in energy consumption, based on their behavior and habits and what kind of impact they can affect through a change in those habits. Funds provided through this program were used for training seminars for teachers, and materials for their students. With assistance, NEED identified participant schools for implementing the program.

Residential Pilots (Gas and Electric)

In 2012, National Grid's energy efficiency program used pilot programs (Home Energy Monitoring, Automatic Temperature Controls, etc.) to test new technologies. Delivered through technology vendors and installation companies (where installation was required), pilot programs provide valuable information about new technologies.

Deep Energy Retrofit Pilot

The Deep Energy Retrofit pilot provided significant financial incentives for deep energy retrofit projects involving super- insulation upgrades and other measures in conjunction with customer planned projects such as re-siding, roofing and basement fit-out. Customers with 1-to 4-family buildings, regardless of heating fuel type were eligible.

A vendor supplied customer support and coordination. Customers chose contractors to work with.

2. Residential Efficient Products Programs

a. ENERGYSTAR® Lighting (Electric Only)

This program is run in collaboration with other regional program administrators to give all consumers the opportunity to participate in energy efficiency measures. Customers are able to purchase lower cost ENERGY STAR® lamps, fixtures and lighting through instant and mail-in coupons, buydowns, markdowns and discounts. The program makes it affordable for customers to purchase the most cost effective, energy efficient products, including compact fluorescents and LEDs.

Delivery

This program is effectively implemented in conjunction with the ENERGY STAR® Appliances program. The collaborative members are the same and National Grid leverages ENERGY STAR® branding. Additionally, there are large numbers of overlapping retailers that carry and promote products, lighting and electronics. Also, both the Lighting and Products programs use a common outreach and marketing vendor, as well as a shared incentive processing vendor, resulting in streamlined administrative and marketing costs.

These vendors are included in the 2012 list of all vendors and participating agencies and not-for-profit organizations in Appendix A.

b. ENERGY STAR® Appliances (Electric Only)

This program is part of a regional, joint effort by Program Administrators and energy efficiency organizations to encourage the purchase of ENERGY STAR® qualified major appliances and electronics, which include, but are not limited to, refrigerators, freezers, monitors, room air cleaners and televisions. The program includes rebates, buy-downs, instant rebates and promotions.

Delivery

Manufacturers build their products to meet or exceed energy efficiency performance specifications established by the ENERGY STAR® label. Together with manufacturers, local retailers, CEE and EPA, National Grid works to help identify and promote the purchase of these high efficiency appliances to its customers.

The program is managed and marketed in conjunction with the ENERGY STAR® Lighting program. National Grid can achieve greater efficiencies in marketing and

outreach by overlapping participating retailers and outreach vendors. The program partners with other utilities in the region to create economies of scale.

In coordination with others, National Grid provides retailer training, advertising, education, codes and standards review and advocacy, and manufacturer labeling.

The names and locations of all of the vendors and contractors involved with these efforts are included in Appendix A. The names and locations of participating retail stores are not included because analysis indicates that no additional Full Time Equivalent (FTE) employment at retail outlets can be attributed to these efforts.

c. ENERGY STAR® HVAC Program (Gas and Electric)

In 2012, National Grid continued to work on integrating heating and cooling programs in order to provide a seamless customer experience that allows for comprehensive energy efficiency home improvements. The HVAC Program is a combination of the Electric HVAC and the High-Efficiency Heating, Water, Heating and Controls (HEHE) Programs. The program offers equipment as well as quality installation services and duct sealing.

The purpose of the program is to make customers and contractors aware of the benefits of high-efficiency heating, water heating, cooling, and system controls and to facilitate the purchase of efficient equipment by offering rebates to offset the premium equipment's higher cost. The program offers an array of rebates including oil heating systems with electronic commutated motors (ECMs). Rebates are tiered to promote the most efficient units in the high efficiency category.

Delivery

Installation contractors are the primary program delivery mechanism. Contractor training and outreach was offered in 2012 with the joint purpose of broadening contractor skills and promoting the program. Proper installation, system sizing, and code requirements were emphasized at training along with offering comprehensive services to customers.

An external rebate processing vendor is used by the program, resulting in lower administrative costs. The program also established a reservation system for heating equipment to obtain a rebate. Customers can reserve a heating equipment rebate, contact their local installer for services, and then submit their rebate application.

Many of the local installer companies listed in Appendix A performed these services for customers receiving rebates.

B. Commercial and Industrial Programs

National Grid's Rhode Island 2012 Commercial & Industrial (C&I) energy efficiency programs consisted of three prime programs in the C&I sector that addressed the Company's commercial and industrial customer needs:

- The Large Commercial Retrofit Program focused on addressing equipment and energy systems that provided electric and gas energy efficiencies in existing facilities;
- The Large Commercial and Industrial New Construction Program was aimed at time dependent mechanical and electrical or thermal systems replacement, or equipment purchased for new construction or major renovation for electric and gas measures, and;
- The Small Business Program targeted customers with 200 KW or less billing demand or 483,000 kWhs through a turnkey delivery model that integrated both gas and electric energy efficiency measures in installations. National Grid provided 70% of the costs associated with the installation of these measures.

The Large Commercial Retrofit and Large Commercial and Industrial New Construction programs are described in detail starting below. The Small Business Program is described in the last part of this section.

1. Large Commercial Retrofit Program

The Large Commercial Retrofit Program targets existing facilities and energy savings incentives to developers, customers, manufacturers, vendors and design professionals. Eligibility is determined by the presence of a non-residential natural gas or electric account that contributes to the energy efficiency charge and will realize energy savings as a result of the project.

The Retrofit Program educates and raises awareness of the benefits of energy efficiency through investing in energy efficient equipment today to save significant energy dollars in the future. The projects use the customer's existing facility conditions as a baseline and incentives are paid for projects that increase the operating efficiency of the facility.

The Retrofit Program provides technical consulting to identify better practices and efficiency improvement opportunities as well as incentives for the installation of high-performance mechanical, electrical and thermal energy equipment and systems.

Energy efficiency measures which are eligible for incentives include (but are not limited to): lighting fixtures and controls, gas burner controls, steam traps, energy management

systems, programmable thermostats, variable speed drives, refrigeration, industrial process, compressed air, ventilation systems and circulation controls/process cooling.

2. Large Commercial New Construction Program

The Large Commercial New Construction Program targeted new construction, major renovations, remodeling and replacement of equipment that had reached the end of its useful life. Program implementation strategies included technical assistance and financial incentives to developers, customers, manufacturers, vendors and design professionals. Customer eligibility was determined by the presence of a non-residential natural gas or electric account that contributes to the energy-efficiency charge a would realize energy savings as a result of the project.

Large Commercial Retrofit and Large Commercial New Construction Programs Delivery

Customers interested in either the Large Commercial Retrofit or Large Commercial New Construction programs began with the customer contacting or a proactive outreach by National Grid staff through either the Inside Sales group, a dedicated account executive or a third party vendor. The customer opportunity was qualified and passed along to the appropriate party.

If the energy efficiency opportunity was simply to apply for a prescriptive incentive for better performing equipment, the customer submitted application information and the incentive was processed.

For more complex projects where the energy efficiency opportunity was deeper, the next step in the process for participating was through the custom path. This path was often based on a technical assistance study that featured high performance equipment and systems analysis that integrated both gas and electric energy efficiency solutions that lead to better building practices. The technical assistance work may have involved a National Grid Technical Representative, one of its qualified architectural and engineering firms, or a National Grid Account Manager and/or RISE Engineering.

If an engineering study was required to identify the technical and achievable potential in a customer's facility for gas and electric energy efficiency measures, the customer was provided with a list of engineering firms that was qualified to provide this service. National Grid would provide co pay funding for the engineering study. If an energy assessment or walk through was all that was needed to identify energy savings opportunities, National Grid would provide that service at no cost to the customer. Additional engineering services provided at no cost to the customer included a custom assessment, which included identifying some custom measures including savings and incentive calculations and a custom review of an engineering study.

Once the engineering work was completed the study often identified deep custom measures and energy systems reduction opportunities. The customer signed an agreement with National Grid to complete the installations.

Once the work was completed, the customer contacted their Account Manager and the process continued with a post installation inspection. Then invoices were submitted, all information from the transaction was collected and entered into the Company's work management system, and the remaining paperwork was completed. Upon completing these steps, the customer received their incentive.

As can be seen from the system overview above, delivery of Commercial and Industrial Programs involved hundreds of small and large contractors, the vast majority of whom have a physical presence in Rhode Island. These companies include electrical contractors, HVAC/R companies, weatherization firms, engineering and design consultants, rebate processors and more. The names and locations of all of these valuable contract partners are in Appendix A.

Incentives

In 2012, National Grid offered integrated gas and electric energy efficient solutions and incentives to the customer. All projects were presented to customers as a single package of measures with a single incentive offer, allowing for a simple process for customers, thereby increasing participation. Through the Retrofit Program or the New Construction Program, customers received financial incentives either prescriptively or through the custom approach depending on the project scope.

Incentivized Services Available for both Retrofit and New Construction Customers:

A. Technical Assistance Services:

Customers planning new construction/major retrofit projects were offered technical assistance to help them understand the benefits of efficient design and the use of energy-efficient engineering practices. If the customer was interested, the technical assistance included identifying and analyzing potential efficiency opportunities. Once these opportunities were identified and deemed cost effective, financial incentives were applied that covered the incremental cost of investing in the higher efficiency version of the installation.

In 2012, the National Grid's Account Executives and Technical Representatives assisted customers in identifying energy efficiency opportunities. In addition, vendors were available to provide energy assessments, custom assessments and scoping studies to help identify opportunities at no charge to the customer. Where these assessments determined that a more detailed analysis was needed, this was provided through a formal Technical Assistance (TA) study.

A variety of expert vendors were contracted to provide services through this program, and the names and locations of all of them can be found in the comprehensive vendor list contained in Appendix A.

In order to avoid duplication and delays, National Grid offered TA services that were integrated with the customer's own design team where this was an option. The TA studies covered all gas and electric opportunities that supported best practices in building design, and considered energy efficient measure identification, equipment metering or monitoring, improved technical design solutions, customer presentations, and design and construction assistance.

TA provided customers and their design professionals with detailed engineering studies that identified alternative energy systems that support lower operating costs in the buildings and the operational benefits that come from this selection. The costs of these energy efficiency studies were usually shared 50% with customers.

The program used current RI energy code, IECC 2009, as a baseline for savings because customers are required to meet this at a minimum. Energy efficiency measures which were eligible for incentives included premium efficiency lighting and controls, variable speed drives, heating, ventilating and air conditioning systems (HVAC), efficient boiler and domestic hot water systems, heat recovery systems, digital energy management systems, process efficiency improvement projects, refrigeration, compressed air, combined heat and power, and any other cost effective improvements.

B. Efficient Lighting:

The Company offered prescriptive incentives to support the promotion of the most energy efficient lighting equipment in new construction, major renovation, remodeling and replacement of equipment. Through the Retrofit and New Construction Programs, National Grid promoted high performance lighting practices and incentives that addressed the opportunity for customers to select better performing luminaries, controls for lamps, and ballasts combinations for their buildings that both improved the visual environment in their buildings and reduced energy costs.

C. Variable Frequency Drives:

National Grid promoted Variable Frequency Drives (VFDs) incentives in the RI Retrofit and New Construction Programs. The company offered a prescriptive retrofit incentive for most HVAC-related fan and pump motors. This program targeted facilities with older motors that are not inverter-duty rated, and therefore could not use VFDs. For customers that were unable to retrofit an existing motor, the combination incentive offered additional money to offset the cost of replacing the existing motor with a new NEMA premium motor. In addition to the prescriptive incentive available to all Large C&I customers, the Company expanded Project Expeditor services to include VFD and

motor installations as a turnkey measure offered to large C & I and small business customers.

Prescriptive Incentives Uniquely Available to Retrofit Customers:

Standardized prescriptive incentives for high efficiency equipment and systems were offered to Retrofit customers on a per unit basis.

Pre-Rinse Spray Valve: National Grid promoted high efficiency pre-rinse spray valves in the Retrofit Program. There were two paths for this offering: 1) National Grid provided and installed a high efficiency pre-rinse spray valve at no cost to the customer; or 2) the customer purchased and installed a high efficiency pre-rinse spray valve and received a \$25 incentive.

Gas Heating Controls: National Grid promoted high efficiency gas heating controls in the Retrofit Program. The Company supported single and multi-stage boiler outdoor temperature reset controls in addition to 7-day programmable thermostats.

Refrigeration: Some refrigeration equipment was replaced through the Retrofit Program. These replacements required preapproval before the equipment was replaced.

Steam Traps: The Company promoted failed steam trap replacement through the Retrofit Program. The Program provided a prescriptive incentive that gave the customer access to incentives for pro-actively managing and repairing traps in their facilities. In 2012, there was a limit of 10 prescriptive steam trap incentives per customer. The goal of this cap was to encourage the customer to follow the more comprehensive method of engaging with the Company in a cost shared Steam Trap survey. This survey identified all traps and steam system improvements at the customer site. The customer was eligible to have 50% of the cost shared with the Company initially. The customer was incentivized up to 100% of the survey costs provided they committed to implementing at least 50% of identified measures from the survey.

Energy Management System (EMS): National Grid promoted the installation and expansion of Energy Management Systems (EMS) through the Retrofit Program. EMS systems enable energy conserving strategies for HVAC equipment such as 7-day scheduling, optimal start/stop, night setback, DDC temperature control, chilled water reset, and enthalpy economizing. In order to increase participation, the company provided training to controls contractors and vendors to help them understand which EMS components were eligible for an incentive, as well as show them how to complete and submit incentive applications.

Custom Incentives Available to Retrofit Customers:

Custom incentives were offered for any qualifying cost-effective efficiency opportunity, based on the unique energy savings and cost criteria of a project. These incentives included projects that were outside the scope of standard prescriptive equipment and offered the opportunity to identify deeper energy savings.

In general, incentives for Retrofit projects were designed to cover up to 50% of the total project cost to move to premium efficiency including labor and equipment, or to buy down the cost of equipment or systems to the customer to a one year payback, whichever is less.

Other custom incentives were offered on specific initiatives that are listed, but not described in detail, below. They included:

- Multi-year Strategic Energy Management Planning
- Combined Heat and Power
- Target Marketing
- Road map to Deeper Energy Savings from Existing Buildings
- Manufacturing Initiative
- Whole Building Assessment
- Financing Initiative
- Solid State Street Lighting
- Multifamily High-Rise Initiative Targeting Gas Energy Efficiency
- High Performance Commercial Lighting Design/Design Lights. [™] Consortium

Prescriptive Incentives Uniquely Available to New Construction Customers:

Prescriptive incentives were standardized in terms of incentive level and minimum efficiency criteria. They addressed specific equipment measures like lighting, DHW, compressed air, and HVAC. Prescriptive incentives for high efficiency equipment and systems were offered to customers on a per unit basis. All prescriptive forms used common branding, format, look and feel and incentives were generally designed to be presented in a consistent format.

The Large Commercial New Construction Program prescriptive measures and incentive offerings covered the following measures:

Prescriptive Gas Space and Water Heating: National Grid promoted high gas efficiency space and water heating equipment in the New Construction Program. This included supporting such measures as hi efficiency boilers and hot water equipment.

Prescriptive Commercial Kitchen: National Grid promoted high efficiency gas kitchen equipment in the New Construction Program. Incentives were available for combination

ovens, rack ovens, conveyer ovens, fryers, convection oven, steamers, griddles, and pre-rinse spray valves. In 2012, National Grid also supported upgrading of electric kitchen equipment.

Prescriptive Motor Incentive: The New Construction Program customers were eligible for motor incentives as part of the Retrofit VFD/Motor combination incentive.

Prescriptive Small HVAC Incentive: National Grid continued to support the Cool Choice program, a regional program that focuses on promoting the installation of energy efficient unitary HVAC equipment through the New Construction Program. The program featured consistent efficiency incentives revised to follow the international Consortium of Energy Efficiency Tier 2 specifications for >5.4 Ton to <63 Ton units. Incentives were offered for dual enthalpy economizer controls, demand control ventilation, and electronically commutated motors (ECM fan motors) in packaged air conditioners and gas furnaces.

Prescriptive Chiller Incentive: National Grid promoted high efficiency chillers through the New Construction Program. The prescriptive incentive was available for single non-process chiller installations. Process cooling chillers and multiple chiller installations were handled as a custom incentive.

Custom Incentives

For Large Commercial New Construction customers, custom incentives were offered for any qualifying cost-effective efficiency opportunity, based on the unique energy savings and cost criteria of a project. These included incentives for projects that were outside the scope of standard prescriptive equipment.

In general, incentives for large commercial new construction projects were designed to cover up to 75% of the incremental cost between standard and premium efficiency or to buy down the cost of equipment to the customer to a 1-year payback, whichever is less.

In addition to the Prescriptive and Custom incentive programs, the Large Commercial New Construction Program supported a variety of initiatives, which are listed (but not described in detail) below.

- Building Codes, Federal and State Standards
- Advanced Buildings, LEED and Sustainable Design
- High Performance Schools
- Building Operator Certification Training
- Improve efficiency in tenant spaces with Office of the Future (OTF)
- Commissioning

3. Small Business Program

The Small Business Program provided turnkey services to commercial and industrial customers with an average monthly demand of less than or equal to 200 kW or annual energy use up to 483,000 kWh.

National Grid has delivered this Small Business Program for more than two decades through a local vendor (“Regional Program Administrator” or “RPA”), responsible for program management, data entry, and quality control.

The RPA is located in Rhode Island, employing local staff, local electricians, and energy efficiency lighting materials procured through a competitive bid process. Customers served by natural gas were also eligible for direct installation of natural gas energy conservation measures.

Delivery of these services involved an extensive network of contractors, the vast majority of whom are either Rhode Island companies, or have a physical presence in Rhode Island. The names and locations of all of these companies can be found in Appendix A.

Customers were provided turnkey services consisting of:

- Energy audit;
- Direct installation of measures;
- National Grid incentive contribution of 70% of the total project cost;
- On-bill repayment option for customers’ share of the project costs, either over 24 months at interest free or lump sum payment with a 15% discount, resulting in most customers’ projects having a positive cash flow when they chose the 24 month repayment option;
- Cost-effective “custom.” electric and gas measures;
- Time dependent opportunities such as replacing roof top HVAC units and heating systems;
- Participation in residential programs where the building owner may have both commercial and residential properties in the building;
- Installation of energy efficient fluorescent ballasts, lamps, and fixtures;
- Hard-wired and screw-in compact fluorescent systems;
- LED lighting;
- Occupancy sensors and controls;
- Energy management systems;
- Thermostats;
- Insulation;
- Hot water resets;
- Low flow pre-rinse spray valves;

- Refrigeration measures such as evaporator fan controls, efficient evaporator fan motors, automatic door closers and door heater control devices for walk-in coolers;
- Boiler reset controls (single stage); and,
- Pipe insulation.



IV. Findings: Review of 2012 Energy Efficiency FTEs

A. Overview of FTE Totals: All Programs

As seen in the table on the next page, the NECEC Institute research team (NECEC) found that at least 528.71 direct Full-Time Equivalent (FTE) workers were supported by energy efficiency programs in Rhode Island in 2012.

The remainder of this section describes the distribution of these direct FTE workers to specific programs. The programs themselves are described in detail in Section III.

In keeping with the organization of the table, this section describes findings and methodologies for:

- Electric Programs
- Gas Programs
- National Grid EE Staffing
- WAP/LIHEAP-funded Low Income Program

Within the Electric and Gas Program sections, the findings are discussed under narrower program headings related to Commercial and Industrial Programs, Residential Low-Income Programs, and Residential Non-Low Income Programs.

B. Electric Programs

1. Total all Electric Programs

NECEC found that 304.34 direct FTEs in Rhode Island in 2012 were supported by Electric Programs, including:

185.48 in Commercial and Industrial Programs

20.51 in Residential Low-Income Programs

98.35 in Residential Non-Low Income Programs

A wide range of contractors and workers were needed to implement the 2012 energy efficiency programs. Although installation of measures was at the heart of the program (requiring the skills of auditors, electricians, plumbers, HVAC techs, weatherization workers, and related trades and professions), the programs also engaged the expertise of trainers and educators, marketing professionals, engineers and project design specialists, rebate processors, and more. Finally, these energy efficiency workers were supported by customer support, administrative, finance, IT, and management staff.

Direct Full-Time Equivalent (FTE) Employment Supported by Energy Efficiency Programs in Rhode Island in 2012
(Source: NECEC Institute)

PROGRAMS	Total FTEs
Electric Programs	
Commercial and Industrial	185.48
Large Commercial New Construction	
Large Commercial Retrofit	
Small Business Program	
Other	
Residential Low-Income	20.51
Single Family - Low Income Services	
Residential Non-Low Income	98.35
Residential New Construction	
EnergyWise Program	
ENERGYSTAR® Programs	
Other	
Gas Programs	
Commercial and Industrial	65.38
Large Commercial Retrofit	
Large Commercial New Construction	
Small Business Program	
Other	
Residential Low-Income	14.97
Single Family Low-Income Services	
Residential Non-Low Income	85.42
EnergyWise Program	
ENERGYSTAR® Programs	
Other	
National Grid EE Staffing	35.50
WAP/LIHEAP Low Income Funded	23.10
Total all 2012 Rhode Island FTEs	528.71

2. Commercial and Industrial FTE Subtotals

The NECEC team found that 185.48 FTEs were supported in 2012 by the Commercial and Industrial Electric Programs, including:

75.9 FTEs were involved in planning and installing Lighting measures
102.6 FTEs were involved in installing Non-Lighting measures
6.98 FTEs were supported by remaining programs and initiatives

NECEC examined data from the following Commercial and Industrial Electric Programs to arrive at a 2012 direct FTE count:

- Large Commercial New Construction
- Large Commercial Retrofit
- Small Business Direct Install
- Community Based Initiatives
- Comprehensive Marketing

All of these programs were delivered through an extensive network of contracted experts and installers, and all of them are described in detail in Section III. The names of these contractors are incorporated into the list of all 2012 vendors and program participants in Appendix A.

3. Residential Non-Low Income Programs Subtotal Findings

NECEC examined data from the Residential Non-Low Income Programs listed below to arrive at a 2012 direct FTE count. These programs, and their delivery systems, are described in Section III.

Using methodologies described in the Methodology section, NECEC found that 98.35 FTEs were supported in 2012 by Residential Non-Low Income Programs, including:

EnergyWise Program (Single & Multi-Family)	70.67 FTEs
Residential New Construction	6.00 FTEs
Other Programs	17.68 FTEs
ENERGYSTAR® Programs	4.00 FTEs

4. Low-Income Program Subtotal: Findings

Rhode Island's low-income program and its service delivery system through the State of Rhode Island (contractor to National Grid) and a network of Community Action Program (CAP) agencies and subcontractors is described in Section III. The name and locations of all low-income program subcontractors can be found in Appendix A.

Using the method described in the Methodology section, we confirmed that 20.51 FTEs were supported by that portion of the low-income residential (electric) program in Rhode Island in 2012 that was supported by National Grid funding. The portion of the low-income program supported by federal government funds is accounted for in a separate section, below.

5. Findings: Residential “Other” Program Areas

The Non-Low Income Residential programs within the Electric Program also included some program investments in Energy Efficiency Educational Programs, EERMC Residential, Residential Behavior Pilots, Residential Products Pilots, Residential Community Based Initiatives, and Residential Comprehensive Marketing.

Using year-to-date expenditures from National Grid’s Preliminary 4th Quarter Results Report from February 14, 2013, we estimated that at least \$1,768,100 was related to these efforts. The NECEC Team found that 17.68 additional FTEs were supported by the 2012 Residential Electric Energy Efficiency Programs.

C. Gas Programs

1. Total of all Gas Programs

NECEC found that 165.77 direct FTEs in Rhode Island in 2012 were supported by Gas Programs. The table below indicates the distribution of FTEs to different residential and commercial and industrial programs. A description of all programs can be found in Section III.

The names and locations of all contractors involved in, and/or trained by, the Gas Programs, can be found in the comprehensive list in Appendix A.

Because several of the programs below served both gas and electric customers, there is some duplication with the program descriptions from the Electric Programs

The distribution of 2012 FTEs supported by Gas Programs was found to be:

65.38 in Commercial and Industrial Programs

- Large Commercial Retrofit
- Large Commercial New Construction
- Small Business Program

14.97 in Residential Low-Income Programs

85.42 in Residential Non-Low Income Programs

- *EnergyWise* (Single Family and Multi-Family)
- ENERGY STAR® HVAC Program

2. Commercial and Industrial FTE Findings

The NECEC team found that 65.38 FTEs were supported in 2012 by the Commercial and Industrial Gas Programs, including:

22.00 FTEs supported by the Large Commercial Retrofit Program
18.00 FTEs supported by the Large Commercial New Construction Program
25.38 FTEs supported by the Small Business Program

All of these programs were delivered through an extensive network of contracted experts and installers, the names of whom have been incorporated into the list of all 2012 vendors and program participants in Appendix A.

3. Residential Non-Low Income Programs Subtotal Findings

Using the methodologies described in the Methodology section, NECEC found that 85.42 FTEs were supported in 2012 by Residential Non-Low Income Programs, including:

EnergyWise Program (Single & Multi-Family): 47.68 FTEs
ENERGY STAR.® HVAC: 34.93 FTEs

4. Residential Low Income Program Subtotal (Ratepayer funded)

Rhode Island's low-income program and its service delivery system through the State of Rhode Island (contractor to National Grid) and a network of Community Action Program (CAP) agencies and subcontractors is described in Section III. The names and locations of all low-income program subcontractors are in Appendix A. As noted in the description, the low-income program is funded by both government funds and National Grid funds.

Using the method described in the methodology section, we confirmed that 14.97 FTEs were supported specifically by the low income program (gas) in Rhode Island in 2012, exclusive of selected federal government funds.

5. Residential Non-Low Income Gas FTEs from programs other than EnergyWise and ENERGY STAR.® HVAC.

The Non-Low Income Residential programs within the Gas Programs included some program investments in Pilot Programs, Comprehensive Marketing and other activities. Using year-to-date expenditures from National Grid's Preliminary 4th Quarter Results Report from February 14, 2013, we estimated that at least \$281,000 was related to these efforts, supporting 2.81 FTEs.

C. Low Income Program Findings and Methods: Federal Funding Only

Rhode Island's low-income program and its service delivery system through the State of Rhode Island (contractor to National Grid) and a network of Community Action Program (CAP) agencies is described in Section III.

This program receives funding from sources beyond National Grid and the federal Weatherization Assistance Program (WAP). In 2012, funds also came from the Low Income Heating Assistance Program (LIHEAP), and the American Recovery and Reinvestment Act (ARRA).

To determine FTEs supported specifically by these funding sources, we received direct assistance from the State of Rhode Island, and the CAP agencies. Payroll and other records kept by these agencies allowed them to provide us with an accurate account of hours worked, allowing us to generate an FTE count using the same calculations of an average work hour used in the other FTE assessments throughout the study.

From these records, we confirmed that 23.10 FTEs in the low-income program were supported specifically from selected federal government funds.

E. National Grid Staff Serving Rhode Island Energy Efficiency Programs

1. Methodology

The assessment of direct National Grid FTEs committed to Rhode Island energy efficiency programs in 2012 was carried out through direct reporting based on time accounted to Rhode Island energy efficiency programs in National Grid's internal processes. Information from National Grid records was made available to the NECEC Institute research team upon request.

We did not make an effort to assign the identified National Grid staff people to individual electric, gas, residential and/or commercial and industrial programs. We did analyze the FTE counts in each of the Rhode Island programs in our study to assure that the work of National Grid staff was not already accounted for in any of the FTE counts of the individual programs.

2. Findings

In 2012, National Grid had sixty (60) individual staff people devoting at least 15% of their time to energy efficiency program in Rhode Island. 34 of these individuals (57%) were physically located in Rhode Island. These 60 staff people devoted total work hours resulting in 35.5 Full Time Equivalent (FTE) workers.

3. National Grid EE Staff Distribution and Activities

a. Customer and Business Strategy

Of National Grid's 2012 Rhode Island FTEs, 11.9 were devoted to the activity of Customer and Business Strategy for serving the energy efficiency (EE) needs of Rhode Island customers. The FTEs serving this need were responsible for:

- Preparing strategy for residential and commercial EE programs;
- Carrying out planning, evaluation, measurement and verification;
- Identifying, researching and deploying new EE technologies/strategies;
- Developing community and business partnerships to promote EE;
- Carrying out outreach activities to the EE community, including customers, stakeholders, businesses and regulators.

Of the 11.9 FTEs in this area, 7.63 were attributed to a group of nine National Grid staff people in the "Rhode Island Program Strategy" team, each of whom devoted more than 70% of their time in 2012 to energy efficiency program delivery and support for Rhode Island customers.

b. Marketing and Customer Experience

Marketing and Customer Experience programs and activities supported 1.7 of National Grid's 2012 Rhode Island FTEs. These individuals were engaged in managing and delivering residential, commercial and statewide energy efficiency marketing campaigns, including EE events throughout the state, websites, and social media promotion. The people contributing work hours to the total of 1.7 FTEs also supported research efforts aimed at developing customer targeting strategies.

c. Sales and Program Operations

The largest group of National Grid staff serving Rhode Island energy efficiency programs in 2012 (19.0 FTEs) was in Sales and Program Operations. Staff people involved with this activity were largely responsible for deliver energy efficiency savings goals and managing programs. The team includes sales representatives, technical experts and engineers, residential and commercial program managers, vendor managers, account developers, and C&I sales processors. They developed commercial relationships with large and medium sized businesses, responded to inquiries for assistance, and expedited customer projects. The team also provided technical expertise and engineering for custom C&I projects. They also manage the residential and commercial programs including managing vendors.

d. Customer and Market Analytics

Customer and Market Analytics work contributed 2.9 FTEs to the 2012 energy efficiency effort. This team managed and analyzed customer data related to energy efficiency and managed information technology that supported energy efficiency efforts. People contributing to these FTEs also provided accounting support and developed customer and sales forecasts.

e. Jurisdiction

The Jurisdictional team provides a direct connection between regulatory and community priorities and National Grid, and coordinated activities with cities, towns and key accounts. The team directed the equivalent of 1 FTE to energy efficiency initiatives.

Section V. Methodologies

The NECEC Institute research team used four different methods to accurately assess the number of Full-Time Equivalent (FTE) workers supported by different energy efficiency programs in Rhode Island in 2012.

Method One: Direct reporting from employers

This method was used to calculate FTEs at National Grid and FTEs related to low-income program work funded directly by federal programs, including the American Recovery and Reinvestment Act (ARRA) and the Low-Income Heating Assistance Program (LIHEAP).

In addition, the research team received information about direct FTE estimates in 2012 from the firm of Rise Engineering which were used as a cross check and addition to the methods below.

Method Two: RS Means labor time estimates + adjusted multiplier

This method was used to calculate FTEs from the following programs:

- Residential Non-Low Income EnergyWise Program
- Residential Low-Income Program (excluding federal funded only)
- Residential ENERGYSTAR Programs
- Residential New Construction Program
- Commercial and Industrial Programs designated “Lighting”

Method Three: Variation for C/I “Electric Non-Lighting” Work

Method Four: Estimate based on 1 FTE per \$100,000 spent

This method was used to calculate FTEs for community-based programs, pilot programs, comprehensive marketing programs, and the paid consultant portion of the EERMC program.

Each of these methods is described below.

A. Direct reporting from employers

1. National Grid Energy Efficiency Staffing

National Grid tracks staff labor hours by individual name and by program. The reported total of partial FTEs worked by many different staff people allows for a calculation of total FTEs by all staff toward energy efficiency programs.

2. Low-Income Program Work (federal funding portion only)

The State of Rhode Island provided direct information from pay records kept as part of required record keeping to receive federal funding under the American Recovery and Reinvestment Act (ARRA). These records allow for calculation of total hours worked, and thus total FTEs supported.

B. RS Means labor time estimates + adjusted multipliers

Step One: National Grid and/or a lead vendor provided the NECEC Team with a comprehensive list of the number/type of energy efficiency measures installed in the noted program.

Step Two: RS MEANS Online 2013 (Providence local) was researched to identify the hours necessary to install the specific measure(s) installed through the noted program.

Step Three: Where there was not an exact match of RS MEANS information to National Grid energy efficiency measure, averages of labor time for the closest matches were developed for that specific measure with the assistance of experienced professionals.

Step Four: On the recommendation of experts consulted, the NECEC Team increased the hours identified through RS MEANS by an agreed upon multiplier to account for two additional time requirements not sufficiently captured by RS MEANS installation times:

- a. Additional time to cover company office labor, including design, administrative and management time;
- b. Additional time to cover activities associated with the primary task of installing the specific measure. This included tasks such as moving equipment and furniture, talking with tenants to explain the procedures, disposal of the old items being replaced, and other associated activities.

Step Five: Once the primary and associated times had been calculated for each measure, then the sum for all of the hours for installing energy efficiency measures was calculated.

Step Six: The sum of the total hours for gas energy efficiency measures was then divided by the number of hours available for working – 1575 hours per year. The 1575 number was calculated by deducting weekends, holidays, vacation days, sick days, and weather, etc. interruptions, from 365 days per year.

The sum of total hours to install energy efficiency measures was divided by 1575 available hours per year to produce the total estimated number of energy efficiency measure FTEs.

Step Seven: Resulting FTE estimate tables are cross-checked by research team for reliability and to identify any FTE estimates that seem questionable.

C. Variation for C/I “Electric Non-Lighting” Work

1. Findings and Methods: FTE Counts Done by “Lighting” and “Non-Lighting”

To arrive at an FTE estimate for the Commercial and Industrial Electric Programs we requested data from National Grid on the number and types of all installed measures across all Commercial and Industrial Electric Programs performed in 2012.

It is important to note that we did not disaggregate data about installed measures into its component programs. Therefore, we did not generate separate counts for Large Commercial New Construction, Large Commercial Retrofit, and Small Business Programs.

Instead, after an analysis of data received, we carried out two different kinds of analysis – one regarding lighting measures in the Electric C/I, and one regarding non-lighting measures.

For lighting measures, we found that our “RS MEANS plus multiplier” was appropriate and accurate. For “Non-Lighting” measure design and installation work, however, a method variation was required to accurately capture FTEs.

2. C/I Non-Lighting Measures Methodology Variation

Step One: National Grid provided the NECEC a list of the number and type of non-lighting electric measures (NLEM) installed in the 2012 Program, as mentioned above.

Step Two: Using additional National Grid data the team developed estimated total project costs for each measure on the National Grid measures installed list.

Step Three: NECEC solicited the participation of two contractors with experience in Commercial and Industrial energy efficiency electrical projects. With their assistance, we arrived at a reliable determination that the average labor cost (installer, management, and administrative) can be assessed for the purposes of FTE estimation at 25% of a NLEM project. In addition, many projects require engineering support ranging from 5-10% of total costs, thus an additional 7.5% was added to the labor cost of the projects resulting in a labor rate of 32.5% of total project costs.

Step Four: The estimated total project costs for each measure on the National Grid measures installed list was multiplied by 32.5% to produce the total labor cost for each set of measures.

Step Five: Estimated labor hours for each measure on the National Grid measures installed list was calculated by dividing the total cost of the measure projects by an hourly rate of \$45, the blended hourly rate for NLEM projects determined through consultation with two experienced contractors.

Step Six: The number of hours for each measure on the National Grid measures installed list was then divided by 1575 hours (the total number of work hours in a year) to produce the FTE per unit factor for each measure.

Step Seven: The FTE per unit factor was multiplied times the quantity of NLEMs for each measure sector to produce the number of FTEs for that sector.

Step Eight: The FTEs for each NLEM measure were summed to produce the total estimated FTEs for all NLEMs.

D. FTE Estimates based on 1 FTE per \$100,000 of program expenditure

This method was used to assess 2012 FTEs in the following programs:

- Community-Based Initiatives
- EERMC (consultant services)
- Comprehensive Marketing
- Behavior Pilot Programs
- EE Educational Programs

Dollar amounts for 2012 were derived from “Table 1: Summary of 2012 Target and Preliminary 4th Quarter Results” (National Grid, December 14, 2012)

APPENDIX A

LIST OF CONTRACTORS AND SUBCONTRACTORS INVOLVED IN 2012 RHODE ISLAND ENERGY EFFICIENCY PROGRAMS (INCLUDES BOTH COMPANIES AND AGENCIES PERFORMING WORK AND THOSE RECEIVING TRAINING AND/OR OTHER FORMS OF ASSISTANCE)

This 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.

Of the 598 companies, agencies and not-for-profit organizations listed here, 424 (71%) are either headquartered in Rhode Island, or have a physical presence in Rhode Island. The list includes contractors and subcontractors performing work directly for National Grid Energy Efficiency programs in 2012. It also includes contractors performing work for RI customers who received energy efficiency incentives rebates, for example HVAC contractors who installed efficient equipment. It 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.

If we have left any companies off of this list, incorrectly named a company, or listed it under an incorrect location, please contact the NECEC Institute Workforce Development team by email (kevinldoyle@gmail.com).

BT Ins	Santa Clara	CA
FTS Lighting	Orange	CA
Interviewing Service of America	Van Nuys	CA
Noribachi Corporation	Hawthorne	CA
West Coast Lighting & Energy	Lake Elsinore	CA
E Source Companies	Boulder	CO
Competitive Resources	Yalesville	CT
Cutter Enterprises LLC	Tolland	CT
DDL Energy	New London	CT
ICON International	Stamford	CT
KBE Building Corporation	Farmington	CT
Lantern Energy LLC	Norwich	CT
Lightstat	Pleasant Valley	CT
Steven Winter Associates	Norwalk	CT
Thames Valley Vinnelson Co	Groton	CT
Alliance to Save Energy	Washington	DC
American Council for an Energy-Efficient Economy	Washington	DC
Einhorn Yaffee Prescott Architecture	Washington	DC
Energy Source	Miami	FL
J L Roth and Associates	Palm Harbor	FL
Pro Unlimited	Boca Raton	FL
Enercon	Kennesaw	GA
American Energy Solutions	Leawood	KS
A&M Compressed Air Products	Uxbridge	MA
ACTION, Inc.	Fall River	MA

Advantage Weatherization	Quincy	MA
Air Energy	South Easton	MA
Alternative Creative Energy & HVAC	Blackstone	MA
Ameresco	Framingham	MA
American Green Building Services	Dedham	MA
American Refrigeration Company	Andover	MA
Andelman and Lelek Engineering	Norwood	MA
Anderson Mechanical LLC	North Grafton	MA
Anthony F. Vieira III Heating and Air Conditioning	Attleboro	MA
Applied Energy Engineering & Commissioning	Manchester	MA
Applied Proactive Technologies	Springfield	MA
Aten Energy Conservation LLC	Swansea	MA
Atlantic Refrigeration of Hudson	Hudson	MA
Aztec Energy Partners	Braintree	MA
B2Q Associates	North Andover	MA
Bay Coast Bank	Swansea	MA
Berubus Plumbing Heating and Remodeling	Somerset	MA
Biello Electric	Fall River	MA
Bluestone Energy Services Ltd	Norwell	MA
Boston Light Source	Boston	MA
Briggs Mechanical	North Attleboro	MA
Bruin Corporation of Attleboro	North Attleboro	MA
Building Science Corporation	Westford	MA
Callahan	Bridgewater	MA
Carrier	Canton	MA
Chet's Welding	Uxbridge	MA
Classic Sheet Metal	Swansea	MA
Conservation Services Group	Westborough	MA
Consolidated Marketing Services	Burlington	MA
Consortium for Energy Efficiency	Boston	MA
CPS Electric	Marlborough	MA
Dagher Consulting	Lexington	MA
David Parnes Photography	Concord	MA
Delta Electric	Medford	MA
DMI	Needham	MA
Don Dalpe Plumbing	Blackstone	MA
Electric Wholesalers	Boston	MA
EMC	Hopkinton	MA
Emond Plumbing and Heating	Taunton	MA
Energy & Resource Solutions	North Andover	MA
Energy Consumers Alliance of New England	Boston	MA
Energy Engineering & Design	Framingham	MA
Energy Federation	Westborough	MA
Energy Machinery	Rockland	MA
Enviro Service	Norwell	MA
Fraunhofer USA	Cambridge	MA
Gettens/Nesco	Canton	MA
Granite City Electric	Pawtucket	MA
GreenerU	Cambridge	MA
Groom Energy Solutions	Salem	MA
Guardian Energy Management Solutions	Marlborough	MA
Hamel & McAlister	Burlington	MA
Hope Air Systems	Northborough	MA
Horizon Lighting & Energy Services	Taunton	MA

IBM Corporation	Cambridge	MA
ICF Consulting	Lexington	MA
Industrial Control Service Corporation	Chelmsford	MA
Inner Workings	Amesbury	MA
Insulate 2 Save	Fall River	MA
Interstate Electrical Services	North Billerica	MA
JACO Environmental	Franklin	MA
Jay Leblanc Plumbing	Blackstone	MA
JMF Services DBA Improved Illumination	Medfield	MA
JMP Plumbing and Heating	Rehoboth	MA
Kaeser Compressors	South Easton	MA
KCG Energy LLC	Lexington	MA
Kelliher Samets Volk	Boston	MA
KEMA	Burlington	MA
Larry's Heating & BCI	Rehoboth	MA
Lennox Industries	Wilmington	MA
Lighting Retrofit Services	Wilmington	MA
Lime Energy	Boston	MA
Itemor	Norwood	MA
Lockheed Martin Services	Burlington	MA
Medford Wellington	Medford	MA
Mike Dupree	Mansfield	MA
MJ Heating and Air Conditioning	Fall River	MA
National Resource Management	Canton	MA
NMR Group	Somerville	MA
Noresco	Westborough	MA
NorthEast Electrical Distributors	Brockton	MA
Northeast Energy Efficiency Partnerships	Lexington	MA
Northern Energy Services	Northborough	MA
O'Brien & Neville	Holliston	MA
Omnilite	Burlington	MA
Opinion Dynamics Corporation	Waltham	MA
Prism Energy Services	Quincy	MA
PRS Electric	Dighton	MA
Reilly Electric	South Easton	MA
Renova Lighting Systems	Mansfield	MA
Rethinking Power Management LLC	Boston	MA
Retrofit Insulation	Fall River	MA
River Energy Consultants	Fall River	MA
Robinson Supply Co.	Fall River	MA
Rouleau Consulting Group LLC	Gloucester	MA
Sacks Exhibits	Wilmington	MA
SMOC	Framingham	MA
Standard Electric Supply	Boston	MA
Stateline Fuel and Burner	Seekonk	MA
Steve Brown Plumbing and Heating LLC	Webster	MA
Steve Dessert The Heating Man	Swansea	MA
Supply New England - Uxbridge	Uxbridge	MA
Synergy Investment	Westborough	MA
T and J Heating and Conditioning and Plumbing	Bellingham	MA
Tech Resources	Milford	MA
Tendrill Networks	Newton Lower Falls	MA
Tetra Tech MA	Boston	MA
The Cadmus Group	Waltham	MA

The Elcon Group /CCMS Lighting	Hopkinton	MA
TNZ Energy Consulting	Stoughton	MA
Towne Heating Co	Swansea	MA
Veolia ES Technical Solutions LLC	Boston	MA
Victory Heating & Air Conditioning Co	Bellingham	MA
Whites Plumbing and Heating	Swansea	MA
Wipro Ltd	Boston	MA
World Energy Solutions	Worcester	MA
Earth Networks	Germantown	MD
Helgeson Enterprises	White Bear Lake	MN
Electrical Distributors	Charlotte	NC
Ingersoll Rand Company	Davidson	NC
Carter Events Plus	Hampton	NH
Sylvania Lighting Services	Exeter	NH
Weller & Michal Architects	Harrisville	NH
Amerlux LLC	Fairfield	NJ
BriteSwitch LLC	Princeton	NJ
Ideas Agency	Blairstown	NJ
Buro Happold Consulting Engineers PC	New York	NY
Gardner Nelson and Partners	New York	NY
Integral Group	New York	NY
KS Electric LLC	East Greenbush	NY
Natek Corporation	Saratoga Springs	NY
News America Marketing	New York	NY
RAM Marketing	Saint James	NY
Scales Industrial Technologies	Carle Place	NY
Commercial Electric	Cleveland	OH
Compressed Air Technologies	Monroe	OH
Illumetek Corp	Cuyahoga Falls	OH
Questline	Columbus	OH
Energy-One	Tulsa	OK
Ecobee	Toronto	ON
CGI Technologies & Solutions	Montreal	QC
A and C Burner Service HVAC	East Providence	RI
A Plus Electric	Warwick	RI
A. Perry Plumbing and Heating	Coventry	RI
A&P Fire Systems	East Providence	RI
Abline Oil Service	Cranston	RI
Acme Electric	North Providence	RI
Advanced Comfort Systems	North Smithfield	RI
AECOM	Providence	RI
Aero Mechanical	Johnston	RI
Affordable Heating	North Providence	RI
Affordable Insulation	Pawtucket	RI
AH Robert Plumbing and Heating	Warwick	RI
Air Conditioning Systems of New England	Cranston	RI
Air Flow	Coventry	RI
Air Synergy	Providence	RI
AI and Sons Construction Company	Warwick	RI
Aladdin Electric	Johnston	RI
Aldanti and Son Plumbing	Glocester	RI
All in One Plumbing & Heating	Scituate	RI
All Seasons Heating and Air	Johnston	RI
All Temps Mechanical LLC	Warwick	RI

Alliance Plumbing and Heating	Cumberland	RI
Allied Electrical Group	Providence	RI
Allied Plumbing and Heating	North Providence	RI
Almedia Plumbing and Heating	Smithfield	RI
Alpha Mechanical	East Providence	RI
American Development Institute	Warwick	RI
American Plumbing & Heating	North Providence	RI
Amos House	Providence	RI
Anchor Plumbing and Heating Company	Providence	RI
Andreozzi Associates	East Providence	RI
Andrew White	Coventry	RI
Any Time Plumbing	Harrisville	RI
AR Heating and Cooling	Providence	RI
Arden Engineering	Pawtucket	RI
Ardente Supply Company	Woonsocket	RI
Armor Plumbing	Exeter	RI
Arthur Desautels	West Greenwich	RI
Arthur DiPetrillo Plumbing and Heating	Johnston	RI
Arthur Lettieri	Providence	RI
Atlantic Supply LLC	Coventry	RI
Atlantis Comfort Systems Corp	Smithfield	RI
Atlas Copco	Johnston	RI
Autiello Plumbing and Heating	Cranston	RI
Automatic Heating Equipment	Providence	RI
Automatic Temperature Control	Cranston	RI
B and B Plumbing	Warwick	RI
Barlow Heating LLC	Warwick	RI
Bay Plumbing	North Kingstown	RI
Beacon Mechanical	Glocester	RI
Beam Electric	Coventry	RI
Beauchemin Designs	North Providence	RI
Bell and Piasczyk Plumbing and Heating	Narragansett	RI
Beneficial Energy Products CO	Pawtucket	RI
Berard Heating and Plumbing	Warwick	RI
Bermudez Plumbing	Pawtucket	RI
Besco Electric	Woonsocket	RI
Big Dog Plumbing and Heating	Hopkinton	RI
Bill Ellis Plumbing and Heating	West Kingstown	RI
Bill Gardnier Plumbing and Heating LLC	East Providence	RI
Bill Linehann	Warwick	RI
Blackstone Valley Community Action Program	Pawtucket	RI
Bob Larisas Plumbing and Heating	Barrington	RI
Bodell Plumbing and Heating	South Kingstown	RI
Boss Heating	Westerly	RI
Bousquet Oil	Woonsocket	RI
Braswell's Plumbing & Heating	North Kingstown	RI
Brennan Oil DBA Energy & Mech	North Providence	RI
Briarwood Meadows	East Greenwich	RI
Bristol Aluminum & Vinyl	Bristol	RI
Bristol County Plumbing & Heating	Bristol	RI
Bruno & Son Electric	Providence	Ri
Bryant University	Smithfield	RI
Buckley and Son Fuel	Johnston	RI
Buckley Heating & Cooling	South Kingstown	RI

Burbank's Plumbing & Heating	North Kingstown	RI
Butler Property Services	Providence	RI
C & K Electric Company	Providence	RI
C W Cummings Plumbing CO	Coventry	RI
Cal Supply Company	Cranston	RI
CAM HVAC & Construction	Smithfield	RI
Canal Electric	Johnston	RI
Capitol Plumbing and Heating	Cumberland	RI
Carbone Plumbing and Heating	Cranston	RI
Carjon AC and Heating	Smithfield	RI
Carl Pecchia Heating Cont. LLC	Warwick	RI
Carter Bros.	Burrillville	RI
Cassana HVAV LLC	Cranston	RI
Castle Construction	Johnston	RI
Cavaco Brothers Plumbing and Heating	East Providence	RI
CCAP Heating Service	Cranston	RI
CD Heating	Cranston	RI
Central Street Contractor	Central Falls	RI
Century Heating	Smithfield	RI
Charland Enterprises	Pawtucket	RI
Charlies Heating LLC	North Kingstown	RI
Chaves Plumbing & Heating	Middletown	RI
Cheaper Sweepers	Warwick	RI
Cipriano Plumbing and Heating	South Kingstown	RI
Climate Air	Providence	RI
Coastal Electric	Newport	RI
Cola Plumbing and Heating	North Kingstown	RI
Coldmasters	Providence	RI
Comfort Systems	West Kingston	RI
Commercial Heating Service and Sale	Cumberland	RI
Comprehensive Community Action Program	Cranston	RI
Continental Engineering	Johnston	RI
Contractor Arthur Desautels	West Greenwich	RI
Corey Lane DBA A-All Services	Providence	RI
Cross Insulation	Cumberland	RI
Crystal Plumbing and Heating	Providence	RI
CSV Mechanical	South Kingstown	RI
Cummings Plumbing Co	Coventry	RI
D and J Plumbing and Heating	Charlestown	RI
D and V Mechanical	Westerly	RI
D&D Metal Works	Cranston	RI
Dave Parillo Plumbing and Heating	Cranston	RI
David Garrahan DBA Pipe Fixer	Coventry	RI
David Iannucci	Providence	RI
DBA Marciano Electric	West Warwick	RI
Delektra Plg and Htg Co	Warren	RI
Deltufo and Sons Plumbing and Heating Co	West Greenwich	RI
DFS Plumbing Services	West Greenwich	RI
Dimezza Const	Warwick	RI
Dionne and Sons Piping Dynamics Ltd	Coventry	RI
Dirocco Plumbing Services LLC.	North Providence	RI
Don Jestings and Sons LLC	Middletown	RI
Donovan and Sons	Middletown	RI
Douglas Oil CO	Providence	RI

Drivers Plumbing and Heating	Providence	RI
DSA Mechanical	Barrington	RI
DSL & Sons Heating & Cooling LL	Bradford	RI
Dudek Oil Co	Warren	RI
Dupuis Oil Co	Pawtucket	RI
Dynamic Air Systems	East Providence	RI
E A Marcoux and Son	Woonsocket	RI
E M Greco and Son	Warwick	RI
East Bat Chimney Works	Warren	RI
East Bay Plumbing and Heating	Bristol	RI
Eastbay Community Action	East Providence	RI
Ed Beaudoin Plumbing and Heating	Cranston	RI
Eddy's Construction - DBA	Providence	RI
Elmhurst Engineering	East Providence	RI
Emergency Response Plumbing & Heating	Warwick	RI
Eurotech Climate System	Pawtucket	RI
Evergreen Plumbing and Heating	Warwick	RI
F G Lees	Providence	RI
Falcon Hydraulics and Boiler Services	West Kingston	RI
FCI Engineering Group LLC	Providence	RI
Feather HVAC	Cumberland	RI
Feula Plumbing and Heating	Johnston	RI
Fletcher Heating	Hopkinton	RI
Flou Heating and AC	Narragansett	RI
Foremost Electrical Service	Cranston	RI
G and G Technology	North Kingstown	RI
G Hill Plumbing	Westerly	RI
Gas Doctor	Cranston	RI
Gas Master	Little Compton	RI
Gas Pro	Pawtucket	RI
Gasman	Warwick	RI
Geiselman Plumbing and Heating	Pawtucket	RI
Gem Air Services	Pawtucket	RI
Gem Plumbing & Heating Services	Lincoln	RI
Gerard Levesque Plumbing and Heating	Coventry	RI
Giammarcoi Plumbing	North Providence	RI
Gilbane Construction	Providence	RI
Gilbert Gizzarelli	Warwick	RI
Ginger's Oil Company	Westerly	RI
Glendale Oil CO	Burrillville	RI
Globex Industries	Narragansett	RI
Goldon Goncalves	East Providence	RI
Goulart Petroleum	Little Compton	RI
Green and Healthy Homes Initiative	Providence	RI
Green Seal	North Kingstown	RI
Greenwich Insulation	West Warwick	RI
Groves Energy	Scituate	RI
Guy Clemont Plumbing and Heating	Johnston	RI
H H Heating	Lincoln	RI
H K Heating	Coventry	RI
HAABCO Construction	Jamestown	RI
Harbor Controls Corporation	North Kingstown	RI
Harmony Design & Const LLC	Providence	RI
Hart Engineering Corporation	Cumberland	RI

Haven Plumbing and Heating Co	Cranston	RI
Hawkes Plumbing CO	Glocester	RI
HC Woodmansee and Son	Hopkinton	RI
Henderson Electric	Pawtucket	RI
Heroica's Painting	Providence	RI
Holgate Plumbing and Heating	Warwick	RI
Hope Oil	Scituate	RI
Houle Plumbing and Heating	Coventry	RI
Houstyns Remodeling	Lincoln	RI
Howard's Heating Service	North Kingstown	RI
Iasimone Plumbing Hetaing and Drain Cleaning	North Providence	RI
IMichael Rinaldi	Narragansett	RI
Industrial Burner Service	Providence	RI
Industrial Electric	Cranston	RI
Industrial Pump	Tiverton	RI
InQuest Technologies	Providence	RI
J and M Plumbing	Coventry	RI
J Joyce Plumbing and Heating Co	Warwick	RI
J.J. McNamara & Son	Providence	RI
Jae Yoon	Richmond	RI
Jay's Electric	Providence	RI
JD Mechanical	Smithfield	RI
Jeff Berard Plumbing and Heating	Warwick	RI
Jenkins Heating	Smithfield	RI
Jim Steitz Plumbing and Heating LLC	Coventry	RI
JKL Engineering Co	Providence	RI
JMAC Plumbing and Heating	Warwick	RI
JMB Mechanical	Johnston	RI
John C Fletcher	Hopkinton	RI
John Nicholson	Providence	RI
John S Babcock Plumbing	Westerly	RI
Johnny's Oil & Heating	Providence	RI
Johnson and Johnson Plumbing and Heating	Narragansett	RI
Johnson Controls Lighting Services	Lincoln	RI
Joseph Giorno Plumbing and Heating	Cranston	RI
Jr's Plumbing Service	Warwick	RI
JRQ Heating	Warwick	RI
Just Heat	Portsmouth	RI
Kafin Oil Company	Woonsocket	RI
Kans Plumbing	Bristol	RI
Ken Adams	Cranston	RI
Kenahan Construction	West Warwick	RI
Kens Heating LLC	Providence	RI
Kessler's Sheet Metal	Providence	RI
Koolco	South Kingstown	RI
Kwik Plumbing and Heating	Johnston	RI
L and F Plumbing LLC	Cranston	RI
Lapierre Electric	Woonsocket	RI
Lawrence Air Systems	Barrington	RI
Lemay Framing & Remodeling	North Smithfield	RI
Light House Propane	East Greenwich	RI
Lighthouse Consulting	Warren	RI
LJ Giorgi Plumbing and Heating	North Providence	RI
Loln Energy Mechanical Services	West Warwick	RI

Lubera Plumbing	Coventry	RI
Luso Plumbing and Heating	Cumberland	RI
Lutz Air Co	East Providence	RI
Major Electric Supply	Pawtucket	RI
Malone Plumbing and Heating	Cranston	RI
Maloney's Oil Company	Pawtucket	RI
Mansi	Warren	RI
Manuppelli Plumbing LLC	Warwick	RI
Martel Plumbing & Heating	Central Falls	RI
Mathew Cedarfield	Warwick	RI
Mathews Bros DBA Arizona Oil	Cranston	RI
Mc Kee Brothers Oil	Cumberland	RI
Mechanical HVAC Systems	South Kingstown	RI
Mendez Contractors	Providence	RI
Merit Mechanical	Warwick	RI
Michael Freitas Plumbing and Mechanical	Burrillville	RI
Michael Lundy	Tiverton	RI
Micheletti Oil Service	Johnston	RI
MJ Bouchard Heating and AC	Smithfield	RI
Modern Mechanical LLC	Woonsocket	RI
Montella Oil	Providence	RI
Mr Rooter Plumbing	Warwick	RI
Munro Distributing	Cranston	RI
Murray Plumbing and Heating	Smithfield	RI
Mutual Development Corp	West Warwick	RI
N E Electric Distribution (NEED) Amity Electric	Richmond	RI
National Refrigeration	Warwick	RI
Navigant Credit Union	Smithfield	RI
New England Insulation	Woonsocket	RI
New England Restoration and Construction Services	Exeter	RI
New England Supply	Pawtucket	RI
Newport Plumbing and Heating Gas Co	Portsmouth	RI
NexGen Mechanical	Warwick	RI
Nightingale Plumbing and Heating	Providence	RI
Nite Oil	Tiverton	RI
North Atlantic Heating	Coventry	RI
Northeast Energy Reduction	Lincoln	RI
Northeast Noise Abatement	Warwick	RI
Ocean State Heating Service LLCY	Richmond	RI
On The Side HVAC	Cranston	RI
P and T Plumbing and Heating	Coventry	RI
P Mandarin	Cranston	RI
Patrick Martin	Bristol	RI
Patriot Plumbing	Coventry	RI
Patriot Sheet Metal HVAC	Pawtucket	RI
Pellegrino Plumbing	Westerly	RI
People's Power and Light	Providence	RI
Percival Electric	Warwick	RI
Perez Plumbing and Heating	Cranston	RI
Peter Paolino	Johnston	RI
Peter Skeffington	East Providence	RI
Petro	Providence	RI
Petronelli Plumbing and Heating	Johnston	RI

Phalanx Engineering	Cranston	RI
Phil Paul Plumbing and Heating	North Smithfield	RI
Phil's Bottled Gas Service Co.	Tiverton	RI
Phillip Rott Plumbing and RI	Coventry	RI
Phillips Plumbing and Mechanical	Cranston	RI
Piazza Enterprises	Warwick	RI
Pickles Plumbing and Heating LLC	Burrillville	RI
Pingitore Plumbing and Heating Co	Johnston	RI
Pinnacle Plumbing and Heating	Smithfield	RI
Plumbing & Heating Solutions LLY	Providence	RI
Plumbing Solutions	Cranston	RI
Potvin Enterprises	Warwick	RI
Premair HVAC	Warwick	RI
Priority One	Hopkinton	RI
Projects Can Happen	Pawtucket	RI
Providence Community Action Program	Providence	RI
Providence Mechanical Services	Smithfield	RI
R B Queern & Co	Middletown	RI
R E Coogan Heating	Warwick	RI
Ralph Ferra Plumbing	North Smithfield	RI
Rambone & Sprague Oil Service	Scituate	RI
Randy Pomeroy	Burrillville	RI
Ray Ciampanelli Plumbing and Heating Co	Peacedale	RI
Rayco Electric	Providence	RI
Raymond Degnan	North Providence	RI
Reddy Piping Concepts	Cranston	RI
Regan Heating & Air Conditioning	Providence	RI
Regency Plaza	Providence	RI
Reichert & Sons Fuel Oil	Glocester	RI
Reinhold Plumbing and Heating	Johnston	RI
Reinsant Heating	Lincoln	RI
Reliable Electric	Coventry	RI
Reliable Plumbing and Mechanical	Providence	RI
Resendes Heating Service LLC	Coventry	RI
Restivo Heating and Air Conditioning	Johnston	RI
Rhode Island Community Action Association	Cranston	RI
Rhode Island Green Building Council	Providence	RI
RI Analytical	Warwick	RI
RI Gutter	Warwick	RI
RI Insulation	Scituate	RI
RI Plumbing and Heating	Lincoln	RI
Ricahrd's Oil Company	Coventry	RI
Richard A Lavey	Warren	RI
RISE Engineering	Cranston	RI
RJL Insulation Co.	Middletown	RI
RK Electric LLC	North Kingstown	RI
Robert E Bang DBA Raymong J Reinsant Plumbing	Lincoln	RI
Robert Martel Plumbing	Central Falls	RI
Robert Squizzero Plumbing and Heating	Cranston	RI
Rob's Oil Burner Service	West Warwick	RI
Roland & Sons	Narragansett	RI
Rossi Electric	Cranston	RI
Roto Rooter Services	Providence	RI

RST Sheetmetal	Foster	RI
Ruotolo Fuel	Johnston	RI
RW Bruno Heating and Cooling	Lincoln	RI
S & S Electric	Glocester	RI
S B Carbone Plumbing & Heating	Cranston	RI
Sal Maggiacomo Plumbing and Heating	Cranston	RI
Sal Manzi and Son Plumbing and Heating Co	Cranston	RI
Sam Bliven Jr Plumbing & Heating	Westerly	RI
Sandler Services LLC	East Providence	RI
Sanoco DBA Santoro	Providence	RI
Sasa Energy LLC	Johnston	RI
Savard Oil Co	East Providence	RI
Schneider Laboratories	Richmond	RI
Seekonk Supply	Providence	RI
Shearman Oil	Tiverton	RI
Sherman Plumbing	East Providence	RI
Siemens Industry	Cranston	RI
Simons Supply	Warwick	RI
Sine Plumbing and Heating	East Providence	RI
South County Community Action	South Kingstown	RI
South County Gas Service	Narragansett	RI
St. Angelo Plumbing	Barrington	RI
Stack Design Build LLC	Providence	RI
Standish Brothers HVAC LLC	Coventry	RI
State of Rhode Island	Providence	RI
Statewide	North Smithfield	RI
Stedman Kazounis Plumbing	Charlestown	RI
Stephen C Girard	East Providence	RI
Steven Plumbing	Barrington	RI
Sun Systems	Narragansett	RI
Sunshine Oil Co	Bristol	RI
Superior Comfort	Bristol	RI
Superior Electric	Warwick	RI
Superior Insulation LLC	Warwick	RI
Superior Plumbing and Heating	Cranston	RI
Sustainable Energy Solutions LLC	Providence	RI
Sylvander Heat and AC	East Greenwich	RI
T A Gardiner Plumbing and Heating	Bristol	RI
T Gomes Heating & Cooling LLC	Providence	RI
Tadco Electric	Johnston	RI
TH Malloy and Sons	Cumberland	RI
The Plumber Company	Johnston	RI
Thermal Home Energy Solutions	Cranston	RI
Therrien Mechanical Systems	Lincoln	RI
Thomas Federicci	Warwick	RI
Todd Delmonico Plumbing	East Providence	RI
Tom Peters Plumbing and Heating	Portsmouth	RI
Total Comfort Heating and Cooling	Tiverton	RI
Total Construction Services	Providence	RI
Trane	Providence	RI
Travers Plumbing and Heating orporated	Portsmouth	RI
Tri-Town Community Action	Johnston	RI
UG Nasons	Middletown	RI
United Mechanical	Cranston	RI

United Oil Burners Service	Warwick	RI
Universal Insulation	North Providence	RI
University of Rhode Island	South Kingstown	RI
V & G Electric	Westerly	RI
V & L Construction	Providence	RI
Valcourt Heating	Little Compton	RI
Valley Heating and Cooling	Richmond	RI
Valley Plumbing and Heating	Cumberland	RI
Vaughn Oil Co	Smithfield	RI
Vernon's Oil Burner Service	Warwick	RI
VICMIR Heating and Air Conditioning	East Providence	RI
Viking Supply	Westerly	RI
Vivona Plumbing & Heating	Portsmouth	RI
Wakefield Heating Service LLC	South Kingstown	RI
Walco Electric Co.	Providence	RI
Waldo Plumbing and Heating	Lincoln	RI
Warner Appliance Service	Cumberland	RI
Wesco Oil & Propane	Smithfield	RI
Westbay Community Action	Warwick	RI
Wickford Appliance	Pawtucket	RI
William Barberry	Scituate	RI
Wojcik Electric	Narragansett	RI
Woods Heating Service	East Providence	RI
Zawadzki Plumbing and Heating	Warwick	RI
Zerodraft Insulation LLC	North Smithfield	RI
All Energy Services LLC	Pawtucket	RI
L & B Remodeling	Warwick	RI
Mike's Oil	Tiverton	RI
Facility Solutions Group	Austin	TX
NexRev	Plano	TX
Vermont Energy Investment Corporation	Burlington	VT
Ecova	Spokane	WA
New Buildings Institute	White Salmon	WA
Northwest Energy Efficiency Council	Seattle	WA

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Attachment 5

2012 RGGI Auction Proceed Report



Rhode Island
Regional Greenhouse Gas Initiative, Inc. Auction Proceeds Report
Presented by National Grid
May 31, 2013

Introduction

Since 2008, Rhode Island (RI) has received approximately \$19.7 million from CO₂ Allowance Auctions through the Regional Greenhouse Gas Initiative, Inc. (RGGI).¹ As of January 2012, National Grid received \$10.6 million of those funds in order to expand energy efficiency (EE) efforts throughout the state. This report is in accordance with the RI Office of Energy Resource's (OER) 2011 Plan for the Allocation and Distribution of RGGI Proceeds ('2011 Plan'), which calls for an annual report that describes results for expanded and supplemental EE activities. 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

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.

Additionally, under the OER's 2011 Plan, the Company received eighty percent of proceeds from Auctions 6-10 in January, 2012. The proceeds were used to continue innovative finance initiatives, including capitalizing the existing Small Business Revolving Loan fund and establishing a Large Commercial Revolving Loan fund. This report provides results from both of those initiatives in 2012.

Deep Energy Retrofit

The Deep Energy Retrofit (DER) pilot was designed to determine the energy savings and market potential for super insulation retrofits in Rhode Island. The goal of the DER pilot was to achieve significant energy reductions of 50% or more in a home and learn how DER measures can be applied to retrofit programs in the future for all customers.

The pilot began with recruitment in 2010 with construction beginning in 2011. In 2012, the pilot held a full-day workshop and also recruited single-family and multi-family owners, builders, developers and architects in the program. A total of four buildings, which have 9 dwelling units, were completed in the DER Pilot. They include a two-family residence in North Kingstown, two three-family residences in Providence, and a single family home in Wakefield.

The pilot was successful because data gathered and evaluated during the pilot determined that components of the DER are cost-effective under Least Cost Procurement benefit-costs tests. The Company received Public Utility Commission (PUC) approval to begin offering Roof, Exterior Wall, and Basement DER measures in 2013 as part of the Residential New Construction Program. A customer can include these measures when they are re-roofing, re-siding, and upgrading their basement.

Two projects were accepted in 2011 and completed construction in 2012. They included a two-family residence in North Kingstown and a three-family residence in Providence. Two more projects began and completed construction in 2012, including a three-family in Providence and a single family in Wakefield. Pictured below are before and after images from construction on the three-family in Providence. Additional images from the project are included in Attachment 1.



Heat Loan

In 2011, the Company partnered with Navigant Credit Union and Citizens-Union Savings Bank in order to offer customers 0% financing for energy efficiency improvements. The Heat Loan can be used for Insulation and/or Air Sealing Upgrades, Energy Efficient Heating System Replacement, Duct Sealing and Duct Insulation, Energy Efficient Domestic Hot Water System, ENERGY STAR® Thermostat(s). Customers are eligible for 0% interest loans up to \$25,000, for period of up to 7 years. Customers must receive an EnergyWise home assessment in order to be eligible for the Heat Loan. During the home assessment, auditors recommend the Heat Loan and leave behind customer-friendly information about taking the next steps.

The Heat Loan was actively promoted to customers in 2012. For example, National Grid developed a video that explains frequently asked questions about applying for a Heat Loan, as illustrated here. The video can be viewed at:
<https://www1.nationalgridus.com/HomeRI-RI-RES>.



In 2012, National Grid used the remaining RGGI funds to buy down the interest for 330 customers, administer the program, and also conduct quality assurance inspections. Using just over \$300,000 in RGGI funds to buy down interest to 0%, customers received a total amount of \$1,878,352 in loans. The average loan was approximately \$5,700. After the RGGI funds were exhausted in September 2012, the Company continued to offer Heat Loan through EE funds, as approved by the PUC as part of the 2012 EE Plan. Combining the RGGI and EE funds, Heat Loan provided a total of 548 customers with a total loan value of \$3,360,440 in 2012.

The annual and lifetime energy savings, as well as the benefits and cost savings, from equipment that Heat Loan financed are attributed to the programs in which the borrowing customers participate, for example EnergyWise or High Efficiency Heating.

The RGGI Heat Loan pilot was a success. It demonstrated a finance model that customers liked, partnered with local RI banks and credit unions, and was implemented in a cost-effective way as part of the EnergyWise program. The Company is expanding Heat Loan to more banks in 2013 such as Coventry Credit Union and Baycoast Bank, as well as the Capitol Good Fund which is a non-profit lender designed for customers with less-than-perfect credit.



Small Business Revolving Loan Fund

The Small Business Direct Install program helps businesses reduce their energy costs with energy efficient equipment such as lighting upgrades, lighting occupancy sensors, walk-in cooler efficiency measures, and site-specific custom projects. National Grid offers incentives for up to 70% of the cost of the installation of qualified equipment and then finances the customers' share of the cost with interest-free financing up to 24 months. The finance can be repaid on monthly electric bills.

In 2011, the Company successfully created a revolving loan fund for small business customers using \$1.8 million of RGGI proceeds. An additional \$2.3 million in RGGI funds was received in January 2012 to help capitalize the loan fund so that it may continue to revolve and support customer finance in the future.

The Small Business Direct Install program had 1,707 customers participate in 2012. The majority of these customers elected to receive finance and repay it on their bills and received a total of \$2.3 million. During 2012, \$1.6 million was repaid to the revolving loan fund from customers who received finance previously. A fund balance report for the Revolving Loan Fund is included as Attachment 2. The fund balance report includes all of the Company's Small Business finance activity, not just RGGI.

Overall, the program was able to save 19,008 annual MWh and 209,164 lifetime MWh. The program created a total lifetime benefit of \$20.5 million which includes \$14.8 million in reduced capacity and summer and winter energy benefits over the life of the measures. For more information about benefits please see the RI 2012 Energy Efficiency Year End Report, Table E-2, filed with the PUC in May 2013.

Large Business Revolving Loan Fund

The Large Business Revolving Loan Fund helps large commercial and industrial (LC&I) customers overcome financial barriers to investing in energy efficiency by financing their portion of the project cost, to be repaid on their bill over the next two years. Projects included the Providence School Department which was able to complete lighting retrofits in 14 schools. Together, the projects will save the school system 1,695 MWh annually.

In January, \$1.7 million of the RGGI funds were added to the Company's existing Large Business Revolving Loan Fund. In 2012, 64 customers received \$1.7 million from the RGGI funds. A fund balance report for the Large Business Revolving Loan Fund is included as Attachment 3. The fund balance report includes all of the Company's Large Commercial and Industrial finance activity, not just RGGI.

Overall, the RGGI funds helped customers save 6,442 annual MWh and approximately 78,339 lifetime MWh. It also helped created a total lifetime benefit of \$6.8 million which includes \$5.3 million in capacity and summer and winter energy benefits over the life of the measures. For more information about benefits please see the RI 2012 Energy Efficiency Year End Report, Table E-2, filed with the PUC in May 2013.



Spending & Reporting

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

Auctions	Received	EE Funding	Initiative	Budget	2011 Spend	2012 Spend
1 - 5	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
Total				\$ 6,668,112	\$ 2,017,917	\$ 4,650,195

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



ATTACHMENTS

- Attachment 1 – Deep Energy Retrofit Open House Presentation
- Attachment 2 – 2012 Small Business Revolving Loan Fund Balance
- Attachment 3 – 2012 Large Business Revolving Loan Fund Balance

Phoenix Apartments LLC
26 Buildings, 83 Units of HUD Section 8 Housing

Deep Energy Retrofit Open House

523 Cranston Street, Providence, RI



nationalgrid





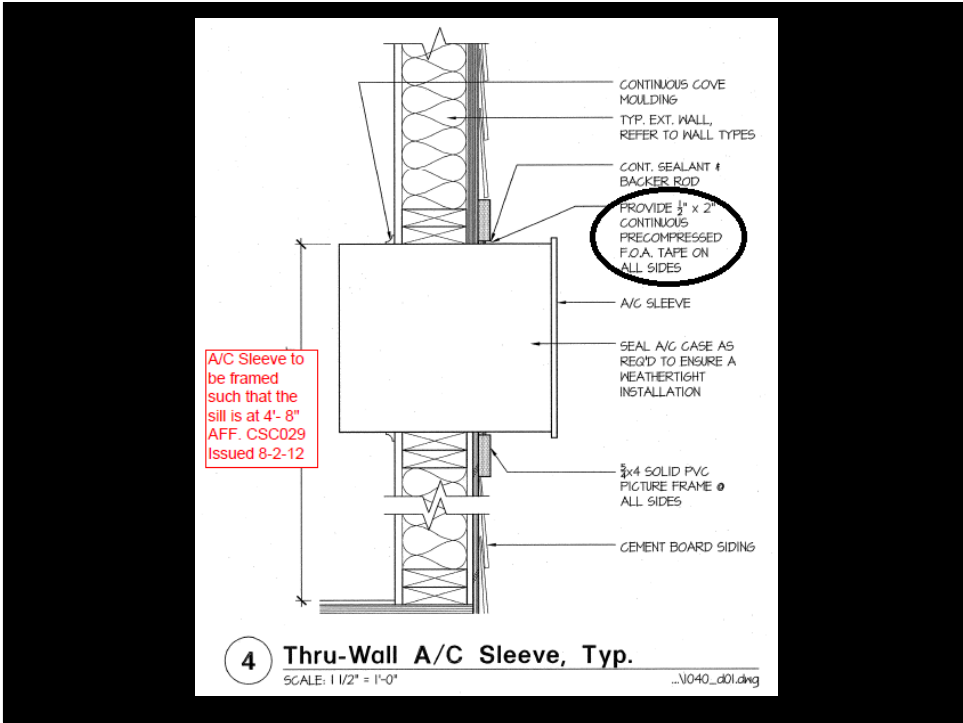
Before



Before

Before

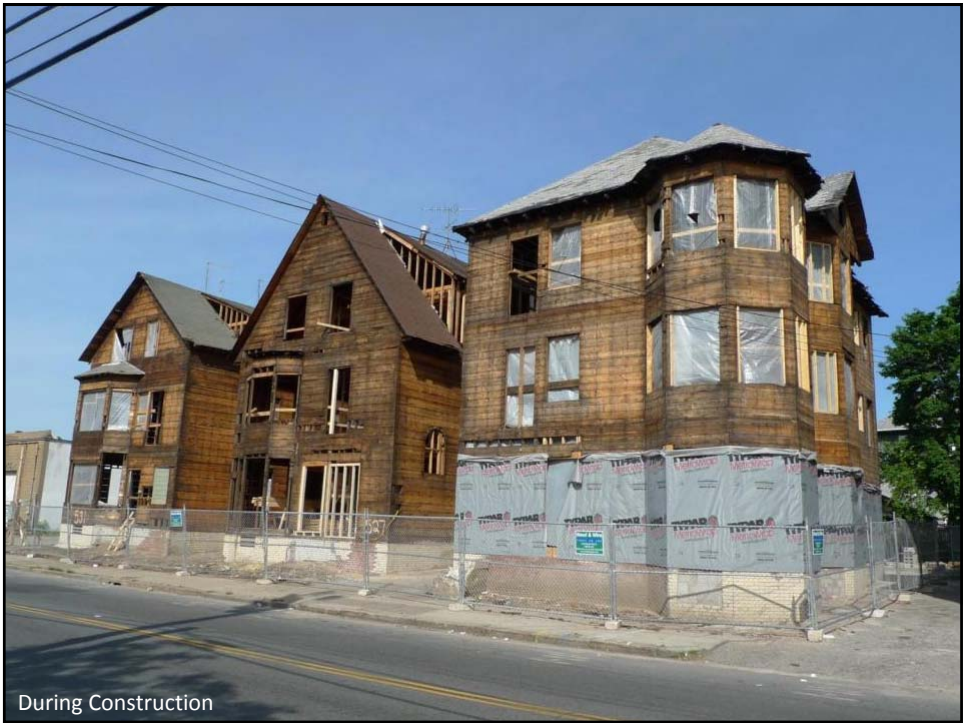








During Construction



During Construction







2012 RGGI Auction Proceeds Report
Attachment 2

NARRAGANSETT ELECTRIC COMPANY
2012 RGGI FUNDED ENERGY EFFICIENCY ADJUSTMENT AND BALANCE
SMALL COMMERCIAL & INDUSTRIAL REVOLVING LOAN FUND
12 month(s) of actuals 0 month(s) of estimates

Total Small C&I Revolving Loan Fund for Jan-Dec 2012

	<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)	\$2,572,469	\$104,873	\$118,334	\$129,826	\$94,258	\$87,055	\$3,106,815
2. TOTAL EXPENSE (B)	\$423,382	\$78,138	\$162,467	\$203,718	\$144,165	\$157,210	\$1,169,080
3. Cash Flow Over/(Under)	\$2,149,088	\$26,734	(\$44,132)	(\$73,892)	(\$49,907)	(\$70,155)	\$1,937,735
4. Start of Period Balance (C)	\$1,044,086	\$3,199,636	\$3,236,170	\$3,201,840	\$3,137,601	\$3,097,187	\$1,044,086
5. End of Period Balance Before Interest	\$3,193,174	\$3,226,370	\$3,192,037	\$3,127,948	\$3,087,693	\$3,027,032	\$3,027,032
6. TOTAL INTEREST (D)	\$6,462	\$9,800	\$9,803	\$9,653	\$9,494	\$9,339	\$54,550
7. End of Period Balance After Interest	\$3,199,636	\$3,236,170	\$3,201,840	\$3,137,601	\$3,097,187	\$3,036,371	\$3,036,371
	<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)	\$114,695	\$138,926	\$106,348	\$193,515	\$146,392	\$179,572	\$3,986,262
9. TOTAL EXPENSE (B)	\$116,091	\$145,874	\$260,900	\$255,691	\$180,809	\$198,833	\$2,327,279
10. Cash Flow Over/(Under)	(\$1,396)	(\$6,948)	(\$154,552)	(\$62,176)	(\$34,418)	(\$19,261)	\$1,658,983
11. Start of Period Balance (C)	\$3,036,371	\$3,044,234	\$3,046,560	\$2,901,064	\$2,847,641	\$2,821,856	\$1,044,086
12. End of Period Balance Before Interest	\$3,034,975	\$3,037,286	\$2,892,008	\$2,838,888	\$2,813,224	\$2,802,595	\$2,802,595
13. TOTAL INTEREST (D)	\$9,259	\$9,274	\$9,056	\$8,753	\$8,633	\$8,577	\$108,103
14. End of Period Balance After Interest	\$3,044,234	\$3,046,560	\$2,901,064	\$2,847,641	\$2,821,856	\$2,811,172	\$2,811,172
15. FUND BALANCE AT YEAR-END							\$2,811,172

(A) On-Bill Repayments received

(B) New customer financing

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

2012 RGGI Auction Proceeds Report
Attachment 3

NARRAGANSETT ELECTRIC COMPANY DBA NATIONAL GRID
2012 RGGI FUNDED ENERGY EFFICIENCY ADJUSTMENT AND BALANCE
LARGE & MEDIUM COMMERCIAL & INDUSTRIAL REVOLVING LOAN FUND
12 month(s) of actuals 0 month(s) of estimates

Total Large C&I Revolving Loan Fund for Jan-Dec 2012

	<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)	\$1,734,678	\$0	\$0	\$0	\$0	\$0	\$1,734,678
2. TOTAL EXPENSE (B)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3. Cash Flow Over/(Under)	\$1,734,678	\$0	\$0	\$0	\$0	\$0	\$1,734,678
4. Start of Period Balance (C)	\$945,000	\$2,685,206	\$2,693,396	\$2,701,611	\$2,709,850	\$2,718,116	\$945,000
5. End of Period Balance Before Interest	\$2,679,678	\$2,685,206	\$2,693,396	\$2,701,611	\$2,709,850	\$2,718,116	\$2,718,116
6. TOTAL INTEREST	\$5,528	\$8,190	\$8,215	\$8,240	\$8,265	\$8,290	\$46,728
7. End of Period Balance After Interest	\$2,685,206	\$2,693,396	\$2,701,611	\$2,709,850	\$2,718,116	\$2,726,406	\$2,726,406
	<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)	\$0	\$9,584	\$16,825	\$36,674	\$15,305	\$65,414	\$1,878,481
9. TOTAL EXPENSE (B)	\$0	\$217,984	\$20,215	\$19,261	\$13,495	\$1,945,430	\$2,216,386
10. Cash Flow Over/(Under)	\$0	(\$208,400)	(\$3,390)	\$17,413	\$1,810	(\$1,880,016)	(\$337,905)
11. Start of Period Balance (C)	\$2,726,406	\$2,734,721	\$2,534,344	\$2,538,679	\$2,563,862	\$2,573,495	\$945,000
12. End of Period Balance Before Interest	\$2,726,406	\$2,526,321	\$2,530,954	\$2,556,092	\$2,565,672	\$693,478	\$693,478
13. TOTAL INTEREST	\$8,316	\$8,023	\$7,725	\$7,770	\$7,823	\$4,982	\$91,365
14. End of Period Balance After Interest (D)	\$2,734,721	\$2,534,344	\$2,538,679	\$2,563,862	\$2,573,495	\$698,460	\$1,698,460
15. FUND BALANCE AT YEAR-END (D)							\$1,698,460

(A) On-Bill Repayments received

(B) New customer financing

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

(D) Includes \$1,000,000 transferred from the Large C&I DSM Program