

National Grid

The Narragansett Electric Company

2014 System Reliability Procurement Report

November 1, 2013

Submitted to:
Rhode Island Public Utilities Commission

R.I.P.U.C. Docket No. 4453

Submitted by:

nationalgrid

November 1, 2013

VIA HAND DELIVERY & ELECTRONIC MAIL

Luly E. Massaro, Commission Clerk
Rhode Island Public Utilities Commission
89 Jefferson Boulevard
Warwick, RI02888

**RE: Docket 4453 - The Narragansett Electric Company, d/b/a National Grid
2014 System Reliability Procurement Report**

Dear Ms. Massaro:

Enclosed are ten (10) copies of National Grid's¹ proposed System Reliability Procurement Report for 2014 (the "2014 SRP Report"). The 2014 SRP Report is being filed as a settlement, agreed to by the participating members of the Energy Efficiency Subcommittee of the Energy Efficiency Resources Management Council ("EERMC"). The EERMC is an independent and diverse stakeholder council who oversees the development and implementation of the Company's system reliability plans and programs.

This 2014 SRP Report is being filed pursuant to the System Reliability and Least Cost Procurement statute, R.I.G.L. § 39-1-27.7 and the revised System Reliability Procurement Standards (the "Standards") that were approved by the Commission on June 7, 2011 in Docket 4202. The basis for least cost procurement of system reliability in Rhode Island is the Comprehensive Energy Conservation, Efficiency, and Affordability Act of 2006, codified at R.I.G.L. § 39-2-1.2, which provided a unique opportunity for Rhode Island to identify and procure cost-effective customer-side resources with a focus on alternative solutions to the traditional supply options.

Similar to the past two years, the 2014 SRP Report is consistent with the framework established in the Three Year Energy Efficiency Procurement Plan ("Three Year Plan") filed in Docket 4284 to integrate the analysis of non-wires alternatives ("NWAs") into the Company's planning functions by using analytical tools to evaluate the costs and benefits of traditional and NWA solutions, and to identify system needs for which a NWA is the preferred solution.

In this 2014 SRP Report filing, the Company is proposing to continue the Load Curtailment Pilot ("Pilot"), which began in 2012 and was approved by the Commission in Docket 4296, to test the use of load curtailment by customers, or demand response, as a means to manage local distribution capacity requirements during peak periods. In the Company's 2012 SRP Report-Supplement, the Company identified the area served by its Tiverton substation as an

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

appropriate candidate for a NWA pilot. The Pilot area serves 5,600 customers. With the increased success experienced so far in 2013 with recruiting customers to the Pilot, the 2014 Report proposes to continue offering the same portfolio of products and incentives as has been offered in 2013. The 2014 Report will continue to directly market to customers to maintain recruitment, but it will also place a focus on participant communications and management as well as demand response event administration, which is expected to begin in earnest in 2014.

The Company is proposing to fund the third year of the Pilot through a combination of leveraging existing energy efficiency funds by targeting certain energy efficiency programs and measures in the Tiverton/Little Compton area, and additional funding for increased marketing efforts and incentives. The additional funding proposed is not included in the budget for the 2014 Energy Efficiency Program Plan that is being submitted separately for the Commission's consideration in Docket 4451; therefore, the Company is requesting the Commission's approval of the third year budget for the 2014 SRP Report in the amount of \$399,208, and to apply the existing fund balance in the amount of \$57,158 to the 2014 budget to reduce the amount of customer funding to \$342,050. As indicated last year, if the Pilot is successful in enrolling enough load relief and in providing sustained load relief over a four (4) year period, it will result in deferral of a new substation feeder estimated to cost \$2.93 million in 2014,² which equates to a net present value cumulative savings of \$653,273 over a four-year deferral. While the Company acknowledges that the potential deferral value of the proposed substation upgrade is less than the total cost of the Pilot, this investment continues to be necessary in order to determine the appropriate levels of administration, customer outreach, and evaluation necessary to acquire participation in load response events.

It is expected that the 2014 investment will create combined annual summer demand savings of 293 kW and combined lifetime demand savings of 2,226 kW for the residential and commercial and industrial sectors in the Tiverton/Little Compton area. Additionally, in 2014, the Pilot will create combined annual energy savings of 280 MWh and combined lifetime energy savings of 4,212 MWh in the same area. In accordance with the Standards' requirements for cost effectiveness, in 2014 the Pilot will create \$1.74 of economic benefits for every \$1 invested. Overall, the Pilot in 2014 will generate economic benefits of more than \$1.14M over the life of the measures.

As in past years, the Company is proposing to roll the additional funds needed for the Pilot into the existing Energy Efficiency Program ("EEP") charge, rather than as a separate line item on customers' bills. The total additional funding needed for the Pilot is \$0.00005 per kWh. The proposed EEP charge requested as part of the 2014 EEP Plan is \$0.00896 per kWh. With the addition of the SRP funding, if approved, the total EEP charge would be \$0.00901 per kWh. As with the Energy Efficiency funds, actual revenues will be reconciled against actual expenses at the end of the year and any difference will be credited or charged to customers in 2015.

² The Company made minor adjustments in the cost of the wires solution over last year to reflect inflation. Additional detail regarding the cost adjustments is set forth in the 2014 SRP Report.

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The 2014 SRP Report has been reviewed and approved by the EERMC and complies with the Least Cost Procurement statute and the Standards. Accordingly, the Company respectfully requests that the Commission approve this 2014 SRP Report.

Thank you for your attention to this filing. If you have any questions, please feel free to contact me at (401) 784-7288.

Very truly yours,

A handwritten signature in black ink, appearing to read "Jennifer Brooks Hutchinson". The signature is fluid and cursive, with a long horizontal line extending to the right.

Jennifer Brooks Hutchinson

cc: Karen Lyons, Esq.
Jon Hagopian, Esq.
Steve Scialabba, Division

SYSTEM RELIABILITY PROCUREMENT
2014 REPORT

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2014 SYSTEM RELIABILITY PROCUREMENT REPORT

Introduction

The Narragansett Electric Company's d/b/a National Grid ("National Grid" or "Company") is pleased to submit this annual System Reliability Procurement Report ("SRP Report") for 2014 to the Rhode Island Public Utilities Commission (the "Commission"). This SRP Report has been developed by National Grid in collaboration with the Collaborative Subcommittee of the Energy Efficiency and Resource Management Council ("EERMC").¹

This SRP Report is submitted in accordance with the Least Cost Procurement law, R.I.G.L. §39-1-27.7, the basis for which is the Comprehensive Energy Conservation, Efficiency, and Affordability Act of 2006 (as amended in May 2010),² and the Commission's revised "System Reliability Procurement Standards," approved by the Commission on June 7, 2011 ("SRP Standards").³ This Plan is being jointly submitted as a Stipulation and Settlement ("Settlement"), entered into by the Division of Public Utilities and Carriers (the "Division"), the EERMC, The Energy Council of Rhode Island ("TEC-RI"), Environment Northeast ("ENE"), and National Grid (together, the "Parties"), and addresses all issues raised by members of the Collaborative Subcommittee concerning the Company's SRP Report for calendar year 2014.

¹ Members of the Subcommittee presently include the Company, the Division, TEC-RI, and ENE, along with participation from the Office of Energy Resources ("OER"), several EERMC members and representatives from the EERMC's Consulting Team. The Collaborative has functioned as a subcommittee of the EERMC since 2008.

² The Comprehensive Energy Conservation, Efficiency and Affordability Act of 2006 (the "2006 Act") provides the statutory framework for least cost procurement of system reliability in the State of Rhode Island. The 2006 Act provided a unique opportunity for Rhode Island to identify and procure cost-effective customer-side and distributed resources with a focus on alternative solutions to the traditional supply options. Over time these alternative solutions may deliver savings to customers by deferring or avoiding distribution system investments, and improving overall system reliability.

³ The Least Cost Procurement law, R.I.G.L. §39-1-27.7, requires standards and guidelines for "system reliability" that includes the "procurement of energy supply from diverse sources," including, but not limited to, renewable energy resources, distributed generation, including but not limited to, renewable resources and cost-effective combined heat and power systems, and demand response designed to, among other things, provide local system reliability benefits through load control or using on-site generating capability. On June 7, 2011, the Commission unanimously approved revised standards for system reliability, finding that the standards were consistent with the policies and provisions of R.I.G.L. 39-1-27.7.1(e)(4), (f) and R.I.G.L. 39-1-27.7.3.

Section 2.1(C) of the SRP Standards requires that the Company identify transmission or distribution (“T&D”) projects that meet certain screening criteria for potential non-wires alternative (“NWA”) solutions that reduce, avoid, or defer traditional T&D wires solutions. NWAs are actions by customers that may defer the need for Company investment. NWAs provide demand response either through targeted energy efficiency efforts, controlling load at times of local peak demand, distributed generation used at time of peak demand, and controllers that are programmed to reduce demand at peak demand. Section 2.1 (H) of the SRP Standards further require the Company to submit on November 1 of each year an SRP Report that includes, among other information, a summary of where NWAs were considered, identification of projects where NWAs were selected as a preferred solution, an implementation and funding plan for selected NWA projects, recommendations for demonstrating distribution or transmission projects for which the Company will use selected NWA reliability and capacity strategies, and the status of any previously approved pilots.

National Grid seeks approval of this 2014 SRP Report in accordance with the guidelines set forth in Section 2.1 of the SRP Standards.

Summary of Company Proposal

As part of this 2014 SRP Report, the Company is proposing to continue the Load Curtailment Pilot (“Pilot”) that was proposed in the 2012 System Reliability Procurement Report – Supplement (“2012 SRP Report”) and approved by the Commission in Docket 4296. The purpose of the Pilot is to test the use of load curtailment by customers, or demand response, as well as focused energy efficiency as a means to manage local distribution capacity requirements during peak periods. As explained in the 2012 SRP Report, the Company identified the area served by its Tiverton substation as a candidate for a pilot. The Company will leverage experience from its first year-and-a-half of Pilot implementation, as well as its previous effort in targeted energy efficiency (“EE”) on Aquidneck Island conducted in 2009-2010. That effort was performed as a pilot in the approved Energy Efficiency Program Plan for 2009 using EE funding.

The Company proposes the continued use of EE funds from programs proposed in the 2014 Energy Efficiency Program Plan filing and certain additional funds as proposed below to conduct this Pilot in 2014. The Company estimates that approximately \$399,200 will be required in 2014 to implement the year’s plan. This is in addition to approximately \$237,900 in focused energy efficiency costs that will be leveraged through energy audits and provision of equipment through the EE programs.

The requested funds will be used to enhance energy efficiency incentives, provide additional energy efficiency measures that would not otherwise be offered through the statewide programs, increase marketing in the Tiverton/Little Compton area to increase participation in all aspects of the Pilot and conduct a targeted demand reduction program

that will reduce customer air conditioning loads. The Pilot area serves approximately 5,600 customers and the Company is seeking enough customers to provide 1MW of load reduction by the end of 2017 to allow deferral of a new substation feeder for that four (4) year period. If the Pilot is successful in enrolling enough load relief and in providing sustained load relief over a six (6) year period, it will result in the deferred construction of a new substation feeder estimated to cost \$2.93 million in 2014.

Projects Reviewed for NWA

The Company screened transmission and distribution projects against the criteria listed in Section 2.1 (C) of the SRP Standards and its internal planning document throughout 2013. No new projects met the criteria. Projects for consideration included all projects initiated since March 31, 2012. Since this date, 141 new distribution projects were initiated. One hundred five (105) projects were immediately discounted from NWA criteria review based on their primary driver. Projects with primary drivers of asset condition, damage/failure, and statutory/regulatory (new business and public works) are fundamentally unsuitable for an NWA. The remaining 36 system capacity and performance (“SC&P”) driven projects are then reviewed further for NWA suitability. The Company determined that certain SC&P projects contain scopes that are not suitable for NWAs. Such scopes include EMS expansion projects, volt/var experimental projects, and storm hardening projects, which excludes another 17 projects. The NWA analysis for the remaining 19 projects is summarized in the table below.

Project Group	Project IDs	NWA Comment
Kents Corner 47- Feeder 47J3, Upgrade Limiting Element	C046662	Less than \$1M project, immediate need
Clarke Street 65J12 Feeder Upgrade	C046831, C046832	Includes asset condition work (station breaker and transformer) that could not be addressed by NWA
68F3 - Kings Factory Rd Stepdown Conversion	CD00808	Less than \$1M project, immediate need
Bishop Hill Rd, Johnston Phase Balancing	CD00930	Less than \$1M project, immediate need
Worden Pond Rd Stepdown Conversion, South Kingston	CD00932	Less than \$1M project, immediate need
New Highland Drive Substation	CD00972, CD00978	Requires deferment of greater than 20% of area load.
Feeder Reconfiguration - 127W41/127W43	CD01025	Less than \$1M project, immediate need
Wakefield 17F1 Feeder Upgrades	CD01087	Less than \$1M project, immediate need
Warwick Sub 52F3 Feeder Regulator Upgrade	CD01092	Less than \$1M project, immediate need
Kents Corner Transformer Contingency, Stepdown Conversion	CD01093	Less than \$1M project, immediate need
Kent County Substation Expansion	CD01101, CD01104	Station transformer contingency issue requires deferment of greater than 20% of area load.
Hunt River Substation Retirement	CD01102	Asset condition project associated with Kent County projects
Providence Long Term Study	C046415, C046421	Study in progress. NWA suitability not determined
East Bay Study	C046726, C046727	Study pending. NWA suitability not determined

Forecasted Load Growth in Tiverton Area

Appendix 1 shows historical and forecast coincident summer peak demands for the Company and its four Power Supply Areas (“PSAs”). The highest peak demand was in the summer, recorded in August 2006 at 1,949 MWs and the highest winter demand was in December 2004 of 1,394 MWs. The Company’s distribution system serves approximately 492,000 electric customers in 38 cities and towns in Rhode Island. The residential class accounts for about 41% of the Company’s total Rhode Island load, while the commercial class accounts for about 47% and the industrial class 12%.

Per Appendix 1, Tiverton and Little Compton are part of the Providence PSA, whose summer peak is expected to rise at an average annual rate of 0.6%, on a weather-adjusted basis over the next ten years. Residential deliveries accounted for over 70% for Tiverton’s deliveries and 80% of Little Compton’s deliveries, both higher percentages than those of the Company as a whole.

Tiverton Substation Upgrade Work

At the time of this filing, the Company has made a preliminary determination that there is a change in the expected load growth at the Tiverton substation. The Company has not made a scope change to the standard engineering loading solution, but will defer it by one year. Noting this short deferral, the NWA pilot will continue with its 2014 goals. The Company also suspects that 2015 and future NWA pilot kW curtailment targets may be reduced as a result of reduction in future load growth rates. Pending actual loading, for those years, it may be premature to assume this. These reductions may be to a level that maintains the 2014 targets.

Cost adjustments to the wires solution are related to inflation. A correction to the estimated 2012 inflation rate of 2.2% was adjusted down to the actual 2012 average of 2.1%. The 2013 average inflation through July is 1.6%, also a decrease from the assumed value in the 2013 SRP Report. The Company continued to use 1.6% as the best estimate of inflation for 2014.

	Distribution	Substation	Total
Capital	\$1,766,151	\$795,284	\$2,561,435
O&M	\$41,313	\$82,627	\$123,940
Removal	\$165,254	\$82,627	\$247,881
Totals	\$1,972,718	\$960,538	\$2,933,256

Please refer to the 2012 SRP Report (Docket 4296) for a detailed description of the engineering work.

2012 Pilot Implementation Summary

In 2012, the Demand Link Pilot offered Ecobee Inc. Wifi thermostats with demand response technology to eligible residential and commercial customers, as well as an efficient lighting ballast package with demand response technology for commercial customers. The equipment and installations were free to participants, who were required to sign a contract to participate in the pilot for at least two years. Eligible customers were also encouraged to receive a free, EnergyWise audit and to take advantage of the energy efficiency measures recommended by that analysis of their home.

Marketing for the Pilot began in June of 2012. The initial outreach targeted specific segments of eligible customers, including those who had recently completed an EnergyWise audit and the top 1,500 electric users within the Pilot area, based on bill usage data. Marketing tactics consisted of direct mailings and e-mails followed by outbound follow-up calls (telemarketing). The marketing campaign also included broad-based awareness tactics to supplement the direct marketing for an integrated approach. Awareness tactics included social media (messages via Twitter), paid search (Google keyword search), and online banner ads on local Tiverton-Little Compton Patch sites. In

addition to all of these SRP-specific marketing activities, the statewide EE marketing was in effect throughout 2012, promoting the EnergyWise and Small Business Direct Install programs. Any Demand Link-eligible customer who expressed interest in either of those programs was invited to participate.

The first thermostats were installed in June of 2012. By the end of the year, 29 residential participants were recruited into the program. These participants installed 35 thermostats in their homes. Additionally, EnergyWise audits were completed for 145 accounts in the Pilot area, garnering more energy efficiency savings for the Pilot. While the Company was unsuccessful in recruiting any commercial customers to the Pilot in 2012, two Small Business Services audits were completed in the Pilot area.

In 2012, the Company achieved approximately 26% of the summer demand savings targets outlined in the 2012 SRP Report. While the theoretical savings achieved were lower than expected, the Company was able to learn from the experience of this initial year and modified its implementation plan for 2013. Detailed savings information can be found in Appendix 3 of this report and additional information on actual 2012 implementation can be found in the 2013 SRP Report.

2013 Pilot Implementation Summary

2013 implementation activities were built upon lessons learned from 2012. First, with the addition of technology compatible with window air-conditioning (“AC”) units, the Pilot’s eligible pool of customers grew significantly. Second, the Company began its marketing campaign much earlier, with the first waves of outreach occurring in mid-April. This allowed the larger pool of eligible customers to hear about the Pilot’s offerings just as the cooling season was beginning to ramp up. Third, the marketing campaign was much larger and more direct, which, based on preliminary observations, has succeeded in increasing awareness of the Pilot’s products and incentives among eligible participants.

With the addition of the Ecobee Inc. Smart Plugs, window AC purchase and window AC recycling rebates to the Pilot, there were a number of additional, preparatory steps that became necessary. The Company designed a rebate form for the window AC unit purchase and created recycling rebates and additional processes to incorporate the treatment of those rebates into the Pilot. The Pilot again leveraged the Company’s existing relationship with RISE Engineering, its EnergyWise and Small Business Services programs’ lead vendor, to deliver the Pilot’s offerings to eligible customers. Additionally, the Company contracted with a local business, South Shore Salvage in Tiverton, RI, to recycle the window AC units brought in by participants. The Company refined processes for the incentives being continued from 2012 in order to improve Pilot delivery and information tracking.

The new incentives offered in 2013 have so far impacted the Pilot in positive ways. 2013 participation in the residential sector has far outpaced that of 2012 and a significant portion of that is comprised of customers without central AC systems. Many households have received more than one Smart Plug device with some receiving as many as four. Additionally, the window AC purchase and recycle rebates allow customers who would prefer not to actively participate in the demand response component to contribute savings in a one-time fashion by upgrading or eliminating their equipment. Participation in the AC purchase and recycle rebates was less prevalent than anticipated in the first half of the year. To try to spur more interest, the Company established a “pick-up service” through which employees of South Shore Salvage in Tiverton set appointments with customers in advance to pick up window AC units from their homes. This will hopefully eliminate the barrier of physically bringing the units to the salvage yard.

Incentives for Wifi thermostats in homes with central AC continued to be offered in 2013 without interruption, with the first installations occurring in January. As the marketing campaign was deployed throughout the spring and summer months, the rate of installations increased and has since maintained a steady pace.

While the residential sector saw much improvement in 2013, the Pilot has been less successful in recruiting participants in the small business sector. The Company has spent time communicating with both its delivery vendor, RISE Engineering and its evaluation contractor, Opinion Dynamics Corporation, to understand underlying reasons for this and to brainstorm possible solutions. So far, the Company has learned that despite the list of approximately 340 small, commercial accounts in the area, only about one-third of these accounts are actually eligible in terms of having AC and broadband internet. Additionally, it has been very difficult to reach and converse with a decision maker in these businesses. Most of the outreach efforts have successfully reached employees, but unfortunately, they do not have the authority to sign the account up for the program. Finally, the “save energy save money” messaging does not appear to be as effective as in the residential sector. The Company is planning to adjust its 2014 messaging and strategies to address these potential issues. On a positive note, there have been more energy efficiency applications within the Pilot area for these C&I customers in 2013 to date than there were in 2012 (i.e. 23 vs. 2).

By the end of 2013, the Company projects that it will achieve approximately 90% of its summer demand savings targets of 161 kW for the year through both SRP measure incentives as well as leveraged energy efficiency savings.

Marketing

In 2013, the Company launched a marketing campaign that ran from mid-April through mid-September. The campaign was a significant expansion from 2012 in that it shifted

its focus from targeted lists of customers to all customers in the Pilot area and increased the frequency with which customers saw Demand Link material.

The campaign included two rounds of direct mail packets, two rounds of outbound calling, one direct mail post card and three emails to Pilot customers. The messaging in each component was centered on a “save money/save energy” theme. The intent was to convince customers that it was worth participating because they could save both money and energy in taking advantage of the Demand Link offers and the free home audits through the statewide EE programs. All marketing components directed customers to make contact via the centralized number or email to learn more about the program and sign up. RAM marketing received these calls and emails, and then pre-qualified interested customers and sent the resulting leads to RISE for scheduling. Pre-qualification consisted of verifying the customer’s address and account on the Pilot area list and ascertaining the existence of broadband internet/Wifi and either central or window AC units.

The direct mail packets included a letter explaining the offers available, an accompanying brochure and a rebate form for the window AC purchases and recycling. The Company also hired RAM marketing to complete the outbound calls to each customer with a Company-reviewed script of Demand Link program information. The outbound calling gave customers the opportunity to ask questions in real-time of a representative who was knowledgeable about the Pilot program. Examples of marketing materials used in 2013 can be found in Appendix 5.

Additionally, in late 2013, the Company developed a set of frequently asked questions and answers to distribute to all participants. The intent was to increase customer satisfaction while also reducing costs associated with answering the most common inquiries. The Company will distribute the frequently asked questions and answers to all existing participants and will give this to each new participant at the time of install. The frequently asked questions and answers also include contact information for RISE Engineering, RAM Marketing, and Ecobee Inc. technical support should participants need additional help. Similarly, the Company is developing a personalized welcome letter to be sent directly to customers by the Pilot’s project manager soon after equipment install. This letter will thank the customers for signing up and convey a few reminders and recommendations to maximize their experience and savings.

Community Event

On July 16, 2013, the Company held “Energy Efficiency Awareness Day,” sponsored jointly between the statewide EE and SRP teams. The event was held from 4:00 p.m.-8:00 p.m. at the Moose Café in Tiverton, RI. Representatives from RISE Engineering, Smart Power and TechniArt joined National Grid employees for an evening of conversation, questions/answers, and information exchange with customers.

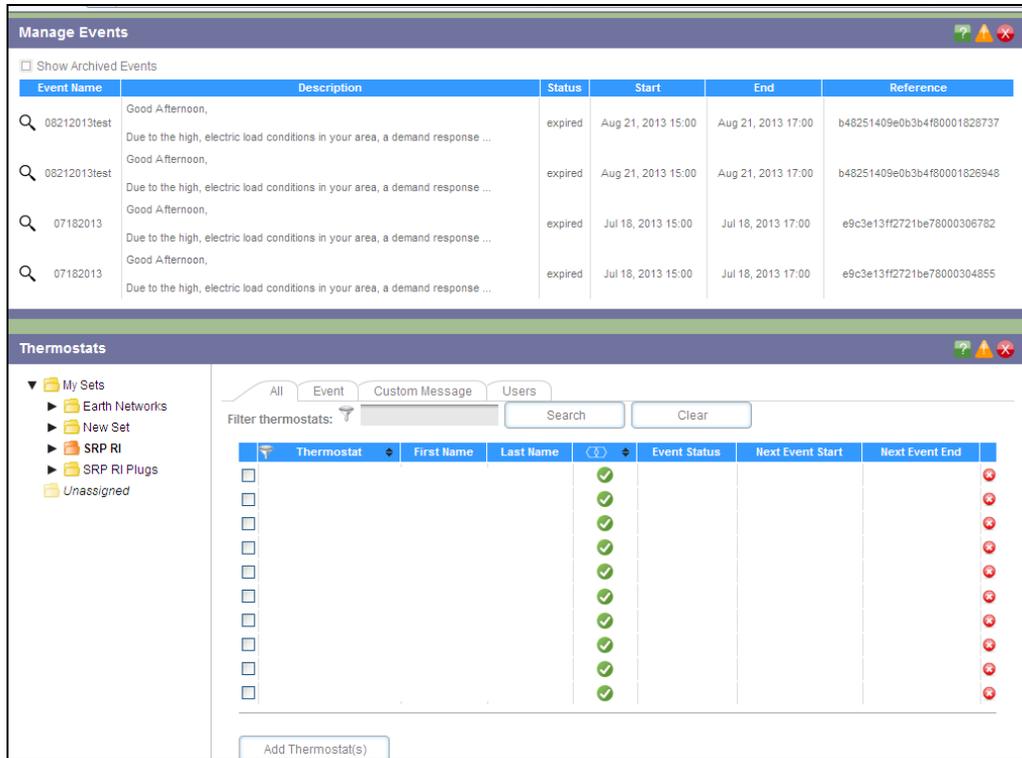
The Company marketed the event broadly via newspaper and online ads as well as email blasts to attract customers to the statewide incentives and programs, but a special post card (in addition to the post cards detailed in the previous outreach section) was sent to each eligible customer in the Demand Link Pilot area soliciting their attendance at the event to learn more about the offers especially for them. Approximately 120 people attended and the preliminary feedback received was very positive.

The Company and RISE Engineering employees felt that customers they spoke to at the event appreciated the longer conversations they were able to have regarding the Demand Link program and that they left with a better understanding and increased awareness overall. Also interesting were the number of neighboring households who came together, indicating that word of mouth may be a factor influencing some customer behavior.

While it is still unclear just how many leads and completed installs were generated as a result of this event, the in-person conversations and question/answer sessions with eligible customers were significant and positive outcomes of the effort. The Newport Daily News wrote an article on the event as well, a copy of which is included in Appendix 5.

Demand Response

In 2013 the Company also began to prepare for the 2014 deployment of the demand response components of the technologies being installed. First, existing participant accounts and equipment were uploaded into an Ecobee Inc. web portal which is depicted in the picture below. The web portal allows the Company to add and group participants, view their connectivity status, create, manage and view events and send messages.



Entering thermostats into the portal is a very manual process, requiring the electrician installing the thermostat to write down the thermostat serial number for the Company to use. Much time has been and continues to be spent in ensuring the correct thermostat numbers were migrated to the correct portal groups as well as in trying to fix cases in which participants' thermostats were not communicating.

Next, the Company tested the technology's effectiveness by running two test demand response events. This included testing messaging prior to the event and as the event was triggered, as well as scheduling the event and reviewing the data available from Ecobee Inc. to determine what conclusions can be made. This data will also be shared with the evaluation contractor to inform the larger evaluation. The Company found that by effectively grouping participants within the portal, the timing of the signal to different participants can be staggered, eliminating the need for prolonged reduction periods and minimizing the temperature increases in homes during the event. For example, to ensure that there is always some reduction occurring during an event, the Company splits the participants into two groups and schedules each group's event thirty minutes apart. This means that one-half of the thermostats will start reducing at 1:00 p.m. and when its duty cycle begins to recover thirty minutes later, the other half of the thermostats will start reducing as its event begins.

2014 Pilot Implementation

With the increased success of the Demand Link Pilot in 2013, the 2014 Demand Link implementation plan focuses on maintaining that progress in the recruitment sphere, while building a strong foundation in participant retention and demand response load reductions. In 2014, the Company will work to maintain its current pace of recruiting eligible customers, but will also focus on establishing robust communication networks with its participants and refining its demand response-related processes.

Incentives

The Company plans to continue all incentives that were offered in 2013 in the next Pilot year. This includes the Ecobee Inc. Wifi thermostats for customers with central air, the Ecobee Inc. Wifi thermostats and Smart Plugs for customers with window AC, the window AC purchase and recycling rebates and the encouragement to complete an EnergyWise or Small Business Services audit through the Rhode Island statewide EE programs. With this suite of incentives, the Pilot can effectively offer something for almost any customer who has air conditioning and is therefore contributing to what the Company believes is the primary driver of the increasing load in the area.

The Company has elected to maintain the current portfolio of measures and there are a number of lessons learned from 2013 that informed this decision. First, it is a time-intensive process to explain the technology to assure customers fully understand how it works, as well as why they are eligible and why it is worth signing up. Adding new measures will naturally complicate an already somewhat complicated set of options. Second, each additional technology added to the Pilot adds another component to the evaluation because it is one more thing that needs to be measured which increases the costs of the evaluation. Third, as detailed in the Marketing and Retention section below and in the 2013 Implementation plan section, the Company feels it has not yet exhausted all opportunities to sign customers up with the existing equipment. Fourth, while the Company reviewed other measures for potential inclusion in the 2014 plan, the current incentives and measures are still the most cost-effective.

The 2014 SRP Report proposes to continue delivering these products through the statewide EnergyWise and Small Business Direct Install (“SBDI”) energy efficiency programs. The Pilot will also continue to encourage customers to complete the free audit of their home or business through these same statewide programs. While the Pilot encourages customers to install specific measures in order to achieve the required load reduction, simultaneously offering them an entire suite of measures offered by the statewide EE programs allows for a whole-house approach to customer service and increases the potential for additional EE savings in the Pilot area.

The Company is proposing to add two enhancements to the Demand Link Pilot. The first is for customers completing an EnergyWise or SBDI audit: standard LED light bulbs will

be installed instead of CFLs. This enhancement is a logistically simple upgrade from the equipment already provided to customers through the statewide programs that can create additional benefits in the area. The second is for customers who have larger window AC units. Currently, the Smart Plugs being used are rated only for smaller window ACs, so customers with AC units larger than 8,000Btu have so far been ineligible for incentives through the Pilot. The Company has researched and found a similar plug load control device that may work with larger AC units. If it is determined that this device is compatible with the Ecobee Inc. thermostats for demand response activities, it will be incorporated into the Pilot in 2014 to expand the eligible pool of participants even more.

Additionally, the Company understands that there is potential for load growth through new HVAC construction that could be detrimental to the Pilot's progress toward load deferral. To minimize this potential, in 2014 the Company will explore the possibility of engaging HVAC contractors and vendors who serve the Pilot area. There may be opportunities for these businesses to recommend the Demand Link Pilot to customers they serve or refer us to customers they have served in the recent past.

Marketing

In 2014, the Company proposes to build on the successes from 2013 marketing efforts by once again utilizing extensive outbound telemarketing and direct mail, which were successful in generating over 500 pre-qualified customer leads. Customers were counted as a "pre-qualified lead" only if they responded favorably to the direct mail and/or outbound telemarketing by indicating their interest in one or more of several energy efficiency offers provided by the Company as part of the broader Pilot offering.

Rather than simply repeat the "save energy/save money" message used in 2013, in 2014, the Company intends to introduce and test a shift in customer messaging by educating the target audience about: a) the Pilot's goals to reduce peak load in their growing geographic area, b) ensuring continued service reliability and sustainability, and c) the details surrounding their participation in demand response events. Using messages focused on explaining the goal of ensuring high service reliability and potentially reducing the need for expensive investments in constructing new infrastructure, the Company's outreach efforts will educate customers while making "save energy/save money" the secondary message.

The marketing campaign will introduce three marketing phases in 2014, allowing the focus of our customer message to change through the year. The phases are generally outlined in the table below.

Phase	Timing	Theme
1	Jan – Jun	<i>“Help us control energy-related costs while ensuring the continued reliable delivery of electricity to your home or business.”</i> Focus on PCTs / Smart Plugs / Energy Assessments.
2	Jul – Sep	<i>“Check out our cool deals for summer cooling.”</i> Focus on reducing AC energy usage via AC Rebates, Energy Star ratings, PCTs & Smart Plugs.
3	Oct – Dec	<i>“Check out what your neighbors are doing to reduce their energy consumption and shrink their electric bill.”</i> Present customers participating in the Pilot as case histories using PCTs / Smart Plugs / AC Rebates / Energy Assessments.

The Company will continue to apply integrated direct marketing as primary outreach & education tactics. Along with continued use of direct mail and outbound telemarketing, the customer outreach effort will also include one or more local events and an effort to expand the Company’s email list and email messaging. Additionally, the Company plans to develop and periodically distribute a newsletter to both participants and eligible customers who aren’t yet participants. Much of the content will likely be the same between the two groups, including available energy efficiency devices and rebates, details about the demand response program, case studies of participating customers, and contact information, but the cover page will likely be tailored with more messages specific to each group. The Company will distribute the newsletter primarily through email but will also mail it to customers without email addresses.

Based on the successful customer turnout at the “Energy Efficiency Awareness Day” event held on July 16, 2013 in Tiverton, the Company will also consider sponsoring one or more similar, joint events with the statewide EE programs in 2014.

The Company will also place a special focus on recruiting the eligible small commercial customers in the area. As described in the 2013 Implementation Summary section of this Report, there are still some challenges in reaching this customer segment. To overcome these, the Company will focus on identifying and reaching out to the decision-makers of the businesses where they are not immediately available, and possibly hosting a commercial customer-specific event. Messages will have both cost-saving and community themes to best engage the small commercial customers in the Pilot area.

Retention

In 2012 and 2013, the Demand Link Pilot focused primarily on recruiting customers to become participants. The Company’s experience with participants so far in 2013 has highlighted the importance of continuing to communicate effectively with customers after they become participants. Some examples of such experience include customers not

knowing who to call when they have a problem with a component of their HVAC equipment, not understanding how demand response events work, or not fully comprehending the expectations outlined in the terms and conditions they sign.

To address this, the Company plans to send customized communications to participants designed to a) perpetuate their interest in the program, and b) encourage their continued participation in future demand response events. First, the Company plans to continue distributing the frequently asked questions and welcome letter documents developed in late 2013 to all new participants upon registration. Second, the Company will develop a communication plan for participants early in 2014. This plan will include a list of communications needed throughout the year, with timing and major milestones associated with creating this list. The newsletter described in the previous section will be part of this communications plan. The Company will also explore the possibility of holding an informational session either locally, by phone or webinar, where participants can ask questions and voice feedback.

In addition to these concerted efforts, the Company's 2014 marketing plan will indirectly strengthen participant understanding and awareness of all Pilot components by educating customers more about the program before they sign up. Through similar refinement of demand response events processes, such as standardizing planned communications associated with events, participants will quickly learn what to expect each time.

Demand Response

2014 marks the first year of planned demand response events in the Demand Link Pilot. The Company will utilize the processes developed and lessons learned from test events in 2013 to formally call events based on load conditions on the affected feeders. With the planned outreach, participants should be aware of the Company's expectations and their options in participating in demand response before events are triggered. Data from events will be collected and analyzed for preliminary conclusions as well as sent to Opinion Dynamics Corporation for the formal evaluation.

While it is impossible to predict when demand response events will occur very far in advance, the structure will be somewhat standardized. When a demand response event is triggered, customers will receive a notice in real time. Their AC will cycle on and off in thirty minute time intervals. This is to ensure that temperatures in homes do not increase to uncomfortable levels. Groups of participants will be triggered at different times to ensure that load reduction is constant. Demand response events will be two to four hours in duration and may occur multiple days in a row. All demand response events will also be voluntary in that customers will have the option to opt out at any time. Customers who exercise this opt-out option will forfeit their annual bill credit.

The process for triggering demand response events will involve internal communication between the distribution planner and the Pilot's project manager to ascertain when events will be called. When the threshold load conditions are met, the distribution planner will notify the Pilot's project manager that a demand response event is needed and the project manager will schedule the event through the Ecobee Inc. portal. Once the event is scheduled, the portal will automatically initiate the event at the designated time and will terminate the event once the desired duration has been reached. The Company expects to automate some or all of this process as the Pilot progresses.

The test events conducted in 2013 highlighted gaps in the data needed by the Company to analyze events and the data readily available through the Ecobee Inc. portal. The Company has discussed these gaps with Ecobee Inc. representatives and as a result, the Company plans to work with Ecobee Inc. to develop a design for a dashboard user interface to be used for event data extraction and event management.

Funding Plan

As proposed in the 2012 and 2013 SRP Reports, the Company will submit an updated budget annually for approval. The Company is proposing to fund the Demand Link Pilot in Tiverton and Little Compton in 2014 through a mixture of leveraged EE funds, and the additional SRP funds requested as part of this 2014 SRP Report. Similar to the Company's proposals in 2012 and 2013, the Company is proposing to collect the additional funds needed for the Pilot by rolling the SRP budget into the existing EE program charge on customer's bills, which is detailed in Table S-1.

Six-Year Budget

The budget below reflects changes from 2013 primarily in the incentives, evaluation, administration, and the Sales, Technical Assistance and Training ("STAT") categories. First, the change in evaluation is primarily due to the increased complexity of the attribution work created by adding additional measures to the Pilot in 2013. The evaluation activities and budget are discussed in more detail in the next section.

The change in incentives is due primarily to the Pilot's contribution to installing LED light bulbs in customers' homes as opposed to the existing practice in the statewide EE programs of installing CFLs. The amount is based on the difference between the costs of the LED light bulbs and the CFLs and the number of CFLs installed in Pilot-area homes during audits in 2012. It also accounts for the incentive amount normally covered by the statewide EE programs. The increase in incentive dollars required is also influenced by an increase in installation costs associated with the Smart Plugs. This increase stems from the electrician spending additional time with customers educating them on the setup and use of the Smart Plugs, as well as actually installing them.

The increase in administration costs comes from the increased work associated with managing customers once they become participants. This includes contacting them to troubleshoot connectivity issues, answering questions, managing the web portal, running events and analyzing the resulting data.

Finally, the increase in the STAT category stems from a need for the Company to contribute to the development of a dashboard on the Ecobee Inc. portal that will allow users to retrieve event data and statistics as needed instead of continuing the current practice of having Ecobee Inc. representatives send it. The dashboard would be customized to meet the Company’s needs and would be utilized for any Pilot or program in the future that uses this technology.

Table S-3						
National Grid						
System Reliability Procurement - Tiverton/Little Compton						
Annual Budgets and Actual Costs						
\$(000)						
	Program Planning & Administration	Marketing	Rebates and Other Customer Incentives	Sales, Technical Assistance & Training	Evaluation & Market Research	Total
2012	\$2.6	\$24.7	\$32.5	\$2.0	\$25.1	\$86.8
2013	\$50.0	\$75.0	\$81.6	\$4.9	\$100.0	\$311.5
2014	\$74.0	\$75.0	\$116.7	\$13.5	\$120.0	\$399.2
2015	\$74.0	\$75.0	\$122.2	\$5.0	\$100.0	\$376.2
2016	\$74.0	\$75.0	\$127.6	\$6.5	\$80.0	\$363.1
2017	\$74.0	\$75.0	\$133.1	\$8.0	\$80.0	\$370.1
Total	\$348.6	\$399.7	\$613.8	\$39.8	\$505.1	\$1,906.9

Notes:
 (1) The 2014 System Reliability Procurement Report seeks approval only for 2014 funds. Future projections over the life of the Tiverton/Little Compton pilot are estimates subject to change.
 (2) The annual totals in this table represent only the forecasted funds necessary to run the Tiverton/Little Compton pilot. They do not include costs associated with focused energy efficiency or with SRP participant costs.
 (3) All amounts shown are in \$current year.
 (4) 2012 numbers have been updated to reflect year end data. 2013 numbers have been updated to reflect year end projections

Please refer to Appendix 5 for a more detailed breakdown of this Pilot’s costs.

Evaluation

The Company continued to work with Opinion Dynamics Corporation (“ODC”) on the evaluation of this Pilot. The objectives for 2013 continued to focus primarily on establishing evaluation processes for the deferral years of the Pilot (2014 – 2017) but also included some preliminary analysis on 2012 and 2013 activities. The major evaluation objectives for 2013 were (1) updating the 2012 year marketing strategy effectiveness assessment begun in the fall of 2012, (2) beginning to assess the energy efficiency impacts by conducting participant surveys, (3) developing a methodology to estimate the

impact of the Pilot's demand response components, and (4) developing an evaluation plan for 2014.

The results of item (1) above reaffirmed indicators of lessons to be learned first gleaned from the preliminary analysis last fall. First, participation in the EnergyWise program in Tiverton and Little Compton did increase in 2012 over previous years. While it's still too early to tell if this is because of Demand Link marketing or from the statewide marketing, the increase is occurring, which means that more customers are being screened for Demand Link eligibility. Additionally, although it is still very early in the Pilot, the analysis indicated that an instance of thermostat installation may only be occurring once out of every six audits. This is much less frequent than the assumption made in the 2012 SRP Report. The marketing analysis completed in March of this year is included as Appendix 7 of this report. Deliverables associated with item (2) are targeted for Q1 2014, but work on rounds of participation surveys has been on-going throughout 2013. A report on the demand response impact methodology in item (3) was submitted to the Company on August 30, 2013 and is in the process of being finalized.

An evaluation plan and associated budget estimate for 2014 was created in September of 2013. There are four major evaluation objectives in 2014. First, the evaluation will continue to assess the effectiveness of SRP marketing to eligible customers in terms of both Demand Link and EnergyWise/Small Business Direct Install program participation and awareness. This effort will also include some process-related analysis on Pilot delivery and customer satisfaction. Second, the initial results of the incremental energy efficiency impact in the area will be completed and reported for the first time using the groundwork laid in the 2013 evaluation and actual Pilot data from 2012 and 2013. Third, the evaluation will also begin conducting analysis on the impact of demand response on the load in the Pilot area. This analysis will be ongoing throughout 2014 and the initial deliverable is planned for early 2015. Both the energy efficiency and demand response impacts will be assessed using a bottom-up approach to ensure the most accurate results. Finally, the evaluation team will also develop an evaluation plan for 2015.

Valuation of Deferral and Revenue Requirements

The Company will be able to defer investing \$2,933,296 in 2014 through 2017 if enough customers reduce load during peak events during the Pilot. This would allow the Company to prioritize other investment projects without NWA potential. The value from deferral of the proposed wires solution is summarized below. The Company estimated thirty years of revenue requirement from the investment entering service in 2014. The Company proceeded to move the investment one year ahead and calculate the revenue requirement through the next twenty-nine years and continuing for years 2015, 2016 and 2017, respectively, and took the difference between the values from one year to the next. The result of a four-year deferral is the set of net present value benefits as shown in the table below. The Company converted the \$2,933,296 estimate (which is in 2014 dollars)

to a net present value, which is represented by the \$2,610,498 in the “Base Investment” column below. The amounts in the “NPV Annual Value” row below represent the deferral savings achieved in each year by avoiding the wires solution for another year.

Year		2014	2015	2016	2017
	Base Investment	1 Yr Delay	2 Yr Delay	3 Yr Delay	4 Yr Delay
NPV of Revenue Requirement	\$2,610,498	\$2,436,310	\$2,264,828	\$2,105,416	\$1,957,225
NPV Annual Value		\$174,188	\$171,482	\$159,412	\$148,191
NPV Cumulative savings		\$174,188	\$345,670	\$505,081	\$653,273

Updated Benefit/Cost Analysis of NWA Solution

The Company is proposing to use the same framework for cost-effectiveness in this 2014 SRP Report as that which was used in the 2012 and 2013 SRP Reports.⁴ Inputs to the benefit cost analysis from the 2013 SRP Report have been updated to reflect strategic, implementation changes for 2014-2017. 2012 amounts were updated to reflect actual data and 2013 amounts were updated to reflect year end projections based on actual data available.

⁴For a detailed description of the cost and benefits associated with the cost-effectiveness framework, see 2012 SRP Report, February 1, 2012, Docket 4296.

	2012	2013	2014	2015	2016	2017	Overall
Benefits	\$231.5	\$1,159.1	\$1,142.7	\$1,192.6	\$1,240.5	\$1,289.4	\$6,255.7
Focused Energy Efficiency Benefits ¹	\$142.4	\$566.8	\$573.2	\$596.5	\$624.6	\$651.4	\$3,154.9
SRP Energy Efficiency Benefits ²	\$89.0	\$592.3	\$386.1	\$411.8	\$440.3	\$468.6	\$2,388.2
Demand Reduction Benefits ³	\$0.0	\$0.0	\$9.2	\$12.7	\$16.2	\$21.2	\$59.3
Deferral Benefits ⁴	\$0.0	\$0.0	\$174.2	\$171.5	\$159.4	\$148.2	\$653.3
Costs	\$184.8	\$640.3	\$656.3	\$633.3	\$620.2	\$627.2	\$3,362.2
Focused Energy Efficiency Costs ⁵	\$98.0	\$326.4	\$255.2	\$255.2	\$255.2	\$255.2	\$1,445.2
System Reliability Procurement Costs ^{6,7}	\$86.8	\$313.9	\$401.1	\$378.1	\$365.1	\$372.0	\$1,917.0
Benefit/Cost Ratio	1.25	1.81	1.74	1.88	2.00	2.06	1.86

Notes:

- (1) Focused EE benefits in each year include the NPV (over the life of those measures) of all TRC benefits associated with EE measures installed in that year that are being focused to the Tiverton/Little Compton area.
- (2) SRP EE benefits include all TRC benefits associated with EE measures installed in each year that would not have been installed as part of the statewide EE programs.
- (3) DR benefits represent the energy and capacity benefits associated with the demand reduction events projected to occur in each year.
- (4) Deferral benefits are the net present value benefits associated with deferring the wires project (substation upgrade) for a given year in 2014.
- (5) EE costs include PP&A, Marketing, STAT, Incentives, Evaluation and Participant Costs associated with statewide levels of EE that have been focused to the Tiverton/Little Compton area. For the purposes of this analysis, they are derived from the planned ϕ /Lifetime kWh in Attachment 5, Table E-5 of the 2012 EEP in the SF EnergyWise and Small Business Direct Install programs. These are the programs through which measures in this SRP pilot will be offered.
- (6) SRP costs represent the 2014 SRPP budget which is separate from the statewide 2014 EEP budget, as well as SRP participant costs. The SRP budget includes PP&A, Marketing, Incentives, STAT and Evaluation.
- (7) All costs and benefits are in \$current year except for deferral benefits.
- (8) This SRP report seeks approval only for the 2014 System Reliability Procurement Costs. Future projections over the life of the Tiverton/Little Compton pilot are estimates subject to change.
- (9) 2012 numbers have been updated to reflect year end data. 2013 numbers reflect year end projections.

The Demand Link Pilot remains cost effective over its life, with a benefit/cost ratio of 1.86, as well as within each year, as shown in Table S-2 above. The benefit cost ratio for 2014 is 1.74.

There are a number of factors affecting the benefit cost ratio in 2014 that have also been carried out into future years. First, some costs have increased as described in the Six-Year Budget section of this Report.

Second, the Company revised its event structure to divide participants into two groups and stagger event start times. Because the events involve cycling AC units on and off in 30 minute intervals, the prior structure would have caused all participants to reduce and snap back in the same intervals. With this new structure, there were be a constant load reduction during the entire event with half the participants reducing load while the other half is not. This minimizes participant discomfort during events by ensuring that temperatures in homes do not rise too far, while also maintaining a constant load reduction. This change reduced the amount of savings to be expected during demand response events by half of the theoretical maximum, but is much more typical of what will occur.

Third, based on actual results of window AC purchase and recycling rebates so far in 2013, the Company has adjusted planned quantities of these measures to reflect more realistic amounts. This changed the measure mix overall and slightly increased the benefit cost ratios. Conversely, average per-participant savings for the Energy Wise and Small Business Direct Install programs were adjusted down based on new data available from audits completed in the Pilot area in 2012. This reduced the benefit cost ratios in 2014 through 2017.

Fourth, an updated Avoided Energy Supply Cost study was completed in June 2013 and used to inform the benefits in this Report's analysis. The results from this analysis slightly increased the benefit cost ratios from 2014 through 2017. The avoided cost estimates for 2012 and 2013 were not updated with the results from this new study.

It is still assumed that measures in future years will mimic those being used in the current planning year and that participation will remain constant over the life of the Pilot based on what is planned for 2014. This assumption may change in future annual SRP Reports based on lessons learned from implementation, actual results, or other factors as the Company evaluates the progress of the Pilot.

The Pilot continues to focus both EE costs, EE savings and EE benefits from the EnergyWise and Small Business Direct Install programs for years 2014-2017, which can be seen in Table S-2 of Appendix 3. The focused EE program cost and savings inputs have been updated from the 2013 SRP Report to reflect the program per-kWh costs and program savings assumptions respectively from the 2014 EEPP. The focused program savings are shown in Table S-4 of Appendix 3.

The Company updated the SRP costs and SRP EE benefits for this 2014 SRP Report to reflect changes in the Pilot's measure offerings. This SRP Report is requesting approval for recovery of costs for 2014 that have been refined for this SRP Report. The Company continues to estimate costs for future years and are subject to change in future annual SRP Reports. This SRP Report still assumes that measures not included in the 2014 EEPP will not be included in the statewide EE plans for 2014-2017. The Company will reflect any changes to this assumption in future annual SRP Reports.

All costs and benefits in this analysis are in current year dollars, meaning that the avoided costs are inflated for each year. The savings associated with this Pilot are categorized in the same way as the benefits. They are shown in Table S-4 of Appendix 3. As projected, this Pilot will create over \$6 million in benefits in the Tiverton/Little Compton area over its six-year lifetime. For each \$1 invested, this Pilot will create \$1.86 of economic benefits over the lifetime of the six-year investment. Most importantly, however, it will provide the load relief needed to defer the construction of a new substation through 2017 as shown in Table S-7 below.

Table S-7 System Reliability Procurement - Tiverton/Little Compton Potential for Wires Project Deferral at Year Begin							
	2012	2013	2014	2015	2016	2017	2018
Cumulative Annual kW from Energy Efficiency			218	373	512	667	823
Focused Energy Efficiency			119	173	210	264	318
SRP Energy Efficiency			99	200	302	403	505
Cumulative Annual kW from Demand Reduction			105	138	183	236	289
Thermostats - Residential			96	115	155	194	233
Thermostats - C&I			5	10	16	21	27
Smart Plugs			5	12	13	21	29
Lighting Tuning - C&I			-	-	-	-	-
Total Cumulative kW Reduction			323	511	695	903	1,112
Total Cumulative kW Reduction Needed to Defer Wires Project			150	390	630	860	1,000
% Achieved			215%	131%	110%	105%	111%

Notes:

- (1) All kW amounts are Summer kW and are cumulative.
- (2) This table shows the number of kW have been either installed through EE or have become available to reduce through demand reduction by the end of the previous year to therefore contribute to the deferral of the wires investment in the current year.
- (3) kW in Reserve acts as insurance against customers overriding the demand reduction themselves, so that the required reduction is still met.
- (4) 2012 amounts have been updated to reflect year end data. 2013 amounts have been updated to reflect year end projections.

The Parties respectfully request the Commission approve this Stipulation and Settlement as a final resolution of all issues in this proceeding.

Respectfully submitted,

THE NARRAGANSETT ELECTRIC COMPANY D/B/A
NATIONAL GRID

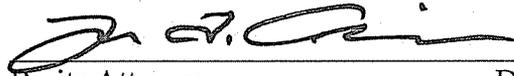


10/30/13

Jennifer Brooks Hutchinson, Esq.

Date

RHODE ISLAND DIVISION OF PUBLIC UTILITIES AND
CARRIERS



10/28/13

By its Attorney

Date

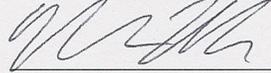
Jon Hagopian, Senior Legal Counsel

THE ENERGY COUNCIL OF RHODEISLAND

William H. Ferguson

William Ferguson, Executive Director Date

ENVIRONMENT NORTHEAST

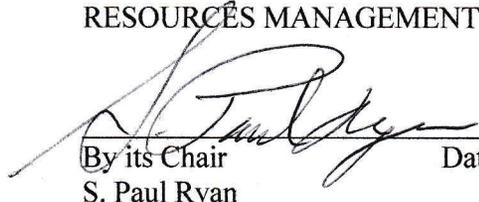


Mark LeBel

10-28-2013

Date

THE RHODE ISLAND ENERGY EFFICIENCY AND
RESOURCES MANAGEMENT COUNCIL

 10/29/13
By its Chair Date
S. Paul Ryan

Appendices Following

Appendix 1 – Load Growth Forecasts

PSA FORECAST 2013
NARRAGANSETT ELECTRIC COMPANY
SUMMER PEAK DEMANDS COINCIDENT WITH COMPANY PEAK
ACTUAL HISTORY AND FORECAST WITH EXTREME WEATHER AND DSM
(MW)

Year	Mo	Sum of Narragansett		Blackstone		Newport		Providence		Western	
		PSAs	Growth Rate	PSA	Growth Rate	PSA	Growth Rate	PSA	Growth Rate	PSA	Growth Rate
2001	8	1,663.32	12.7%	304.71	9.3%	120.60	10.8%	428.37	8.9%	809.65	16.6%
2002	8	1,687.10	1.4%	310.50	1.9%	117.50	(2.6%)	435.50	1.7%	823.60	1.7%
2003	8	1,635.88	(3.0%)	277.72	(10.6%)	120.20	2.3%	427.66	(1.8%)	810.29	(1.6%)
2004	8	1,601.71	(2.1%)	289.11	4.1%	117.50	(2.2%)	421.30	(1.5%)	773.81	(4.5%)
2005	8	1,787.84	11.6%	321.64	11.3%	127.10	8.2%	450.36	6.9%	888.74	14.9%
2006	8	1,931.98	8.1%	334.90	4.1%	142.80	12.4%	496.53	10.3%	957.75	7.8%
2007	8	1,760.05	(8.9%)	304.10	(9.2%)	128.10	(10.3%)	453.88	(8.6%)	873.97	(8.7%)
2008	6	1,781.26	1.2%	321.39	5.7%	119.10	(7.0%)	469.34	3.4%	871.43	(0.3%)
2009	8	1,675.81	(5.9%)	287.43	(10.6%)	126.70	6.4%	436.01	(7.1%)	825.66	(5.3%)
2010	7	1,748.76	4.4%	267.97	(6.8%)	141.97	12.1%	469.40	7.7%	869.43	5.3%
2011	7	1,776.65	1.6%	308.81	15.2%	142.20	0.2%	419.70	(10.6%)	905.93	4.2%
Forecast											
2012	8	1,794.40	1.0%	295.74	(4.2%)	142.97	0.5%	443.11	5.6%	912.59	0.7%
2013	8	1,797.97	0.2%	295.61	(0.0%)	143.36	0.3%	442.14	(0.2%)	916.86	0.5%
2014	8	1,815.08	1.0%	295.48	(0.0%)	144.88	1.1%	444.41	0.5%	930.31	1.5%
2015	8	1,841.11	1.4%	295.74	0.1%	147.13	1.6%	448.88	1.0%	949.36	2.0%
2016	8	1,861.40	1.1%	295.93	0.1%	148.89	1.2%	452.10	0.7%	964.47	1.6%
2017	8	1,868.18	0.4%	295.68	(0.1%)	149.54	0.4%	452.22	0.0%	970.75	0.7%
2018	8	1,868.07	(0.0%)	295.23	(0.2%)	149.61	0.0%	450.78	(0.3%)	972.45	0.2%
2019	8	1,867.08	(0.1%)	294.85	(0.1%)	149.60	(0.0%)	449.21	(0.3%)	973.42	0.1%
2020	8	1,868.80	0.1%	294.69	(0.1%)	149.81	0.1%	448.35	(0.2%)	975.95	0.3%
2021	8	1,871.50	0.1%	294.69	(0.0%)	150.10	0.2%	447.76	(0.1%)	978.96	0.3%
2022	8	1,875.02	0.2%	294.81	0.0%	150.45	0.2%	447.42	(0.1%)	982.34	0.3%
2023	8	1,879.06	0.2%	295.04	0.1%	150.84	0.3%	447.25	(0.0%)	985.93	0.4%
2024	8	1,883.15	0.2%	295.36	0.1%	151.23	0.3%	447.13	(0.0%)	989.44	0.4%
2025	8	1,887.60	0.2%	295.77	0.1%	151.64	0.3%	447.14	0.0%	993.05	0.4%
2026	8	1,892.54	0.3%	296.28	0.2%	152.09	0.3%	447.29	0.0%	996.88	0.4%
Compound Annual Growth											
=====											
2001-2011	Ten Year		0.7%		0.1%		1.7%		(0.2%)		1.1%
2011-2016	Five Year		0.9%		(0.8%)		0.9%		1.5%		1.3%
2011-2021	Ten Year		0.5%		(0.5%)		0.5%		0.6%		0.8%
2011-2026	Fifteen Year		0.4%		(0.3%)		0.4%		0.4%		0.6%

Town Level Peak Demand Growth (Summer Non-Coincident Extreme with EE reductions)

	vs.Extreme 2011	vs.Actual 2011															vs.Extreme 2011		vs.Actual 2011	
	2012	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2011-2021	2011-2026	2011-2021	2011-2026
Narragansett Electric Company																				
Blackstone	-4.2%	-4.4%	0.0%	0.0%	0.1%	0.1%	-0.1%	-0.2%	-0.1%	-0.1%	0.0%	0.0%	0.1%	0.1%	0.1%	0.2%	-0.5%	-0.3%	-0.5%	-0.3%
Burnhillville	-4.7%	-4.9%	-0.6%	-0.5%	-0.3%	-0.3%	-0.4%	-0.4%	-0.3%	-0.2%	-0.2%	-0.1%	0.0%	0.0%	0.1%	0.1%	-0.8%	-0.5%	-0.8%	-0.5%
Central Falls	-5.1%	-5.2%	-0.9%	-0.8%	-0.6%	-0.5%	-0.6%	-0.6%	-0.5%	-0.3%	-0.3%	-0.2%	-0.1%	0.0%	0.0%	0.1%	-1.0%	-0.7%	-1.0%	-0.7%
Cumberland	-3.9%	-4.0%	0.3%	0.3%	0.3%	0.3%	0.3%	0.1%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%	-0.2%	-0.1%	-0.3%	-0.1%
Lincoln	-3.3%	-3.5%	0.9%	0.8%	0.8%	0.6%	0.4%	0.3%	0.2%	0.2%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.1%	0.2%	0.1%	0.2%
North Smithfield	-3.6%	-3.8%	0.6%	0.5%	0.6%	0.5%	0.2%	0.1%	0.1%	0.1%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	-0.1%	0.0%	-0.1%	0.0%
Pawtucket	-5.2%	-5.4%	-1.1%	-0.9%	-0.7%	-0.6%	-0.6%	-0.6%	-0.5%	-0.4%	-0.3%	-0.2%	-0.1%	-0.1%	0.0%	0.0%	-1.1%	-0.8%	-1.1%	-0.8%
Woonsocket	-3.8%	-4.0%	0.4%	0.3%	0.4%	0.3%	0.1%	0.0%	0.0%	0.1%	0.1%	0.1%	0.2%	0.2%	0.2%	0.2%	-0.2%	-0.1%	-0.2%	-0.1%
Newport	0.5%	0.6%	0.3%	1.1%	1.6%	1.2%	0.4%	0.0%	0.0%	0.1%	0.2%	0.2%	0.3%	0.3%	0.3%	0.3%	0.5%	0.4%	0.5%	0.5%
Middletown	0.9%	1.0%	0.6%	1.4%	1.8%	1.4%	0.6%	0.2%	0.1%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.8%	0.6%	0.8%	0.6%
Newport	0.2%	0.2%	-0.1%	0.7%	1.3%	1.0%	0.2%	-0.1%	-0.1%	0.0%	0.1%	0.1%	0.2%	0.2%	0.2%	0.3%	0.3%	0.3%	0.3%	0.3%
Portsmouth	1.1%	1.2%	0.8%	1.5%	2.0%	1.5%	0.7%	0.3%	0.2%	0.3%	0.3%	0.4%	0.4%	0.4%	0.4%	0.4%	0.9%	0.7%	0.9%	0.7%
Providence	5.6%	3.5%	-0.2%	0.5%	1.0%	0.7%	0.0%	-0.3%	-0.3%	-0.2%	-0.1%	-0.1%	0.0%	0.0%	0.0%	0.0%	0.6%	0.4%	0.5%	0.3%
Barrington	5.9%	3.9%	0.1%	0.8%	1.3%	0.9%	0.2%	-0.2%	-0.2%	-0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.9%	0.6%	0.7%	0.5%
Bristol	5.9%	3.8%	0.0%	0.7%	1.2%	0.9%	0.2%	-0.2%	-0.3%	-0.1%	-0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	0.8%	0.5%	0.6%	0.4%
East Providence	4.9%	2.9%	-0.8%	0.0%	0.5%	0.3%	-0.3%	-0.6%	-0.6%	-0.4%	-0.3%	-0.2%	-0.2%	-0.1%	-0.1%	0.0%	0.3%	0.1%	0.1%	0.0%
Little Compton	5.7%	3.7%	-0.1%	0.6%	1.1%	0.8%	0.1%	-0.3%	-0.3%	-0.2%	-0.1%	-0.1%	0.0%	0.0%	0.0%	0.0%	0.7%	0.5%	0.5%	0.3%
North Providence	4.9%	2.8%	-0.9%	-0.1%	0.5%	0.3%	-0.3%	-0.6%	-0.6%	-0.4%	-0.3%	-0.2%	-0.2%	-0.1%	-0.1%	0.0%	0.2%	0.1%	0.0%	0.0%
Providence	5.8%	3.7%	0.0%	0.7%	1.1%	0.8%	0.1%	-0.2%	-0.3%	-0.1%	-0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	0.8%	0.5%	0.6%	0.4%
Tiverton	6.2%	4.1%	0.4%	1.0%	1.4%	1.1%	0.3%	-0.1%	-0.1%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	1.0%	0.7%	0.8%	0.6%
Warren, RI	5.0%	2.9%	-0.8%	0.0%	0.6%	0.3%	-0.3%	-0.6%	-0.6%	-0.4%	-0.3%	-0.2%	-0.2%	-0.1%	-0.1%	0.0%	0.3%	0.1%	0.1%	0.0%
West NECO	0.7%	-0.4%	0.5%	1.5%	2.0%	1.6%	0.7%	0.2%	0.1%	0.3%	0.3%	0.3%	0.4%	0.4%	0.4%	0.4%	0.8%	0.6%	0.7%	0.6%
Charlestown, RI	1.2%	0.1%	1.0%	1.9%	2.4%	1.9%	0.9%	0.4%	0.3%	0.4%	0.4%	0.4%	0.5%	0.4%	0.4%	0.4%	1.1%	0.9%	1.0%	0.8%
Coventry	0.3%	-0.8%	0.0%	1.1%	1.7%	1.3%	0.4%	0.0%	-0.1%	0.1%	0.2%	0.2%	0.3%	0.3%	0.3%	0.3%	0.5%	0.4%	0.4%	0.4%
Cranston	0.3%	-0.8%	0.0%	1.1%	1.7%	1.3%	0.4%	0.0%	-0.1%	0.1%	0.2%	0.2%	0.3%	0.3%	0.3%	0.3%	0.5%	0.4%	0.4%	0.4%
East Greenwich	-1.0%	-2.1%	-1.2%	0.0%	0.8%	0.5%	-0.3%	-0.6%	-0.6%	-0.3%	-0.2%	-0.1%	0.0%	0.1%	0.1%	0.2%	-0.3%	-0.2%	-0.4%	-0.2%
Exeter	0.7%	-0.5%	0.4%	1.4%	2.0%	1.5%	0.6%	0.1%	0.1%	0.2%	0.3%	0.3%	0.3%	0.3%	0.4%	0.4%	0.7%	0.6%	0.6%	0.5%
Foster	1.1%	-0.1%	0.8%	1.7%	2.3%	1.8%	0.8%	0.3%	0.2%	0.3%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	1.0%	0.8%	0.8%	0.7%
Glocester	1.8%	0.6%	1.5%	2.4%	2.8%	2.2%	1.2%	0.6%	0.5%	0.6%	0.6%	0.6%	0.6%	0.5%	0.5%	0.5%	1.4%	1.1%	1.3%	1.0%
Hopkinton	0.5%	-0.7%	0.2%	1.2%	1.8%	1.4%	0.5%	0.0%	0.0%	0.2%	0.2%	0.3%	0.3%	0.3%	0.3%	0.3%	0.6%	0.5%	0.5%	0.4%
Jamestown	0.6%	-0.5%	0.4%	1.4%	2.0%	1.5%	0.6%	0.1%	0.0%	0.2%	0.3%	0.3%	0.3%	0.3%	0.3%	0.4%	0.7%	0.6%	0.6%	0.5%
Johnston	0.7%	-0.5%	0.4%	1.4%	2.0%	1.6%	0.6%	0.1%	0.1%	0.2%	0.3%	0.3%	0.3%	0.3%	0.3%	0.4%	0.7%	0.6%	0.6%	0.5%
Narragansett	0.2%	-1.0%	-0.1%	1.0%	1.6%	1.2%	0.3%	-0.1%	-0.1%	0.1%	0.2%	0.2%	0.2%	0.3%	0.3%	0.3%	0.4%	0.4%	0.3%	0.3%
North Kingstown	0.2%	-0.9%	0.0%	1.0%	1.7%	1.3%	0.4%	-0.1%	-0.1%	0.1%	0.2%	0.2%	0.3%	0.3%	0.3%	0.3%	0.5%	0.4%	0.3%	0.3%
Richmond	0.4%	-0.7%	0.2%	1.2%	1.8%	1.4%	0.5%	0.0%	0.0%	0.2%	0.2%	0.3%	0.3%	0.3%	0.3%	0.3%	0.6%	0.5%	0.5%	0.4%
Scituate, RI	0.8%	-0.4%	0.5%	1.5%	2.1%	1.6%	0.7%	0.2%	0.1%	0.3%	0.3%	0.4%	0.4%	0.4%	0.4%	0.4%	0.8%	0.7%	0.7%	0.6%
Smithfield	2.0%	0.8%	1.7%	2.5%	2.9%	2.3%	1.3%	0.7%	0.5%	0.6%	0.6%	0.6%	0.6%	0.5%	0.5%	0.5%	1.5%	1.2%	1.4%	1.1%
South Kingstown	1.3%	0.1%	1.0%	1.9%	2.4%	1.9%	0.9%	0.4%	0.3%	0.4%	0.4%	0.5%	0.5%	0.4%	0.4%	0.4%	1.1%	0.9%	1.0%	0.8%
Warwick, RI	0.4%	-0.7%	0.1%	1.2%	1.8%	1.4%	0.5%	0.0%	0.0%	0.1%	0.2%	0.3%	0.3%	0.3%	0.3%	0.3%	0.6%	0.5%	0.5%	0.4%
West Greenwich	5.3%	4.1%	5.0%	5.4%	5.4%	4.4%	3.0%	2.2%	1.8%	1.7%	1.5%	1.4%	1.2%	1.1%	1.0%	0.9%	3.5%	2.7%	3.4%	2.7%
West Warwick	0.7%	-0.4%	0.5%	1.5%	2.0%	1.6%	0.6%	0.2%	0.1%	0.2%	0.3%	0.3%	0.4%	0.3%	0.4%	0.4%	0.8%	0.6%	0.6%	0.6%
Westerly	0.8%	-0.4%	0.5%	1.5%	2.0%	1.6%	0.6%	0.2%	0.1%	0.3%	0.3%	0.3%	0.4%	0.3%	0.4%	0.4%	0.8%	0.6%	0.7%	0.6%

Appendix 2 – Detailed Breakdown of Annual Budgets

	2012	2013	2014	2015	2016	2017	Total
PP&A	\$60,000	\$50,000	\$74,000	\$74,000	\$74,000	\$74,000	\$406,000
Marketing	\$40,000	\$77,000	\$75,000	\$75,000	\$75,000	\$75,000	\$417,000
Rebates	\$66,000	\$94,625	\$103,990	\$103,990	\$103,990	\$103,990	\$464,585
PCT Rebates - Resi	\$50,000	\$16,250	\$25,900	\$25,900	\$25,900	\$25,900	\$169,850
PCT Rebates - C&I	\$16,000	\$3,250	\$1,850	\$1,850	\$1,850	\$1,850	\$26,650
PCT Rebates - Smart Plugs			\$27,750	\$27,750	\$27,750	\$27,750	\$111,000
Smart Plug Rebates		\$38,000	\$12,240	\$12,240	\$12,240	\$12,240	\$86,960
AC Recycling Rebates	\$0	\$24,625	\$4,000	\$4,000	\$4,000	\$4,000	\$40,625
AC Purchase Rebates	\$0	\$12,500	\$4,250	\$4,250	\$4,250	\$4,250	\$29,500
LEDs			\$28,000	\$28,000	\$28,000	\$28,000	\$112,000
Bill Credits	\$5,000	\$7,000	\$12,738	\$18,197	\$23,655	\$29,114	\$95,703
Resi Central AC Bill Credit	\$5,000	\$7,000	\$8,200	\$11,000	\$13,800	\$16,600	\$61,600
C&I PCT Bill Credit		\$0	\$1,440	\$2,240	\$3,040	\$3,840	\$10,560
Window AC Bill Credit			\$3,098	\$4,957	\$6,815	\$8,674	\$23,543
STAT	\$25,000	\$1,910	\$13,480	\$4,980	\$6,480	\$7,980	\$59,830
Evaluation	\$25,000	\$100,000	\$120,000	\$100,000	\$80,000	\$80,000	\$505,000
Substation equipment cost	\$0	\$13,000	\$0	\$0	\$0	\$0	\$13,000
Total	\$221,000	\$343,535	\$399,208	\$376,167	\$363,125	\$370,084	\$2,073,118

Appendix 3 – 2013 SRP Benefit Cost Analysis Tables

**Table S-1
National Grid
System Reliability Procurement - Tiverton/Little Compton
Funding Sources
\$(000)**

	2012	2013	2014	2015	2016	2017	Total
(1) Projected Budget:	\$221.0	\$343.5	\$399.2	\$376.2	\$363.1	\$370.1	\$2,073.1
(2) Projected Year-End 2013 Fund Balance and Interest:			\$57.2				
(3) Customer Funding Required:	\$221.0	\$209.3	\$342.0	\$376.2	\$363.1	\$370.1	\$1,881.8
(4) Forecasted kWh Sales:	6,459,688,660	7,853,900,593	7,855,718,845	7,983,997,148	8,160,095,783	8,241,201,746	46,554,602,776
(5) Additional SRP Funding Needed per kWh:	\$0.0000342	\$0.0000267	\$0.0000435	\$0.0000471	\$0.0000445	\$0.0000449	\$0.0000404
(6) Proposed Energy Efficiency Program charge in 2013 EEPP	\$0.0058900	\$0.0086189	\$0.0089637				
(7) Proposed Total Energy Efficiency Program charge	\$0.0059242	\$0.0086456	\$0.0090072				

Notes

- (1) Projected Budget includes only additional funds for SRP. It does not include costs associated with focused energy efficiency.
- (2) Proposed Total Energy Efficiency Program charge is the sum of the "Additional SRP Funding Needed per kWh" and "Proposed Energy Efficiency Program charge in 2012 EEPP" lines.
- (3) The 2013 System Reliability Procurement Report seeks approval only for 2013 funds. Future projections over the life of the Tiverton/Little Compton pilot are estimates subject to change.
- (4) All dollar amounts shown are in \$current year.
- (5) The Forecasted kWh Sales represent 12 months of sales except for 2012 which represents 10 months of sales due to the timing of the filing.
- (6) Forecasted kWh Sales for 2016 and 2017 were not available. 2015 forecasts were held constant through those years as a conservative estimate.

Table S-2
System Reliability Procurement - Tiverton/Little Compton
Summary of Cost Effectiveness (\$000)

	2012	2013	2014	2015	2016	2017	Overall
Benefits	\$231.5	\$1,159.1	\$1,142.7	\$1,192.6	\$1,240.5	\$1,289.4	\$6,255.7
Focused Energy Efficiency Benefits ¹	\$142.4	\$566.8	\$573.2	\$596.5	\$624.6	\$651.4	\$3,154.9
SRP Energy Efficiency Benefits ²	\$89.0	\$592.3	\$386.1	\$411.8	\$440.3	\$468.6	\$2,388.2
Demand Reduction Benefits ³	\$0.0	\$0.0	\$9.2	\$12.7	\$16.2	\$21.2	\$59.3
Deferral Benefits ⁴	\$0.0	\$0.0	\$174.2	\$171.5	\$159.4	\$148.2	\$653.3
Costs	\$184.8	\$640.3	\$656.3	\$633.3	\$620.2	\$627.2	\$3,362.2
Focused Energy Efficiency Costs ⁵	\$98.0	\$326.4	\$255.2	\$255.2	\$255.2	\$255.2	\$1,445.2
System Reliability Procurement Costs ^{6,7}	\$86.8	\$313.9	\$401.1	\$378.1	\$365.1	\$372.0	\$1,917.0
Benefit/Cost Ratio	1.25	1.81	1.74	1.88	2.00	2.06	1.86

Notes:

- (1) Focused EE benefits in each year include the NPV (over the life of those measures) of all TRC benefits associated with EE measures installed in that year that are being focused to the Tiverton/Little Compton area.
- (2) SRP EE benefits include all TRC benefits associated with EE measures installed in each year that would not have been installed as part of the statewide EE programs.
- (3) DR benefits represent the energy and capacity benefits associated with the demand reduction events projected to occur in each year.
- (4) Deferral benefits are the net present value benefits associated with deferring the wires project (substation upgrade) for a given year in \$2014.
- (5) EE costs include PP&A, Marketing, STAT, Incentives, Evaluation and Participant Costs associated with statewide levels of EE that have been focused to the Tiverton/Little Compton area. For the purposes of this analysis, they are derived from the planned ¢/Lifetime kWh in Attachment 5, Table E-5 of the 2012 EEPP in the SF EnergyWise and Small Business Direct Install programs. These are the programs through which measures in this SRP pilot will be offered.
- (6) SRP costs represent the 2014 SRPP budget which is separate from the statewide 2014 EEPP budget, as well as SRP participant costs. The SRP budget includes PP&A, Marketing, Incentives, STAT and Evaluation.
- (7) All costs and benefits are in \$current year except for deferral benefits.
- (8) This SRP report seeks approval only for the 2014 System Reliability Procurement Costs. Future projections over the life of the Tiverton/Little Compton pilot are estimates subject to change.
- (9) 2012 numbers have been updated to reflect year end data. 2013 numbers reflect year end projections.

Table S-3
National Grid
System Reliability Procurement - Tiverton/Little Compton
Annual Budgets and Actual Costs
\$(000)

	Program Planning & Administration	Marketing	Rebates and Other Customer Incentives	Sales, Technical Assistance & Training	Evaluation & Market Research	Total
2012	\$2.6	\$24.7	\$32.5	\$2.0	\$25.1	\$86.8
2013	\$50.0	\$75.0	\$81.6	\$4.9	\$100.0	\$311.5
2014	\$74.0	\$75.0	\$116.7	\$13.5	\$120.0	\$399.2
2015	\$74.0	\$75.0	\$122.2	\$5.0	\$100.0	\$376.2
2016	\$74.0	\$75.0	\$127.6	\$6.5	\$80.0	\$363.1
2017	\$74.0	\$75.0	\$133.1	\$8.0	\$80.0	\$370.1
Total	\$348.6	\$399.7	\$613.8	\$39.8	\$505.1	\$1,906.9

Notes:

- (1) The 2014 System Reliability Procurement Report seeks approval only for 2014 funds. Future projections over the life of the Tiverton/Little Compton pilot are estimates subject to change.
- (2) The annual totals in this table represent only the forecasted funds necessary to run the Tiverton/Little Compton pilot. They do not include costs associated with focused energy efficiency or with SRP participant costs.
- (3) All amounts shown are in \$current year.
- (4) 2012 numbers have been updated to reflect year end data. 2013 numbers have been updated to reflect year end projections

Table S-4							
System Reliability Procurement - Tiverton/Little Compton							
Summary of kW, and kWh New Installs Per Year							
			Capacity (kW)			Energy (MWh)	
			Summer	Winter	Lifetime	Maximum Annual	Lifetime
2012	EE	Energy Wise	16	30	127	165	1,417
		Small Business	4	2	43	7	76
		SRP	8	0	121	4	55
	Non-EE	Demand Response	0	0	0	0	0
	Total		28	32	291	176	1,547
2013	EE	Energy Wise	50	150	466	182	1,694
		Small Business	49	24	568	182	2,117
		SRP	91	1	1,048	61	687
	Non-EE	Demand Response	0	0	0	0	0
	Total		190	174	2,082	424	4,498
2014	EE	Energy Wise	37	112	721	135	2,601
		Small Business	17	9	194	66	775
		SRP	101	1	1,173	73	830
	Non-EE	Demand Response	138	0	138	7	7
	Total		293	122	2,226	280	4,212
2015	EE	Energy Wise	37	112	721	135	2,601
		Small Business	17	9	194	66	775
		SRP	101	1	1,173	73	830
	Non-EE	Demand Response	45	0	45	2	2
	Total		201	122	2,133	276	4,208
2016	EE	Energy Wise	37	112	721	135	2,601
		Small Business	17	9	194	66	775
		SRP	101	1	1,173	73	830
	Non-EE	Demand Response	53	0	53	3	3
	Total		209	122	2,141	276	4,208
2017	EE	Energy Wise	37	112	721	135	2,601
		Small Business	17	9	194	66	775
		SRP	101	1	1,173	73	830
	Non-EE	Demand Response	53	0	53	3	3
	Total		209	122	2,141	276	4,208
Grand Total			1,129	694	11,014	1,709	22,882

Notes:

- (1) The "EE" savings include both Focused Energy Efficiency savings and SRP Energy Efficiency Savings.
- (2) Measures unique to SRP and not offered in the same way through the statewide EE programs are listed as a separate line item (SRP) under the EE heading. Measures part of the focused EE are listed in the EnergyWise and Small Business program lines.
- (3) Savings in this table are not cumulative. Each year shows savings from measures that will have been installed within that year.
- (4) 2012 numbers have been updated to reflect year end data and 2013 numbers have been updated to reflect year end projections

Table S-5
System Reliability Procurement - Tiverton/Little Compton
Summary of Incremental Benefits By Year

			Capacity (\$)					Energy (\$)					Non-Electric (\$)		
			Total Benefits	Summer Generation	Winter Generation	Transmission	MDC/Deferral(3)	DRIPE	Winter Peak	Winter Off-Peak	Summer Peak	Summer Off-Peak	DRIPE	Resource	Non-Resource
2012	EE	Energy Wise	122,462	3,647	0	2,875	12,080	976	24,248	30,365	15,235	15,923	10,201	0	6,911
		Small Business	19,962	1,638	0	943	3,962	455	2,531	615	1,518	302	560	0	7,439
		SRP	89,031	6,590	0	2,638	11,082	1,224	0	0	2,926	873	316	63,381	0
	Non-EE	Demand Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0
		Deferral	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	231,454	11,875	0	6,455	27,124	2,654	26,778	30,980	19,679	17,098	11,078	63,381	14,351	
2013	EE	Energy Wise	307,085	16,210	0	10,632	44,671	4,157	29,537	38,358	19,278	18,747	12,584	85,419	27,492
		Small Business	259,667	26,983	0	12,777	53,685	7,026	73,426	17,738	43,739	8,740	15,552	0	0
		SRP	592,321	52,590	0	23,525	98,846	11,460	73	311	37,597	11,622	4,977	351,320	0
	Non-EE	Demand Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0
		Deferral	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1,159,073	95,784	0	46,933	197,202	22,643	103,036	56,407	100,615	39,109	33,113	436,739	27,492	
2014	EE	Energy Wise	487,281	82,927	0	29,013	0	3,091	49,638	65,958	25,942	29,454	13,151	153,651	34,454
		Small Business	85,904	17,709	0	7,866	0	1,375	26,817	6,778	12,873	3,009	9,477	0	2
		SRP	386,117	106,659	0	47,585	0	8,004	58	252	36,992	13,146	9,030	164,392	0
	Non-EE	Demand Reduction	9,200	3,192	0	5,649	0	0	0	0	360	0	0	0	0
		Deferral	174,188	0	0	0	174,188	0	0	0	0	0	0	0	0
	Total	1,142,690	210,488	0	90,114	174,188	12,470	76,512	72,988	76,166	45,609	31,658	318,043	34,456	
2015	EE	Energy Wise	506,862	89,888	0	29,685	0	3,212	51,790	68,638	27,289	30,792	11,409	159,704	34,454
		Small Business	89,668	20,361	0	8,048	0	1,428	27,814	7,038	13,594	3,158	8,225	0	2
		SRP	411,824	122,678	0	48,687	0	8,317	59	260	39,039	13,786	8,046	170,952	0
	Non-EE	Demand Reduction	12,745	4,552	0	7,691	0	0	0	0	502	0	0	0	0
		Deferral	171,482	0	0	0	171,482	0	0	0	0	0	0	0	0
	Total	1,192,579	237,479	0	94,110	171,482	12,958	79,664	75,936	80,424	47,736	27,680	330,656	34,456	
2016	EE	Energy Wise	529,501	97,094	0	30,372	0	3,370	54,153	71,517	28,706	32,214	11,446	166,175	34,454
		Small Business	95,050	23,111	0	8,234	0	1,499	28,957	7,324	14,353	3,317	8,253	0	2
		SRP	440,314	139,415	0	49,814	0	8,891	61	268	41,182	14,474	8,186	178,022	0
	Non-EE	Demand Reduction	16,218	5,408	0	10,152	0	0	0	0	658	0	0	0	0
		Deferral	159,412	0	0	0	159,412	0	0	0	0	0	0	0	0
	Total	1,240,494	265,028	0	98,572	159,412	13,760	83,172	79,110	84,899	50,006	27,885	344,196	34,456	
2017	EE	Energy Wise	551,717	104,695	0	31,075	0	3,456	56,854	74,761	30,232	33,761	9,744	172,687	34,454
		Small Business	99,724	26,027	0	8,425	0	1,537	30,379	7,665	15,165	3,494	7,030	0	2
		SRP	468,618	157,157	0	50,967	0	9,238	64	281	43,480	15,244	7,119	185,068	0
	Non-EE	Demand Reduction	21,155	7,530	0	12,722	0	0	0	0	902	0	0	0	0
		Deferral	148,191	0	0	0	148,191	0	0	0	0	0	0	0	0
	Total	1,289,405	295,409	0	103,189	148,191	14,230	87,297	82,707	89,779	52,499	23,893	357,755	34,456	
Grand Total			6,255,697	1,116,063	0	439,373	877,599	78,714	456,460	398,127	451,561	252,057	155,306	1,850,770	179,666

- Notes:
- (1) The "EE" benefits include both Focused Energy Efficiency benefits and SRP Energy Efficiency benefits.
 - (2) Measures unique to SRP are listed as a separate line item under the EE heading. Measures part of the focused EE are listed in the EnergyWise and Small Business program lines.
 - (3) The MDC/Deferral column represents: 2012-2013: the system-average distribution benefit and 2014-2017: the calculated deferral benefit as defined in the notes section of Table S-2
 - (4) All benefits are in \$current year.
 - (5) 2012 amounts have been updated to reflect year end data. 2013 amounts have been updated to reflect year end projections.
 - (6) Benefits due to EE reflect new installations within the year. Benefits due to Non-EE reflect cumulative installations

Table S-6						
System Reliability Procurement - Tiverton/Little Compton						
Demand Reduction						
			Tstats	Smart Plug	Lighting	
Per- Event Capacity Savings per Residential Participant (kW)			1.25	0.09	n/a	
Per- Event Capacity Savings per C&I Participant (kW)			2.5	n/a	0.065	
	2012	2013	2014	2015	2016	2017
Number of Forecasted Event Hours	0	0	48	48	48	48
Units (Cumulative)	35	259	514	601	876	1,152
Thermostats - Residential	35	135	205	275	345	415
Thermostats - C&I	0	4	9	14	19	24
Smart Plugs	0	120	300	312	512	713
Lighting Tuning - C&I	0	0	0	0	0	0
Forecasted Annual Capacity Savings (kW)	20	85	138	183	236	289
Thermostats - Residential	20	76	115	155	194	233
Thermostats - C&I	0	5	10	16	21	27
Smart Plugs	0	5	12	13	21	29
Lighting Tuning - C&I	0	0	0	0	0	0
Forecasted Annual Energy Savings (kWh)	0	0	6,604	8,788	11,337	13,886
Thermostats - Residential	0	0	5,535	7,425	9,315	11,205
Thermostats - C&I	0	0	486	756	1,026	1,296
Smart Plugs	0	0	583	607	996	1,385
Lighting Tuning - C&I	0	0	0	0	0	0
Cumulative Annual Demand Reduction Benefits (\$)			9,200	12,745	16,218	21,155
Annual Energy Benefits (\$)			360	502	658	902
Annual Capacity Benefits (\$)			8,841	12,243	15,559	20,252

Notes:

- (1) Forecasted event hours are based on an assumed three days of four-hour events, four times per year. In each event, it is assumed that the demand reduction will be staggered in two groups and cycled on and off.
- (2) Savings above represent 45% of max. This includes a reduction of 50% to reflect event cycling style and an additional 10% reduction to account for thermostats not connected at time of event.
- (2) The 2013 System Reliability Procurement Report seeks approval only for 2013 funds. Future projections over the life of the Tiverton/Little Compton pilot are estimates subject to change.
- (3) All dollar amounts are in \$current year.
- (4) 2012 amounts have been updated to reflect year end data and 2013 amounts have been updated to reflect year end projections.

**Table S-7
System Reliability Procurement - Tiverton/Little Compton
Potential for Wires Project Deferral at Year Begin**

	2012	2013	2014	2015	2016	2017	2018
Cumulative Annual kW from Energy Efficiency			218	373	512	667	823
Focused Energy Efficiency			119	173	210	264	318
SRP Energy Efficiency			99	200	302	403	505
Cumulative Annual kW from Demand Reduction			105	138	183	236	289
Thermostats - Residential			96	115	155	194	233
Thermostats - C&I			5	10	16	21	27
Smart Plugs			5	12	13	21	29
Lighting Tuning - C&I			-	-	-	-	-
Total Cumulative kW Reduction			323	511	695	903	1,112
Total Cumulative kW Reduction Needed to Defer Wires Project			150	390	630	860	1,000
% Achieved			215%	131%	110%	105%	111%

Notes:

- (1) All kW amounts are Summer kW and are cumulative.
- (2) This table shows the number of kW have been either installed through EE or have become available to reduce through demand reduction by the end of the previous year to therefore contribute to the deferral of the wires investment in the current year.
- (3) kW in Reserve acts as insurance against customers overriding the demand reduction themselves, so that the required reduction is still met.
- (4) 2012 amounts have been updated to reflect year end data. 2013 amounts have been updated to reflect year end projections.



MEMORANDUM

TO: Lindsay Foley, Daniel Carazo, Keith Miller, Jeremy Newberger, Tim Roughan
(National Grid)

FROM: Amanda Dwelley, Antje Flanders, Jenny Nelson, Bill Norton

DATE: March 29, 2013

RE: National Grid Rhode Island System Reliability Procurement Pilot:
2012 Marketing Effectiveness Findings

This memo serves as the 2012 Marketing Effectiveness Analysis of the Rhode Island System Reliability Procurement (SRP) pilot in the towns of Tiverton and Little Compton. National Grid increased marketing and outreach in the pilot communities beginning in March 2012, to encourage participation in select statewide energy efficiency programs, and enrollment in SRP demand management offerings (including programmable controllable thermostats and demand-response lighting ballasts)., This memo assesses success metrics such as inquiry rates, energy efficiency program participation, and Wi-Fi programmable thermostat installation, to determine how effective these marketing tactics have been toward meeting participation goals . Findings in this memo cover the period March 2012 through December 31, 2012.

The table below summarizes 2012 results. Based on success metrics through the end of 2012, the SRP program did not meet its goals for Wi-Fi programmable controllable thermostat installations in 2012. The company did learn that the number of homes with central air conditioning (a requirement for Wi-Fi programmable thermostats) is relatively low, while the saturation of window air conditioners may be higher than expected.¹ National Grid has adjusted Pilot implementation plans for program offerings and marketing among residential customers (effective in 2013), to include window air conditioning measures, and continue to focus on energy efficiency program participation and measure installation. The following sections describe 2012 results in more detail.

¹ Source: The Narragansett Electric Company, d/b/a National Grid. National Grid 2013 System Reliability Procurement Report, Docket No. 4367. Submitted to the Rhode Island Public Utilities Commission on November 2, 2012.

Table 1. Tiverton and Little Compton Leads and Participation Metrics, 2012

Program	Metric	Tiverton Substation Accounts	Non-Substation Accounts	Total Tiverton & Little Compton Accounts
Residential EnergyWise	Leads: Full-year 2012	173	117	290
	Leads: March-December 2012	167	111	278
	Participants: Full-year 2012	104	73	177
	Participants: March-December 2012	97	56	153
Residential Demand Link	Leads: March-December 2012 ²	102	61	163
	Participants: March-December 2012	17	9	26
Small Business Direct Install	Participants: Full-year 2012	2	2	4
	Participants: March-December 2012	2	2	4
Small Business Demand Link	Participants: March-December 2012	1	1	2

² While Wi-Fi programmable thermostats were available slightly before May 2012, the first request (lead) occurred on May 1, 2012, and the first installation occurred in June.

PROGRAM MARKETING OVERVIEW

The pilot's first-year activities centered on (a) enrolling residential and commercial customers in the Demand Link program, which includes demand response and direct load control pilot measures, and (b) encouraging participation in existing energy efficiency programs that may contribute to pilot savings. Specifically, the pilot sought to install 125 programmable controllable thermostats (PCTs) in residential homes, install 10 thermostats in commercial facilities, and install 50 enhanced DR lighting ballasts.³ To fulfill these goals, National Grid has increased marketing efforts for two statewide energy efficiency programs – EnergyWise and Small Business Direct Install (SBDI). These two programs each perform two functions: They are a platform for determining Demand Link eligibility and encouraging Demand Link participation, and they offer direct install energy efficiency measures that can help reduce peak load on the target substation. The pilot established 2012 energy efficiency participation goals that are double the installation goals for PCTs (250 EnergyWise participants and 20 SBDI participants).

Pilot marketing efforts in 2012 included the following:

1. Presentations by National Grid in May at two community meetings where both town administrators and the general public were in attendance
2. Article posted in May in local online news outlet describing pilot initiative, offerings, and steps to sign up for an audit program
3. Direct outreach (phone) to recent EnergyWise Audit participants to describe pilot offerings
4. Direct mail letters in June to 12 residential customers from Tiverton and Little Compton that had an audit after January 1, 2012 and before June 1st and who also were flagged as having central air conditioning, a requirement for program participation
5. Direct mail in June to 1,461 high-usage residential customers to promote pilot program.⁴ Follow-up calls to customers that did not respond to mailing began on August 1st. Five hundred eighty-one follow-up calls have been made as of August 7th.
6. Social media activities via Twitter beginning in May and continuing through December, publicized the availability of no cost Wi-Fi thermostat for Little Compton and Tiverton residential customers
7. Program overview flyer developed in May and provided at conclusion of residential customer audits and at community meetings.
8. E-mail blast in September to residential customers that had an audit after January 1, 2012 and that were identified as having central air conditioning.
9. Banner ads ran on the local newspaper website from September through December

³ Lighting ballast goals reflect the total number of installed ballasts rather than participants - goals could be achieved by installing 50 DR lighting ballasts in one facility

⁴ Note that of the 1,538 high usage customers identified, direct mail letters were only sent to 1,461 customers.

10. Google paid search campaign and Facebook display ads geo-targeted to Little Compton and Tiverton ran from September through December
11. Direct mail in mid-August to small business customers in Tiverton and Little Compton that highlights the availability of PCTs through the Demand Link program to eligible customers
12. Door-to-door initiative beginning in mid-August to promote the pilot offerings to small business customers in Tiverton and Little Compton

These activities are in addition to business-as-usual statewide marketing that may advertise or market to customers in the pilot towns.

RESIDENTIAL MARKETING EFFECTIVENESS

This section describes residential marketing effectiveness from four perspectives. First, we look at program participation metrics, such as EnergyWise program participation rates, and Demand Link programmable thermostat installations. Second, we look at counts and rates of key marketing success metrics such as program inquiry (to RISE Engineering). Third, we look at these rates among a subset of customers who were specifically targeted by program marketing. In 2012, this included approximately 1,500 high-usage customers who were targeted in first-year marketing. Finally, we look at central air conditioning penetration rates specific to the pilot area to assess whether the pilot is “on track” to reach PCT enrollment goals.

Though the pilot officially started in March 2012, marketing activities did not begin to ramp up until June 2012. Presentations at town meetings and local press releases in both Little Compton and Tiverton began in mid-May 2012. Targeted direct marketing efforts did not begin until late May 2012, with an article in a local online news publication promoting the availability of the pilot, and social media activities via Twitter ramping up during that time. The first direct mail letters were sent in June to 12 residential customers from Tiverton and Little Compton that were flagged as having an audit after January 1, 2012 and before June 1, 2012 and who were also flagged as having central air conditioning, a requirement for participation in the pilot program. The second direct mailing letters to residential customers were also sent in June 2012 to a targeted list of 1,461 high usage customers.⁵ Follow-up calls to customers who did not respond to this direct mailing began on August 1, 2012, with 581 follow-up calls having been made to date, and with more continuing through August 2012. Email blasts in September (exact date TBD) were directed to residential customers that had an audit after January 1, 2012 and that were identified as having central air conditioning. Additionally, National Grid began to use paid advertising (banner ads and newsletter ads) with a local online media outlet as well as geo-targeted Google paid search and Facebook display ads in October. These efforts continued through December along with organic social media activities on Facebook and Twitter.

Residential Success Metrics

EnergyWise Program Participation

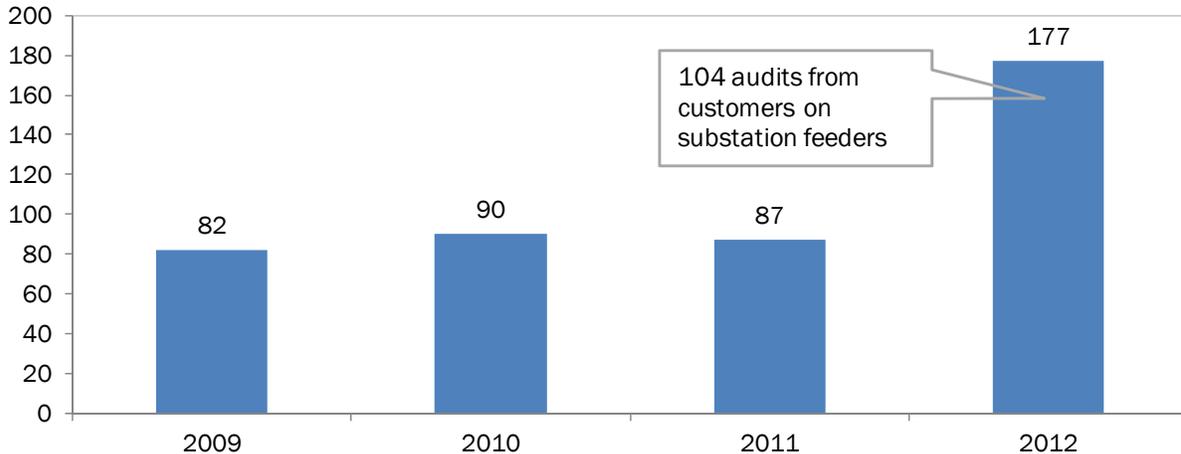
Participation in the EnergyWise program is a key measure of (a) the pilot’s success marketing EnergyWise, and (b) the pilot’s potential to recruit Demand Link participants. For the purpose of this first-year evaluation, we report findings for (a) the pilot communities overall, and (b) the subset of Tiverton and Little Compton customers who are on substation feeders 33 and 34. In 2014 we will

⁵ Note that of the 1,538 high usage customers identified, direct mail letters were only sent to 1,461 customers.

provide comparative analysis of EnergyWise participation rates in the SRP communities and similar, non-pilot towns in the same period.

The figure below shows annual participation counts in the towns of Tiverton and Little Compton.⁶ Participation in the SRP communities was fairly stable in 2009-2011, with between 82-90 audits per year. In 2012, participation increased to 177 audits, an increase of about 105% over the average for the previous three calendar years. 153 of these audits occurred after March 1, 2012. Of these, 104 audits (63%) were completed by customers on sub-feeders 33 and 34. This participation rate is more than proportional to the share of customers in the pilot communities that are on subfeeders 33 and 34 (51%).

Figure 1. EnergyWise Audits in SRP Pilot Communities, 2009-2012

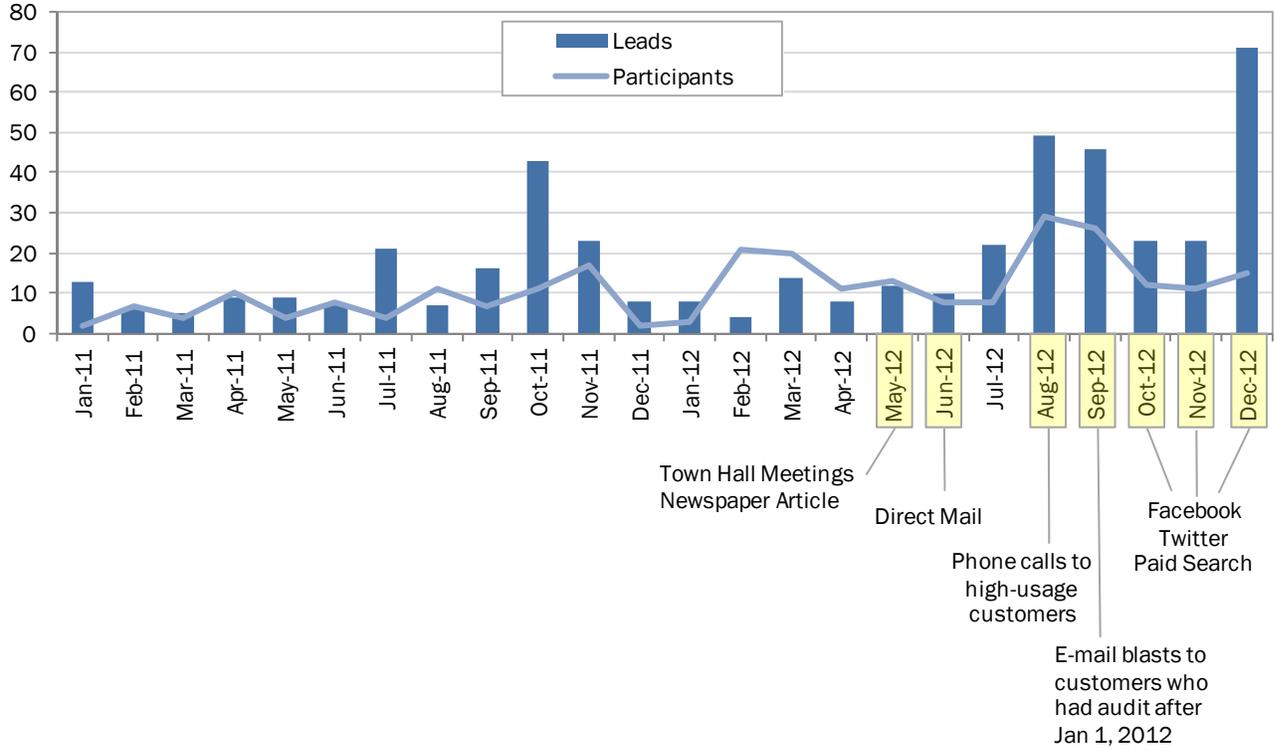


EnergyWise Leads & Inquiries

We also looked at EnergyWise audit requests of the program implementer, as a potential leading indicator of program participation. The figure below shows that leads were 74% higher in 2012 compared with 2011. The enhanced marketing efforts between May and December of 2012 may have had an influence on the number of leads observed in that time period. Leads between May and December of 2012 were nearly double the total leads in the same period in 2011 (91% higher). Additionally, an increase in leads in August and September may have been a product of targeted marketing efforts in June and August to high-usage customers. These were the only two months in which leads from customers on the high-usage list surpassed leads from customers who were not on the high usage list (with leads from the direct mail list comprising 64-65% of total monthly leads), indicating that the direct mail program likely had an impact.

⁶ Participation counts are based on the number of facilities with site visits in each year, where year is determined by the month in which the site visit occurred, and facilities could have had more than one electric account audited (if multifamily). Visits are assigned to a region based on the town name.

Figure 2. EnergyWise Leads in Tiverton and Little Compton, 2011 – 2012



In 2012, the majority of EnergyWise and Demand Link leads came from customers on substation feeders (60% of EnergyWise leads and 63% of Demand Link leads), more than proportional to the share of customers on substation feeders 33 and 34 (51%).

Demand Link Leads & Participants

The pilot encourages residential customers to call RISE Engineering to sign up for an EnergyWise home energy audit as the first step to participating in the pilot. Past audit participants who had received their audit beginning January 1, 2012 are also encouraged to call RISE for more information. RISE generally asks customers how they heard about the program, and records this information. However, for the pilot, customers who either call in asking about the Demand Link program or call in for the EnergyWise program in general – but are eligible and eligible for both EnergyWise and Demand Link – are recorded as a Demand Link lead. Therefore with current tracking systems it is not possible to determine the source(s) of Demand Link leads.

From March 1, 2012 to December 31, 2012, 163 customers were classified as Demand Link leads. Of these 163 Demand Link leads with known account information, 55 were part of the high-usage customer targeted direct mail list. As mentioned above, it is unclear from program tracking how other customers flagged as “Demand Link” learned of the program – e.g., direct mail, email blast, town meeting, or the RISE call center representative. Going forward, as more customers may come in from general marketing (i.e., outside of a targeted list), we understand that the program implementer will (a) record how customers heard about the program separately from their program interest and/or Demand Link status, and (b) attempt to record “how heard” for more customers in the pilot program area. This will allow the Evaluation Team to assess what marketing channels may be driving customers to call RISE regarding EnergyWise and Demand Link.

Demand Link thermostat installations through the end of the year total 31 thermostats in 26 customer homes. The installation count is lower than the number of leads, as some leads were not eligible for the program, and some elected not to participate. Half of the customers who participated

(13) were part of the high-usage customer targeted direct mail campaign. This proportion shows promise for direct mail tactics, given that the direct mail list covered about 30% of substation customers). However, at this stage in pilot implementation (and without lead tracking that differentiates lead sources for other Demand Link leads) it is too early to conclude whether direct mail will be effective in driving interest in Demand Link (compared with other sources, like Energy Wise auditors, local press, social media or word-of-mouth).

Targeted Customer Success Metrics

In 2012, National Grid implemented the first of many direct marketing campaigns scheduled to occur during the pilot. National Grid selected 1,538 high-usage customers on the substation feeders for a direct mail campaign, and sent direct mail letters to 1,461 of them.⁷ On June 26, 2012 a direct mail letter was sent out to these customers, and follow-up calls began on August 1st to those customers who have not responded to the direct mail letter. These customers had average annual consumption of 14,996 kWh and average summer consumption of 5,992 kWh.⁸ The table below summarizes actions taken by these customers through the end of 2012.

Table 2. Actions Taken by Customers on Targeted Marketing Lists

Program	Metric	Participants from High-Usage Direct Mail List (Accounts)
Residential EnergyWise	Leads: Full-year 2012	85
	Leads: March-December 2012	84
	Participants: Full-year 2012	54
	Participants: March-December 2012	49
Residential Demand Link	Leads: Full-year 2012	55
	Participants: Full-year 2012	13

In 2012, 85 of these customers have either inquired about EnergyWise or participated, including 54 program participants. Of the targeted customers, fifty-five expressed interest in Demand Link, and 13 have completed or scheduled Demand Link installations. Leads from this targeted list represent 84 of the 167 EnergyWise leads from substation customers between March 2012 and the end of the year (50%). Note that the targeted list represents about 30% of residential customers on the Tiverton substation, so the inquiry rate is higher than the natural rate we'd expect from a list of this size. Customers from this list represent 49 of the 153 EnergyWise participants on substation feeders who received an audit between March 2012 and the end of the year (51%). Again, these metrics suggest that the direct mailing had some impact on participation rates.

National Grid also reached out to 12 customers who had completed EnergyWise audits in early 2012 and had central air conditioning, to attempt to recruit them for the Demand Link program. Based on Demand Link tracking data through the end of the year, it does not appear that any of these customers have inquired about, nor scheduled, a Demand Link installation.

⁷ About 1,538 high usage customers were identified, and direct mail letters were sent to 1,461 customers.

⁸ Usage information is based off the initial database of 1,538 high usage customers

Central Air Conditioning Opportunity Size

Based on success metrics through the end of 2012, the SRP program did not meet its original goal of 125 Wi-Fi programmable controllable thermostat installations in 2012. Given saturation rates (discussed above) and the eligibility of interested customers throughout 2012, National Grid has expanded its offerings to include window air conditioning replacement and recycling, and window AC demand response. A reduced number of Wi-Fi programmable controllable thermostats (PCT) will continue to be offered to residential with central air-conditioning.

At present, central air conditioning and Wi-Fi are prerequisites for installation of Wi-Fi programmable thermostats within the Demand Link program. Since Wi-Fi PCT installation is still a key component of National Grid's load reduction strategy, it is instructive to look at the incidence of central air conditioning in the pilot area to understand the future potential of Wi-Fi PCT participation. A single, definitive source of this information is not available, but based on available tracking data, the penetration of central air conditioning appears slightly lower in the pilot towns than in Rhode Island overall.

13. For the State of Rhode Island, National Grid estimates a central air conditioning penetration rate of 32% and window air penetration rate of 53%.⁹

14. Penetration rates among potential EnergyWise program participants appear to be lower

1. Of the 572 EnergyWise leads from 2010-2012, 134 (23%) had central air conditioning
2. Of the 177 EnergyWise audits completed in 2012, 40 homes (23%) had central air conditioning.

15. Central air conditioning penetration rates among customers who have expressed interest in demand-side management offerings show slightly higher penetration rates.

3. Demand Link leads: Of the 163 customers who were classified as Demand Link leads in 2012, 57 (35%) have central air conditioning.¹⁰
4. Tendril/EmPower Pilot: 72 customers from Tiverton & little Compton applied for the pilot; not all qualified.¹¹ Among all who applied, 40% have central air conditioning, 25% have room air, and 36% have neither.

By the end of 2012, the pilot achieved 25% of its goal of 125 Demand Link thermostat installations. In response to the lower than expected central air conditioning penetration among EnergyWise and Demand Link leads, as well as initial Demand Link penetration rates, National Grid began offering window air conditioning measures in 2013. Specifically, the program incentives to customers with window air conditioning units to replace their current unit to one that is ENERGY STAR rated, to recycle the old unit, and to install a Modlet for participation in Demand Response events. A reduced number of Wi-Fi programmable thermostats will continue to be offered to residential customers with central air conditioning. Additionally, while SRP marketing materials and call center representatives

⁹ Page 8 of SRP proposal to RIPUC

¹⁰ The higher penetration rate of CAC among Demand Link leads may be related to lead tracking processes, wherein some customers who call in about EnergyWise in general may be classified as Demand Link leads after the program implementer assesses whether customers have CAC, and offers the program (i.e., eligibility rather than initial inquiry drives classification). At present it is not possible to determine what proportion of customers inquiring about Demand Link or PCTs directly have CAC.

¹¹ 39 of 72 participated; some did not qualify, while others qualified but then opted out. Those who participated in EmPower will be invited to participate in the SRP pilot in 2013.

will continue to encourage EnergyWise audits among Demand Link leads, customers who are not interested in an audit will

It is too early to tell what long-term Demand Link participation rates might be since the pilot is just ramping up. We suggest (a) monitoring the relationship between EnergyWise participation, Demand Link eligibility and conversion to Demand Link installations, and (b) exploring this issue further in 2013, in a focus group format. Further research could reveal potential changes to program outreach, messaging or incentives that National Grid may be able to implement before summer 2014.

COMMERCIAL MARKETING EFFECTIVENESS

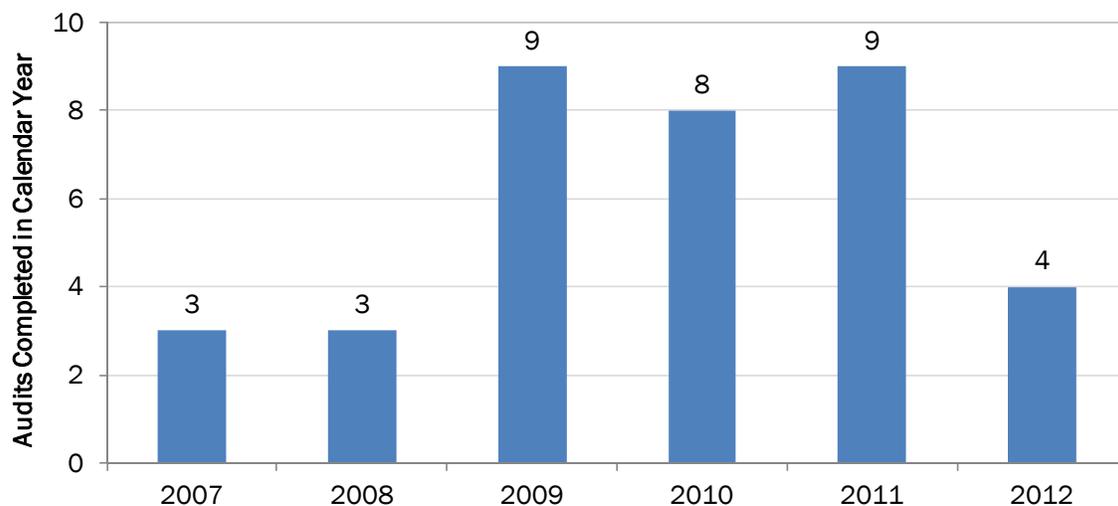
There are about 440 commercial customers in Tiverton and Little Compton on substation 33. The majority of these customers (93%) are small C&I. The SRP pilot is focusing on Small C&I customers to increase participation in the Small Business Direct Install Program (SBDI) and Demand Link offerings.

Outreach to C&I customers through direct mail began in mid-August 2012. National Grid mailed letters to all Small C&I customers in the area describing free energy evaluations (the SBDI program) and free Wi-Fi programmable controllable thermostat as part of the Demand Link program. Door-to-door outreach efforts to follow up with customers who received the direct mail piece began in mid-August and may continue into the early fall if necessary.

Through the end of 2012, twelve customers have inquired about Demand Link. The majority of these customers (eleven) heard about the program through SRP-specific outreach, including telemarketing, direct mail, or door-to-door canvassing. Two customers became Demand Link participants by installing DR lighting ballasts, five were deemed ineligible to participant based on their operating hours, and five have audits scheduled for 2013.

Participation in the SBDI program does not yet show an increase over previous years. During calendar year 2012, four customers completed an SBDI audit. Note that this reflects the activities that were invoiced through March 2013. Based on additional information provided by National Grid, participation in previous years has been 8 or 9 customers per year, as shown in the figure below.

Figure 3. Annual Small Business Direct Install Audits in SRP Pilot Area



DISCUSSION

These results represent activity during a ramp-up period, in which awareness is just starting to build, and customers are beginning to understand program offerings. Therefore these results should not be interpreted as a trend or forecast. Still, preliminary results show promise for increasing energy efficiency and Demand Link participation in future years. Based on the uptick in residential leads in general, as well as leads from customers who received direct mail, marketing tactics planned for 2013 (including direct mail, e-mail blasts and outbound telemarketing efforts) show promise for reaching customers poised to gain the most benefit from the program.

Though year end participation counts were below 2012 participation goals, program participation surpassed the average for the past three years by nearly 105%. At the same time, elevated marketing efforts appear to have had an effect on customer interest in residential offerings, as exhibited by the increase in EnergyWise leads in May through December over 2011. Direct marketing targeted towards high-usage customers also appears to have been effective strategy in driving leads to the program. At this point it is unclear how the targeting (high-usage) and messaging interacted to increase interest, but planned direct mail and telemarketing in 2013 will offer National Grid an opportunity to gather more information about customer needs, generate customer insights, and further improve targeting, segmentation and messaging in future years.

The first pilot year also revealed valuable information about central air conditioning penetration in the pilot area, allowing for program adjustments in 2013. The expansion of 2013 offerings to allow customers without CAC but with window air conditioning to take advantage of rebates and demand response offerings should open up a larger potential participant pool for Demand Link. National Grid can also continue communications with customers who did not qualify for Demand Link in the first year, but expressed interest, and offer window air conditioning efficiency and demand response opportunities.

As customers are exposed to more marketing and outreach in 2013, and National Grid reinforces messages through multiple channels, participation rates may increase further. Based on trends in the Aquidneck pilot, it may take up to a year after the official “start” of a program to see an uptick in participation.

Since DR events will not begin until 2014, in the event that 2012 participation is less than desired, there is sufficient time in 2013 and early 2014 to gather more customer feedback on marketing and program offerings (through surveys or focus groups), optimize marketing efforts, and change program offerings, all of which we understand that National Grid is planning. Process evaluation activities in 2013, including primary research with participants, is designed to answer more questions about what tactics are most effective in driving interest and participation, and why.



nationalgrid

HERE WITH YOU. HERE FOR YOU.

Sample A. Sample
123 Main Street
Anytown, US 12345-6789

Relax and enjoy the warm weather! These no-cost offers can keep your family cool and save you money.

Dear Sample,

Keeping your family cool during the hot summer months can add almost \$200 to your annual electricity costs¹. National Grid wants to help reduce your costs by providing energy-saving programs just for your community. By participating in these programs, you can control your energy use, save your family money, and help the environment – all while staying cool in the shade.



DemandLink™ WiFi Programmable Controllable Thermostat Program*

Receive a no-cost, fully-installed WiFi thermostat that can cut your cooling and heating costs by about 16% and 8% respectively. Smart Plug devices are also available to reduce window air conditioning costs. Plus, by participating for two years, you can receive either a:

- **\$40 annual bill credit if you have central air conditioning****
- **\$25 annual bill credit if you have window air conditioners and a no-cost Smart Plug to control your units**.**



DemandLink Window Air Conditioner Rebate and Recycling Program

New ENERGY STAR® air conditioners use up to 40% less energy than ten-year old units***. So we've made it easy for you to upgrade to energy-efficient window A/C units. Receive:

- **\$50 for each new ENERGY STAR® window air conditioner** (up to four purchase rebates per account)
- **\$25 for each existing unit that you recycle** (up to four recycling rebates per account).



EnergyWise Home Energy Assessment

You also qualify for a no-cost EnergyWise Home Energy Assessment, which will evaluate your home's energy efficiency. The included energy audit will identify smart changes and improvements that can help your family save money. Just call **1-888-633-7947** or sign up at myngrid.com/energywise.

Take control of your summer energy costs. Stay cool as the weather heats up while saving energy and money with this limited time program. Call **1-855-752-MYNG** (855-752-6964), mention code 222 or email RIsrp@nationalgrid.com to start participating in the DemandLink and Window Air Conditioner Rebate and Recycling Programs.

Sincerely,

Lindsay M. Foley
Project Manager, National Grid

These programs are funded by the energy efficiency charge on all customers' utility bills, in accordance with Rhode Island law.

¹ National Grid Rhode Island billing data, National Grid electricity rates, US Energy Information Administration Electricity Use for Cooling by Residential and Commercial Sectors in the United States, 2011.

* WiFi thermostat requires broadband Internet and wireless router. ** Participant must agree to remain active for two years. *** U.S. Dept. of Energy.

Printed on recycled paper

1-855-752-MYNG, mention code 222 | RIsrp@nationalgrid.com



nationalgrid

HERE WITH YOU. HERE FOR YOU.

Sample A. Sample
123 Main Street
Anytown, US 12345-6789

**Get with the cooling program
this summer and save on
your energy bills.**

Dear Sample,

Keeping your employees and customers cool during the hot summer months can add almost \$200 to your annual electricity costs¹. National Grid wants to help reduce these costs by providing energy-saving programs just for your community. By participating in these programs, you can control your business' energy use, improve the bottom line, and help the environment – all while staying cool in the shade.



DemandLink™ WiFi Programmable Controllable Thermostat Program

Receive a no-cost, fully-installed WiFi thermostat that can cut your cooling and heating costs by about 16% and 8% respectively. Smart Plug devices are also available to reduce window air conditioning costs. Plus, by participating for two years, you can receive either a:

- **\$160 annual bill credit if you have central air conditioning****
- **\$25 annual bill credit if you have window air conditioners and a no-cost Smart Plug to control your units**.**



DemandLink Window Air Conditioner Rebate and Recycling Program

New ENERGY STAR® air conditioners use up to 40% less energy than ten-year old units³. So we've made it easy for you to upgrade to energy-efficient window A/C units. Receive:

- **\$50 for each new ENERGY STAR® window air conditioner** (up to four purchase rebates per account)
- **\$25 for each existing unit that you recycle** (up to four recycling rebates per account).

Take control of your summer energy costs. Stay cool as the weather heats up while saving energy and money with this limited time program. Call **1-855-752-MYNG** (855-752-6964), mention code 222 or email **RIIsrp@nationalgrid.com** to start participating in the DemandLink and Window Air Conditioner Rebate and Recycling Programs.

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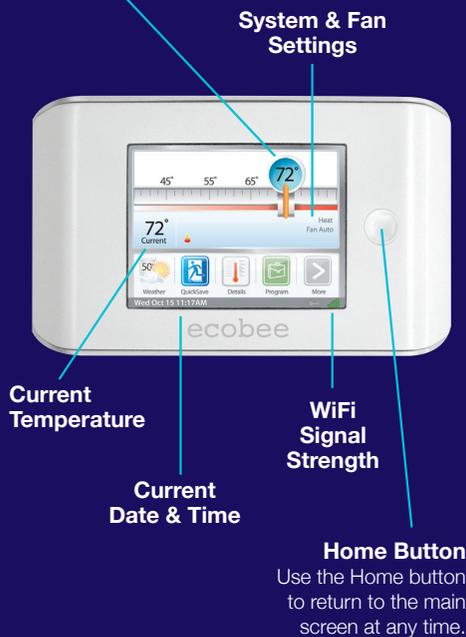


Take control of your energy use with a no-cost WiFi programmable controllable thermostat.

At National Grid, we are committed to helping our customers reduce energy use. Our DemandLink™ program puts you in control of your cooling and heating with a no-cost, fully-installed WiFi programmable controllable thermostat (\$500 value) that is easy to use.

Temperature Slider

Use your finger to press and move the set temperature slider left or right until the value in the magnifying lens displays the temperature you desire.



nationalgrid
HERE WITH YOU. HERE FOR YOU.

Exclusively for pre-selected customers
in Tiverton and Little Compton

Helping to put energy savings at your fingertips.



To learn more call:
1-855-752-MYNG (855-752-6964)

Printed on recycled paper



For your home

Keeping your family comfortable, year round, while lowering your utility bills may seem like a challenge. With a no-cost WiFi thermostat, you can take control of your energy use, save money, and receive a generous bill credit.

Exclusively for pre-selected customers in Tiverton and Little Compton

This valuable program was designed specifically for the families and businesses of your community to save energy and money, and help the environment.

A no-cost WiFi thermostat is a smart choice*.

Savings Made Simple

Follows a custom cooling and heating schedule to ensure optimal comfort with minimal energy use. Plus, with a no-cost Smart Plug, you can use the WiFi thermostat to control the times of day that your window air conditioner will operate. It's a smart way to cut your electric and natural gas bills by approximately 8%.

Greater Convenience

Fully programmable and controllable using touch screen technology. You can also remotely control your system using a secure web portal that can be accessed from a computer or tablet. And, you can even use free iPhone/iPod Touch and Android apps.

Piece of Mind

Reports will help you track your cooling and heating use and let you know how your equipment is performing. It will even remind you when it's time for maintenance and alert you if there is a problem.

These programs are funded by the energy efficiency charge on all customers' utility bills, in accordance with Rhode Island law.
* WiFi thermostat requires broadband Internet and wireless router.
** Participant must agree to provide periodic feedback for two years.



Smart Plug allows you to control your window air conditioner from your internet device.



Smartphone apps allow you to control your thermostat from anywhere.



Access advanced reports right from your computer.

Plus, you can receive money back!

With demand response technology, this thermostat allows for National Grid to optimize load levels during peak use. By participating in all test, audit, and demand optimization events you can receive an annual bill credit for two years**. **Call for details today: 1-855-752-MYNG (855-752-6964).**

For your business

Controlling your business expenses is more important than ever and National Grid can help. With a no-cost WiFi thermostat, you can cut your energy use, improve the bottom line, and take advantage of a bill credit.



The Newport Daily News

75 cents
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Wednesday
July 17, 2013

Heat wave drives up demand for electricity

National Grid suggests ways for customers to keep their cool in more efficient ways.

By Marcia Polzeznik
Correspondent

Joseph Osmani said he tries to do as much as he can to reduce his energy usage, but knows that his kids won't do what he did to stay cool in the summer when he was their age. He ate lots of ice cream, he said; his kids turn on the air

ALSO

♦ Local cooling centers. A4
♦ Cool places offer escape. A6

conditioning and stay put on hot days.
"My children and wife spend a ton of money on air conditioning," said Osmani, who stopped by National Grid's Energy Efficiency

Awareness Day on Tuesday afternoon at the Muddy Moose Cafe on Stafford Road in Tiverton. Representatives from the power company were on hand to talk about lightening energy loads by using more energy-efficient lighting and thermostats that can be checked and programmed from a cell phone or computer while away

from home, and taking advantage of free home energy audits and monetary incentives to recycle old and inefficient appliances including refrigerators and air conditioners.

The event came as the manager of New England's regional power

DEMAND A8

INSIDE today's news

LOCAL



JAMES COTTON

FOUNDERS' DAY Town to pay homage to its roots on Sunday

PORTSMOUTH'S 375TH



BREAKERS WELCOME CENTER

State panel gives OK to project

By Sean Flynn
Staff writer

The Rhode Island Historic Preservation and Heritage Commission gave the final

Opponents
vote to keep

A8 Wednesday, July 17, 2013

Demand

Continued from A1

grid asked residents to conserve electricity during this week's heat wave, which threatens to strain the power system.

White tents were set up in the cafe parking lot to attract as many passersby as possible, but many people came with postcards National Grid sent out to Tiverton residents in the south end of town and all Little Compton residents. Those homes are in an area that is considered "load constrained," said Lindsay Foley, program manager for National Grid's DemandLink program, which is designed to get residents to reduce energy usage by providing free thermostats that can be set remotely.

"The use is growing more than our equipment is able to handle," Foley said of electricity demand. If the utility had to upgrade to handle the increasing loads, it would cost an estimated \$2.9 million, she said. Instead, it is reaching out to the 5,000 customers in the "load constrained" area in an effort to reduce usage.

Brian Kearney, director of residential services for Rhode Islanders Saving Energy — or RISE — which conducts free energy audits of homes in the state for National Grid, checked the temperature of his apartment on his cell phone while standing in the parking lot. It was 89 degrees, but he said he planned to turn on his air conditioner through an application on his cell phone before he left the parking lot so his apartment would be cool when he got home.

The utility company constantly is monitoring demand and knows that peak times are when people are getting home from work, turning on air conditioners, stoves, washing machines and dryers. Foley said people who get the free thermostats are asked to take part in a two-year Demand Response program that would automatically turn their air conditioners off and then back on every 30 minutes over a two- to four-hour period during peak demand. They would first receive an "event in progress" notification and have the option to opt out for whatever reason, but those who do not opt out at all will receive a \$40 credit on their electric bill at the end of each year.

"In the summer, the electric load gets way too high and can cause blackouts," said Nick Corsetti, an analyst for National Grid.

Denise Doktor of Little Compton signed up. "I have an older house. Let them come in and do an energy audit," Doktor said of the free audit that would be done as part of her participation in the program. She said she hopes it will pinpoint why she is supposedly spending 113 percent more on electricity than her neighbors, according to



Marcia Pobeznik photo

Lindsay Foley, project manager of the DemandLink response program for National Grid, talks to people who attended Tuesday's Energy Efficiency Awareness Day in Tiverton.

energy reports she now receives monthly from National Grid.

Also on hand were representatives from TechniArt, which supplies energy efficient lighting and advanced power strips at reduced costs through a subsidy from National Grid.

"It's all about taking more stress off the grid," said Eric Lloyd, assistant program manager for TechniArt.

Energy audits conducted by RISE reveal that many homes need additional insulation and are using incandescent light bulbs instead of energy efficient bulbs, said Elizabeth Yepez, a manager for RISE's single family residential program.

RISE provides homeowners with proposed energy plans after an audit and also arranges for interest-free loans up to \$25,000 for new energy efficient heating systems and hot water units, Kearney said.

Anyone interested in a free energy audit can call RISE at (888) 633-7947.

Residents in the south end of Tiverton and Little Compton who want to take part in the DemandLink program can call (855) 752-6964. More information for anyone interested being more energy efficient is available at www.my ngrid.com.

Pobeznik@NewportRI.com

Panel

Continued from A1

designed the mansion in a combination of Beaux-Arts and Renaissance styles.

Because of both its exceptional architecture and its con-

Despite the acclaim the firm has received, "they are very calm about incorporating others' ideas into the plan," Coxe said. "They are open to landscaping recommendations that are improvements."

Besides the city's Historic District Commission, the

the garden-style architecture is inspired by park pavilions and conservatories from the Gilded Age.

Visitors sitting in what is being called the servery, where pre-packaged sandwiches, salads, snacks and non-alcoholic beverages would be available

Opponents

Continued from A1

landscaping and the possibility of restoring Bowditch's garden design elements.

Patricia M. O'Donnell, the firm's principal, prepared a report that was provided to the Rhode Island Historic Preservation and Heritage Commission when it took up the plan earlier this year.

She recommended denial of the proposed project with the claim that "contemporary facilities should not be placed within the historic property."

"The proposed visitor facilities should be redesigned for a proximate location outside the property fence line so that an authentic Vanderbilt landscape can be restored and presented at this museum property," O'Donnell wrote in the report's summary.

"Based on thorough planning, restore The Breakers historic designed landscape to the character and features of the period of significance, 1893 to 1899, and present an authentic landscape as contributing cultural resource of the property," she recommended.

Moore and Beaver said that Cornelius Vanderbilt II, for whom The Breakers was built, and Bowditch purposely allowed no outlying structures, such as greenhouses or garden pavilions, on the property. The caretaker's cottage on the property line actually was built to hide the smokestacks of the underground power plant.

The state approved the project last week, but as a condition required more landscaping plans and will continue to oversee landscaping details, according to Edward Sanderson, executive director of the historic preservation commission.

The Breakers property is 13 acres and the welcome center, which would be hidden in a grove of trees and plantings, would take up less than

1 percent of the property. The Breakers property is now 300 acres and they have been there for over 100 years.

"The Breakers property is a national treasure and it is our duty to preserve it for future generations," O'Donnell said.

Best landscaping rehabilitation of the property is a national treasure and it is our duty to preserve it for future generations," O'Donnell said.

National Historic Commission to restore the property to its original character and features of the period of significance, 1893 to 1899, and present an authentic landscape as contributing cultural resource of the property," she recommended.

In 2001, the National Historic Commission designated two sites for New Jersey's National Historic Landmark program. When a January among the by the National Historic Commission Tentative

"Conservation interest as a World Tentative project the historic Breaker issue for consider."

But C "Colonial Lively E tion, historic gious fre

Festival

Continued from A1

"This is totally new," said festival director David Rosenberg. "It's funny, she turns 70

846-2720 blackshirts "This unity to finest salad berg said The ar