STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
PUBLIC UTILITIES COMMISSION

In Re: The Narragansett Electric Company d/b/a National Grid Energy Efficiency Program Plan for 2014	**Docket No. 4451**

ENERGY EFFICIENCY PROGRAM PLAN FOR 2014

SETTLEMENT OF THE PARTIES

November 1, 2013

LETTER

nationalgrid

Jennifer Brooks Hutchinson
Senior Counsel

November 1, 2013

VIA HAND DELIVERY & ELECTRONIC MAIL

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

RE: Docket 4451 – The Narragansett Electric Company, d/b/a National Grid
2014 Energy Efficiency Program Plan

Dear Ms. Massaro:

Enclosed are ten (10) copies of National Grid's[1] proposed Energy Efficiency Program Plan for 2014 (the "2014 Plan" or "Plan"). As in past years, the Plan is being filed as a settlement, agreed to by the participating members of the Collaborative 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 energy efficiency plans and programs.

This year's energy efficiency annual plan filing is made pursuant to the System Reliability and Least Cost Procurement statute, R.I.G.L. § 39-1-27.7 and the Commission's Standards for Energy Efficiency and Conservation Procurement, approved by the Commission in Docket 4202 (the "Standards"). The basis for least cost procurement 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 supports the investment in cost-effective energy efficiency. Section 1.1 of the Standards requires the Company to annually file a program plan with the implementation details by program for the following program year. The 2014 Plan is consistent with the framework and savings goals established in the Three Year Energy Efficiency Procurement Plan ("Three Year Plan") filed and approved in Docket 4284. Below is a summary of the implementation details for the 2014 program year as set forth in the Plan.

The 2014 Plan proposes total budgets of $87.5 million and $25.8 million for electric and gas, respectively. These expenditures are estimated to create substantial annual and lifetime savings for customers, with Rhode Island customers realizing $3.13 in benefits for every $1 invested in the Plan's electric programs and $1.69 in benefits for every $1 invested in the Plan's natural gas programs. The electric plans are expected to produce lifetime savings of 3,305,615 MWh, which translates into lifetime bill savings of approximately $445.6 million.[2] The gas plans are expected to produce lifetime savings of 4,427,735 MMBtu, which translates into a

[1] The Narragansett Electric Company d/b/a National Grid (referred to herein as "National Grid" or the "Company").
[2] Lifetime bill savings are estimated by multiplying lifetime savings by current rates in 2013 dollars.

lifetime bill savings of approximately $53.6 million.[3] Over all, the Plan will generate economic benefits of more than $420.9 million over the life of the measures, with $367.4 million in benefits coming from the electric energy efficiency programs, and $53.5 million in benefits coming from the natural gas programs.

This year's Plan proposes to continue the implementation strategies from the 2013 Plan to deliver the themes set forth in the Three Year Plan: (i) creating energy efficiency opportunities for every Rhode Island customer, (ii) targeting customer segments, (iii) using the latest innovation, and (iv) focusing on economic mechanisms that facilitate participation and create economic benefits. Total participants in both gas and electric programs are projected to increase from 621,638 in 2013 to 705,660 in 2014.

In accordance with the requirements of Least Cost Procurement, R.I.G.L. § 39-1-27.7, to achieve the energy efficiency goals, the Plan proposes a fully reconciling funding mechanism that would increase the current $0.00862 per kWh Energy Efficiency Program ("EEP") charge by $0.00034 per kWh for a total EEP charge of $0.00896 per kWh for effect January 1, 2014. This year's Plan introduces a new two-tier gas EEP charge for residential and commercial and industrial customers. The Plan proposes to increase the current $0.414 per dekatherm charge by $0.181 per dekatherm for residential customers, resulting in a total $0.596 per dekatherm EEP charge for residential gas programs, and $0.060 per dekatherm for non-residential customers, resulting in a total $0.474 per dekatherm EEP charge for commercial and industrial gas programs.[4] The electric implementation budget is slightly higher than was predicted in the Three Year Plan filed on September 7, 2011, while the total budget and the EEP charge are lower than Three Year Plan projections for electric energy efficiency. The gas implementation and total budgets are higher than was predicted in the Three Year Plan due to the application of recent results from evaluation studies of device performance, while the EEP charge is lower than Three Year Plan projections for gas energy efficiency because of the increased natural gas sales forecast. There was a significant amount of collaboration and input from the parties regarding the funding levels for this year's Plan. The Company believes that the Plan addresses those concerns in a balanced way while maintaining a stable delivery of energy efficiency services to its customers. The members of the Collaborative Subcommittee have reviewed and approved the reasonableness of the Plan funding levels.

The 2014 Plan features an unprecedented level of savings as a result of the expected completion of the Toray Plastics (America), Inc. ("Toray") combined heat and power ("CHP") project, approved by the Commission in Docket 4397. This project alone will contribute approximately 80,000 MWh of savings, making the proposed savings goal for 2014 unprecedented in the country at 3.2% of annual sales. In addition, the 2014 Plan contains certain enhanced financing options for gas and electric commercial and industrial customers through the existing revolving loan fund, as well as other enhanced offerings in the commercial and

[3] Lifetime bill savings are estimated by multiplying lifetime savings by current rates in 2013 dollars.
[4] These calculations are based on a January 1, 2014 effective date.

industrial sector, which will help to achieve the Company's savings targets in 2014 and position the Company for success in future years.

Lastly, the Company is proposing a few minor changes over 2013. Section IV. of the Plan contains minor changes relating to certain available funding sources and the budget management provisions of the Plan. The Company is also proposing a minor change to the CHP program that the Commission approved in 2013 in Docket 4366 to address the value of economic benefits from CHP projects in the calculation of the TRC test (See Attachment 2).

Subsection (c)(5) of the Least Cost Procurement statute, R.I.G.L. § 39-1-27.7 provides the EERMC with the specific responsibility for reviewing and approving the cost-effectiveness of the Plan to be submitted to the Commission for review and approval of the full funding. The 2014 Plan has been reviewed and approved by the EERMC and complies with all aspects of the Least Cost Procurement statute. In order to deliver the expected economic benefits from the 2014 Plan and to meet the 2014 goals the Plan seeks to achieve, the Company respectfully requests that the Commission approve this Plan.

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,

Jennifer Brooks Hutchinson

cc: Karen Lyons, Esq.
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EE PLAN 2014

I. Introduction and Summary

The Narragansett Electric Company d/b/a National Grid ("National Grid" or "Company") is pleased to submit this Energy Efficiency Program Plan ("EE Program Plan" or "Plan") for 2014 to the Rhode Island Public Utilities Commission (the "Commission"). This Plan has been developed by National Grid in collaboration with the Collaborative Subcommittee of the Energy Efficiency and Resource Management Council ("EERMC").[1]

This EE Program Plan 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, R.I.G.L. § 39-2-1.2,[2] and the Commission's "Standards for Energy Efficiency and Conservation Procurement," as revised by the EERMC and approved by the Commission in Order 20419 in Docket 4202 on July 25, 2011 (the "Standards"). 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 electric and natural gas Energy Efficiency ("EE") programs for calendar year 2014.

The 2014 Plan is consistent with the three-year Energy Efficiency Procurement Plan ("EE Procurement Plan") submitted by National Grid on September 9, 2011, in Docket 4284, with approval and support of the EERMC, the Division, ENE, and TEC-RI.

The primary goal of the 2014 EE Program Plan is to create energy and economic cost savings for Rhode Island consumers as required by R.I.G.L. §39-1-27.7. To that end, the 2014 Plan will create annual savings of 255,314 MWh and 355,923 MMBtu and lifetime savings of 3,305,615 MWh and 4,427,735 MMBtu. The Plan will generate economic benefits of more than $420.9 million over the life of the measures (with $367.4 million in benefits coming from electric efficiency and $53.5 million in benefits from natural gas efficiency), which represents a large and urgently needed benefit for Rhode Island's residential, commercial, industrial, and low income energy customers. Table 1 summarizes the 2014 Plan metrics and goals.[3]

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[1] A collaborative group has been meeting regularly since 1991 to analyze and inform the Company's electric and gas energy efficiency programs. 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. The constitution of the Collaborative Subcommittee has varied since 1991, as some organizations have withdrawn and others have joined.

[2] In June, 2011 R.I.G.L. § 39-2-1.2 was amended to ensure that the funding provisions for electric and natural gas energy efficiency were consistent with all of the Least Cost Procurement provisions of § 39-1-27.7. See P.L. 2011 Ch. 028, S0293; P.L. 2011 Ch. 19 H5281 (Enacted May 27, 2011).

[3] Consistent with the planning process articulated in the EE Procurement Plan in Docket 4284, National Grid has examined the planning assumptions, supply costs, program enhancements and corresponding

Table 1: 2014 Energy Efficiency Program Plan Summary

Electric Programs by Sector	Proposed Implementation Spending in 2014 ($000)	Annual MWh Savings	Annual kW Savings	Lifetime MWh Savings	Total Benefits ($000)	TRC B/C Ratio	TRC ¢/lifetime kWh	Participants
Non-Income Eligible Residential	$24,067	76,317	19,251	486,215	$64,882	2.00	6.4	502,629
Income Eligible Residential	$9,299	6,080	572	62,586	$14,116	1.43	15.0	5,970
Commercial and Industrial	$47,625	172,917	29,950	2,756,813	$288,362	3.92	2.6	4,535
Subtotal	**$82,373**	**255,314**	**49,773**	**3,305,615**	**$367,360**	**3.13**	**3.4**	**513,134**
Gas Programs by Sector	**Proposed Implementation Spending in 2014 ($000)**	**Annual MMBtu Savings**		**Lifetime MMBtu Savings**	**Total Benefits ($000)**	**TRC B/C Ratio**	**TRC $/lifetime MMBtu**	**Participants**
Non-Income Eligible Residential	$10,095	140,674		1,299,404	$19,089	1.35	10.5	187,499
Income Eligible Residential	$4,918	26,325		491,574	$12,219	2.47	10.1	2,950
Commercial and Industrial	$8,775	188,924		2,636,757	$22,199	1.87	4.3	2,076
Subtotal	**$24,256**	**355,923**		**4,427,735**	**$53,508**	**1.69**	**6.9**	**192,526**
Total for Plan	**$106,630**				**$420,867**	**2.81**		**705,659**

(1) Subtotals for implementation costs include EERMC and OER costs which are not included in the sector amounts

Note:
Implementation spending does not include customer contributions, evaluation costs, shareholder incentive, and commitments.

The aggressive energy and cost savings for the 2014 program year are consistent with the objectives and requirements of Least Cost Procurement and meet or exceed the savings targets approved by the Commission in Order 20419 in Docket 4202. The electric savings goal proposed for 2014 is 255,314 MWh, or 3.2% of the reference 2009 load, and exceeds the target approved by the Commission in Docket 4202 by 35%. If achieved, this level of savings as a percentage of load would be unprecedented for Rhode Island and the United States as a result of the expected completion of the Toray Plastics (America), Inc. (Toray) combined heat and power (CHP) project, approved by the Commission in Docket 4397. This project, developed in response to the legislative initiative to promote CHP through Least Cost Procurement, will itself contribute approximately 80,000 annual MWh of savings, making the proposed goal for electric savings unique to program year 2014.

The natural gas savings target is 1.0% of 2009 natural gas load, and is consistent with the proposed goals for 2014 in the EE Procurement Plan approved in Docket 4284.[4] The savings also meet the Standards' requirements for cost-effectiveness, which mandate that the Plan's Total Resource Cost Test ratio (TRC Test) - the ratio of Total

budgets using the most robust data available for this Plan. Consequently, the Total Resource Cost (TRC) cent per kWh and TRC dollar per lifetime MMBtu are lower than projected in the EE Procurement Plan.

[4] The natural gas savings goal is slightly lower than the target approved in Docket 4202. As noted in the EE Procurement Plan (page 6), several factors currently combine to make it not possible to plan to reach the Commission-approved natural gas savings goals cost-effectively as specified by R.I.G.L. § 39-1-27.7. Those factors are explained in detail in the "3-Year Objectives" section of the EE Procurement Plan.

Benefits/Total Costs- be greater than 1.0.[5] The overall electric EE Program TRC Test ratio is 3.13 and the overall natural gas EE Program TRC Test ratio is 1.69.

This Plan, supported by the Collaborative and the EERMC, will cement Rhode Island's position as a recognized national leader in energy efficiency to the benefit of the State's population through cost savings and additional significant economic benefits, such as increased gross state product (GSP) and job creation. In order to meet this challenge, National Grid is committed to establishing and maintaining the infrastructure and the customer relationships to deliver deeper, broader savings. National Grid, with the collaboration of the Parties, is continuing to integrate natural gas and electric energy efficiency programs so that customers have one point of contact, and can easily install and benefit from natural gas and electric energy saving measures at the same time.

The following table compares the 2014 Annual Plan components to the 2012-2014 Least Cost Procurement Plan.

Table 2: 2014 Annual Plan compared to 2014 in 2012-2014 Three Year Plan

2014 Plan vs Three Year Plan Metrics		
	Annual Plan	**Three Year Plan**
Electric		
BC Ratio	3.13	2.20
Annual MWh	255,314	158,820
Lifetime MWh	3,305,615	1,609,419
TRC $/Lifetime kWh	$0.034	$0.058
Utility $/Lifetime kWh	$0.026	$0.045
Implementation + Evalution Expenses	$81,030,518	$70,079,358
Gas		
BC Ratio	1.69	1.47
Annual MMBtu	355,923	284,734
Lifetime MMBtu	4,427,735	4,420,967
TRC $/Lifetime MMBtu	$6.88	$6.72
Utility $/Lifetime MMBtu	$5.60	$4.04
Implementation + Evalution Expenses	$23,635,327	$17,095,149

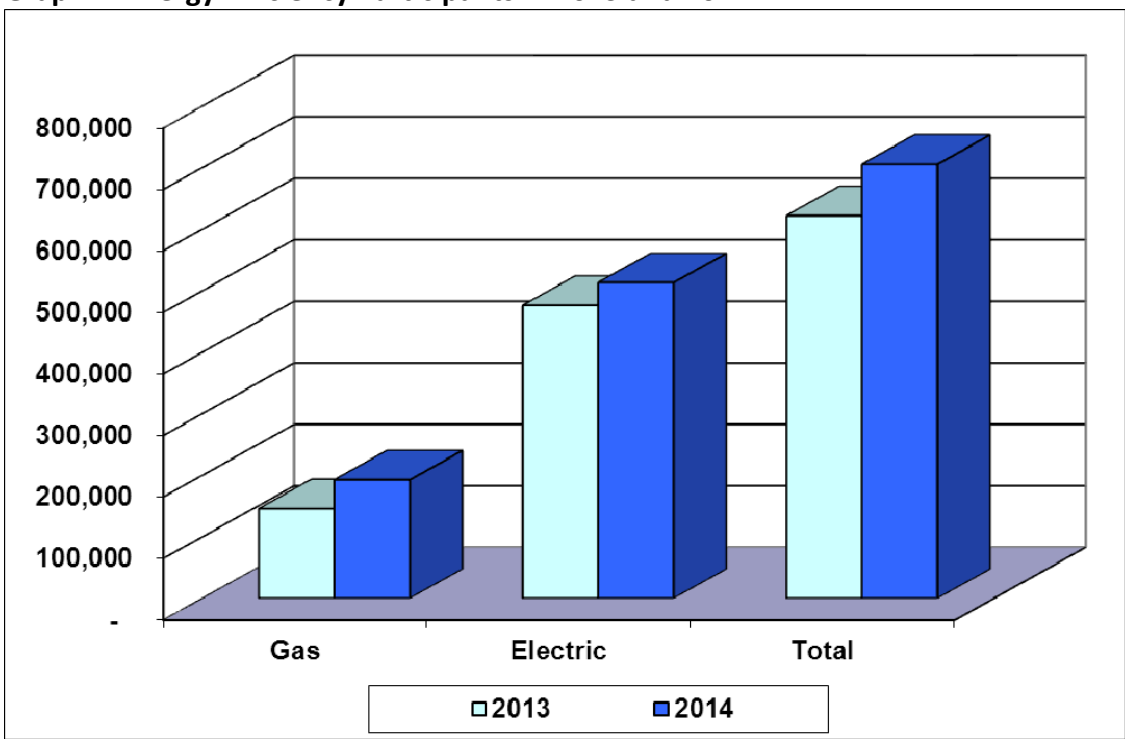
The 2014 Plan will reach more customers (going broader) and achieve greater savings for each customer (going deeper) than in prior years. As energy efficiency programs, which are funded by all customers continue to expand, we continue to develop new strategies to increase participation so that everyone has an opportunity to benefit. Compared to approximately 621,638 electric and natural gas participants in the 2013 Plan, the 2014 Plan will reach over 705,660 participants,[6] as illustrated in Graph 1

[5] See *Standards for Energy Efficiency and Conservation Procurement*, Section 1.2.A.2.

[6] In 2013, the Company improved how participation is calculated by defining participants as unique billing accounts within each program, where possible. The exception is the Residential ENERGY STAR® lighting

below. The Company will expand the programs to reach this number of participants and higher goals in a manner that ensures quality delivery, and is cost-effective and cost-efficient. The large incentive for the Toray project that the Company expects to pay out during 2014 made increasing participation a difficult result to achieve, but the Company has done so by strategically cutting costs and reducing rebates for some items. At the same time, the Company is committed to maintaining its strong delivery infrastructure and continues to budget funds for pilots that it expects will contribute to future savings.[7]

Graph 1: Energy Efficiency Participants in 2013 and 2014



The electric and natural gas energy efficiency program budgets proposed for 2014 are consistent with the budget illustrations presented for 2014 in the EE Procurement Plan approved in Docket 4284. The electric efficiency portfolio budget is lower than the illustration presented in the EE Procurement Plan. The gas efficiency portfolio budget is greater than the EE Procurement Plan illustration, while, as noted below, the proposed EE gas program charge is lower. This budget is greater because the cost of net savings is

program where participants are counted based on findings from an impact evaluation. Efforts will continue in 2014 to determine unique billing accounts among programs, where possible. This is part of an effort to determine the total population that energy efficiency programs are touching.

[7] Proposed electricity savings in 2014 excluding the Toray project are slightly lower than 2013 goals. The Company is confident that this will have no long term impact on EE delivery in next three year cycle, where the savings targets proposed by the EERMC and currently pending in docket 4443 are incrementally higher. The Company maintains its long-term commitment to energy efficiency and the benefits it provides.

higher than predicted due to the incorporation of evaluation results that were not available three years ago. The EE gas program charge is lower per dekatherm than in Docket 4284 because of increased natural gas sales forecast. As highlighted in the 2012-2014 EE Procurement Plan, National Grid's cost-of-saved energy is competitive with, or lower than, other utility-delivered programs in New England.

This cost-effective 2014 EE Program Plan includes an investment of $82.4 million for electric energy efficiency implementation in 2014. If approved, this will be funded by the existing energy efficiency program charge of $0.00862 per kWh, as well as other funding sources including ISO-New England's ("ISO-NE") Forward Capacity Market ("FCM") auction revenue, and Large C&I copayments. Pursuant to R.I.G.L. § 39-1-27.7(c)(5), a fully reconciling mechanism of $0.00034 per kWh is needed to fully fund the cost-effective electric energy efficiency programs for 2014.[8] This funding will allow approximately 37,000 additional Rhode Island electric customers to participate in 2014 than in 2013, an eight percent increase, to achieve deeper and broader savings and generate economic benefits of $367.4 million.

This Plan also includes a $24.3 million investment in cost-effective natural gas energy efficiency implementation. If approved, this investment will be funded by the existing demand side management charge of $0.414 per MMBTU. Pursuant to R.I.G.L. § 39-1-27.7(c)(5), fully reconciling mechanisms of $0.1812 per dekatherm for residential customers and $0.0598 per dekatherm for non-residential customers will be needed to fully fund the cost-effective natural gas energy efficiency programs for 2014. This funding will allow 46,735 additional Rhode Island gas customers to participate in 2014 than in 2013, a 32% increase compared to 2013. The programs will generate economic benefits of $53.5 million.

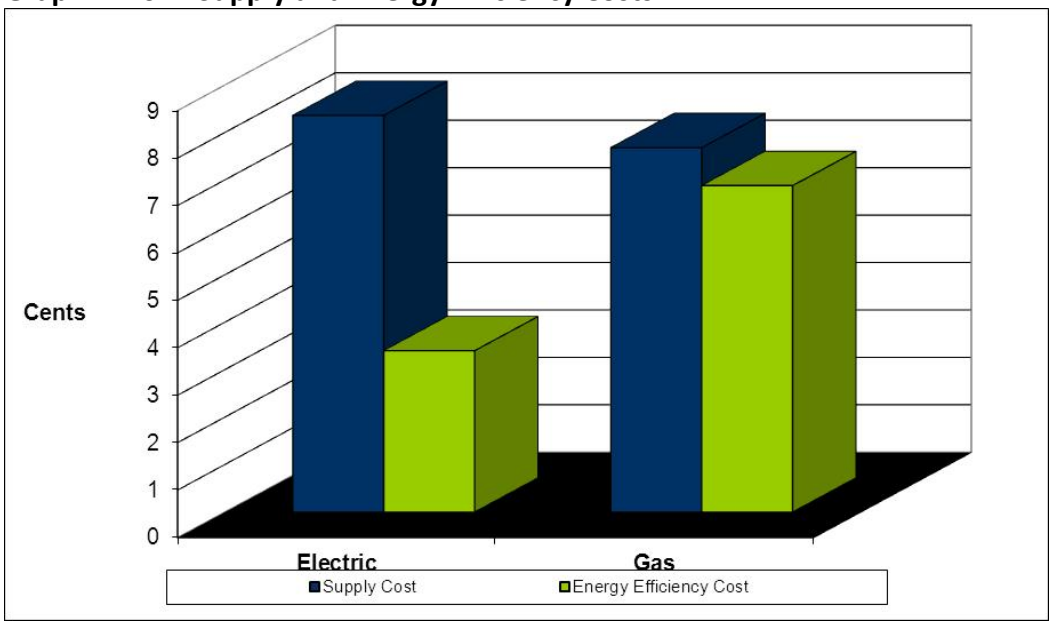
In addition to the primary statutory requirement of cost-effectiveness, which requires a value greater than 1.0 in the TRC Test (the TRC ratio for electric is 3.13 and the TRC ratio for natural gas is 1.69), the cost of electric energy efficiency programs is 3.4¢ per lifetime kWh saved, which is 4.96¢ less than the cost of supply, 8.36¢ per kWh.[9] The cost

[8] In May 2010, R.I.G.L. § 39-1-27.7 was revised to state that the Commission shall approve a fully reconciling funding mechanism to fund investments in all efficiency measures that are cost-effective as established by the TRC Test. A second revision to § 39-1-27.7 extended the provisions for Least Cost Procurement of energy efficiency and conservation measures to natural gas, requiring the Company to procure all natural gas efficiency resources that are cost-effective and less costly than supply just as has been the case for electric efficiency resources. For the legislative history, see P.L. 2010 Ch. 15 S2841 Sub A; P.L. 2011 Ch. 17 H8082 Sub A (Enacted May 27, 2010).

[9] The electric supply cost is based on the Residential Standard Offer Charge through December 31, 2013 and is levelized over the average lifetime of all measures in the plan. Commercial Customer Group fixed price option through December 31, 2013 is a levelized cost of 8.55¢.

of natural gas energy efficiency is $6.88 per lifetime MMBTU saved, which is $0.80 less than the cost of supply for residential heating customers, $7.68 per MMBTU.[10]

Graph 2: 2014 Supply and Energy Efficiency Costs



The 2014 EE Program Plan is cost-effective and has a cost that is lower than the cost of acquisition of additional supply for both electricity and natural gas, pursuant to R.I.G.L. § 39-1-27.7 (a)(2). For each $1 invested, electric programs will create $3.13 of economic benefits over the lifetime of the investment, and natural gas efficiency investments will create $1.69 in economic benefits over the lifetime of the investments. Rhode Islanders will receive a total of $420.9 million in benefits from the 2014 energy efficiency plan investments.

II. Strategies to Achieve Goals

The primary goal of the 2014 EE Program Plan is to create economic value and cost savings for Rhode Islanders through energy efficiency. The Plan achieves this goal by implementing four key strategies, introduced in Docket 4284, that will be continued in 2014 to deliver increased savings and participation:

- **Energy Efficiency is for Everyone** – The objective of these strategies is to overcome the traditional barriers that prevent homes and businesses from participating in the energy efficiency programs and provide every Rhode Islander with a fair and equitable opportunity to participate.

[10] The natural gas supply cost is based on the residential standard offer in effect since May 1, 2013 and is levelized over the average lifetime of all measures in the plan, Large Customer Low Load cost is a levelized cost of $7.68.

- **Reaching Customers Where they Live and Work** – This will employ customer segmentation, targeted marketing efforts, and various delivery channels to increase participation in energy efficiency.
- **Innovation** – This is the development and deployment of new energy efficient technologies to continue to move the market to higher levels of energy efficiency.
- **Economic Growth** – The 2014 Plan will create value for Rhode Island through job creation, lowering energy bills for both participants and non-participants, and will also look for ways to lower the cost of energy efficiency in future years.

The Company will employ implementation practices consistent with the four key themes introduced in Docket 4284 to deliver energy- and cost-saving efficiency to Rhode Island customers The application of these strategies is more fully described in the detailed program and marketing descriptions in Attachments 1 and 2.

Energy Efficiency is for Everyone

The Company proposes to develop several initiatives to ensure that all customers have an opportunity to participate in energy efficiency programs. In 2014, the Company will continue to focus on making participation simple for both residential and commercial customers. The Company plans to implement strategies to increase participation in the commercial and industrial (C&I) natural gas offerings, enhancing outreach, marketing, and training, particularly in new construction. For residential customers, the Company will build on the inaugural launch of the Home Energy Reports offering in 2013. The Company will also continue its comprehensive marketing campaign in order to educate customers about its cost-saving energy efficiency programs. The campaign will focus on driving participation in the entire portfolio of efficiency programs offered to residential, commercial, and industrial natural gas and electric customers.

There continues to be a focus on municipalities. Through collaboration with the Office of Energy Resources on its Rhode Island Public Energy Partnership (RIPEP), the Company is helping to identify comprehensive efficiency opportunities for municipalities and offering enhanced incentives to help these opportunities become realities. The Company also continues to make progress in developing options for the installation of energy-efficient solid state street lighting, whether customer-owned or Company-owned.

The Company will also continue to offer finance for residential, and commercial and industrial customers, helping to overcome financial barriers that prevent customers from investing in energy efficiency. The Company continues to expand the pool of funds available for C&I customer financing and will work to leverage financing opportunities through the HEAT loan and the OER's new property assessed clean energy (PACE) vehicle.

Reaching Customers Where they Live and Work

Reaching customers where they live and work means bringing energy efficiency offerings to customers in ways that increase the value of energy efficiency to them and aiding customers in adopting energy efficiency projects in ways that work for them.

To this end, in 2014 the Company plans to continue its efforts from 2013 to work with large customers on long term strategic energy efficiency plans. Large customers typically look at investments over several years and this effort will be designed to be consistent with a long range planning horizon. The Company has gained valuable experience from a first-in-Rhode Island memorandum of understanding it signed in 2012 with a large institutional customer to improve the customer's experience while encouraging it to pursue "deeper" energy efficiency over a multi-year horizon. The Company made progress on two additional Strategic Energy Management Plans (SEMPs) in 2013, and will expand its efforts in 2014.

In addition, the Company will continue to use market segmentation techniques to improve and target marketing messages. In the residential sector, the Company will test messages for effectiveness. In the C&I sector, the Company will continue to market specific energy efficiency measures to business types, such as groceries, municipalities, or universities.

In the residential sector, the Company will focus on streamlining HVAC efficiency opportunities at the time of conversion to natural gas heating, incorporating a 0% loan to facilitate the purchase of more efficient equipment. The Company will also seek to host community outreach events for customer engagement, building on the successful event held in July 2013 in Tiverton/Little Compton in conjunction with the DemandLink system reliability pilot.

Innovation

The third basic strategy of the plan is innovation. National Grid is committed to piloting new technologies in order to identify the next generation of energy efficiency savings. Over the past few years, several technologies have been piloted and evaluated for energy savings and customer experience, and they are now being offered as part of the programs. They include super insulation, boiler load controls, wi-fi thermostats, heat pump hot water heaters and new custom gas measures.

The Company will continue to explore new technologies. Several pilots began in 2013 and will continue through 2014, including three thermostat technologies currently being tested in the residential sector and Industrial Assessment Pilot in the commercial sector. The 2014 Plan includes pilot demonstrations of tighter air sealing opportunities, strongly enhancing the emphasis on LED lighting technology, a behavioral feedback program for small businesses, and laying the energy efficiency groundwork to enable zero net energy new construction in both the residential and commercial markets.

Economic Growth

The fourth implementation strategy of the 2014 EE Program Plan is to generate economic benefits and bill savings for Rhode Islanders, especially as the state continues to emerge from the economic recession. Saving 3,305,615 lifetime MWh represents a bill savings of approximately $219 million and saving 4,427,735 lifetime MMBtu represents a bill savings of approximately $38.7 million.[11] Investing $106.6 million in energy efficiency implementation leads to the annual creation or retention of 6,153 job-years,[12] and, since consumers are spending less on their energy bills and have more disposable income to spend in the local economy, gross state product (GSP) will get a boost of more than $583 million.[13]

The analysis presented in the final report "Direct Full-Time Equivalent (FTE) Employment Supported by Energy Efficiency Programs in Rhode Island in 2012" prepared by the New England Clean Energy Institute, indicated that 529 full time equivalent jobs were supported through program activities in 2012, at almost 600 firms, 71% of which had a presence in Rhode Island.[14] Based on this analysis, the level of energy efficiency investment proposed in 2014 will support approximately 680 jobs, the solid majority of which will be in Rhode Island. Some of these will be continuing jobs and some will be new jobs.

At the same time, the Company is exploring ways to make sure it leverages the energy efficiency budget to the maximum effect. To that end, the Company plans to increase the negotiation of rebates with customers and also offset a potential reduction of Commercial and Industrial incentives with an increase in finance funds. If successful, these strategies will result in reduced utility cost per saved kWh or therm.

The Company proposes to continue and expand initiatives that include job training, increasing opportunities for independent energy efficiency and weatherization contractors to deliver services and installations in Rhode Island, and working with banking and economic development partners to offer energy efficiency financing options for small and large businesses, allowing Rhode Island businesses to be more cost-competitive and retain employees in the state. Specifically, the Company will expand financing opportunities for C&I projects, described in the C&I Programs description in Attachment 2, which maximize savings and reduce costs while offering customers a streamlined process. While financing programs do not directly deliver energy savings, they remove barriers to participation. The effort is part of the

[11] Electric bill savings based on total winter and summer energy benefits, Attachment 4, Table E-6; gas bill savings based on Natural Gas Benefits, Attachment 5, Table G-6.

[12] ENE (Environment Northeast), Energy Efficiency, Engine of Economic Growth, *A Macroeconomic Modeling Assessment*, October 2009

[13] ENE (Environment Northeast), ibid.

[14] New England Clean Energy Institute, *Direct Full-Time Equivalent (FTE) Employment Supported by Energy Efficiency Programs in Rhode Island in 2012,* May 23, 2013.

Company's commitment to "explore as part of its plan, new strategies to make available the capital needed to effectively overcome market barriers and implement projects that move beyond traditional financing strategies," as required in Section 1.3.A.8 of the Standards. The Company, along with the EERMC, will once again sponsor a study that will help identify the business and employment impacts of customer-funded energy efficiency investments in Rhode Island.

III. Delivering 2014 Goals

National Grid will build on its more than twenty years of experience in order to deliver the energy and cost savings goals in this plan.[15]

A. Residential Programs

In 2014, the Parties agree to continue the residential programs offered in 2013, as well as to offer new programs and pilot the development of new technologies for potential inclusion in programs in future years. The programs are summarized in Table 3. Descriptions of these programs are provided in Attachment 1. Included in description of each program are proposed changes from 2013 that are intended to help meet the savings targets for 2014.

Table 3. Proposed Residential Energy Efficiency Programs	
Residential Buildings Efficiency Programs	
EnergyWise Program (Funded by Gas and Electric)	Energy*Wise* offers single family customers home energy assessments and information on their actual energy usage. Participants in this program receive recommendations and technical assistance as well as financial incentives to replace inefficient lighting fixtures, appliances, thermostats, and insulation levels with models that are more energy efficient. The program addresses base load electric use and heating and cooling energy loads in all residential buildings. The program recommends efficient products that are delivered through National Grid's various programs. The program will continue to deliver the Heat Loan in 2014 offers a 0% interest loan for efficiency retrofits through local banks. The program will also continue to offer weatherization incentives to customers who heat with oil and propane.

[15] Throughout the program year, the Parties may consider additional enhancements beyond those identified herein as more information becomes available to support an informed review of those potential changes. As part of this process of identifying additional enhancements, in addition to continuing to meet with the Subcommittee, the Company will continue its work sessions with the EERMC's consultants.

Multifamily Programs Income Eligible, Residential and Commercial sectors (funded by Gas and Electric)	Comprehensive energy services for multifamily customers include energy assessments, incentives for heating and domestic hot water systems, cooling equipment, lighting and appliances. Coordinated services will be offered for all types of multifamily properties. An approach tailored for multifamily properties designates a primary point-of-contact to manage and coordinate services offered through our existing portfolio, including EnergyWise, C&I Retrofit, Residential New Construction, Income Eligible, and the ENERGY STAR® HVAC programs.
Income Eligible (Funded by Gas and Electric)	Income Eligible Services, also known as the Single Family Low Income Services, are delivered by local Community Action Program (CAP) agencies with oversight provided by a Lead Industry Partner. Three levels of home energy assessments will be offered: (1) lighting and appliance focus, (2) heating and weatherization focus, and (3) comprehensive focus. Customers qualifying for LIHEAP are eligible and receive all services and equipment upgrades at no cost.
Residential New Construction (Funded by Gas and Electric)	The program promotes the construction of high-performing energy efficient single family, multifamily, and low income homes, as well as the education of builders, tradesmen, designers, and code officials. RNC has been overhauled over the past few years to make it more performance oriented. .
Education Programs (Funded by Electric)	The Company promotes energy education to private and public schools and youth groups through the National Energy Education Development (N.E.E.D) Program. This program provides curriculum materials and training to students and teachers in grades K-12.
Residential Home Energy Report Program (Funded by Electric and Gas)	The Company will continue a statewide Residential Home Energy Report Program in 2014. This program will feature home energy reports and other enhanced feedback tools to inspire customers to take actions that reduce their energy consumption and also increase their participation in the other energy efficiency programs.
Community Based Initiatives (C&I and Residential, Funded by Electric and Gas)	The initiative is designed to leverage trusted community partnerships and develop targeted marketing strategies in order to promote all energy efficiency programs, residential and commercial, in specific, targeted communities or businesses.

Residential Efficient Products Programs	
ENERGY STAR® Lighting (Funded by Electric Only)	This is an initiative implemented jointly with other regional utilities. It provides discounts to customers for the purchase of ENERGY STAR® compact fluorescent lamps and fixtures and solid state lighting through instant rebates, special promotions at retail stores, or a mail order catalog.
ENERGY STAR® Products (Funded by Electric Only)	The program is run in collaboration with other regional utilities to promote the purchase of high efficiency household appliances including kitchen appliances and electronics. These appliances carry an ENERGY STAR® label. The program also offers refrigerator recycling which promotes more efficient refrigerators while removing non-efficient units from the market.

ENERGY STAR® HVAC Program (Funded by Electric and Gas)	This program promotes the installation of high efficiency central air conditioners for electric customers and new energy efficient natural gas related equipment including boilers, furnaces, water heating equipment, thermostats, boiler reset controls, and furnaces equipped with high efficiency fans. The program provides training of contractors in installation, testing of the high efficiency systems, tiered rebates for new ENERGY STAR® systems, and incentives for checking new and existing systems. The program also includes the oil and propane heating equipment rebates.
Residential Products Pilots (Funded by Electric and Gas)	The pilot tests innovative technologies for saving both gas and electricity.

B. Residential Low-Income Programs

The Company and the Subcommittee want customers who have a high energy burden and/or difficulty paying their electric bills to participate in, and benefit from, the Company's energy efficiency programs, especially in these difficult economic times. For that reason, this segment of the customer base is designated as a unique sector and funding for this sector will be subsidized by both non-low-income residential customers and commercial and industrial customers using 11% of total implementation funding for the electric programs, and 20% for natural gas programs.[16]

In 2014, the Company has consolidated energy efficiency offerings for income eligible multifamily properties into the Income Eligible Multifamily programs. The suite of programs offers comprehensive gas and electric opportunities that were previously offered as part of EnergyWise or C&I Retrofit. Additionally, the Residential New Construction Program works with housing authorities and developers to build energy-efficient multifamily properties. Additional detail about the services offered to economically disadvantaged customers is described among the residential programs in Attachment 1.

C. Commercial and Industrial Programs

The Parties agree to continue in 2014 the commercial and industrial programs offered in 2013, and pilot the development of new technologies for potential inclusion in programs in future years. The programs are summarized in Table 4 below.

[16] The proportion of funding for low-income customers is equal to total funding from all programs serving low-income customers, illustrated in Attachment 1, Table 2; compared to total funding for all programs, illustrated on Attachment 4, Table E-2, and Attachment 5, Table G-2.

Table 4. Proposed Commercial and Industrial Energy Efficiency Programs	
Small Business Direct Install (Gas and Electric)	The Small Business Direct Install Program provides direct installation of energy efficient lighting, non-lighting retrofit measures, and gas efficiency measures. Electric customers with average monthly demand of less than 300 kW are eligible to participate. The program's lighting and non-refrigeration measures are delivered through one labor and one product vendor selected through a competitive bidding process. The customer pays 30% of the total cost of a retrofit. This amount is discounted 15% for a lump sum payment or the customer has the option of spreading the payments over a two-year period interest free.
Large Commercial Retrofit (Gas and Electric)	Large Commercial Retrofit is a comprehensive retrofit program designed to promote the installation of energy efficient electric equipment such as lighting, motors, and heating, ventilation and air conditioning (HVAC) systems, thermal envelope measures, and custom measures in existing buildings. All commercial, industrial, and institutional customers are eligible to participate. The Company offers technical assistance to customers to help them identify cost-effective conservation opportunities, and pays rebates to assist in defraying part of the material and labor costs associated with the energy efficient equipment.
Large Commercial New Construction (Gas and Electric)	Promotes energy efficient design and construction practices in new and renovated commercial, industrial, and institutional buildings. The program also promotes the installation of high efficiency equipment in existing facilities during building remodeling and at the time of equipment failure and replacement. Large Commercial New Construction is known as a lost opportunities program because a customer who does not install energy efficient equipment at the time of new construction or equipment replacement will likely never make the investment for that equipment or will make the investment at a much greater cost at a later time. The program provides both technical and design assistance to help customers identify efficiency opportunities in their new building designs and to help them refine their designs to pursue these opportunities. The program also offers rebates to eliminate or significantly reduce the incremental cost of high efficiency equipment over standard efficiency equipment. Commissioning or quality assurance is also offered to ensure that the equipment and systems operate as intended.
Commercial and Industrial Products Pilots (Funded by Electric and Gas)	The pilots test innovative technologies for saving both gas and electricity.

Descriptions of these programs are provided in Attachment 2. Included in the description of each program are proposed changes from 2013 that are intended to help meet the savings targets for 2014. The Company is proposing several forward-looking

modifications to its programs to achieve its savings targets for 2014 and position itself for success in 2015 and beyond.

In order to assist customers to overcome the financial barriers to investing in energy efficiency, the Company will concentrate on securing sources of funding to offer finance options to commercial and industrial customers. Through 2013, the Company had created a revolving loan fund of approximately $13 million ($4 million for small business, and $9 million for large business customers). This loan fund was funded in part by RGGI auction proceeds and program funds.

In 2014, the Company is targeting to increase the C&I loan fund by $1.5 million to make more funds available to both electric and gas customers to finance energy efficiency projects. There will be an additional $1 million allocated for electric efficiency project financing and an additional $500,000 allocated for gas efficiency projects. The budget for this incremental lending related activity is included in the C&I budget and cost-effectiveness tests, found in Attachment 4, Tables E-2 and E-5 and in Attachment 5, Tables G-2 and G-5. The projections regarding operations of the Large C&I and Small Business revolving loan funds are shown separately in Attachment 4, Table E-10.

D. System Reliability Procurement

In a contemporaneous filing, the Company is submitting its System Reliability Procurement ("SRP") Annual Report for 2014 for the Commission's review and consideration. The SRP Annual Report describes the strategies, goals, and funding request for SRP in 2014 to defer an anticipated distribution upgrade in the towns of Tiverton and Little Compton. As detailed in that filing, some of the non-wires strategies proposed in 2014 are targeted energy efficiency programs, which will leverage existing programs. For example, a targeted energy efficiency program may include home energy assessments or small business direct installs that are already a part of the energy efficiency programs; they would simply be coordinated through an incremental effort to a specific town. Targeted energy efficiency was proven cost-effective and successful in the 2009-2010 Energy Action: Aquidneck & Jamestown Pilot. The cost of the existing programs which may be leveraged is part of the energy efficiency budget illustrated in Attachment 4, Table E-2. However, the estimated incremental cost of targeting and implementing energy efficiency programs in a specific area for System Reliability is provided in Attachment 4, Table E-2 for informational purposes. However, the incremental cost of implementing energy efficiency for System Reliability is not included the total budget requested for energy efficiency in this Plan or the proposed Energy Efficiency Program Charge in this filing. The request for incremental funds for SRP is being made in the separate SRP filing.

IV. Funding, Budgets, Goals, and Cost-effectiveness

Funding, budgets, goals, and cost-effectiveness information is provided in Attachment 4 for the proposed electric energy efficiency programs and in Attachment 5 for the proposed natural gas energy efficiency programs.

A. 2014 EE Program Plan Funding Sources

The sources of funding and the amounts of the funding needed for the cost-effective 2014 EE Programs proposed by the Company, with the support of the Parties, are shown in Table E-1 for electric programs and Table G-1 for natural gas programs.

In terms of a means of collecting these funding sources for the 2014 cost-effective programs, the Company proposes: (1) one line on the customers' bill labeled "Energy Efficiency Programs" at $0.00896 per kWh, as calculated in Attachment 4, Table E-1 (composed of the existing energy efficiency program charge of $0.00862 per kWh plus a fully reconciling funding mechanism charge of $0.00034 per kWh and in accordance with the requirements of R.I.G.L. § 39-1-

27.7);[17] (2) projected Large C&I commitments from 2013;[18] (3) projected carryover of the year-end 2013 fund balance including interest earned and funds expected to be received from C&I program financing repayments and from large C&I technical assistance co-payments in 2013, if any; and (4) revenue generated by ISO-NE's Forward Capacity Market (FCM). The funding sources do not include revenue generated through RGGI permit auctions; additional detail regarding RGGI funds is described below. Funding sources also do not include revolving loan funds.

The sources of funding for the 2014 natural gas programs are shown in Attachment 5, Table G-1. The Company proposes that the 2014 budget should be funded from the following sources: (1) one line on the customers' bill labeled "Energy Efficiency Programs" at $0.5955 per dekatherm for residential customers and $0.4742 per dekatherm for non-residential customers as calculated in Attachment 5, Table G-1 (composed of the existing energy efficiency program charge of $0.414 per dekatherm plus fully reconciling funding mechanism increases of $0.1812 per dekatherm for residential customers and $0.0598 per dekatherm for non-residential customers in accordance with the requirements of R.I.G.L. § 39-1-27.7); and, (2) projected carryovers or under-recoveries of the year-end 2013 fund balance, including interest.

The 2014 budgets for cost-effective electric and natural gas efficiency investments are dependent on a number of projections that inform the amount of funding, including projections of kWh or therm sales of electricity and natural gas, year-end 2013 large C&I program commitments, capacity payments received from ISO-NE (electric only), and year-end 2013 spending. The Company estimates the electric projected fund balance at year end 2013 will be $4.6 million, as shown in Attachment 4, Table E-1; the gas fund balance at year end 2013 is estimated to be $1.9 million, as shown in Attachment 5, Table G-1.

Other considerations regarding funding sources include:

1. ISO-NE Capacity Market Revenue

Consistent with the Commission's Standards, the EE Procurement Plan, and Commission decisions regarding energy efficiency program plans since 2008, the Company and the Parties recommend that kW-demand savings achieved via the

[17] In 2014, an adjustment for uncollectible accounts expenses may be approved for the Energy Efficiency Charge, totaling 1.25%. If approved, the Company proposes to keep the Energy Efficiency Charge the same throughout 2014 and include the calculated uncollectible accounts expenses as an expense in the final fund balance.

[18] As directed by the Commission, the Company encumbered funds in 2013 and prior years to cover the expected cost of projects it has agreed to fund although those projects will be completed in 2014 or subsequent years.

electric energy efficiency programs continue to be reported by the Company to ISO-NE as Other Demand Resources (ODR) and revenue received. The Parties fully agree that the Company should recover all prudently incurred FCM expenses from ISO-NE capacity-payment revenue generated by the demand savings from efficiency programs represented by the Company. The Company expects that capacity payments received from the ISO-NE will exceed its administrative and Measurement and Verification (M&V) compliance costs of participation in the FCM and will result in additional funds being made available to fund efficiency programs for customers. If these participation costs exceed the capacity payments, the Parties agree that the Company may recover its prudently incurred costs from the energy efficiency program fund. (The Parties reserve the right to examine the actions and expenses of the Company to ensure that only prudently incurred expenses are deducted from ISO-NE capacity payments or the energy efficiency program fund.)

In addition, as part of the FCM, all qualified auction participants are required to post Financial Assurance to provide security that the promised resource will deliver the promised MW at the promised time. If, as a result of circumstances beyond the control of the Company,[19] the Company is unable to provide all or a portion of the megawatts of capacity proposed in its qualification packages and capacity auction bids, some or all of the financial assurance monies would be forfeited.

2. Regional Greenhouse Gas Initiative, Inc. Funds

In its 2013 EE Program Plan, the Company filed a funding plan based on expectations of receiving funding from RGGI auctions through the end of 2011. In the third quarter of 2013, the Company received RGGI funds from auctions held from in 2011 for specific purposes as outlined in the OER's 2012 Allocation Plan for RGGI Funds. [20] These allocations all serve to enhance offerings to customers through enhanced incentives and targeted financing, and are not expected to increase participation or savings. The RGGI funds have been instrumental in piloting new technologies and creating opportunities for small and large business customers through finance. The Company's 2012 Year-End Report, Docket 4366, includes the RGGI Annual report which further illustrates the achievements of RGGI funds.

[19] Such circumstances may include legislative action to alter the EE charge or discontinue the Company's authority to implement the energy efficiency programs underlying the Qualifications Package or a Commission decision limiting the Company's role in bidding the demand savings acquired through program efforts into the FCM.

[20] In accordance with "2012 Plan for the Allocation and Distribution of Regional Greenhouse Gas Initiative Auction Proceeds: Auctions Held March 9, 2011 – December 7, 2011," http://www.energy.ri.gov/documents/rggi/2012%20RGGI%20Allocation%20Plan.pdf

As of the filing date of this 2014 Plan, the OER has not established its allocation plan for RGGI funds from auctions held in 2012 or 2013. However, the OER has informed the Company that it will be recommending the allocation of approximately $800,000 to fund the weatherization of oil heated customers[21]. With this recommendation, the Company has included this amount of RGGI funds in its funding plan for 2014 in Attachment 4 Table E-1. If additional RGGI funds are received in 2014, the Company expects to use the funds for either the purposes specified by the OER to enhance energy efficiency offerings, for cost effective rate relief to consumers, or to support the Small and Large Business Revolving Loan funds.

3. Exceptions to the Natural Gas Energy Efficiency Program Charge

The Parties agree that natural gas used for distributed generation (excluding natural gas used by emergency generators) for distributed generation projects approved under the energy efficiency programs in 2013 and prior years - independent of the date those facilities become commercially operable - will not be subject to the energy efficiency surcharge when natural gas used for that purpose can be clearly identified through uniquely metered use and when so requested in writing by the customer. All natural gas used for distributed generation projects approved in 2014 and subsequent years will be subject to the energy efficiency surcharge.

The 2006 Act allows the Commission to exempt natural gas used for manufacturing processes from the energy efficiency surcharge where the customer has established a self-directed program to invest in and achieve best effective energy efficiency in accordance with a plan approved by the Commission and subject to periodic review and approval by the Commission. Consistent with prior Commission decisions, the Parties have developed recommendations for a process whereby a manufacturer who so chooses may submit its self-directed program and the required annual reports for approval. The Parties recognize that this process may need to be reviewed and modified after the Commission has accumulated sufficient experience with these programs. Any customer that receives this exemption from the natural gas energy efficiency program charge will not be eligible to receive energy efficiency program services.

B. Budgets

[21] In 2012 and 2013, this was funded through the electric program budget, but the Company determined it did not have sufficient funds in 2014 to support this program.

The Parties agree that the portfolio of energy efficiency programs and services for 2014 will have an overall budget of approximately $82.4 million for electric programs and $24.3 million for natural gas programs. The Parties agree to segment the budget into three sectors: residential low-income, residential non-low-income, and C&I. Proposed sector and program budgets are provided in Attachment 4, Table E-2 and Attachment 5, Table G-2. The derivations of the spending budget and implementation expenses are illustrated in Attachment 4, Table E-3 and Attachment 5, Table G-3. A comparison of these proposed budgets to the 2013 budget is provided in Attachment 4, Table E-4 and Attachment 5, Table G-4. The efficiency resource is 3.4¢/lifetime kWh versus 8.36¢/kWh for electric residential supply and $6.88 per lifetime MMBtu versus $7.68 per MMBtu for residential gas supply.

The Parties agree that the Company should make every attempt to spend or commit all the funds available for energy efficiency during the program year, including any increases in the fund balance due to increased sales or other factors. While this Plan includes a projection of the fund balance expected at year end 2013 as a funding source (or deficit) to carry into 2014, it is likely that the actual year end 2013 fund balance will be more or less than that amount. Within 30 days after the filing of the 2013 Year End Report, the Company will calculate the difference between the actual year end fund balance and the projected year end fund balance included in this Plan, and will notify and consult with the Collaborative and Division regarding its intended use of the excess funds, if any. Such uses may include moving the excess funds into financing mechanisms for the sectors in which the excess occurs, supporting possible overspending during the year, reducing the energy efficiency program charge, or carrying the excess funds over into the next program year. After consensus approval by the Collaborative, the Company will notify the Commission and the EERMC of the actual year end 2013 fund balance, and the intended use for the disposition of the funds. If the use of the funds supports overspending of current year program budgets, then, in addition to the above requirements, the Company will follow the provisions for overspending in Section D, below. Use of excess funds for financing mechanisms will not be considered as overspending.

The Parties also agree to review the status of budgets regularly to assess whether they are likely to come to a successful completion. If not, the Parties agree to review the advisability of transferring funds to other programs where the money could be more effectively used. Fund transfer guidelines are presented in Section C, below.

The Company proposes in 2014 to initiate a change in the practice of funding commitments. For many years, the Company has encumbered current funding to cover the expected cost of projects it has agreed to fund even though those projects will not be completed until after the current program year. This practice

dates back to the 1994 Program in Docket 1939, which was approved at a time when funding was unstable from year to year. The Least Cost Procurement law, R.I.G.L § 39-1-27.7, provides stability for energy efficiency program funding through 2020 and is cause to allow for flexibility in the funding of commitments. In recognition of this, the Commission recently approved two changes to past commitment practices: (1) in the 2013 Plan, the Commission adopted a change that allowed commitments for projects that qualify for incentives of $2 million or more, and which were expected to be completed in the 2015 program year or later, to be spread over more than one future years up to the year prior to the expected completion of the project, and (2) in Docket 4397 regarding the CHP incentive package to Toray, the Commission approved spreading the funding of a large commitment in the year in which the project was approved as well as the year in which the project is expected to be completed. In recognition of the stability of the program budgets and stability of funding under Least Cost Procurement, the Company proposes in 2014 to eliminate the practice of encumbering funds for commitments for all projects, except those with a projected incentive in excess of $3 million.[22] This would provide the Company with greater flexibility in managing its budget to meet the savings goals of 2014 and future years. For all other projects, except those with incentives greater than $3 million, there would be no commitment budget and the Company will fund and pay all incentives in the year in which they are completed.

C. Transferring of Funds

The Parties will regularly review the amount of funds needed and available for each program (as well as any changes to the overall fund balance, as discussed in Section III.A above) and will transfer monies as needed. The Parties propose to use the same methodology that was used in 2013 for the transfer of funds from one program to another, or from one sector to another. Transfers during the program year may occur as follows:

1. Transfers within a Sector:
   A. For transfers of less than 10% of the originating program's budget, the Company can transfer funds from one program to another program within the same sector without prior approval of the Division. However, the Company shall provide a summary of such transfers to the Division and EERMC quarterly.

[22] As noted below in Section D, the Company will be required to notify the Commission of all incentive offers in excess of $3 million. Such notifications will also include a description of how the Company intends to fund the incentive. No such offers are anticipated in 2014.

B. For transfers of 10% or more of the originating program's budget, the Company can transfer funds from one program to another program within the same sector with prior approval of the Division. Upon seeking such approval from the Division, the Company shall simultaneously notify the EERMC.

C. For transfers in the C&I Sector between large C&I programs and small business programs of more than 5% of the originating program's budget, Division approval is required. Upon seeking such approval from the Division the Company shall simultaneously notify the EERMC. In addition, if a transfer reduces the originating program's budget by more than 20% in aggregate over the course of the program year, the transfer will require Commission approval as well with weight given to the EERMC's recommendation to the Commission on the issue.

2. Transfers between Sectors. The Company can transfer funds from one sector to another sector with prior approval of the Division and the EERMC (or its appointed representatives). If a transfer reduces the originating sector's budget by more than 20% in aggregate over the course of the program year, the transfer will require Commission approval as well.

3. Transfers among residential retrofit programs. The Company can transfer among EnergyWise, EnergyWise Multifamily, Income Eligible Multifamily, and C&I Multifamily (which are in different sectors) programs in order to achieve the overall savings goals of all programs. Although these are listed as separate lines in the program tables, they are essentially one program from an implementation standpoint.

4. For transfers requiring Division and/or EERMC, but not Commission, approval, the Parties will inform the Commission of the transfers, both between sectors and within sectors, in a timely fashion. The Company will not be permitted to adjust its goals or incentive target calculations for any transfers between sector budgets.

D. Budget Management

By November 1, 2014 the Company shall file an Energy Efficiency Program Plan for 2015. It is possible that there could be deviations from the planned budget

for 2014 that could occur during the program year. Three scenarios are contemplated and it is agreed that they will be addressed as follows:

(1) The Company's expenditures and commitments for 2014 may exceed total budget by up to 10% so long as a written explanation is provided to the EERMC and the Commission for any deviation and the expenditures and commitments are reasonably consistent with the original 2014 plan.

(2) The Company agrees that, during 2014, if the Company anticipates that continued operation of its programs is likely to result in actual expenditures and commitments exceeding the total program budget by more than 10%, the Company will seek a vote of approval from the EERMC at its next meeting. Following EERMC action, the Company will be required to obtain approval from the Commission for expenditures in excess of 10% higher than the total program budget, which would be collected through reconciliation in the next year's Energy Efficiency Program Charge.

(3) If the Company did not anticipate, during the program year, that its actual expenditures and commitments would exceed the total budget by more than 10%, but actual expenditures and commitments do exceed such threshold, the Company will bear the burden of demonstrating the reasonableness of its actions, including an explanation of why the over-spending occurred and how the expenditures and commitments are reasonably consistent with the original plan. Such demonstration would be required to be part of the 2014 Year End Report, if not sooner.

In each of these three instances, the Commission retains its traditional ratemaking authority to review the prudency and reasonableness of the actions of the Company in such instance.

In addition, the Company will file a written notification with the Commission of any energy efficiency incentive offer in excess of $3 million. The project, the incentive and any other related proposals will be authorized to proceed after thirty days from the notice filing, unless the Commission suspends the filing and/or issues an order within such 30-day period to extend the time for purposes of further review.

If the dollar value of a proposed incentive for a single project is such that it would cause a program to exceed the overall energy efficiency plan budget for the current program year, the Company will follow the provisions related to overspending, per the rules established above.

V. Cost-Effectiveness

The Company has projected cost-effectiveness for the proposed 2014 programs using the TRC Test. The use of the TRC Test was required by the Commission's Standards, as established in 2008 and reaffirmed by the Commission in Order 20419 in Docket 4202 on July 25, 2011. The TRC Test requires that the total lifetime savings from the efficiency measures will exceed the total costs of the measures (i.e., program and customers' costs). The EERMC has indicated its intent to review the standards in early 2014 in advance of the development of the 2015-17 Least Cost Procurement Plan.

As is customary in a TRC Test, in addition to the value of the primary fuel energy savings (electricity and natural gas), the value of other resource benefits is included in the analysis of expected benefits from program efforts. In this case, the other resource benefits for the electric TRC Test include expected fuel and water savings that are incremental to the electricity savings expected through the electric efficiency programs. The other resource benefits for the natural gas TRC Test include expected energy and water savings that are incremental to the fuel savings expected.

As provided in the Guidelines, the benefits also include non-energy impacts (NEIs). These are benefits resulting from operations and maintenance savings, productivity improvements, materials handling costs, etc., associated with energy efficiency projects, as well as some benefits that accrue only to low-income customers. In addition, for combined heat and power (CHP) projects, the Company includes in the TRC test air quality and economic development benefits, as required by the amendment to the Least Cost Procurement law, R.I.G.L. § 39-1-27.7(c)(6)(ii) – (iv) enacted in June 2012, as well as modifications to the estimation of distribution benefits in the TRC test for CHP projects. The Company is proposing a modification to the value of economic development benefits from CHP for 2014. Details on the CHP proposal may be found in Attachment 2.

For the 2014 EE Program Plan, the Company developed the 2014 Rhode Island Technical Reference Manual (TRM) which documents the savings or savings algorithms for measures proposed to be offered through its programs in 2014. The TRM identifies the sources for the savings estimates: evaluation studies, engineering analyses, and/or other research. This TRM is a public document and was provided to the EERMC and its consultants to support and facilitate the determination of the Plan's cost-effectiveness. It will be available at: http://www.nationalgridus.com/non_html/eer/ri/2014%20RI%20Technical%20Reference%20Manual.pdf. The TRM is reviewed and updated annually to reflect changes in technology, baselines, and evaluation results.

Attachment 4, Table E-5 and Attachment 5, Table G-5 provide the calculations of 2014 program year cost-effectiveness. Attachment 4, Table E-6 and Attachment 5, Table G-6 show the energy savings goals based on the proposed budgets. Attachment 4, Table E-7 and Attachment 5, Table G-7 show a comparison of the goals with the approved program goals from 2013. Attachment 4, Table E-5 shows that the proposed portfolio of electric programs is expected to have a benefit/cost ratio of 3.13, which means that

approximately $3.13 in benefits is expected to be created for each $1 invested in the programs. Attachment 5, Table G-5 shows that the proposed portfolio of gas programs is expected to have a benefit/cost ratio of 1.69, which means that $1.69 in benefits is expected to be created for each $1 invested in the programs. This increase in efficiency investment moves closer to acquiring all energy efficiency resources that are cost-effective and lower cost than supply.

The cost-effectiveness analyses of the proposed programs use avoided energy supply costs that were developed by Synapse Energy Economics as part of a July 2013 study, "Avoided Energy Supply Costs in New England: 2013 Report," that was sponsored by all the electric efficiency program administrators in New England, as well as some gas program administrators. They reflect current and expected market conditions and are highly influenced by the cost of fossil fuels and expectations about ISO-NE's emerging forward capacity market. The latest study indicates that projected natural gas avoided costs for 2014 are about 18% lower than 2013, due to the introduction of new supply sources into the market. Company-specific transmission and distribution capacity values are also included. The avoided costs used for 2014 are shown in Attachment 4, Table E-8 and Attachment 5, Table G-8.

The electric avoided costs include the demand reduction induced price effect (DRIPE) benefits that are projected to result from the installation of energy efficiency measures in 2014. These benefits occur when the retail price of energy is reduced as a result of the reduced long-term demand stemming from the installation of energy efficiency measures. The 2014 avoided costs also include – for the first time – a value of DRIPE for natural gas and cross fuel effects. Some amount of DRIPE benefits have been counted in Rhode Island since 2006.

VI. Measurement and Verification Plan

In order to verify the impacts that programs are having on energy savings, the Company hires independent consulting firms to regularly conduct program evaluations as part of its measurement and verification process. These evaluations include engineering analysis, metering analysis, billing analysis, site visits, surveys, and market studies to realize the actual energy savings that particular measures are having. Every year, the results of the surveys are used to update the TRC test calculations during planning. Attachment 3 lists the evaluations that have occurred since 2007 and their influence on TRC test inputs and program planning.[23] The executive summaries of recently completed evaluations are included with Attachment 3; executive summaries of evaluations completed in prior years are available in the dockets for previous years, or upon request.

[23] The information in the Attachment is also intended to meet the specific requirement from the 2013 EE Program Plan to provide "a summary of evaluation results obtained since October 1, 2012, together with an attachment summarizing the impact of those results in planning the Company's 2014 programs."

Additionally, the M&V Plan for 2014 is presented in Attachment 3, and includes brief descriptions of each of the proposed studies. The areas proposed for study in 2014 have been chosen based on a number of factors: the relative amount of savings in that program or end use, the vintage of the most recent evaluation study, the relative precision of the recent evaluation study, and the available evaluation budget. In addition, some new program areas are designated for both impact and process evaluations. This list may be added to as the year progresses and different evaluation priorities are identified. In particular, the parties will consider adding Rhode Island-specific impact or process evaluations, as appropriate, that will help inform the Company's efforts towards achieving the goals of least cost procurement.

VII. Reporting Obligations

1. During 2014, the Company will provide quarterly reports to the EERMC, the Division, the Collaborative Subcommittee, and the Commission on the most currently available program performance for both natural gas and electric efficiency programs. These reports will include a comparison of budgets and goals by program to actual expenses and savings on a year-to-date basis, and a status report on the C&I revolving loan funds. The reports will also include a brief summary of program progress and will highlight issues by sector for EERMC, Division, and Collaborative Subcommittee attention. Within the C&I sector, there will be separate highlighting of large and small customer program progress and issues.
2. During 2014, for months for which quarterly reports are not produced, the Company will provide to the EERMC, the Division, and the Collaborative Subcommittee monthly summaries of year-to-date spending and results by sector, as well as a forecast of expected results.
3. The Company will provide to the Parties and file with the Commission its 2014 Year-End Report no later than May 1, 2015. This report will include achieved natural gas and electric energy savings in 2014 and earned incentives for 2014.
4. The Company will provide to the Parties a summary of evaluation results obtained since October 1, 2013, together with an attachment summarizing the impact of those results in planning the Company's 2015 programs in the 2015 Plan to be filed by November 1, 2014.

VIII. Incentive

The proposed shareholder incentive mechanism applicable to energy efficiency efforts in 2014 will be based on the same metric applicable to the 2013 electric energy efficiency programs in Docket No. 4366: energy savings targets (kWh or MMBtu) by sector. Also, as in prior years, the shareholder incentive will feature the payment of an

incentive equal to a percentage of the spending budget for achievement of a certain amount of energy savings.

As in 2013, the proposed incentive mechanism for 2014 establishes an incentive of 1.25% of the spending budget for achieving 75% of the savings target in a sector. This would increase linearly to 5% of the spending budget for achieving 100% and increase linearly from that point to 6.25% of the spending budget for achieving 125% of the savings target.

Expressed mathematically, the shareholder incentive for 2014 would be calculated as follows, where SB is the Spending Budget in the sector:

- From 75% of savings to 100% of savings:
    - Incentive = SB x (0.15 x % of savings achieved – 0.10)
- From 100% of savings to 125% of savings:
    - Incentive = SB x (0.05 x % of savings achieved)

The Parties agree that this mechanism will provide an effective incentive to the Company to achieve savings that approach or exceed 100% of the target savings. It does so by setting the threshold for savings required to earn an incentive at 75% of target savings, by creating a steep slope to earn a greater incentive in the range of 75% of savings to 100% of savings, by establishing the target incentive at 5.0% of the spending budget, and by offering a higher incentive for exceeding 100% of target.

For electric energy efficiency programs, the proposed target base-incentive rate in 2014 is equal to 5.0% of the eligible spending budget for 2014. The projected electric eligible spending budget for 2014 is approximately $81 million (see Attachment 4, Table E-3). The total electric target incentive for 2014 is 5.0% of the proposed spending budget, or approximately $4 million (see Attachment 4, Table E-9).

For natural gas efficiency programs, the proposed target base incentive is equal to 5.0% of the eligible budget. The projected natural gas eligible spending budget for 2014 is approximately $23.6 million (see Attachment 5, Table G-3). The total natural gas target incentive for 2014 is 5.0% of the proposed spending budget, or approximately $1.2 million (see Attachment 5, Table G-9).

The savings targets are based on a set of assumptions of savings per measure and other impact factors in each program as well as the proposed budget. The determination of achieved savings will be based on the same set of savings and impact assumptions as is used to develop the savings target in this EE Program Plan. These assumptions have been reviewed and accepted by the Parties.

The threshold performance level for energy savings by sector will be set at 75% of the annual energy-savings goal for the sector. The Company must attain at least this threshold level of savings in the sector before it can earn an incentive related to

achieved energy savings in the sector. The Company will have the ability to earn an incentive for each kWh or MMBtu saved, once threshold savings for the sector are achieved. The incentive per kWh or MMBtu saved by sector between 75% and 100% of the target savings is provided in Attachment 4, Table E-9 and Attachment 5, Table G-9, respectively. The cap for the target incentive amount of energy savings will remain at 125%.[24]

The ability to earn up to 125% of the target incentive is worthwhile because Rhode Island customers will realize additional energy and cost savings if the Company achieves a high level of energy savings performance. Given budget control requirements, this feature will provide the Company with an incentive to improve the efficiency of its program implementation efforts while providing Rhode Island customers with value in excess of the incremental incentive that may be earned by the Company. That is, the Company will have an incentive to increase customers' savings and customers will realize an overwhelming majority of the savings.

Attachment 4, Tables E-3 and Attachment 5, Table G-3 provide the derivations of the eligible electric spending budget that are used to determine the incentive amounts that the Company may earn if it is successful in achieving its goals for energy savings. Attachment 4, Table E-9 and Attachment 5, Table G-9 provide a summary of the incentives related to annual energy-savings goals by sector. These goals by sector reflect the expected cost of savings in each sector informed by evaluation studies, and these goals have been adjusted to take into account changing rebate policies and the changing market being served. These goals have been carefully reviewed by the Collaborative Subcommittee and EERMC representatives to ensure that they represent reasonable and challenging goals for the year.

If the actual implementation expenses in a sector at year end are less than the planned implementation expenses (see Tables E-3 and G-3) for that sector by more than five percent, and if achieved savings in the sector exceed 100% of the target savings goal, the savings goal for that sector will be adjusted by the ratio of actual implementation expenses to the planned implementation expenses. If the actual implementation expenses in a sector at year end are greater than the planned implementation expenses by more than five percent, and if achieved savings in the sector are less than 100% of the target savings goal, the savings goal for that sector will be adjusted by the ratio of actual implementation expenses to the planned implementation expenses. Both of these adjustments are intended to encourage efficiency in spending in the achievement of energy savings targets.

[24] Assuming that savings are achieved proportional to spending, the Company would receive an incentive of 1.25% of the spending budget if it achieves the minimum savings threshold of 75% and a maximum incentive of 6.25% of the spending budget.

The Company will report final program results and earned incentive in its Year-End Report regarding 2014 Energy Efficiency Program efforts.

IX. Miscellaneous Provisions

A. Other than as expressly stated herein, this Settlement establishes no principles and shall not be deemed to foreclose any party from making any contention in future proceeding or investigation.

B. This Settlement is the product of settlement negotiations. The content of those negotiations is privileged and all offers of settlement shall be without prejudice to the position of any party.

C. Other than as expressly stated herein, the approval of this Settlement by the Commission shall not in any respect constitute a determination as to the merits of any issue in any other proceeding.

D. The Parties agree that the Subcommittee shall meet no less than six times in 2014 to review the status and performance of the Company's 2014 energy efficiency programs and advise on potential energy efficiency programs for 2014.

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

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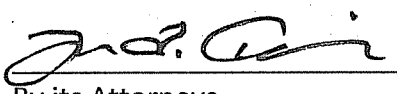
By its Attorney
Jennifer Brooks Hutchinson, Esq. Date

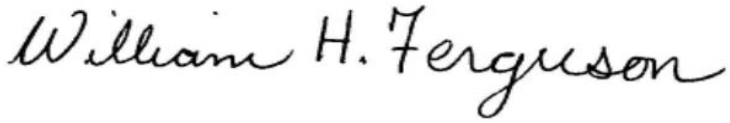
RHODE ISLAND DIVISION OF PUBLIC UTILITIES AND CARRIERS



10/28/13

By its Attorneys Date
Jon Hagopian, Senior Legal Counsel
Karen Lyons, Special Assistant Attorney General

THE ENERGY COUNCIL OF RHODE ISLAND



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William Ferguson, Executive Director Date

ENVIRONMENT NORTHEAST

10-28-2013

Mark LeBel Date

THE RHODE ISLAND ENERGY EFFICIENCY AND RESOURCES MANAGEMENT COUNCIL

By its Chair Date 10/29/13

S. Paul Ryan

ATTACHMENT 1

2014 Residential Energy Efficiency Solutions

In 2014, the Company will build on the success of the 2013 residential energy efficiency solutions in Rhode Island with a strategic focus on direct customer outreach and further integration between offerings. In 2013, the Company provided a holistic platform for customer contact through the one phone number for the residential comprehensive campaign and comprehensive marketing brochure. In 2014, customer outreach and engagement will be on the forefront of strategic efforts as customers are engaged in new venues. There will also be strategic market research on hard-to-reach customer segments to better understand how programs can be tailored to serve all customers in Rhode Island.

1. Whole House

Energy*Wise* (Electric and Gas)

Overview

2014 will build on the success of 2013 with this flagship whole home assessment program serving single-family (1-4 unit) homes. In 2013, Energy*Wise* achieved an "Exemplary Program" award for energy efficiency from the American Council for an Energy-Efficient Economy (ACEEE), a nonprofit research group based in Washington, D.C. Consistent high achieving program performance, innovative marketing from the GetHouseFit campaign, and program innovation all contributed to achieving this award. 2014 will be a critical test year to incubate program changes in preparation for future program growth.

Energy*Wise* truly embodies the Company's Three Year Plan (2012-2014) principles of:

- Energy Efficiency is for Everyone
- Reaching Customers Where They Live and Work
- Innovation
- Economic Growth

Any single family, market rate customer that requests a home energy assessment (HEA) is eligible for service if their household has not received an assessment within the past three years. Income eligible customers receive their assessment through Community Action Program agencies (CAPs) that specialize in combining state and federal opportunities in one visit. Therefore, the spirit of "Energy Efficiency is for Everyone" and "Reaching Customers Where They Live" are truly embodied within this program. Energy*Wise* has innovated and will continue to innovate in 2014. Within the past three years, Energy*Wise* has been able to progress lighting installations from all compact fluorescent (CFL) lighting technology to up to three light emitting diode (LED) bulbs per home, leading the region in direct-install LED lighting. The Company also incorporated advanced power strips within the program. In 2014, customers will have the option to install additional LEDs at their own expense. Incorporating both

innovation and economic growth, Energy*Wise* redesigned the weatherization portion of the program in 2012 through use of independent insulation contractors. At the completion of the home energy assessment, customers receive an Energy*Wise* Action Plan that provides additional energy, cost, and comfort advantages.

This program offers financial incentives for cost effective energyimprovements to replace inefficient lighting fixtures, lamps, appliances, thermostats, and weatherization levels with versions that are more energy efficient. Where appropriate, customers are also encouraged to replace non-efficient heating and water heating equipment. RI HEAT Loan, which provides 0% interest financing to eligible single family customers, will continue to be offered through the program to support customer adoption of energy efficiency products and services that are recommended during the assessment as well as efficient heating and water heating systems.

Experience

National Grid has managed a home energy assessment program for more than 20 years. The program has continued to grow and innovate. In 2013 the largest number of single family home energy assessments was provided in the program's history. Nearly forty percent of customers receiving an HEA continued to weatherization services provided by a network of Independent Insulation Contractors (IIC). IIC's continue to express interest in participating in the program with a couple of new vendors entering the program each quarter.

Delivery

The program is delivered in three steps: home energy assessments, installation, and quality assurance/quality control. The Company currently uses a Lead Vendor energy assessment model. This model is one of many approved by the Environmental Protection Agency (EPA) and Department of Energy (DOE) for the Home Performance with ENERGY STAR® national initiative. This model minimizes administrative costs, and guarantees customer equity and consistency. The Lead Vendor will be responsible for conducting all energy assessments of single family homes (1 – 4 units) and coordinating all work resulting in additional energy efficiency measures offered through the program and all the central administrative functions. In 2013 four Rhode Island Independent Insulation Contractors received 2012 Century Club Awards from the DOE and EPA for their work in providing weatherization services to at least one-hundred customers.

As of 2012, all Energy*Wise*post-assessment work is delivered by independent, third party, Building Performance Institute (BPI)-qualified, weatherization contractors who are subcontractors to the Lead Vendor. This work will be distributed via a merit based process to the approved list of qualified contractors. Weatherization contractors who bring customers to the program can also "tag" a customer thereby designating themselves as the weatherization provider after the assessment. Major measures

include lighting upgrades, programmable thermostats, replacement of inefficient refrigerators, heat pump testing and tune ups, duct sealing, air sealing, and insulation.

All homes are eligible to receive lighting fixture upgrades, both CFL or LED options will be available, and refrigerator replacement measures as identified through the energy assessment. The Company does require a co-payment for lighting fixtures.

Meeting 2014 Goals

Increasing program goals over that past few years have been successfully met through customer outreach, propensity marketing of high likelihood to participate customers, and traditional program marketing. Generally, the Company and Lead Vendor will seek innovative alternatives to achieve the objectives of higher savings at time of assessment including the introduction of advanced power strips and LEDs; more assessments resulting in post-assessment measure installations; deeper savings per residential unit; and incorporating products tested in the pilot program such as Wi-Fi thermostats. There will continue to be an increased focus on customer follow up to determine if customers have taken the recommended energy saving actions, and if not, whether there are any barriers that can be removed.

The Company will also test the following program enhancements in 2014:

Customer segmentation at initial customer contact

The value of assessing a customer's home can be an invaluable tool in providing comprehensive and accurate recommendations for enhanced savings. Currently Energy*Wise* provides a standard home energy assessment for all customers. However, all households are not the same from a weatherization perspective. In order to send out the best HEA team, customer schedulers will be asking additional information about a home's age, size, and fuel usage to tailor the number of audit staff needed to complete a comprehensive assessment in the most cost effective manner. Larger crews will be deployed when opportunities present themselves to provide day one air and duct leakage reduction services. When air sealing is not feasible on the first day due to physical obstructions, a subsequent day will be scheduled for air sealing. Preliminary research shows that at any time 25-40% of customers have health and safety concerns or physical barriers that prevent day one air sealing.

Home Performance Contractors (HPC) Pilot

The Company began a Home Performance Contractor (HPCs) pilot at the end of 2012 and is still assessing the contributions of the Pilot. In 2014, the Pilot will continue with the involvement of more interested contractors to aid in the overall evaluation of the Pilot. HPCs are contractors that provide both the assessment and weatherization services to a customer. The benefit of an HPC for the customer is that there is interaction with the same vendor through the first two phases of the program. HPCs must meet program requirements such as certifications, insurance, established performance metrics and background checks as well as comply with the designated terms and conditions for both themselves and

any associated subcontractors. Additionally, HPCs will also need to cross promote the Company's other programs to build upon the Company's holistic, customer focused objectives. HPCs will be required to subcontract with the Lead Vendor.

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

The HEAT Loan was successfully implemented in 2011 and provided 0% interest loans for weatherization and high efficiency heating systems to residential customers in Rhode Island. The program began with funding from RGGI 40% Innovative Proceeds Allocation. The primary goal of the HEAT Loan program is to provide affordable financing for residents who do not qualify for low income heating assistance but cannot manage the upfront costs of efficiency measures on their own. The Company will continue to look for outside funding but once the RGGI funds are fully dispersed, the program plans to leverage funds in the Energy*Wise* program to continue this initiative.

The Company believes working with local banks ensures customer satisfaction and stimulates local economic growth. There are currently five lenders participating in this program. The Company will continue to accept new local lenders into the program and at the end of 2012 brought the Capital Good Fund online to service hard-to-reach (HTR) customers. In 2014 the Company will work with the Office of Energy Resources and other stakeholders to explore and support other financing initiatives that can support program objectives, such as Property Assessed Clean Energy (PACE) and the Home Energy Assistance Loan program (HEAL).

Customers who live in one to four unit single family residences are eligible for a 0% interest loan of a minimum of $2,000 up to $25,000 with terms up to seven years. Customers that may not have a credit score for the HEAT Loan (HTR customers) may be eligible for HTR loans of up to $5,000 with terms of 0% interest up to five years, and can be applied towards the following energy efficiency upgrades:

- Insulation and/or Air Sealing Upgrades
- Duct Sealing and Duct Insulation
- Thermostats
- Energy Efficient Heating System Replacements
- Energy Efficient Domestic Hot Water Systems

The program may expand to include additional measures.

Marketing Strategy

Energy*Wise* is certified by the Environmental Protection Agency as a "Home Performance with ENERGY STAR®" program in the single family sector. This allows the program to use the ENERGY STAR® name for marketing purposes, and ensures that the program meets high health and safety standards.

In 2013 there was a comprehensive and layered marketing approach starting with a direct campaign with email blasts and employee communications pieces, direct mail, and leave-behind kits. The Company created a vehicle wrap for auditors and special events that met with great interest from the consumer base. Based on customer interest, the vans were equipped with handouts for consumers who would approach the vans to inquire about the program in-person. Also, two videos were developed to inform customers about what to expect in a home energy assessment and answer frequently asked questions. Following the success of the videos, a layered digital campaign was implemented that leveraged geo-targeted search banners and Facebook ads. Print campaigns with local print outlets and bi-weekly placements were used to build frequency and reach. A new promotion in 2013 was sponsorship of a road race providing an opportunity to connect with the community directly and through banners, announcer reads, race bibs, finish-line tape, and premiums. A video was created and featured at the National Grid booth that highlighted community member's experiences with the GetHouseFit program. Finally, last year there was successful propensity modeling of recent participants that identified likely new participants. This year the Company will be modeling hard-to-reach participants to better understand barriers to participation.

Successful 2013 marketing tactics which may also be deployed in 2014 include:

- Vehicle Wrap – The vehicle wrap acted as a mobile billboard that would reach potential participants while on the road or at home. The goal was to get neighbors to ask one another about the van parked in the driveway.
- Geo-Targeted Paid Search
- Geo-Targeted Banner Ads
- Long-Form Video(s) – This video featured an energy specialist as he conducted a home assessment. The purpose was to bring the audit process to life and demonstrate how easy, personalized, and comprehensive it is. The 0% financing FAQ video was designed to help overcome the assumption that homeowners have of not being able to afford any of the out of pocket costs for recommended measures.
- Social Media Promotion
- Geo-Targeted Pre-Roll Video
- Geo-Targeted Facebook Ads
- Landing Page
- Employee Education
- Community Sponsorships and premiums
- Leave-Behind Kit
- Direct Mail
- Email Blast
- Billboard (on high-traffic interstate just outside Providence RI)

Multifamily (Electric and Gas)

Overview

The Company is committed to significantly improving energy efficiency services for the multifamily sector. Major program improvements were incorporated in 2013 with additional efforts anticipated for 2014. The main barrier to participation for the multifamily sector has been a fragmented experience – one in which properties may qualify for several programs and without a central source of information. In 2014, the Company will continue simplifying the customer experience which was addressed in 2013 by providing a primary point-of-contact at the Lead Vendor. This change was embraced by the multifamily community.

Each multifamily property is unique and services will be coordinated as appropriate based on buildings' physical structure, rate code(s), and occupancy status. The existing suite of energy efficiency offerings is able to comprehensively address improved savings and comfort for living spaces (in-unit), common areas, and exterior lighting. Incentives are available for weatherization (air sealing, insulation), heating and domestic hot water, cooling, lighting, and appliances. A multifamily property may be eligible for services and incentives under more than one program. For example, a building with 20 units that is electrically sub-metered (20 residential accounts) with a commercial electric account for common areas and one commercial gas account serving a central heating/hot water system will likely qualify for incentives through Energy*Wise* and C&I Retrofit. While this adds a layer of complexity, it is important for the Company to maintain accounting via these program budgets in order to ensure equity for all customers funding energy efficiency through EE Program Charges. However, this accounting will be transparent to the customer.

Delivery

Properties designated as "multifamily" will be eligible for coordinated services as outlined in this section. "Multifamily" is defined by:

- Buildings with 5+ units
- Properties consisting of four or more 1-4 unit buildings that meet both of the following requirements:
  - Are connected or adjacent to each other, or to a 5+ unit building, and
  - Are owned by the same individual or firm.

Stand-alone 1-4 unit buildings that do not meet the above requirements are considered "single-family" and will be served traditionally through EnergyWise or Income Eligible Services as appropriate.

Both market-rate and low income/affordable housing are subject to the above-outlined multifamily eligibility requirements for coordinated services. For the income eligible multifamily sector, up to 100%

of co-payments for energy efficiency services and measures may be waived. The income eligible multifamily sector is defined by properties owned by Public Housing Authorities, and/or receiving Low Income funds from the state or federal government.

Energy efficiency in multifamily buildings is most effectively addressed through working with property owners/landlords/building management companies – the individuals or businesses that hold the authority to make decisions for the whole property. This new tailored approach for the multifamily sector focuses on working with these decision makers. However, it is important to note that all residential customers, including renters within sub-metered multifamily buildings, will continue to receive home energy reports in 2014.

Each multifamily customer has a designated representative at the Lead Vendor that works directly with the customer. The company anticipates a specific Multifamily Program Manager starting shortly that will also work with the Lead Vendor and customers. This provides a single point person for multifamily customers to work with for understanding services and incentives, determining eligibility, scheduling meetings, etc.

The Company will seek ways to move toward a more holistic experience for the multifamily sector in 2014. The Company is committed to continuously seeking feedback from stakeholders and will hold two focus groups per year with multifamily property owners/decision makers, and Rhode Island Housing. Research on benchmarking in 2013 will inform 2014 benchmarking opportunities for the multifamily sector.

Benchmarking

As part of its Multifamily Program offering, the Company plans to explore benchmarking options and services for its multifamily customers, with a potential pilot of such services planned in 2014. The Company believes that while all eligible customers should have access to benchmarking services, it is also prudent to provide deeper levels of engagement services for those customers, portfolio managers, and buildings that want it. Therefore, the Company will in 2014 work toward offering automated benchmarking services to its multifamily customers, potentially through EPA's Portfolio Manager[1]. This plan of action dovetails with that seen in the RI Public Energy Partnership Program as described in the *Municipal and State Buildings* section within the Commercial & Industrial text.

In addition to basic building and portfolio benchmarking, the Company will explore the development of tiered offerings and services that pair the demand of building and portfolio managers' needs for energy performance and comparison information with the supply of leading benchmarking software companies in the Northeast. Such services may be broken out based on levels of engagement, amount of data

[1]EPA Portfolio Manager intends to have a multifamily comparison ranking feature available by 2014. This feature would be a significant boost for the baseline benchmarking services that the Company hopes to offer.

analyzed, and overall costs, but all will be utilized to better help managers and customers make the best decision possible when evaluating the energy performance of an individual building and/or a portfolio of buildings. A tiered structure of services may consist of the following, which the Company will explore in 2014: easy customer access, automated utility data uploads and proper comparisons, strong customer service and ongoing engagement, and a clear understanding of associated costs. The Company may find it appropriate to provide a customer incentive for such services, and will explore that potential as well. A combination of industry review, customer input, data analysis, and market demand/supply will feed into the Company's potential development of a pilot offering for multifamily customers in 2014.

Residential New Construction (Electric and Gas)

Overview

The Rhode Island Residential New ConstructionProgrampromotes the construction and renovation of high-performing energy efficient single and multi-family homes, as well as the education of builders, tradespeople, and designers. The Program continuously seeks to advance forward the needle of building performance throughout the state – envisioning a housing market saturated with high performing zero-energy homes. Furthermore, the Program is committed to reaching new builders and touching additional new construction projects across the state of Rhode Island. The Company is thrilled to continue its renovation and rehabilitation offering, providing an additional set of services and incentives for those contractors and homeowners engaged in remodeling work. In addition, the Company will continue to deliver the Deep Energy Retrofit offering, providing incentives and services for builders and homeowners who are seeking superefficient building envelope retrofit improvements.

The Program is fuel neutral and provides participating builders with technical and marketing assistance – tools to help disseminate to construction industry members better building practices. The Program is tiered-structured – offering incentivesthat allow for both increased energy efficiency and greater overall participation.

Experience

The Company has delivered energy efficiency solutions for residential construction for quite some time. While the recent past presented several challenges due to little growth in the construction market, a decline in issued building permits, and a more stringent energy code, Rhode Island is steadily rebounding and trends look favorable for 2014. The Company will continue to seek higher market penetration of its new construction energy efficiency incentives, as well as improve on its renovation and rehabilitation offer. In addition, the Program is a proud supporter of many building certifications,

including ENERGY STAR, and provides assistance to those builders seeking certification outside of the typical Program incentives.

Projects enrolled in the Program can also be recognized through the following programs and standards:

- ENERGY STAR® Version 3.0
- Passive House US – Promotes advanced thermal performance, exceptional air tightness, and presence of mechanical ventilation with extremely stringent performance requirements
- LEED for Homes
- National Association of Home Builders' National Green Building Standard

These certifications assist in continuing to push Rhode Island new construction toward zero-energy homes, aligning well with the goals and mission of the overall Program.

Delivery

The Program is administered through a Lead Vendor which manages the day-to-day operations of the Program and is the main point of entry into the Program for all participants. The Lead Vendor is responsible for tracking and reporting Program results to the Company, performing field verifications and testing, and advisingthe Company of Program enhancement opportunities.

In 2014, the Company will continue to offer four tiers of high-performance energy efficient new construction incentives for both new construction and renovation/rehabilitation projects. All tiers are offered with the following no-cost services: third party blower door and duct blasting testing, installation of high-efficacy lighting (CFLs and LEDs) in all appropriate fixtures and locations, offering of efficient showerheads, advanced energy consulting, and a HERS (Home Energy Rating System) Index rating. The Company will investigatethe potential for offering more LEDs to Program participants in 2014, balancing the benefits with incremental Program costs. Overall, the extent of no-cost offerings is a strong incentive for builders who are hesitant to enroll in the Program, with the intention that once builders meet basic requirements of the initial tier, they will seek to increase the energy performance of future projects in order to gain financial incentives for their firm/company, energy savings for their clients (new homeowners), and a marketing advantage that can be used to distinguish themselves from competition.

As the Program provides attractive financial incentives for high-performance building, new construction also offers an opportunity for builders and/or homeowners to take advantage of other Company programs, such as the high efficiency heating and cooling offerings. Capitalizing on these opportunities can deliver a sizable reduction in energy expenditures for a home, creating a minimal payback period for any incremental costs. The Company in 2014 will explore deeper integration strategies with the intention of delivering the easiest and most efficient customer experience, for example the inclusion of high efficiency heating and cooling equipment within the Program's incentive payout.

Renovation/Rehabilitation/Additions

The renovation/rehabilitation offering is a critical piece to the overall health and growth of the Program, and is a feature that the Company is proud to offer to Rhode Island. In recent years a large share of the construction market has involved renovations, remodeling, and home additions, and is thus important that the Program touch those projects and stakeholders. In 2013 the Program observed a significant number of renovation projects involving old industrial mill buildings, many of which are being converted to multifamily apartments. These types of projects hold great savings potential for the Program, and capitalizing on the opportunity to work with these builders and projects is a priority for the Program in 2014.

Deep Energy Retrofit

The Company is also excited to continue its Deep Energy Retrofit offering. DER is intensive renovation work that includesroof replacement, siding replacement, and/or basement fit-out, yielding both electric and gas savings for the Program. As a pilot in 2012 and then a full-fledged Program offering in 2013, DER will continue to provide incentives for builders and homeowners that cover a majority of the incremental cost of engaging in superefficient building envelope upgrades.

DER is identical to renovation/rehabilitation in that it is fuel neutral and is available to any home in Rhode Island that is seeking to partake in a deep energy retrofit during 2014.

DER requires the services of its own vendor, whose major responsibilities include the following: management of customer intake and applications; 3-5 trainings that promote DER, highlight its benefits, and recruit participating builders; provision of materials for attendees (builder manuals); administrative duties throughout the project process such as scheduling of energy performance and code compliance inspections; coordination of technical assistance for individual projects; and overall project management. The Company will explore the ability to work with specialized contractors (roofing, siding, basement finishing) to better educate the Rhode Island market on DER and to perhaps better streamline the participation process for interested builders and homeowners.

Meeting 2014 Goals

The Program's 2014 mission is to continue achieving deeper savings and broader market penetration, while moving the construction market toward better building practices and zero-energy homes. Despite slow growth in the Rhode Island construction industry, the Company is confident in the Program's ability to reach more builders and projects, especially via the Renovation/Rehabilitation offering. New strategies, ideas, and items of exploration for the Program in 2014 include:

- The capturing of more renovation projects, specifically mill building conversions. In some cases, these buildings have hundreds of units, providing a significant opportunity for energy savings and meaningful market transformation. The Company will work to best tailor incentives and

services to develop new relationships with not only builders and developers of the large renovation projects, but with all active residential construction professionals in Rhode Island.

- Reworking of performance and incentive thresholds to help continue moving the market toward better building practices and to better improve the Program's cost-effectiveness and overall success.
- Programmatic or pilot development of Zero Net Energy-ready homes via coordination with the RI Office of Energy Resources and RI Economic Development Corporation. The Company is committed to working with the State in developing and delivering high-performance homes with the ability to reach Zero Net Energy, a goal that delivers significant financial and comfort benefits for all Rhode Islanders.
- Expansion of Program services into the mid-high rise building sector. Currently, the mechanical systems of mid-high rise buildings are served by the Company's C&I energy efficiency programs, but opportunity remains for improvement in the envelopes of mid-high rise buildings. The Company will continue to identify cross-sector integration and work to deliver the best solution for the customer.
- The potential inclusion of additional Program incentives for high performance insulation, both in new construction and renovation/rehabilitation projects.
- More effective dissemination of Program success stories and better building practices. Potential strategies include more comprehensive Program marketing and publications, the establishment of a residential Zero Net Energy challenge, and cradle to grave project case studies, all of which will provide more useful data and insightful best practices for residential builders and designers.
- Coordination with the Company's new Code Compliance Enhancement Initiative to help deliver the most comprehensive and effective effort to help boost energy code compliance rates in residential buildings.

Marketing Strategy

The Company, directly and through the Lead Vendor and DER vendor, will continue to educate homebuilders, consumers and trade partners regarding the value of energy efficient homes. Marketing efforts will continue to focus on the following: homebuilder recruitment, continued training and support, community outreach, and advertisement campaigns geared towards builders, consumers and trades people. The Lead Vendor, by means of its strong 'on the ground' presence, will also continue to be a valuable marketing tool for the overall program. The Company and the Lead Vendor will continue to sponsor, attend, and present at various trade show exhibitions, for example JLC Live – the largest annual trade show and conference in Rhode Island.

In addition,the Company and the vendors will continue educational support for high performance residential construction, including new construction, renovation/rehabilitations, and Deep Energy Retrofits. Past actions have included the donation of diagnostic testing equipment, subsequent field

training, and support and development for a building science curriculum in Rhode Island vocational tech schools.

The Company will look to combine and integrate Program marketing efforts for 2014with the Company's entire array of residential energy efficiency services and solutions, employing it as a means for achieving greater energy savings, containing costs, and increasing overall portfolio participation.

Income Eligible (Electric and Gas)

Overview

National Grid's services for Income Eligible customers help families and individuals reduce their electric and heating bills, save energy, and learn about energy efficiency. Services and offerings includehome energy assessments and installation of energy-saving measures (gas, electric, and domestic hot water) at no cost to customers.

Customers who are eligible for the Low Income Heating Assistance Program (LIHEAP[2]), also known as "fuel assistance," and who live in 1-4 unit residences within the Company's Rhode Island territory, are eligible for the Program. These eligibility requirements are subject to change as a result of any regulatory directives, or as deemed necessary by the Company to enhance participation and/or savings.

Delivery

The Program underwent several enhancements in 2013, and the Company is excited to continue building on these enhancements in 2014. In 2013, the Company brought on an Industry Partner to serve as Lead Vendor the Program, overseeing the delivery of the Program by the Rhode Island territorial-based Community Action Program agencies (CAPs) and the RI Department of Human Services (DHS). The CAPs play an important role in their communities and National Grid supports their local presence. In 2012, the Company began collaborating with Green & Healthy Homes Initiative and will continue to work with GHHI through Income Eligible Services in 2014, as well as the cross-agency Rhode Island Healthy Housing Alliance, which will seek to support integrated housing interventions that support health and energy efficiency improvements in all Rhode Island housing units.

Meeting 2014 Goals

Planned strategies for 2014 include:

[2]The federal government has set an income level, tied to the median income of each state, which defines the uppermost income boundary for LIHEAP participation. Individual states have some flexibility in defining income eligibility as long as it is not set above the federally defined maximum. Eligibility in this program will track the eligibility for LIHEAP set by the State of Rhode Island.

- Ongoing Training & Development – The Lead Vendor will hold Sharing Best Practices meetings with the CAPs to provide regular opportunities to learn from their peers. Additionally, ongoing training will be available for CAPs, providing professional development opportunities. Training will encompass Department of Energy Weatherization Assistance Program requirements.
- Pre-screening – A process will be developed to use input from customers and basic information about their homes to determine which level of services is appropriate (Lighting & Appliance Focus, Heating & Weatherization Focus, or Comprehensive), helping to deliver the audit and/or weatherization work in a more cost-efficient manner. This strategy will work in tandem with the EnergyWise program as it too is looking to explore pre-screening capabilities.
- Multifamily Coordination – The Lead Vendor will work with CAPs and the Company's Multifamily Program Manager to coordinate services for properties designated as multifamily that are eligible for the program. Please see the Multifamily section of this document for more information. All multifamily income eligible work will be served through the Multifamily program.
- New measures and services – The Company will incorporate and promote new measures and services that deliver significant energy savings for customers. Potential new measures and servicesinclude heat pump water heaters, LED lighting, air conditioners, cold climate heat pumps, advanced showerheads, and weatherization for mobile homes.

Marketing Strategy

The Company will market this offering through its traditional methods, as well as work closely with RI DHS and the CAPs to ensure better targeting, consistent collateral and materials, and overall better Program integration.

2. Behavior and Products

Home Energy Reports (Electric and Gas)

Overview

The Company will in 2014 continue implementing the Home Energy Reports Program, a new initiative introduced in 2013. This behavior-focused program has experienced great success in 2013 and is a shining example of the Company's 3-year goal of "Energy Efficiency is for Everyone". With every National Grid customer in Rhode Island having access to their energy usage online and how it compares to similar homes in the area, the Program is generating good buzz across Rhode Island and is generating those initial customer conversations about energy usage and energy efficiency. The reports are a great conduit to the host of the Company's residential energy efficiency solutions, and the Company has

capitalized on that feature by proactively leveraging the reports for cross-promotion and portfolio integration.

Savings for the program stem from the sending of reports with personalized energy insights, normative messages, efficiency tips and recommendations, promotional messages for efficiency programs, and coupons for energy saving products. The program uses experimental design to measure energy savings between a treatment and control group, using both pre- and post-treatment data.

In addition to the distribution of the actual reports, the Program also has a grassroots community presence, working on the ground to generate awareness and to drive customers toward energy conservation and energy efficiency. In 2013, this awareness movement was titled the "Rhode Island Energy Challenge: Find Your Four!" – challenging all Rhode Islanders to find four ways to save energy in their homes, whether it is simple measures such as unplugging a cell phone charger while not in use, to more comprehensive methods such as receiving an EnergyWise Home Energy Assessment. The Challenge has received good traction statewide, and the Company is excited to continue to momentum in 2014.

Overall, the Company will continue to build upon the Program foundation that was laid in 2013. By analyzing the strategies and results of the Program in 2013, the Company is better positioned to tailor the reports and subsequent deliveries in a more effective manner, generating more interest from customers and ultimately more energy savings.

Experience

The Company has experience with this type of program in the past, as it currently offers Home Energy Reports programs in Massachusetts and New York. Between NY, MA, and RI, the Home Energy Reports program touches over 1.5 million residential customers. The Company continues to incorporate lessons learned from those evaluated MA and NY programs to enhance Rhode Island customers' experience, while also looking forward to implementing cutting-edge ideas and strategies uniquely designed for Rhode Island. The Company is excited about this opportunity, as the Program in Rhode Island is the first statewide implementation in the country, in addition to serving as the first location for new programmatic features, such as Savings Rewards.

Delivery

This program will be administered by a Lead Vendor that is experienced in providing utility behavioral programs such as the Home Energy Reports. The vendor is responsible for delivering reports, creating an online engagement platform, documenting savings, and working with existing Company systems. The vendor will also work with the Company to introduce additional enhancements throughout the year.

The Program uses a multi-prong approach to deliver electric and gas savings to targeted residential markets. The Program seeks to connect customers with both energy conservation and efficiency opportunities, such as other Company energy efficiency programs, pilots and community initiatives.

The main pillars of Program delivery include:

- Home Energy Reports: Paper or email report tailored for electricity and gas, and for the season.
- Social Web Portal – A customer engagement online platform that delivers an interactive experience and is linked with social media sites designed to boost participation and cross – promotion. All Rhode Island customers have access to the Web Portal.
- New Movers – Special treatment that targets new Rhode Island homeowners and delivers a unique experience regarding energy efficiency.
- Rhode Island Energy Challenge: Find Your Four! – Grassroots community mobilization and awareness booster for the Program.
- Cross-promotion – The reports and Web Portal offer a significant opportunity to advertise and connect customers with the Company's other energy efficiency services and solutions.
- Rewards – Gift cards and charity donation opportunities for increasing amounts of energy saved.

Meeting 2014 Goals

Planned activities and strategies for improvement in 2014 include:

- More comprehensive integration with other Company energy efficiency programs to better deliver a seamless customer experience with energy efficiency. One example is utilizing the data from the online audit tool available on the Web Portal to better target and market to potential customers for home energy audits, both for market rate and income eligible homes.
- Leveraging the success of the Program and the Web Portal with other statewide energy efficiency events, activities, and programs.
- Continuing the momentum of the Rewards feature by fine-tuning the actual rewards and expanding them to more Rhode Island customers.
- Better integrate and support the Rhode Island Energy Challenge: Find Your Four!
- Refine the New Movers feature to provide a holistic first experience for the customer, whether they are new homeowners or are bringing on a new gas account due to a recent conversion.

Marketing Strategy

The Program will continue inviting customers to join the Web Portal both to sign up for reports (if they are not currently receiving them) and to explore the many energy efficiency tips and services provided by the Company. In addition, the Program will still serve as a great conduit for promoting other energy efficiency solutions, utilizing strategies such as seasonal savings tips or coupons. The Program plans to promote measures from Energy*Wise*, ENERGY STAR® HVAC, ENERGY STAR® Lighting and ENERGY

STAR®Appliances. The Program will also coordinate marketing efforts with the Community Initiative and Residential Pilots.

Residential Products Efficiency Programs

ENERGY STAR® Lighting (Electric)

Overview

ENERGY STAR® Lighting touches a large number of Rhode Island customers by providing a simple and cost-effective product; the program is often the first experience customers have with energy efficiency. In 2014, there will be an increased focus on supporting the growth and customer interest in light emitting diode (LED) technology. Manufacturers, retailers, and customers are all embracing LEDs and the Company will support this transformation in the lighting marketplace.

ENERGY STAR® Lighting is frequently used to communicate energy efficiency and being green at special community and corporate promotions such as Earth Day events and mall kiosks, this direct customer outreach will continue in 2014. Another important part of the ENERGY STAR® Lightingprogram is educating customers about the range of lighting products available, clarifying new labeling metrics, and emphasizing the benefits of ENERGY STAR® qualified products. This program is run in collaboration with other regional program administrators to give all consumers the opportunity to participate in energy efficiency measures. Customers are able to purchase lower cost ENERGY STAR® bulbs and fixtures through instant coupons, buydowns, markdowns and discounts. The program makes it affordable for customers to purchase the most cost effective, energy efficient products, including compact fluorescents lighting (CFLs) and LED lighting. The Company will continue to pursue new technology and cost-effective lighting products to add to the portfolio.

Program resources are leveraged between ENERGY STAR® Lighting and ENERGY STAR® Appliances to provide the customer with comprehensive, holistic offerings at reduced costs. Similar marketing channels, retailers, and vendors allow the programs to provide economies of scale.

Experience

The program is run in collaboration with other regional program administrators and organizations such as CEE, NEEP, ENERGY STAR® and the Alliance to Save Energy LUMEN Coalition.

In 2013, National Grid received the ENERGY STAR Award for Excellence for combined work in the ENERGY STAR Lighting and Products programs. 2012 program efforts contributing to the award included:

- Encouraging customers to purchase ENERGY STAR certified products, with significant impacts--as a result of the company's campaigns, partnerships, and point-of-purchase materials, more than 3 million ENERGY STAR certified products were sold to customers in 2012.
- Developing a unique community outreach campaign designed to celebrate the 20th Anniversary of ENERGY STAR. National Grid threw several parties aimed at youth summer camps and programs, challenging campers to use their curiosity, creativity, and concern for the environment to create "gifts" for ENERGY STAR. This campaign helped to motivate kids to become stewards of the environment and their communities while educating them on the benefits of energy efficiency and ENERGY STAR. The ENERGY STAR 20th Anniversary Celebration campaign garnered more than 7.5 million combined paid and earned media impressions and drove more than 26,000 page views to the campaign's micro-site.
- Launching an innovative program to interact with the blogger community to educate readers about ENERGY STAR and the various deals and rebates National Grid offers on ENERGY STAR certified products. Over two dozen blog posts, Tweets, and Facebook posts were issued in coordination with bloggers.
- Achieving energy savings of more than 92,500 MWh through the Massachusetts and Rhode Island ENERGY STAR Lighting and Products programs.

Delivery

Collaboration with vendors and regional and national stakeholders is essential in delivering a seamless program. A Lead Vendor coordinates manufacturer and retailer outreach, recruits retail partners, conducts retail trainings, oversees point-of-purchase placement, supports special events, and coordinates the buy-down and markdown contracts. Currently the program has over 200 participating stores and dozens of manufacturers.

A rebate fulfillment vendor is responsible for collecting and verifying sales data from retail partners, fulfilling midstream (retailer) or upstream (manufacturer) rebates, and providing documentation for internal tracking systems.

Online and catalog purchases are managed by a sales channel vendor. Special events may draw upon a vendor that provides retail sales expertise and a marketing vendor coordinates Rhode Island promotions with the broader National ENERGY STAR® efforts.

The Company will continue to utilize a mobile retailer to promote ENERGY STAR lighting products. This vendor will set up portable informational displays at malls, community, and corporate events. They will sell products at deep discounts while educating the customer on a one-on-one basis.

The Company will also continue with the school fundraiser, which helps schools and youth non-profits raise money by selling lighting products. 100% of the sales stays with the non-profit organization, and begins with an educational kickoff event. In additional to CFLs, the product offering may include LEDs.

Marketing Strategy

The program is targeted to all residential consumers, homeowners and renters - anyone that uses light bulbs and fixtures in their home. A major marketing component for the ENERGY STAR® Lighting Program is at the retail level with in-store signage, point of purchase materials, co-promotions and events, as well as co-operative advertising in newspapers and radio. The Company, along with our outreach vendor, will continue to identify those manufacturers and retailers that add value to the program through product placement and in-store signage. The Company also plans to reach out to consumers through bill inserts, email blasts and the lighting catalog. The catalog is mailed to 25,000 customers and is also used as collateral at community and corporate events. The catalog drives customers to an online store. However, consumers may order via phone, web or mail. Additionally, along with regional lighting partners, the Company will continue utilizing social media and a Smartphone bulb finder application.

Special focus will be made to help educate consumers about the changing landscape of lighting products while highlighting the benefits of ENERGY STAR® qualified products. 2014 heralds the third year that the Energy Independence and Security Act (EISA) of 2007 will be in effect. Some of the changes for consumers due to the legislation include:

- Understanding light output in terms of lumens rather than the traditional watts
- Interpreting a "Lighting Facts" label
- Considering light appearance or color in lighting purchases
- New technologies

Retail stores have a wide range of lighting displays and products illustrating the variety of lighting colors and lumen output. The Company's goal is to assist the consumer in finding an efficient lighting product that performs well in their home. It is the Company's goal to get more of these hands on light bar displays in retailers, in order to assist the consumer decision making process. This will be achieved through co-op advertising funds.

Additional attention will be paid to those considered hard-to-reach, such as non-English speaking customers and the lower income audience. The Company will continue to produce Spanish-speaking collateral, which may include in-store signage, a Spanish-language website, and Spanish-language social media and online outlets. The Company will also study ongoing EISA market and cost dynamics for consideration in future years.

Meeting 2014 Goals

In 2014, the focus of the program will be to:

- Promote LED products and investigate lighting controls and CFL and LED compatible dimmers. This effort will happen in collaboration with larger partners such as Northeast Energy Efficiency Partnerships and Consortium for Energy Efficiency.
- Educate consumers on the changing lighting landscape (change decision making criteria from watts to lumens and color rendition). This is a larger effort undertaken by ENERGY STAR®, manufacturers, and retails.
- Continue EISA education. In 2012 the Company produced an effective video explaining the legislation and the bulbs that would be phased out over time. Education will continue in 2014.
- Build off of a positive ENERGY STAR® Lighting experience and encourage customers to make additional efficiency investments. In collaboration with home energy reports, messaging may be used that encourages the customer to go deeper with their savings. Now that the customer has tested energy efficient lighting, it can be just as easy to try other energy efficiency improvements.
- Continue hard-to-reach marketing. The Company has effectively reached out to customers where English is not their primary language through a wide range of venues. This innovation and outreach will continue throughout 2014.
- Test market lift model if Rhode Island retailers express interest in the promotion. The market lift model compares sales in the test year against a baseline from the previous year's sales. Sales above the baseline will receive additional incentives.

Residential Consumer Products (Electric)

Overview

This program is part of a regional, joint effort by Program Administrators and energy efficiency organizations to encourage the purchase of ENERGY STAR® qualified major appliances and electronics, which include, but are not limited to, refrigerators, freezers, monitors, room air cleaners, advanced power strips, pool pumps, and televisions. Recently refrigerator and freezer recycling has been a large contributor to program savings. This program is managed and marketed in conjunction with the ENERGY STAR® Lighting program and also received the 2013 the ENERGY STAR Award for Excellence (see experience section of ENERGY STAR Lighting for additional details). The Company can achieve greater efficiencies in marketing and outreach by overlapping participating retailers and outreach vendors. The program partners with other utilities in the region to create economies of scale. In coordination with other EE programs, the Company provides retailer support, training, advertising, consumer education, codes and standards review and advocacy, as well as manufacturer labeling.

Experience

National Grid has been promoting energy efficient products for over fifteen years. The Company has received numerous awards and recognition for its innovative use of marketing and collaboration with other national regional organizations to achieve market transformation. In 2013 the Company ran "The Funky Fridge contest by social media to bring consumer awareness to appliance energy usage.

Delivery

Manufacturers build their products to meet or exceed energy efficiency performance specifications established by the ENERGY STAR® label. Together with manufacturers, local retailers, CEE and EPA, the Company works to help identify and promote the purchase of these high efficiency appliances to its customers. The Company uses a range of incentives depending on the type of product and amount of anticipated customer engagement. For large white goods, a mail-in rebate is frequently used. This process allows the customer to consider the value of purchasing a more energy efficient model given the potential of receiving a rebate after the purchase. For electronic items that have numerous models and different rebates based upon size and savings, a mid-stream incentive is frequently used. This incentive is given to the retailer based on sale of specific products. Mark downs with manufacturers are used for some products to signal the desire for continued production of energy efficient items.

An important part of the program is educating customers about the ENERGY STAR® label. As retail stores are an integral channel for promoting the label, the Company prints and distribute a wide variety of point-of-purchase materials and signs for display in retail stores. The Company also develops media stories and public relations opportunities about ENERGY STAR®. In addition, the Company hires an outreach vendor to put up signage, train retail staff, and help label products.

The company will continue to utilize a mobile retailer to educate consumers at community and corporate events, as well as at mall kiosks, on the benefit and proper usage of advanced power strips (APS).

Marketing Strategy

The program is marketed to consumers of appliances and electronics. Marketing tactics include bill inserts, email blasts and direct mail to residents. Some of these communications will be specific to this program, but also may be included in bundled communication promoting other programs.

Marketing plans also include newspaper ads (regional and local), co-op advertisements and joint promotions with retailers, bill inserts, Deals in RI (an online limited time Groupon-style promotion), community sponsorships and events, and online catalog for electronic advanced power strips. Building on a relationship that was started in 2011, the Company will continue to explore reaching out to Spanish-language customers via Telemundo radio and television. Additionally, social media outlets may be utilized.

Meeting 2014 Goals

2014 may be a challenging year for the Residential Consumer Products program. Traditionally strong components of the program, refrigerator recycling and refrigerator incentives, have both had lower than anticipated results in 2013. Recycling opportunities may be nearing saturation as the Company achieved aggressive targets over the past several years. 2013 refrigerator incentives were reduced from the 2012 levels and the result may be the decline in consumers selecting the energy efficient option. In 2014, the standard ENERGY STAR refrigerator rebates will return to the 2012 levels. There will be a federal standard change for refrigerators in September of 2014 which will align with the support the Company will incorporate in supporting Top Ten and Most Efficient appliances.

The Company will look to increase savings by promoting Top Ten products and also consider offering ENERGY STAR Most Efficient incentives for televisions. This program will also lend support to the appliance standards work incorporated within the codes and standards initiative. There will also be opportunities to promote new, efficient products such as the super efficient clothes dryer. This item has been monitored in the Residential Pilots are and will be ready for consumer incentives in 2014,

High Efficiency Heating and Cooling (Electric and Gas)

Overview

The High Efficiency Heating and Cooling Program exists to make customers and contractors aware of the benefits of high-efficiency heating, water heating, cooling, and system controls. In addition, it aims to facilitate the purchase of efficient equipment by offering rebates to offset the premium equipment's higher cost. The program offers an array of rebates ranging from ductless mini-splits to Wi-Fi thermostats to boiler reset controls. Many rebates are tiered in order to promote the most efficient heating and cooling equipment. Furthermore, the Program provides training services and quality control inspections, ensuring that equipment is properly sized, installed, sealed, insulated and performing optimally. All rebates and services are provided with the overall goal of providing a seamless customer experience that seeks direct energy efficiency improvements.

In 2013 it was expected that new energy standards for non-weatherized gas furnaces would go into effect, essentially strengthening the baseline for these units. However, the standards were revised and a new rulemaking process is currently underway at the federal level, with no specific timetable on what the new standards will be and at what point it will go into effect. Regarding the standards for heat pumps and water heaters, 2015 is still the target date. Heat pumps will see cooling efficiency requirements increase to SEER 14, and large capacity tank water heaters standards will require heat pumps for electric water heaters with over 50 gallons of capacity, and condensing technology for gas-fired water heaters.

Experience

Since 2004, the Company has offered the High Efficiency Heating and Cooling Program to promote higher efficiency equipment and improve installation practices throughoutRhode Island. The Company has worked jointly with the regional CoolSmart collaborative group to better advertise and advocate for the Program.

Past evaluations and secondary regional research has indicated that there is a high level of free-ridership for gas heating and water heating measures, in addition to lower avoided costs of supply due to depressed natural gas prices. These trends, in addition to increasing equipment standards,offer considerable challenges for the Program in 2014 and beyond. The Company will continue to seek and advocate for super-efficient heating and cooling systems, aiming to not only deliver adequate energy savings for the programs, but to also bring more efficient, reliable, and cost-effective products to Rhode Islanders.

Furthermore, market research has indicated there are certain customers who do not have the propensity to install high efficiency equipment in their homes. These customers aresubsequently denoted as Hard-To-Reach (HTR)customers. Additional information about HTR customers is listed in the *Marketing Strategy* section below.

Delivery

The Program is currently delivered by a Lead Vendor, who in 2013 took implementation ownership of both the heating and cooling responsibilities. In prior years, the Program's execution was split with one vendor focused on cooling, and a circuit rider vendor for the heating aspects of the program This current structure allows for more cost-effective and efficient rollout of the Program, ultimately delivering a more comprehensive and seamless product to Rhode Island.

While the Lead Vendor is the on-the-ground face of the Program, Contractors continue to serve as the Program's primary delivery mechanism. Contractor engagement (i.e. trainings and outreach) will again be prioritized for 2014in order to provide accurate and efficient delivery of Program services to customers, while also improving contractors' skills and capabilities. Topics covered during contractor outreach eventswill include suggestions and guides for proper sizing and installation of equipment, awareness of current code requirements, and best ways to assist customers with rebate submissions.

The High Efficiency Heating and Cooling Program also utilizes an outside rebate processing vendor which spearheads the collection, processing, and issuance of customer rebate applications, all within a timely manner. The Company will implement the offering of online submissions for the Program in 2014, providing customers and contractors an additional and in some cases a more preferable method of rebate submission. Additionally, the Company will continue its exploration of upstream options for high efficiency heating, cooling, and water heating equipment.

Meeting 2014 Goals

Planned strategies for 2014 include the following:

- The improvement of the recently integrated heating and cooling aspects of the Program. Providing a unified customer experience through the HVAC Program will ensure that customers can view, understand, and discuss heating and cooling options simultaneously. If a customer chooses to install high efficiency heating equipment, it would be prudent on the part of the contractor and the Company to make the customer aware of other potential rebates for cooling equipment as well. Specific integration action items include consistent marketing and seamless presentation of programs by means of the Company's website and telephone number, in addition to better cooperation amongst the Lead Vendor and participating contractors.
- Continued technological innovation, especially with Wi-Fi Thermostats and Heat Pump Water Heaters. The Wi-Fi thermostat is a programmable thermostat that can be accessed remotely via computer or smart phone and has advanced programming capabilities. This measure proved to be cost-effective in 2011 as part of the Residential Products Pilot program, and began to gain traction in Rhode Island in 2012 and especially in 2013.HPWHs are domestic water heaters that use heat pump technology to transfer heat from the air, either inside or outside the home, into the water storage tank. HPWHs have much higher energy factors than standard electric resistance storage tank water heaters, resulting in higher overall efficiency and energy savings. HPHWs will be marketed and available through various channels (e.g. retail box stores) and as recommendationsonappropriate home energy audit reports. Furthermore, other Company programs such as Home Energy Reports, Single Family Appliance Management,Residential New Construction, and EnergyWise will act as additional promotional tools for all new technologies.
- Promotion of advanced heat pumps, including cold climate heat pumps. This technology is a good fit for Rhode Islanders who heat with electric resistance, and is a complement to the Company's current offering of traditional air source heat pumps.
- Deeper exploration of upstream models for specific heating and cooling equipment.
- If appropriate, the renewal of the Early Boiler Replacement (EBR) offering. First offered in the summer of 2012, EBR provides attractive upgrade incentives to current Company gascustomers whose boiler is both functional and is 30+ years old, there is potential for tremendous energy savings. Better information on customers' heating system garnered from both within and outside the Program will help EBR better target potential participants.
- Continued coordination with the Company's Gas Conversion team. See the *Gas Conversion* section for more details.

Gas Conversion

With increasing home heating oil costs and low natural gas prices, the Company continues to receive high demand from residential customers for natural gas. In Rhode Island, the Company is currently

responding to this market shift, allocating more resources to natural gas conversions, as well as piloting new implementation strategies, such as the Rhode Island Gas Expansion Pilot Program. A high volume of natural gas conversions presents a strong opportunity for energy efficiency, especially with regards to the new heating equipment that is installed. In 2013, the Company has prioritized the coordination between energy efficiency and gas conversion, working to ensure that high efficiency heating systems are installed in appropriate residential and commercial conversions. The Company will continue this partnership in 2014 and seek to make the conversion to natural gas both a seamless customer process, but also one that delivers a heating solution with long term energy and cost savings. Furthermore, the Company will utilize these conversions as opportunities to leverage its other energy efficiency offerings, such as the EnergyWise Home Energy Assessment and the HEAT Loan's 0% financing, delivering even a better and more cost-effective product for the customer. This seamless integration will provide the maximum value for the customer at the time of conversion – when energy efficiency improvements make the most sense.

Marketing Strategy

The Company will utilize a coordinated marketing campaign for the Program in 2014, generating consistent and integrated material (not rebate forms) within a seamless and customer-centric presentation format. This will require strong communication between the Company and the Lead Vendor, as well as between the Lead Vendor and participating contractors.

Marketing tactics for the customer include the Company's website, direct mail, radio, and the one phone number for all residential energy efficiency services and solutions in Rhode Island. Many customers, however, learn about the Program through their contractors. As a result, the Company's marketing efforts will include the targeting of HVAC technicians/contractors who install and service HVAC equipment, suppliers and distributors of HVAC equipment, and new home builders and remodeling contractors. The Lead Vendor will provide training and outreach to technicians/contractors through training classes, refresher classes, e-mail blasts, and meetings for QIV (Quality Installation Verification)-listed contractors and distributors. They also communicate to contractors on an ongoing basis through a *Technical Bulletin*, which is widely distributed to contractors to inform them of key technical information to help enable their best success within the program. A competitive awards initiative, which includes annual recognition of honorees and high achievers in various categories such as QIV Leader, Rebate Leader, ESQI (ENERGY STAR® Quality Installation) Leader, and Most Duct Sealing Services, and which holds a track record of significant success, continues to help engage and retain contractors. Furthermore, the Company and contractors partner with ACCA (Air Conditioning Contractors of America) New England to host an annual golf tournament, aimed at promoting the customer benefits of the Program, as well as the recruitment of more contractors into the program.

Hard to Reach

The Companyhas also conducted extensive market research to identify about 30,000 Rhode Island customers who for a variety of reasons are not likely to participate in the Program. These customers are termed "Hard to Reach." The Company has developed unique tactics for targeting this segment, including: e-mail blasts, telemarketing, direct mail, and door hangers. The Company will continue to market toHard to Reach customers in 2014, and becausetelemarketing has proven especially effective, it will be a leading strategy.

3. Initiatives

Community Initiative

Overview

The Community Initiative is designed to work with local, grassroots organizations in Rhode Island to promote the Company's energy efficiency services and solutions. The Community Initiative leverages existing community relationships such as local agencies, schools or church groups focused on saving energy to increase participation in energy efficiency programs. By using a grassroots approach, customers that have not been previously targeted will hear the Company's energy efficiency message and can learn about the many ways to save.

In 2013 the Community Initiative was focused on launching the Rhode Island Energy Challenge: Find Your Four!, the grassroots mobilization campaign for the Company's Home Energy Reports program. At the heart of the Challenge was a friendly competition between Cranston and North Smithfield, as both towns worked to get 5% of their residents to sign the Find Your Four! pledge to find four ways to save energy in their home. In addition to the town challenge were also the challenges set up at Rhode Island non-profits, houses of worship, and businesses, such as Citizens Bank, Blue Cross Blue Shield, and Rhode Island Interfaith Power and Light. These challenges consisted of each organization conducting outreach events to get 5% of their employee base to Find Your Four! and to utilize the Company's services and solutions.

The Company also hosted an Energy Efficiency Awareness Night in Tiverton and Little Compton, Rhode Island in the summer of 2013. Although the event was hosted mainly to promote the Company's DemandLink pilot program under System Reliability Procurement, this venue was an excellent opportunity for the Company to meet with customers and to discuss energy efficiency. The event was well attended, with about 150 customers passing through during the event. This type of community engagement was well-received and is a model that the Company will look to replicate in 2014.

Experience

The Community Initiative was launched in Rhode Island in 2010 with a focus on Aquidneck Island and Jamestown. Although the original objective was to target areas where electric service was constrained, initiatives in subsequent years focus strictly on communities that can benefit from the community based messaging approach where the Company's other marketing vehicles have not yet touched the customer. The 2011 evaluation of the Aquidneck Island and Jamestown initiative found it to be cost-effective and successful at significantly increasing both participation and energy savings compared to communities that did not have an initiative.

In 2011, the Community Initiative selected two local community organizations, People's Power & Light and University of Rhode Island Outreach Center, to target four cities and towns for community energy efficiency messaging. People's Power & Light targeted the cities of Cranston and East Providence while the University of Rhode Island (URI) focused on South Kingstown and Warwick. These efforts continued into 2012 and ended with the two groups helping to offer Early Boiler Replacements to their community groups.

Meeting 2014 Goals

Planned strategies in 2014 include the following:

- Expanding the Rhode Island Energy Challenge: Find Your Four! to more towns, cities, business, non-profits, and houses of worship. While the Challenge was very successful in 2013, the Company will seek to involve more towns and cities, and to engage directly with more Rhode Island customers.
- Refine the town Challenges to better accommodate the preferences of town officials and residents. This could include shorter Challenge periods, which would in turn allow more towns and cities to participate.
- Engage with faith-based groups and houses of worship. This sector holds significant potential for the Company in terms of both participation and savings. Furthermore, Rhode Island churches are traditionally served by the Company's Small Business Program, and engagement through the Challenge will drive higher participation rates in that program.
- Continue to work with community organizations and schools to promote demonstration projects where new technology is featured and community members as well as other networks throughout Rhode Island can visit to learn and see the new technologies.

Information and Education Programs

Overview

The Company will continue to support energy efficiency education programs in schools with an objective of educating students who will, in turn, teach their family and community members. The two programs targeted below use applied learning techniques. These keep students connected to their communities by promoting the application of their new knowledge to real-life situations. Additionally, The Company will be promoting the school fundraiser program (see Residential Lighting) which also presents additional opportunities to engage the community in energy efficiency while helping schools raise money. This program was first offered in 2013 and is growing rapidly throughout Rhode Island.

The Company plans to continue sponsoring the National Energy Education Development (NEED) project in 2014. NEED is a nonprofit education association that works with thousands of schools nationwide to promote energy-conscious education through its "kids teaching kids" model.

The Company plans to support NEED by providing educational materials to teachers and students. One of the notable topics included in the provided materials is Monitoring and Mentoring, which helps students learn about their personal role in energy consumption, based on their behavior and habits and what kind of impact they can affect through a change in those habits. Funds provided by the Company will be used for training seminars for teachers, and materials for their students. The Company will work with NEED to identify potential participant schools and implement the program.

Residential Pilots (Gas and Electric)

Overview

The residential electric and gas pilots will focus on emerging technologies or concepts which are reliable, safe and have the potential to be cost effective. Pilots may be conducted independently or collaboratively working with external parties to develop and support technologies that are currently not widely deployed or accepted.

The Company will continue to study thermostats with advanced features that were installed during 2013. The three thermostat technologies currently being tested provide electric meter usage and estimated costs, interface with 3rd party applications that enable load shifting, and thermostat behavioral messaging. This year, the pilot experienced some integration challenges integrating 3rd party technologies which delayed the launch and execution of the load shifting component. The integration was completed late in the 3rd quarter of 2013, and is expected to be tested during 2014.

Continued efforts will be placed on developing advanced technologies which promote heat pump technologies as the technologies become available. The market is still awaiting a manufacturer to bring a heat pump dryer to the US market for robust field testing. The program supported the Super Efficient Dryer Initiative (SEDI) which has done extensive research, collaboration and promotion to bring advanced dryer technology to the marketplace. Other technologies which will be studied as suitable sites are found include drain water heat recovery and variable speed cold climate heat pumps.

The EmPower Behavioral pilot was completed in the 3rd quarter and is currently being evaluated.

Experience

Pilots conducted have proven to be beneficial to programs in previous years. During 2013, the EmPower Behavioral pilot was completed which had communicating meters, HAN equipment installations and behavioral messaging. The pilot has demonstrated the complexity of this project as well as setting expectations for challenges which may be realized by future programs that use a similar platform.

The launch and execution of a messaging thermostat to 125 participants (OPower Thermostat pilot) that has received high satisfaction ratings (greater than 90%) from customers who had installations performed during 2013.

The program managers continue to research new products and methods that will enhance programs and their designs. An example would be highlighting a hot water shut off device for showers, a valve that will limit the amount of hot water used for showering when a shower isn't occupied or in use.

The program managers have been actively collaborating with external entities such as NEEP, SEDI and CEE. The company strives to identify barriers and problematic designs of other pilots in the region which enhance the probability of successful pilots in Rhode Island.

Delivery

The program will be managed by company program managers. External experts will be utilized when necessary, and pilot efforts may be coordinated on a regional effort when applicable. The program may support technology efforts on a regional basis without a specific technology installed in Rhode Island, the technology would have the potential to be implemented in future Rhode Island energy efficiency residential programs. New technologies will be installed in customers' homes that qualify as single or multi family households. For the installation of technologies, the program will utilize a contractor that is based in the state of Rhode Island.

Marketing Strategy

Marketing will be directed and communicated to groups that the program manager believes will best represent the potential benefits of a pilot technology. The company may target individuals who have participated in energy efficiency programs. Marketing may be directed toward specific towns to provide baselines for other types of programs.

Meeting 2014 Goals

The company will continue to focus on delivering reliable and safe pilots that will provide a benefit to our customers. Even though technologies are emerging in this program, the program managers will closely monitor and evaluate technologies before installing in customer homes. Technologies will be

evaluated as they reach term to determine if they are a good fit for a new program or an addition to existing programs.

ATTACHMENT 2

2014 Commercial and Industrial (C/I) Energy Efficiency Programs and Initiatives

Introduction

In the Company's Three Year Plan (2012-2014), four central principles are outlined which are believed to inform all future planning and enhance the Company's objectives to create an umbrella of energy efficiency opportunities that are both market and sector specific. They are –

- Energy Efficiency is for Everyone
- Reaching Customers Where They Live and Work
- Innovation
- Economic Growth

National Grid believes these four central principles are apparent in all aspects of the 2014 Plan. The Company conducted extensive planning and listening sessions with various groups prior to drafting this text, in which these principles were prominently posted. Ideas were gathered from various customers, consultants, reports, National Grid's Sales, Operations and Marketing teams and vendors serving all different customer types and sizes. This process resulted in numerous different ideas which were examined, sifted and categorized, resulting in four broad areas which the Company incorporated in the 2013 Program Year. The Company believes that the broad concepts of the 2013 Program Year will continue in 2014, with further enhancements and improvements.

The Company firmly believes that delivering on all four distillates listed below is necessary in order to reach the Company's energy saving goals, and to deliver on the overarching themes of the 2012-2014 Plan.

- A Better Customer Experience
- Market Sector Approach
- Education and Training
- Affordability and Financing

Through these four broad areas, the Company is committed to serving and providing technical, financial and operational solutions to our customers with deeper and broader energy reduction practices; and, in some cases, reaching beyond energy savings opportunities to provide sustainability solutions that contribute to overall community, behavioral and environmental improvements.

Central Themes for Efficiency Programs

The following section describes the four broad areas mentioned previously and how these will tie in with all the Commercial & Industrial Efficiency Programs and strategies: Large Commercial New Construction, Large Commercial Retrofit and Small Business Direct Install, described in the following sections of this document.

Better Customer Experience: Efficient Transactions

The Company is committed to continue to provide our customers with a more efficient project enrollment and application (transactional) experience. In 2012 and 2013, the Company received feedback from large customers about barriers that exist within the current transactional processes. Some of the changes that the Company addressed to focus in 2013 and 2014 include: an improved system for conducting technical assessment studies, fewer transactional steps involved in the application process and improved pathways for customers to pursue energy efficiency measure (EEM) upgrades.

To orient ourselves more closely with our customers and to be a more efficient organization the Company introduced Salesforce.com in 2013, which is an online cloud-based Customer Relationship Management System. This system provides a single source to enter and view customer information, creates consistent sales processes, helps to define roles & responsibilities more clearly and offers lead generation/tracking tools. This tool is already assisting the Company in tracking time spent in application transactions so that we can measure the success of transactional improvements.

Technical Assistance (TA) Services

The first step in customer engagement for retrofit and new construction projects is for the Company to be able to make solid engineering and architectural recommendations for energy efficiency that integrate well with the customer's objectives. Engineering service providers are available to supply scoping studies (energy assessments) to help target gas and electric energy efficiency opportunities at no charge to the customer. Since 2011, it has been mandatory for the engineering firm working in National Grid's Rhode Island service territory to include analysis of both electric and natural gas equipment and systems, as long as the customer has both electricity and natural gas services provided by National Grid. If the initial assessment reveals the need for a more detailed engineering/building study, a Technical Assistance (TA) study can be conducted, at a 50% cost sharing basis with the customer in most cases.

In 2012 and 2013, the Company identified gaps in our internal TA study process and worked towards identifying changes that needed to be made to the TA study protocols for engineering service providers. In 2013, the Company focused on revising the TA study protocols for our engineering service providers, so that the time taken to complete a TA study is considerably

reduced without compromising on the quality of the TA study or the results. For the specific market sectors described below, the Company worked towards specialized TA vendors to serve these sectors. The Company has significantly reduced the internal peer review process, and expedited the time needed to review TA studies. Using the 'salesforce' portal, the Company will now be able to quantify the reduction in TA review periods and transaction times.

Towards the end of 2013 and beginning of 2014, National Grid's Technical Support Consultants (TSCs) will provide outreach to our 30+ RFP selected engineering service providers to train them on the revised technical and business requirements for all engineering studies. This outreach effort will provide an opportunity for additional learning and exchange about National Grid's current C&I programs, services and requirements. It is expected that this renewed focus on training of the engineering service providers will result in TA studies that contain consistent calculations and formatting which will result in less back and forth between internal engineers and external firms.

Reduction in Number of Transactions

The Company is continuing to work towards more streamlined methods to reduce transactional time to process project applications. The Company will continue to explore the possibility of incorporating the customer's share of a TA study co-payment as part of the incentive payment, where the TA-study co-payment can be deducted from the customer's project upgrade incentives. The Company has begun mapping the amount of internal resources and changes that will need to be made to complete this change. The process and resources documentation should be complete in Q1 2014. The company desires to have all changes complete by end of Q2 2014. Allowing for this change significantly reduces the duplicate accounting procedures that both National Grid and the customer share in processing invoices, payments and receivables. In 2014, the Company will also explore the possibility of providing online customer application forms for select prescriptive package offerings (see more on this under section "prescriptive path").

More Streamlined Measure Selection

In 2013, the Company increased the number of energy efficiency measures (EEMs) through upstream, prescriptive and custom express options and will continue to do so in 2014. These options offer less stringent documentation requirements than the 'custom pathway' option thus allowing faster transaction time for customers. More detail on specific products that will be categorized as prescriptive, upstream and standardization of common analysis methodologies (called "custom express") will be provided later in this section.

Virtual Audit Tools

The Company has assessed several virtual audit tools since the issuance of the 2013 plan. The Company has found that while these tools are becoming increasingly sophisticated they are still not accurate substitutions for "boots on the ground" audits where a qualified professional is able to tour the site and talk to key members of the staff. In addition, they are limited to certain

space types. Therefore, the Company will not be using them as a primary source for audits in the near future.

However the assessments showed that these tools could be useful in prioritizing which buildings may have greater savings compared to others, especially among the same space type on a campus. Nevertheless, at the current time, no company can offer this targeted service to National Grid at a price that the Company feels is prudent and aligned with its current process for delivering technical solutions for customers.

The Company will continue to monitor the development of these tools in 2014 and will deploy them when they meet our quality and price requirements.

The Company's Data Analytics team is also in the process of building a customer targeting tool that may incorporate some of the features of the tools we have seen from other suppliers but aims to be more substantial and more accurate. The final tool will not be available until some time in the next 3 year planning cycle.

Market Sector Approach

Segmentation by industry classification, which enables greater insight into the mix of end-uses, energy intensity and decision making criteria is invaluable for developing value propositions and offerings and creating marketing materials and messaging. For example, hospital customers have much different operating characteristics and business drivers than grocery customers. By comparison, grocery customers are considerably smaller, operate in a single building, and their energy usage is dominated by refrigeration and lighting. They have little or no on-site energy and engineering expertise.

The grocery industry has very small margins, resulting in much shorter planning horizons and tighter requirements for making financial investments in energy efficiency. As a result, approaching hospital and grocery customers in the same way, with the same message and the same offer is less likely to lead to equally successful results in terms of the willingness to proceed with energy efficiency projects. As a secondary classification, segmentation by size, as measured by energy usage and/or demand, plays a dominant role in determining the appropriate delivery model. The largest customers are supported by dedicated account executives while smaller customers are supported by a network of direct install vendors.

The Company spent a major part of 2012 and 2013 strategizing on appropriate market sectors to target going forward, along with a preferred delivery mechanism associated with each sector. In addition, the Company sponsored a market potential study "Point 380 Market Potential Study", which presented many findings on opportunities to pursue based on account and market size. The study also highlighted energy efficiency potential for specific measures within those market sectors. Based on a combination of internal and contracted studies, the Company identified

dedicated verticals for the following market sectors in 2013 and will continue in this path of dedicated services to these sectors well into in 2014. Sections below provide details for a unique delivery approach for each of the following sectors, and provide enhancements that the Company plans to add in 2014:

- Grocery
- Municipal (including schools)
- Data Centers
- Manufacturing/Industrial
- Multifamily Housing
- Hospitality (lodging and restaurants)
- Nursing Homes and Assisted Living Facilities

Approach to Other Market Sectors

Hospitals: The Company realizes that hospitals in RI have huge potential for savings. As a result, the Company will pursue RI's five largest hospitals (all under one partnership) through the multiyear Strategic Energy Management Planning (SEMP) initiative either in the fourth quarter of 2013 or first quarter of 2014 (refer to the SEMP section for more details). Starting in the last quarter of 2014, the Company will begin to investigate the most appropriate program offering and delivery mechanism suited for this vertical and will plan for a dedicated hospital sector in the coming years.

Universities: Universities are ideal candidates to be addressed under the Company's SEMP initiative. With a master-metered portfolio of buildings within the campus, most universities are tied to sustainability goals and climate action plans to reduce their greenhouse gas emissions. The Company's SEMP initiative allows enrolled university customers to engage in multi-year campus energy planning and assists them in identifying comprehensive and long-term energy efficiency opportunities. Two universities have already signed up for the SEMP initiative and the Company is working with a third university for a possible partnership in 2014. Refer to section "SEMP" under "Large Retrofit Program" below.

Offices: The office sector remains one of the greatest efficiency opportunities. Many of the office spaces are part of the Commercial Real Estate sector which has many challenges and barriers to participation in the programs, mainly due to the split incentive between owners and tenants. In collaboration with the MA teams, the Company will develop strategies by third quarter of 2014 that will assist in targeting commercial real estate projects and small office spaces going forward in 2015 and beyond. The Class A type office spaces will be targeted through the "Office of the Future" initiative, described under the "New Construction" section below.

Hard to Reach Markets: There are many building types, like non profit organizations and farm/agricultural facilities that have had low awareness and participation in the programs historically. The Company will provide dedicated marketing and outreach efforts to such hard to reach markets in 2014. For many of the smaller non-profits, the best option for saving energy is through the small business Direct Install Program. In addition to promoting our Small Business Direct Install program to non-profits, there is a need to educate them about our New Construction Program. The message will include contacting National Grid as soon as possible when planning to build a new facility or when upgrading an existing building through a major renovation.

Targeted marketing in 2014 will continue to take place for each of the above identified market sectors. The Company's marketing collateral will be designed specifically for the sector audience. Marketing materials include general information on programs, case studies specific to the market sector, and description of specific technologies suited for that sector. The Company has already started working on sector specific marketing. This material will aid National Grid's Sales and Operations group when meeting with the customer and can serve as a tangible communication piece that is left behind for customer reference and follow-up to incorporating energy efficiency into their planned construction and equipment replacement practices. In 2013, dedicated comprehensive marketing campaigns were conducted for most sectors described above. This effort will continue in 2014, starting as early as the first quarter.

Grocery Sector

The Company will continue to provide dedicated energy savings opportunities to Rhode Island's grocery sector through the EnergySmart Grocer Initiative (ESG). This initiative continues to be administered by the independent third party contractor. This contractor will work with grocers to identify mostly retrofit and some new construction measures and existing building commissioning activities that result in electric and or gas savings. This 3rd party contractor will act as an extension of the Company's programs and field, technical and engineering staff in the execution of the ESG initiative. The contractor will work directly with customers, determining and approving eligibility for participation, computing and approving energy savings and incentives and managing internal applications. The aim of this dedicated effort is to provide integrated services to the grocery customers through grocery specific energy efficiency experts. This initiative had a slow ramp up in 2012 and first quarter of 2013 but by the second quarter, it gained momentum and generated a pipeline of projects both for 2013 and 2014. In order to prepare for 2014, a good percentage of time in the last two quarters of 2013 will be devoted to working with key accounts to identify their capital planning strategies and identify opportunities for 2014.

The customers under this initiative include facilities with commercial refrigeration engaged in retail food sales, consisting of local, regional and national retail facilities that include, but are not limited to smaller grocery stores, supermarkets, big-box stores, and pharmacies with a peak

demand of 60kW and above. To motivate customers to complete larger, more comprehensive projects including bundling of custom measures, this initiative has establish tiered incentive rates based on project size criteria within cost effective limits. This initiative will also create ENERGY STAR Benchmarking customer profiles, meet with customers to review and monitor results and encourage application for ENERGY STAR certification, when eligible. This will help customers make better informed decisions about their buildings.

In addition to identifying projects to enroll and implement, Energy Smart Grocer (ESG) initiative may develop one site for Existing Building Commissioning (EBCx) to demonstrate the effectiveness of the Whole Business Analysis approach for grocers (these sites may be in MA, but this is a growing opportunity that will benefit Rhode Island as well). ESG will create greater market awareness in RI through website development and direct outreach to independent grocers and will continue to deepen relationships within the energy efficiency market, especially with Project Expediters (turn-key National Grid vendors) and trade allies.

Municipal and State Buildings

Municipalities are major users of energy for schools, waste water treatment plants, water plants, and street lighting. Although many waste water treatment plants and schools have participated in National Grid's Program in previous years, water plants and street lighting have not yet been targeted. Solid state street lighting will be addressed in the Commercial and Industrial New Construction Program section of this filing.

The Company's dedicated Municipal Initiative that was launched in the latter part of 2012 has gained a lot of momentum in 2013, and will continue in 2014. Project Expeditors who are turn key vendors working for the Company will continue to provide dedicated technical and implementation support to all municipal participants of this initiative. The Municipal Initiative continues to be refined as the Company gains more information about what is most effective in motivating these customers, as well as vendors. Listed below are customer benefits that should remain constant for the duration of the Initiative:

- Increased access to financing through On Bill Repayment (OBR) capabilities with zero interest, going up to 60 months on a case by case basis for those customers where there are exceptional barriers to participation.
- Increased incentives for municipalities if 50% or more of savings come from non-lighting measures
- Faster application processing by using dedicated TA or National Grid Technical Service Consultant (TSC)

Support for Rhode Island DOE Grant: As a member of the Rhode Island Public Energy Partnership (RI PEP), the Company will continue to provide staff time, technical analysis support, and customer incentives in the context of its in-kind services and support role to achieve overall Project Objectives of RIPEP. Specifically, the Company has provided in 2013, and will continue to provide support to RIPEP in 2014 in the following areas.

- Dedicated Sales Representative: The Company hired a dedicated municipal sales representative in the first quarter of 2013. This representative has and will continue to be the single point of contact to coordinate all of the Company's municipal projects with the RIPEP effort.

- Project Implementation, Tracking and Quarterly Updates: Projects enrolled through this initiative will be tracked and shared with the RI PEP team, and be rolled into the inventory of public facilities. National Grid will assist in providing energy efficiency savings estimates, project enrollment updates, assessing the potential for interconnection of renewable energy installations, and identifying types and amounts of financing available for energy efficiency practices at participating facilities. The Company will also work with the RI PEP team in developing content for the showcase water supply project, and other marketing collateral materials.

- Automated Benchmarking Services (ABS): In the first 2 quarters of 2013, the Company provided usage and account information of all state and municipal facilities to the Office of Energy Resources (OER), the key project manager of the RI PEP effort. This information is currently being used by RI PEP to benchmark the facilities using Environmental Protection Agency's (EPA) tool called "Portfolio Manager". To streamline and expedite RI PEP's benchmarking efforts, the Company will work with EPA's Portfolio Manager staff and our internal IT staff to provide "Automated Benchmarking Services (ABS) to OER, so that OER is able to extract utility data directly. This will save time and effort in the RI PEP initiative. In addition, this service will be of great importance to all the state and municipal customers who can then manage their benchmarking data on a recurring basis.

Data Centers /Computer Rooms

Individuals, businesses and institutions now collect, store and share more data than at any time in the past. The world of computer rooms and data centers has evolved and spread in new directions. Data centers were once predominantly located in the biggest banks and government agencies. Now, smaller computer rooms and large banks of servers can be found in many different building types, including medium and large office spaces. In addition, co-location facilities are a rapidly expanding area of interest.

During the 2014 program year the Company intends to address this market in the following ways –

1. Research

Over the past two years, the Company has experienced growth in efficiency services delivered to this segment, but the Company does not feel it has a complete view of the number of sites and the opportunities within each site. Therefore, National Grid intends to commission a study to investigate this area. Three vendors are under consideration for this contract.

Exploratory Projects

2. National Grid is currently running a dozen exploratory projects with a vendor in both Rhode Island and Massachusetts. The Company has already learned some important things that will be applied to marketing projects in future program years.

Demonstration Projects

3. The Company is also working with another third party vendor on select demonstration data center projects and new ways to capture the interest of key customer decision makers who invariably focus more on reliability, growth and addressing IT challenges than on efficiency. In order for the Company to capture this market segment, the messaging needs to address the concerns of the customer – reliability and redundancy first.

Manufacturing/Industrial

In 2012, the Company launched an initiative targeted at the largest manufacturing customers in Rhode Island. This will continue to be offered to manufacturing/industrial customers in 2014 as well. To qualify for this initiative, customers that consume over 20,000 dekatherms, and/or over 750 kW demand a year and have a qualifying industrial SIC code can participate. There are two levels of studies that are provided to customers as part of this initiative. The first level consists of a comprehensive, no-cost scoping study whose value can go up to $10,000. The scoping study provides the customer with a prequalification menu from which to choose for the next level of study. Upon completion and presentation of the scoping study, National Grid and the customer will identify which areas to focus in on for the more detailed level 2 study. This detailed study will be done on a cost sharing basis with the customer (typically 50-50). However, if the customer implements all recommendations from this detailed study, the Company will reimburse the customer with the remaining 50% upon completion of the project.

The intent of the initiative is to engage more customers from the manufacturing sector to participate in the National Grid Large Commercial Retrofit Program, as well as to engage them in participation over a longer period of time rather than limiting them to one program year. As in the past, TEC-RI will be involved with helping the Company identify potential prospects and possibly using past program participants to help market the initiative. Once some customers have completed the initiative, it should be an easier sell. Case studies can be developed and manufacturing tours might even be available for other interested customers.

Although the initiative is focused on the retrofit market, it is not limited to that classification alone – If the manufacturer has an opportunity for new construction, the initiative will include that work as part of the study

Industrial Assessment Pilot

As a result of the Company's experience with the recently introduced Manufacturing Initiative, in 2013 we introduced a third party vendor to help promote energy efficiency and to help sell the concept of how to bring longer term energy savings to this sector. National Grid partnered with SAIC Inc to provide customized energy efficiency solutions to National Grid's select manufacturing/industrial customers in Rhode Island. Initial results from working with the contractor to date have shown promise. The contractor clearly understands the customer segment and has many years of experience working with manufacturers from an energy efficiency perspective.

As part of this effort, National Grid is currently working with five of Rhode Island's large industrial customers. The goal for this pilot is to reduce the selected customers' energy usage between 3 to 5% of their current usage (both electric and gas), thereby reducing their utility costs. Facility technical assessments will be of no cost to the customer. The incentive package includes financing capability on a case by case basis to match customer's financial criteria. By offering more in the way of financial assistance, manufacturing customers can leverage their operating budgets to enhance participation in available energy efficiency services even if they have other compelling demands on their capitalization budgets.

Through this pilot, the Company wants to go deeper into this market sector and tap its full potential. The dedicated vendor will assess "standard" measures such as pumps/fans, refrigeration, compressed air, process heating and cooling, chillers, boilers and in cases where customers are amenable and specific "industrial process energy" measures like drying, evaporation, molding and separation etc. This vendor will also provide dedicated project management support in implementation of all measures identified through the technical assessments.

In the 3rd quarter of 2014, results of the pilot will be assessed and the Company will decide whether this pilot can be taken to scale as a dedicated industrial initiative for all large industrial customers, to be offered in 2015.

Multifamily Sector

In 2013, a dedicated Multifamily Initiative was launched, integrating residential and commercial multifamily spaces, with consistent offering between residential and commercial customers, incorporating electric and gas measures. This initiative will continue to be offered to multifamily customers. Envelope insulation (roof, wall, floor), domestic hot water measures like controls and pipe insulation, shower heads, air and duct sealing, etc, are some examples of measures that will be considered under the C/I category. For further details regarding the Multifamily Initiative, refer to the Residential Section of this Plan.

Hospitality

Although in the 2013 Plan the Company has identified the Hospitality sector as one of seven market sectors that should be targeted, there remains untapped potential.

In the past, breakfast meetings were held with Hospitality customers at facilities which have participated in the Retrofit Program. This included presentations from Project Expeditors that installed the equipment in a facility as well as a walking tour of the installations. However, the Company has met with mixed results. During 2014, more effort will be made to meet the customer at other industry events they attend. This can be done through the Rhode Island Hospitality Association or by participating in various Economic Development events which may be identified in small business meeting events or events and trade shows targeted to the tourist/leisure segment.

During 2014, the Massachusetts Restaurant Association will be working with National Grid in Massachusetts to try promoting energy efficiency to the Hospitality sector using a different approach. We plan to use lessons learned from this experience to better target the Rhode Island hospitality market, going forward.

As is true with the Manufacturing sector, although the majority of opportunities in the Hospitality sector have been identified as falling in the retrofit classification, new construction or major renovations to existing facilities will also be included. When Account Development meets with customers in this sector, they will ask about plans to renovate or construct new buildings so as to be able to influence some of the design plans at the very beginning of the process. In addition, for the smaller accounts, a telemarketing vendor will be hired to help identify these opportunities.

There are two tiers to this sector: lodging and restaurants.

The larger hospitality customers, which mainly fall into the category of lodging, will be visited by National Grid's Account Development group. Electric measures to consider include lighting, VSDs, HVAC, EMS systems, and motion sensors. Natural gas measures include space heating, insulation, controls, ozone laundry, kitchen hood controls, heat recovery from refrigeration as well as water heating. Collateral marketing materials will be provided to the Sales staff to assist with customer visits.

For some of the larger hotel or restaurant chains, we will explore hiring a circuit rider to research sustainability or energy reduction goals. Once this information has been uncovered, it will be shared with the Sales organization for follow up.

By tracking projects by building type, which includes fast food restaurants, full service restaurants, hotels and motels, we can determine the current penetration as well as future potential of this sector.

During 2014, we will explore introducing a Capacity Building Model for this sector. This involves identifying potential candidates for cost sharing the salary of a dedicated energy manager for several locations owned by the same group or individual. The energy manager would receive training from TA vendors to look for energy efficiency opportunities.

A third party telemarketer may be hired in 2014 to help identify ownership and operating models used in this sector as a way to best approach individual chains or franchises.

It has been noted that many of the restaurants will fall under the Small Business Direct Install Program. So there will be some overlap in targeting audiences for the two programs. This will be addressed when leads come in through the Inside Sales group. If the lead qualification determines that the best opportunity for a customer initially inquiring about the Retrofit Program falls under the Small Business Direct Install Program, the customer will be notified and directed to that program.

Nursing Homes/Assisted Living

During 2013, a dedicated outreach Marketing effort was made to nursing homes using direct mail followed by in- person visits and phone appointments. The response rate to the direct mail campaign was 53%. Leads came into the organization through the Inside Sales Group. Although it is premature to measure energy savings that have resulted, there is a high level of interest in energy efficiency among this sector as a way of containing costs. Since the facilities are run 24/7, the energy savings can be significant.

The larger customers that express interest in the energy efficiency programs will be visited by a representative from Account Development. These may include some city owned facilities. Electric measures to consider include lighting, VSDs, HVAC, EMS systems, refrigeration, Combined Heat and Power (CHP), cooking equipment and motion sensors. Measures targeted for natural gas savings include: space heating, insulation, controls, ozone laundry, kitchen hood controls, heat recovery from refrigeration, cooking equipment and water heating.

Going forward, assisted living facilities will be targeted for energy efficiency services. The inside sales organization will provide this targeted effort to increase participation in this sector through direct contact with customers and then arranging for all follow-up services to promote higher levels of energy efficiency in these facilities.

Trade Ally Engagement (TRAEN)

In 2013, a Trade Ally Engagement (TRAEN) team was formed across the three states in which National Grid serves. It has representation from Program Strategy and Vendor Management.

The objective of this group is to create a professional trade ally relationship that helps the Company achieve energy efficiency saving goals for programs considered to be “at risk”. A pilot program is being developed for Massachusetts in which a trade ally will be able to contact National Grid and receive a pre-inspection visit and approval of the project within 48 hours. This will help the smaller trade allies to grow their business. National Grid will be removing perceived barriers among this target audience.

As a result of the pilot, “lessons learned” will be applied to the Rhode Island marketplace.

Education and Training

National Grid is committed to promoting leadership in the community and the various market sectors, trade organizations and associations, by providing and sponsoring initiatives and outreach efforts for education and training.

The Company, as in previous program years, will continue to support opportunities to inform customers and trade allies/vendors/contractors that serve the various market sectors, about existing and new or emerging energy efficient technologies, building systems and design, building energy codes and standards, improved installation practices and up-to-date operation and maintenance (O&M) procedures. By integrating local, regional and national educational and training initiatives throughout National Grid’s various C&I programs, the Company hopes to build awareness about the benefits of energy efficient technologies, market National Grid’s Energy Efficiency programs, as well providing expertise and experience on the need for integrated design, and improved construction and installation practices for an existing or new construction building project. Deeper energy savings, as well as other non-energy attributes, can be achieved for any given customer project when the customer, designer/engineer, or contractor/installer is able to express or share knowledge about an energy efficient technology, the associated costs and energy savings potential.

Training and education are central components for many of National Grid’s C&I Programs and service offerings such as Building Operator Certification Training, Strategic Energy Management Plan, Building Energy Codes, trade ally trainings and on-going outreach with the Technical Assistance (TA) vendors that provide engineering services for the Company. More detail for these product and service offerings are contained in each section of this document. Training and education timelines will differ for each initiative and will take place during the entirety of 2014.

The Company will also contribute expertise in helping educational institutions incorporate energy-based learning into their curriculum, to create the next generation of energy engineers or environmental stewards who will continue the cycle of providing leadership in the community for best practices and design for improving building energy systems.

Affordability and Financing

One of the most difficult challenges customers face, beyond the assessment of the technical energy efficiency potential in their facilities, is affordability, a fact reinforced by the results of a customer survey that showed overwhelmingly that if on bill financing were available to help customer costs for implementing deeper energy efficiency strategies more customers would participate in the programs. Affordability is a market barrier resulting from the initial cost of energy efficiency solutions. The Company recognizes that a critical enabler for customers to invest in deep energy savings in their buildings is access to capital with attractive commercial terms. The up-front cost of an energy efficient project can deter the building owner from making an investment because they are either reluctant to invest their own capital in energy efficient projects, do not have access to capital or they choose to make other high-priority investments with their available funds.

The Company attempts to mitigate this barrier through the use of both incentives and loan mechanisms, as well as through the use of an enhanced on-bill repayment (OBR) capability. This combined approach helps the Company to package integrated energy delivery solutions to the benefit of our customers. Providing customers with an added incentive to borrow to complete projects by offering zero-interest loans repaid on the utility bill, while not burdening their assets with security interests, and with minimal transactional effort or cost, can convince many customers to move forward. In 2014 and for the foreseeable future, the Company will also be using money flowing back into the Revolving Loan Fund, which includes the repayment of RGGI dollars loaned in the past, as well as the injection of new funds where feasible, to finance electric projects.

The intent is to close sales with financially sound C&I customers who would not have moved forward with these projects otherwise. The results of an OBR survey studying this increase in participation indicates that about 45% of C&I customers that did not move forward with projects after receiving an audit would have if this type of OBR financing had been available. By first quarter of 2014, the OBR capability, currently offered for up to two years, will expand up to a period of five years for electric energy efficiency projects. The Company will explore possibility of expanding this to gas measures as well.

While there are many reasons to adopt a new financing approach to help customers invest in energy efficiency perhaps one of the most important is the opportunity in the future to reduce up-front annual program costs and to reduce utility energy efficiency costs per unit of savings. Moreover higher levels of participation enhance customer satisfaction with the programs.

In the 2014 program year, the Company intends to study the combination(s) of incentives, financing, and technical support that will spur our Commercial and Industrial customers to increase participation and complete energy efficiency projects of various sizes and scopes. The Company has particular interest in process improvements that will allow these businesses to have higher energy productivity.

After the aforementioned study is complete, the Company will investigate the optimal size for a largely self-sustaining loan fund, possible mechanisms to fund it, and, ultimately, the best way to market and deploy the larger pool of loan funds to customers. One possibility is that properly negotiated deals will free up funds that then may be added to the revolving loan fund. The Company plans to develop guidelines supporting this approach in 2014. Refer to the section "incentives based on negotiations" below, for more details.

C&I Energy Efficiency Programs

The C&I Energy Efficiency programs are organized in the same way as the built environment is organized – customers are making decisions around their investment in higher performing new construction and existing buildings. Depending on the needs and size of the customer within each of the segments, customers can participate in one of three energy efficiency programs:

- The Large Commercial and Industrial New Construction Program
- The Large Commercial Retrofit Program
- The Small Business Direct Install (SMB/DI) Program

Although there are three programs in the C&I sector for 2014, all C&I customers are eligible to participate in the Large Commercial and Industrial New Construction Program and the Large Commercial Retrofit Program. However, the Small Business Direct Install Program is restricted to customers with 200 kW or less billing demand. In 2013, the SMB/DI program removed the requirement that small business customers consume less than 483,000 kWh per year. (There is no upper limit of gas consumption that disqualifies a customer from receiving the gas measures offered by the SMB/DI program.) However, larger and more complicated measures not offered by the DI vendor may need to go through the New Construction or Retrofit Programs. The following sections describe the various offerings under these three programs.

Large Commercial and Industrial New Construction Program

The Large Commercial and Industrial New Construction (NC) Program serves the needs of new construction or major renovation for electric and gas markets including time dependent mechanical and electrical or thermal system replacement. The New Construction Program offers prescriptive and custom incentives as well as technical services that will facilitate the identification and installation of premium efficient equipment at a customer's facility. This program is tailored to the specific needs of a customer's business, and will help lower their energy costs, improve working environment, and increase profitability.

Pathways to Meet Program Requirements

There are two main pathways in the new construction program that customers can use to access high performance equipment and systems to integrate into their building practices.

1. Downstream Prescriptive Path

The prescriptive pathway is one performance track to follow when the scope and savings opportunities may be smaller in nature. Prescriptive incentives for these systems and equipment

have been standardized in terms of incentive level and minimum efficiency criteria. They address specific equipment measures, such as lighting, DHW, compressed air, and HVAC. These incentives are offered to customers on a per unit basis. In 2014, for prescriptive electric C&I measures, we will explore offering on-line applications.

The Large Commercial and Industrial New Construction Program prescriptive measures and incentive offerings are as follows:

Prescriptive Gas Space and Water Heating: The Company will continue to promote energy efficient gas space and water heating equipment in the Large Commercial and Industrial New Construction Program. In 2012 incentives for 301 to 2000 MBH condensing boilers were reduced. During the past few months in 2013, there has been a decrease in the number of applications for this equipment. As a way to help encourage greater participation in this measure category, the incentive levels of 2011 will return at the beginning of 2014.

During 2014, for prescriptive heating, hot water and commercial gas equipment, an on-line application process will be added. Customers will have the option of applying for an incentive for these measures by filling out paperwork manually and submitting with receipts via mail, filling out the application on-line and submitting it with receipts via mail, or submitting completely on-line by scanning receipts. It is expected that 20-30% of the program participants will take advantage of the on-line capabilities while the remaining use at least somewhat of a manual process.

New Gas Technologies

In 2014, a few demonstration projects are planned to take place in Rhode Island. They include:

- Commercial Alternative Laundry
- High Efficiency Hot Water Air Source Heat Pump
- Advanced Energy Panels

Commercial Alternative Laundry
One of the areas of exploration for new natural gas technologies is an alternative to cleaning that is similar to ozone. Using little plastic beads that beat the dirt out of the fabric, less use of chemicals, water and heat are required. This is being explored with one customer for commercial washing machines. Since the equipment is of a standard size, once the technology has been reviewed, this may be a good candidate for a future prescriptive offering.

High Efficiency Hot Water Air Source Heat Pump
During 2014, a Rhode Island site will be identified for a High Efficiency Hot Water Air Source Heat Pump. The plan is to screen this measure as custom and identify its applicability for customer installations.

Advanced Energy Panels
The Advanced Energy Panels is a new and higher performing building envelope technology that retrofits existing windows in older buildings with a custom made insert between two panes that provides a thermal break. This will improve window efficiency and enhance building envelope energy performance. It will increase the comfort for occupants and will fall under the custom pathway for customers to obtain incentives, once the demonstration portion of the project is completed.

Other Gas Technologies
In addition, thermal blankets and jackets for steam traps, valves and fittings will be evaluated as a prescriptive offering. These are currently offered as custom incentives.

In 2014, a demonstration project that took place on Cape Cod for a roof top unit (RTU) controller and energy ventilation that saves both gas and electricity will be explored for target audiences. There will be a new products collaboration to promote these technologies among targeted high use customers in Rhode Island.

Natural Gas Energy Efficiency Handbook
The Natural Gas Energy Efficiency Handbook will be rolled out in 2014. This will be a quick guide that can be used as a reference by the Sales, Execution and Strategy groups for a variety of energy efficiency gas measures and systems. It will include a baseline case, energy efficient recommendation and target audience.

Equipment under Gas Conversions: Low natural gas prices have resulted in a high volume of natural gas conversions. This presents a strong opportunity for energy efficiency, especially with regards to the new heating equipment that is installed. The Company will ensure a well coordinated effort with our gas conversions team to feature high efficiency equipment and systems alternatives with long term energy and cost savings.

Prescriptive Commercial Kitchen: The Company offers a number of both gas and electric energy efficient commercial kitchen equipment incentives including combination ovens, rack ovens, conveyor ovens, fryers, convection ovens, steamers, griddles, dishwashers, hot food holding cabinets, and ice machines. The Company is currently working with our current processor to allow these gas applications to be submitted via a web portal. National Grid feels that this will increase customer satisfaction and reduce processing time. In 2014, for prescriptive electric C&I measures, we will explore offering on-line applications.

Energy Efficient Lighting (applicable to Prescriptive and Custom**)**: As of July 2012, federal lighting standards resulted in the elimination of the manufacturing of many popular halogen reflectors as well as fluorescent T12 and 700 Series T8 lamps. In January, 2013, 75 watt equivalent incandescents cannot use more than 53 watts, with output of 1050 to 1489 lumens. These actions move the baseline of standard equipment higher than in the past.

In 2014, the Company is increasing the prescriptive LED offerings to include:

- High-performance direct/indirect pendants
- Linear slot fixtures
- High-power LED flood lights
- LED signage lighting

In addition, new lighting specific initiatives are also being introduced in the following areas depending on the lighting technology. The list below is applicable to large retrofit and new construction projects:

- Network Lighting Controls: Applicable for all multi-space large buildings with networked and programmable lighting controls that exceed IECC 2012 lighting energy code by over 40%. There will be required commissioning for these projects and this is expected to increase lighting energy savings by over 23% and maintains these savings for the life of the technology.
- Localized Lighting Controls: Applicable for large, multi-function spaces projects with programmable lighting controls that exceed lighting energy code by over 40%. Commissioning is also required as part of this package.
- Outdoor Lighting Controls: Applicable to large buildings with lighting controls for exterior lighting that is networkable through wireless technology and includes occupancy, daylighting and programmable scheduling beyond code.

Prescriptive Variable Frequency Drives Incentive: Prescriptive Variable Frequency Drives (VFDs) will continue to be available as part of the Company's prescriptive offering in the Large Commercial and Industrial New Construction Program. VFD installations are also included as part of the Company's Project Expeditor services. This is available for both large C&I, as well as small business customers.

Prescriptive Small HVAC Incentives: In 2014, the Company will only offer variable refrigerant flow (VRF) systems prescriptively. The remaining pieces of small HVAC equipment that were formerly offered in this fashion, such as unitary HVAC systems and several types of heat pumps, will be processed entirely through the Upstream HVAC initiative. Please see "Products Through Upstream" section for more details.

Prescriptive Chiller Incentive: The Company will continue to promote high efficiency chillers in the Large Commercial and Industrial New Construction Program. Prescriptive incentives are only available for single non-process chiller installations. Process cooling chillers and multiple chiller installations must be handled as custom incentives.

2. Custom Path

In addition to the Prescriptive pathway, the Company provides customers the opportunity to achieve deeper and broader savings with the Custom pathway - this is often accessed by customers that wish to investigate more complex HVAC equipment and systems with enhanced

engineering investigations. Through this pathway, the use of a cost-effective screening tool determines the value of the EE savings and costs associated with these systems.

Custom incentives are offered to support these investigations and purchases for any qualifying cost-effective efficiency opportunity, based on the unique energy savings and cost criteria of a project. These incentives fall outside the scope of standard prescriptive measures. Custom incentives for Large Commercial and Industrial New Construction projects are designed to cover up to 75% of the incremental cost between standard and premium efficiency equipment. To enable larger and more comprehensive energy efficiency projects to be incentivized, there is no longer a requirement that the simple payback be at least one year or greater. However, the simple payback must be less than or equal to the measure life of the equipment. In the past, cost-effectiveness screening was done at a measure level. Going forward, cost screening will be done at the project level and not the measure level. That will enable the bundling of more measures together in a meaningful project for customers. There is also no longer a dollar per unit maximum for incentives. However, approval for incentives needs to be made at the appropriate management level, based on the incentive level. Incentives may not be applied toward normal maintenance costs and must offset existing or potential energy usage. Project caps may be imposed based on budgetary constraints.

A Custom "express" tool can be used for certain New Construction projects on a case by case basis. The Custom Express tool is used when more analysis is required than just taking an average savings as is done with prescriptive deemed savings measures. This results in the customer receiving a custom incentive on a timely basis without the need to go through the rigor of a 'custom' project. This typically happens more often under Large Retrofit projects but can be used for New Construction projects as well. For a list of custom express measures, refer to the "Large Retrofit Program" section below, under the topic "Custom Path".

Within the 'custom' path, the Company also offers two specific options to customers, described below:

2a. Advanced Buildings "Core Performance"

Advanced Buildings-Core Performance is a comprehensive, prescriptive program for small commercial new construction built around delivering the New Building Institute's (NBI) national Advanced Buildings (AB) Program. The Advanced Buildings (AB) Guide applies proven and available energy efficient technology and building science to the design of commercial and institutional buildings in the 10,000–100,000 square foot range. The Core Performance criteria addresses better performance characteristics in the building envelope, dedicated mechanical heating, cooling and lighting systems, multiple demand control ventilation practices, indoor air quality improvements, and domestic hot water system efficiency. This model is best applied in small office, retail, public assembly, and school/preschool applications. (The benefits diminish in lodging, large multi-family and assisted living circumstances).

The NBI and National Grid teams are currently working on establishing new technical specifications to the AB package, based on the currently adopted IECC 2012 version by the state.

This energy code cycle is approximately 15% more stringent than the previous IECC 2009 version. As a result, the new AB package will identify specifications that are above and beyond the new IECC 2012 version. Once the package is ready, the Company will formulate supporting incentives and marketing materials to launch the new AB guidelines to the owners and design community, supported by trainings.

The official launch of the AB package may take place in the 3rd quarter of 2014. This will be followed by a series of trainings to the design and building community. In order to minimize confusion in the marketplace, the launch of the new AB package in Rhode Island will be coordinated with the Massachusetts launch of this initiative. The Company will grandfather the older version of AB package to those customers who currently have applications under this initiative.

2b. Comprehensive Design Approach

Comprehensive Design Approach service gives customers the opportunity to maximize energy efficiency in their new construction projects through a whole building integrated analysis. A CDA project reduces a customer's energy consumption by identifying cost effective design alternatives prior to final design and construction. Using industry accepted computer modeling, our Technical Assistance engineers evaluate options and enhancements to the proposed building design in order to identify energy savings and to improve system operating efficiencies that are a certain percentage above the State building energy code. The customer's architect/engineering team uses the results of the CDA service to guide the final building design, incorporating the qualifying energy conservation measures into the construction plans and specifications. Comprehensive Design Approach is intended for New Construction and Major Renovation (so called gut-rehab) projects where the thermal envelope, lighting and all HVAC systems are being brought up to current codes. Incentives for such projects can go up to 90% of the incremental costs. The CDA is a sister program to the Advanced Buildings offering which targets smaller buildings and buildings with less complicated mechanical systems. CDA typically targets large buildings, typically greater than 100,000 square feet.

Towards the end of 2013, the Company will determine the percent above code criteria for CDA participants. With the new energy code (IECC 2012) recently adopted in RI, internal engineering analysis will have to be conducted to determine a percent above code threshold for this path that will also pass the cost benefit analysis test.

Incentives based on Negotiations

In the interest of improving overall program yield to achieving “all cost-effective energy savings”, the Company has been pursuing a customer-focused negotiation process since the second quarter of 2013. As a solution to help the customer overcome specific financial and transactional barriers to implementing an energy-efficiency project, the Sales and Operations team have begun to use sales techniques to address the customer’s cash flow concerns, financing, non-energy benefits, and other services through incentive negotiations. During the

first quarter of 2014 the Company will assess the process used by the Sales team in 2013, and create a standardized set of guidelines for custom incentive negotiations that can be used as a tool for the Sales team.

The heart of National Grid's guidelines will be:

1. Making sure that the Company understands the way the customer wants to see the benefits of their project.
2. Presenting the offer to the proper person or level within the customer's organization.
3. Presenting the offer in the specific metric in which the customer is interested.
4. Making sure that the customer is aware of other financial and non-financial benefits of the upgrade such as reduced maintenance, employee health and productivity, or other attributes for which National Grid has information.

Enhancements to New Construction Offerings

The Company realizes that the new construction market is gradually picking back up in Rhode Island with the expectation that in the next three year cycle (2015-2017) there may be growth in the number new construction/major rehab energy efficiency participation level. In 2014, the Company plans to focus on making some enhancements to the current offerings as part of an effort to be poised to capture this market by making the necessary changes to address market needs. With the new IECC 2012 building energy code adoption in October 2013, many decisions about program offerings, incentives and savings requirements need to be taken into account to reflect the energy code requirements. In addition, new technologies are developing fast and the needs of customers are constantly changing. In spite of the current economic situation, there continues to be an interest in following "green" practices.

Since the last quarter of 2012, the Company engaged in an effort to assess its New Construction offerings and processes to determine a redesign strategy for 2014 and beyond. The Company envisions a multi-phase approach for the redesign effort. Phase 1 (2012-2013) focused on attaining input and feedback from key stakeholders (mainly architects, engineers, construction managers and owners/developers). Phase 2 (last two quarters of 2013 and first quarter of 2014) focuses on creating a program roadmap that will lay the groundwork for the reshaping of the New Construction Program and processes with Phase 3 focused on implementation (2014). The goal of this exercise is to design and implement a customer centric New Construction program with a commitment to improve customer/key stakeholder engagement and satisfaction, while achieving Company goals.

The key areas the Company is expecting to see changes in 2014 are the program marketing and outreach mechanisms, internal process improvements and program offering improvements briefly described below:

Marketing and outreach: The Company is currently identifying short-term and long-term approaches. In the short-term (by second quarter 2014) we will make minor improvements to the website, marketing materials, and programmatic education resources such as participant handbooks and other guides to aid participation. In the long-term (2015 and beyond), we will develop an engagement strategy to meet architects, engineers, building owners and developers where they congregate.

Internal process improvements: These will continue through the course of 2014, and will include improvements like better lead generation and tracking of projects with a more streamlined internal process.

Program offering improvements: The Company is working towards enhanced offerings that may include the addition of a design team incentive and more transparency to customers on the determination of incentives.

Commissioning

To ensure that energy savings projects are installed and operated as designed, the Company will continue to provide commissioning service in 2014 as in previous program years. This service will continue to be served by independent third-party vendors for verification of complex building systems, such as HVAC projects involving energy management systems or other controls, are properly installed and operating as designed. National Grid requires all projects which receive an incentive over $100,000 to be commissioned. Commissioning is also promoted for any projects where the savings are dependent on control measures or operational improvements. Typically National Grid provides these services at no cost.

Initiatives specific to New Construction

Specific initiatives are listed below within the new construction portfolio that address specific and unique needs of the new construction market sector:

1. Solid State Street Lighting

Customer Owned

In July of 2013, a Rhode Island law was enacted that allows any city or town receiving street lighting service from an electric distribution company to purchase the street lighting system with 60 days notice to the utility and the Rhode Island Division of Public Utilities and Carriers. Following the ownership transfer of the street lighting system, the street lighting service will be transferred from the current tariff rate to an alternate “customer-owned” street lighting tariff rate. The municipal customer that purchases existing street lighting previously owned by National Grid will then be responsible for the operation and maintenance of the lights as well as

the costs associated with that operation. This includes standard routine maintenance as well as storm related repairs.

The law required the Company to include varied modes of street light operation within the new tariff. These modes include both conventional dusk to dawn as well as schedule-based dimming or on/off controlled lighting.

The tariff, filed September 16, 2013 includes operating provisions for dusk to dawn lighting as well as dimming and partial off periods. The incorporation of dimming into an unmetered electric tariff rate may be one of the first, if not the first tariff of its kind in the country.

Once the tariff has been approved by the Commission, municipal customers can notify the Company of their intent to purchase the company owned street lights. An inventory assessment takes place and the Company provides the municipality with costs associated with the purchase. The municipality then reviews this information and comes back to the Company with a decision. If the municipality decides to make the purchase, the ownership transfer is made and the new tariff service is applied. The municipal customer may commence replacing the existing lighting technology with solid state street lighting equipment.

To date, several cities and towns have expressed interest in purchasing the street light system within their community when this option becomes available to them. The Company will work with those early adopters in 2014 in support of the new tariff, once it has been approved. The Company will use its 2014 experience with the customer owned option to help refine the 2015 offering.

Energy savings is dependent on hours of use. A street light that will be dimmed may receive a higher incentive and more energy savings will be claimed compared to the standard dusk to dawn hours of operation that was used previously.

Company Owned

The Company continues development of a company owned LED street lighting rate.

2. Products Through Upstream

During the planning process for the 2012 Program Year, it became apparent that the traditional downstream method of delivery of certain energy efficient lamps, which had served the Company well in the past, was not going to be sufficient as a standalone delivery method to encourage customer participation and drive higher levels of savings. The Company decided to take a new approach for selecting high efficiency lamps. National Grid decided to offer certain LED and linear fluorescent lamps through a model called Upstream delivery. An Upstream delivery model offers the discount on an energy efficient product at point of sale, which results

Upstream Lighting ("Bright Opportunities Rhode Island")

On February 1, 2012 the Company launched its Upstream Lighting Initiative officially titled "Bright Opportunities Rhode Island." Since its launch, the initiative has expanded from four (4) LED lamp types to ten (10) types of LED lamps and four (4) types of fluorescent lamps and now accounts for as much as 15% of the Commercial savings goals on a yearly basis.

The Company believes that up to 65% of the available (not currently filled with fluorescent) A-based sockets in Rhode Island commercial and industrial applications will be converted to LED by the end of 2013. This includes, but is not limited to, LED PAR lamps, LED A lamps, and retrofit down light kits. The Company plans to build on this success in 2014 and believes that the market will be substantially converted, up to 90 percent by the end of the 2014 Program Year.

The company is currently exploring adding fixtures to this mix such as LED stairwell and LED under-cabinet office luminaires. Their deployment time will depend on a number of factors such as number and type of products available and product price.

The Company has received feedback from many customers that they prefer this delivery channel to a more traditional application based process, as it is faster and requires less initial capital outlay.

Upstream HVAC

The success of the Upstream Lighting initiative encouraged National Grid to explore other areas where the Upstream model could be used successfully. After some research, the Company decided to issue a joint RFP with the Massachusetts Program Administrators (under the "Mass Save" umbrella) for a company to run an initiative that will allow upstream Unitary HVAC and Heat Pumps up to 25 tons.

The Company elected EFI/CSG as a partner in this initiative. The Rhode Island portal for distributor submission opened on September 16, 2013. The first submissions for Upstream HVAC in Rhode Island were received during the month of August. Anecdotally, the Company has started to see an increasing amount of interest from both end users and distributors. The Company estimates we will see as much as 50% more projects completed in 2014 than in the 2012 program year.

As the initiative becomes more mature, National Grid will investigate the best way to encourage distributors to stock more efficient equipment to reduce equipment lead time and make higher performing equipment more accessible.

Additional Product/Technology Types

The Company also believes this or a similar process could be a successful delivery method for other energy efficiency equipment or products. Through our experience in the past eighteen (18) months it appears that this system works best when the following two conditions are present –

1) A third-party list which provides a benchmark for quality and durability such as Energy Star or another nationally recognized list; and

2) Situations where the distributor functions as a trusted advisor or the last party to "touch" the product before installation. It is critical that the representative have and maintain a good relationship with the manufacturer in order to gain price concessions or faster shipping times.

Other Upstream Initiatives

The Company committed to investigating, results by end of Q2, whether or not Upstream is the appropriate channel for electric efficiency measures such as private office LED under cabinet lighting, stairway/stair well lighting with controls and smart strips. The Company, along with MA Save Program Administrators, is also investigating gas heating and water heating equipment as potential Upstream measures for possible deployment in 2014.

Compressed Air

The Company intends to pursue two general paths for compressed air savings in 2014. One group of solutions can be applied to customers of all sizes and one is a pilot to address the needs of some of National Grid's largest and most complex customers.

Path One

1. The Company will continue to offer prescriptive compressed air measures such as energy efficient compressors, dryers, zero loss condensate drains, storage and low pressure drop filters.

2. National Grid will continue to offer a leak detection and correction initiative.

3. Account Development and Outside Sales will continue to offer Technical Assistance studies to customers who could benefit from a more comprehensive look at their compressed air systems.

Path Two

New for 2014, five (5) of the Company's largest customers will be participating in the Industrial Facility Assessment Pilot. Participants in this pilot will receive a comprehensive energy audit and

project management from world renowned engineering firm SAIC. During this process SAIC will determine best practice solutions for compressed air inside their facilities.

In the pilot the Company hopes to see savings in compressed air in areas not previously penetrated because they are related to process or other areas customers may be hesitant to touch without the expertise of a partner like SAIC.

3. Building Energy Code and Appliance Standards

The Codes and Standards (C&S) Initiative will save energy on behalf of ratepayers by creating an environment that achieves the following:

- Leads to greater compliance with existing building energy codes
- Directly influences appliance standards
- Works with local governments to adopt a voluntary stretch code
- Encourages code-setting bodies to strengthen energy efficiency regulations

This will be a combined residential and commercial initiative spanning across both new construction and retrofit buildings. The Company has a long-term strategic plan of coordinating resources to maximize the impact on the statewide codes and standards efforts. As part of this long-term plan, the Company plans to pursue four specific paths, as mentioned below. However, in the shorter term, the code compliance support will continue to be pursued by the Company in 2014. This activity started in the second quarter of 2013 and will continue to be the focus of this initiative for the next three to five years.

The four potential paths are:

1. Code compliance support: The Code Compliance Enhancement Initiative will be designed to increase the ability and desire of both the design community (architects and engineers) and the construction community (contractors and construction managers) to comply with the locally mandated building energy code and improve the ability of the local building departments to enforce the code.

2. Appliance standards development and advocacy: This will entail the selection of three to four appliances to pursue as higher efficiency products, to develop technical specifications for, and to advocate at the state, regional, or the federal level.

3. Development of voluntary “stretch” code: The Stretch Code Initiative will save energy by assisting the state in developing the next generation of the stretch code, which will save approximately 15% more energy than buildings constructed according to the prevailing path.

4. Base (IECC) code advocacy: This includes targeted advocacy initiatives to improve building energy efficiency regulations specific to Rhode Island code amendments.

The "code compliance enhancement initiative," a specific activity that the Company started in the second quarter of 2013 is described in detail below. There will be associated energy savings attributable to the Company for improving Rhode Island buildings' code compliance levels. Groundwork for the development of appliance standards and voluntary stretch codes began in 2013, though savings for these activities will not be realized until 2014 or beyond.

Code Compliance Enhancement: The extent of this task will support both residential and commercial buildings that are required to comply with the applicable code (mostly new construction, major renovations, and retrofits/additions). As of October 2013, RI State adopted the IECC 2012 code. Code trainings to the building industry are an important component during the start of any code cycle. The Company will begin code trainings as early as October 2013, to be continued well into 2014 and beyond.

In the first quarter of 2013, Conservation Services Group (CSG) was selected as the lead vendor to implement the code compliance initiative. Based on the findings of the 2012 code compliance baseline studies, as well as the Company's internal planning in collaboration with the RI Code Commission, Northeast Energy Efficiency Partnership (NEEP) and the CSG team, the following tasks are proposed for 2014 with some level of activity already taking place in last two quarters of 2013):

1. Trainings: Deliver various types of trainings around the State; geographically dispersed classroom, location-based, and Web-based trainings. In addition, focus group training sessions will be conducted that are targeted towards the building envelope, HVAC, and electrical sections of the code, and also on the use of compliance software. Training and outreach efforts developed in 2013 will continue throughout 2014 to both residential and commercial markets, as modified based on participant feedback. On-site demonstration type trainings, as a bridge between the code requirements, classroom lessons and on-the-job-site realities may be scheduled periodically throughout 2014.

2. Technical Assistance Energy Code Circuit Riders: The Energy Code Circuit Riders (Circuit Riders) will provide technical assistance for all Rhode Island building professionals on energy codes and energy efficient building design and practice; will interpret and explain code administrative requirements; and will act as a go-between between participating market actors and Rhode Island's code officials. In 2014, the Circuit Riders will continue to assist in clarifying any confusion or misunderstanding that building design and construction professionals may have about energy codes, and to ultimately support their efforts to better understand and execute code compliant building designs. The Circuit Riders will serve the entire state, providing technical assistance to project teams as the need arises, including direct assistance to building departments.

3. Support for third-party inspections: Assuming the State establishes the legislative provision for optional/voluntary third-party inspections of the building energy code before the end of 2013, training will be developed based on the rules created and delivered in 2014 to those professionals approved by the State to perform this work. While third-party specialists will

be encouraged to attend the technical trainings delivered through the Code Compliance Enhancement Initiative, the trainings designed for these individuals will be separate and distinct from the trainings described above and will focus on how to use their technical expertise in a code compliance environment, and on administrative and procedural issues rather than on technical aspects of the code and its enforcement mechanisms.

4. Documentation Tools: A focus of this initiative is to reduce confusion regarding code compliance due to lack of standardized documentation at the time of permitting. In 2014, the Company's vendor, CSG, will continue to refine documentation tools created in 2013, such as checklists, and code check protocols, based on feedback from Code officials and other stakeholders, with the ultimate goal of making permit submittals by building and design teams, and making plan review by building department staff simpler and more streamlined. Other documentation tools such as builder manuals will be developed and distributed in 2014.

The table below lists the type of code compliance support activities that will take place in 2014 through this initiative

Table 1: Potential activities in 2014 contributing to the energy savings for the Company

	Number of Activities 2014	
Tasks		
	Residential	Commercial
Outreach		
Attend code officials meetings	6	6
Bulletins	4	4
Focus groups	0	0
Website	1	1
Recruit partners	0	0
Trainings		
Trainings report	12	12
Classroom Trainings	12	12
Webinars	20	16
Focus group trainings	2	2
On-site trainings	4	4
Circuit Rider Technical Assistance		
Phone calls	50	50
Visits	20	20
FAQ	4	4
3rd Party Inspection Support		
Recruit partners	30	30
Documentation Tools		
Total	**165**	**161**

In 2012 and 2013, the Company established a "Codes/Standards working group" that includes representatives from the EERMC, Rhode Island code commission and Northeast Energy Efficiency Partnerships. The mission of this working group is as follows:

- Provide oversight to the Codes/Standards Initiative at large

- Create a list of tracking and performance metrics for each of the code compliance activities above
- Review and provide feedback to the Company on energy savings estimates and attribution to the Company for its code compliance effort.
- Establish a methodology for attribution rate for subsequent years

Projected Energy Savings: The Company will continue to claim savings based on a deemed value of savings as was proposed in 2013. However, the 2014 deemed values will be based on a much more refined savings methodology that is currently being vetted by the Codes and Standards Working Group, and the Company's evaluation contractor. The Code Compliance Enhancement initiative has two distinct energy savings estimates, one each for commercial and residential buildings. The savings estimates that are currently being analyzed are based on projected savings for the entire state in the next three years (a time range estimated to bring about compliance rate of 90% for RI building stock), with cumulative savings every year that started with 2013. The new code, IECC 2012, is planned for adoption and enforcement in October 2013. The expectation is that project savings for this code cycle will be realized in the following 3 years (2014 to 2016), as projects seek building permits under the current code. The savings for 2013 reflected the following: a small percentage of buildings that fall under the new code, development of infrastructure (tools etc) to get the community ready for the new code and training and education to the enforcement and building community. Savings numbers for the 2014 year will be finalized by the end of 2013.

For this particular initiative, the gross savings are defined as the savings realized from an expected increase in the compliance rate with appropriate building code requirements -- resulting in more energy efficient buildings. The baseline is set utilizing the results of the aforementioned Rhode Island code compliance studies (residential and commercial separately). The potential gross savings are, therefore, the gap between the energy consumption at the baseline compliance rate and consumption at a target maximum compliance rate (i.e. 90%); and assumes that the compliance rate for the buildings built over the period of the initiative will increase over time.

Attribution to Utility Effort: Upon the calculation of the gross savings, the next step is to determine how much of the savings achieved through the initiative can be attributed to the actions and efforts of the Company (i.e., excluding other factors such as normally occurring market transformation and efforts carried out by the state of Rhode Island independent of the Company's support). Agreeing to a reasonable pre-determined attribution factor provides the Company with an indication of how much value its code compliance efforts will yield. For the period of 2013, the Company proposed an attribution rate of 40% supported by a set of self-met conditions. For 2014, the working group is working towards re-calibrating and adjusting current savings and attribution rates, supported by analysis and methodology.

Future Evaluation: Although the Company has developed the rough estimates of the potential savings from the Code compliance Enhancement Initiative, qualitative as well as quantitative research will be planned in 2015 and 2016 to evaluate both the efforts and results of the Initiative. For energy code compliance, the compliance rate after the two years of the initiative

will be measured using the same techniques that were used in the baseline compliance study, using the best available information and data.

4. Office of the Future (OTF)

The Office of the Future (OTF)'s soft launch in 2012 and 2013 was designed as real-market, concept testing of the OTF initiative with a small select group of customers. The OTF is being designed to enable commercial office space owners to utilize it to enhance their tenant improvement offering and will incorporate the latest, economically energy saving lighting technologies to gain competitive advantage for these customers over their peers. In 2012 and 2013, the OTF team identified eight test sites in Massachusetts to determine characteristics of an OTF design, energy savings and incremental costs of advanced lighting elements for such Tenant Improvement space, and then accordingly designed an incentive offering based on the analysis of this soft launch. The focus of this initiative is on lighting and lighting controls, with the hope that in future years, it will expand to HVAC and plug loads.

By end of 2013, based on design analysis from the test sites, the Company will develop technical guidelines for lighting and lighting controls, an incentive structure to owners to support the cost of this high performance design, and an incentive for lighting designers to meet OTF requirements. The technical guidelines will include eligibility based on square footage, type of office area, optimum installed LPD and automated controls requirements.

Starting in the first quarter of 2014, this OTF package will be offered to tenant improvement office spaces in Rhode Island who are willing to invest in high performance lighting measures within their office spaces. The Company may begin this initiative by hand selecting the customers where it believes the OTF package may be best applied. In subsequent years, a dedicated market sector approach for tenant improvement spaces may be considered within the energy efficiency program offerings.

5. Zero Net Energy Pilot

The focus of this pilot in 2014 will primarily be research and development (R&D) needed to define the parameters of a commercial Zero Net Energy (ZNE) building. This will be followed by identifying a mechanism to support ZNE buildings through the energy efficiency programs. By 2015, the Company may identify a test site that could be used to demonstrate the features of a ZNE building as defined by the R&D work in 2014 .This is another example of the Company gearing towards planning for the next generation of building stock.

Typically, ZNE is defined as the amount of energy provided by on-site renewable energy sources which is equal to the amount of energy used by the building. The zero-energy concept allows for a wide range of approaches due to the many options for producing and conserving energy combined with the many ways of measuring energy. The balancing period is often assumed to be one year, suitable to cover all types of energy being used.

Initially, this pilot will focus on ZNE elements that achieve maximum energy efficiency and load reduction by leveraging advanced design, construction and building operations before the addition of on-site renewable energy generation, such as solar PV. For example, in addition to the Company's current incentive offerings, the Company will consider additional features like plug loads, day-lighting and passive techniques to add to the mix of measures. At a later stage, the research may expand to ways of incorporating renewable energy within the framework of state energy efficiency programs.

The following steps may be taken by the Company during the course of this Pilot effort:

- ZNE team formation
- Research what other utilities/programs/think tanks are doing regarding ZNE
- Identify a test site/sites
- Define ZNE parameters
- Measure energy savings
- Financial viability, development of financial tools
- Regulatory issues
- Commercial viability of ZNE

Large Commercial Retrofit Program

The Large Commercial Retrofit Program serves the needs of existing buildings in their pursuit of energy efficiency. This is often done by installing controls to existing equipment or by replacing components of existing systems, such as lighting.

Pathways to Meet Program Requirements

As with the Large Commercial and Industrial New Construction Program, two paths (prescriptive and custom) are available to customers and are described below.

Prescriptive Path

Prescriptive incentives are available for the Large Commercial Retrofit Program for some of the more commonly installed applications. Standard incentive levels are offered. During 2014, for prescriptive commercial gas measures that fall under the Large C&I Retrofit Program, as is true of the prescriptive commercial gas measures that fall under the Large C&I New Construction Program, an on-line application process will be added. For more detail on this process, refer to the "Prescriptive Path" previously described under the New Construction Program. In addition, for prescriptive electric measures that fall under the Retrofit Program, we will explore offering on-line incentive applications in 2014.

Pre-Rinse Spray Valve: The pre-rinse spray valve is an ideal low cost, easy to install measure that fits nicely into the Large Commercial Retrofit Program. Customers can participate by either purchasing their own high efficient spray-valve and applying for a $25 incentive, or the more popular route, which is to receive a spray-valve installation in conjunction with one of the Company's programs or initiatives. Pre-rinse spray valves are installed as part of an energy audit, the Small Business Direct Install Program, and beginning in 2012, as part of a specifically targeted measure used to achieve large quantities of cost effective savings. The pre-rinse spray valve can open doors for further program participation including many other energy efficient measures, both electric and gas.

Gas Heating Controls: In addition to offering single and multi-stage boiler outdoor temperature reset controls and 7 day programmable thermostats, the Company will research the possibility of offering Wi-Fi controlled thermostats as a prescriptive offering in 2014.

Prescriptive Motor Incentive: Customers will continue to be eligible for motor incentives as part of the Retrofit VFD/Motor combination. However, the MotorUp offering ended in 2011 as a result of the Energy Independence and Security Act of 2007 (EISA).

Steam Traps: Steam trap replacement incentives will be offered both as a prescriptive and custom measure in 2014. Prescriptive incentives will be available for up to 70 steam traps per customer. Customers interested in replacing up to 70 steam traps are welcome to participate in a cost shared steam trap survey. If the customer is planning to replace more than 70 steam

traps, the steam trap survey will be required before participation in the custom incentive takes place. This survey identifies all traps and steam system improvements at the customer site. The customer is eligible to have 50% of the cost shared with the Company, initially. If the customer commits to replacing at least 50% of the identified measures from the survey, they will receive up to 100% of survey costs.

Either in conjunction with or upon completion of the steam trap assessment, National Grid's Technical staff will recommend a contractor who specializes in assessing the operations of natural gas boilers and associated combustion controls be brought in to the customer's facility to ensure the heating system is operating as efficiently as possible. This might be in the form of an additional TA study.

Energy Management System (EMS): In 2014, the Company will continue promoting the installation and expansion of Energy Management Systems (EMS) in the Large Commercial Retrofit Program. EMS systems enable energy conserving strategies for HVAC equipment including 7-day scheduling, optimal start/stop, night setback, DDC temperature control, chilled water reset, hotel room occupancy controls and enthalpy economizer.

An EMS System can reduce electric and natural gas usage. In addition to the energy savings resulting from the system controlling equipment by a previously programmed schedule, maintenance costs are also reduced. This is both a prescriptive as well as a custom express measure.

Custom Path

Custom incentives to drive the purchase of high performance equipment and systems are available for this program for projects outside the scope of standard prescriptive equipment. These incentives are designed to cover up to 50% of the total project cost to move to premium efficiency projects including labor and equipment. To enable larger and more comprehensive energy efficiency projects to be incentivized, there is no longer a requirement that the simple payback be one year or greater. However, the simple payback must be less than or equal to the measure life of the equipment. In the past, cost-effectiveness screening was done at a measure level. However, going forward, cost screening will be done at the project level, not the measure level. That will enable bundling more measures together in a meaningful project for customers. There is also no longer a dollar per unit maximum for incentives. However, approval for incentives needs to be made at the appropriate management level, based on the incentive level. Incentives may not be applied toward normal maintenance costs and must offset existing or potential energy usage. Project caps may be imposed based on budgetary constraints.

Some custom measures which will receive specialized marketing attention in 2014 include combustion controls and ozone laundry. The marketing materials/handouts that will be used to market our programs will provide descriptions of these specific technologies, depending on the market sector.

The ability to negotiate custom incentive levels and TA costs for some of the largest customers will also be available for the Large Commercial Retrofit Program. Refer to 'incentives through negotiations' under the previous section "Large New Construction Program".

Custom Express Tool

As with the New Construction Projects, the 'custom express tool' is also available for retrofit projects. In most cases, the equipment that is included as part of the Custom Express tool will most likely fall under the Commercial Retrofit Program.

As part of an effort to keep the program as simple as possible, while providing benefits to customers in a more timely fashion, a hybrid between the prescriptive and custom incentives has been developed. The Custom Express tool is used when there is reason to require more analysis than just taking an average savings as is done with prescriptive deemed savings measures. One example of that is if the measure has not been common in the program to establish a prescriptive incentive, or if there is enough variability in installations where more information is needed to determine the savings. As an alternative to the standard custom incentive, the Custom Express Tool is less time consuming. This results in the customer receiving an incentive on a timely basis.

Some examples of Custom Express measures for the Large Commercial Retrofit Program include:

- ECM Motors
- Steam Traps
- Compressed Air Leak Survey
- Low Pressure Filter Drop for HVAC Unit Filters
- Kitchen Hood Controls
- Refrigerated Case Covers
- Ultrasonic Humidification
- Combustion Controls for Natural Gas Heating Systems
- Distribution Transformer Tool
- ERV Tool
- RTU Optimizer Controls
- EMS Systems

Retro-commissioning

Retro-commissioning is a process of testing, troubleshooting, and adjusting the heating, ventilating and air conditioning (HVAC) systems and controls in an existing building with a goal of raising the existing performance standards. The retro-commissioning process can significantly reduce energy consumption with little capital investment. Oftentimes the retro-commissioning costs can be paid back through improved system performance, reduced energy costs, and improved occupant comfort.

Incentives will be offered to encourage customers to implement the operations and maintenance (O&M) measures that are cost effective. Retro-commissioning projects also identify capital improvement measures which can receive incentives through our standard prescriptive or custom project approach.

Building Operator Certification Training

In 2014, the Company plans to support Building Operator Certification (BOC) training by holding at least three BOC classes in Rhode Island and Massachusetts. The course provides a core foundation across the various building systems and maintenance practices of a typical commercial building. In addition to the knowledge gained by listening to the instructors and completing both in classroom as well as out of classroom projects, the participants benefit from networking and learning from each others' experiences with building maintenance and energy efficiency. During one of the first classes of the Level I course, a portion of the class includes a presentation of the Company's energy efficiency programs for C&I customers.

In 2014, Levels I and II will be offered, as well as a four-part webinar held four times a year on energy efficient building operation practice. Students can earn continuing education hours by attending the webinars. Both electric and gas energy savings will be claimed by the Company for each Rhode Island National Grid customer that participates in the program. These savings are based on documented studies.

Operations and Maintenance Pilot

Proper Operations and Maintenance targeted at energy efficiency in facilities, especially schools, can save 5%-20% on a facility's energy bills. These savings can total up to hundreds of thousands dollars annually, and many improvements to existing energy usage can be achieved at no to little cost.

This pilot will focus on identification and implementation of low-cost, no-cost operations and maintenance related measures within a total of 45 to 50 buildings in the Company's New England footprint. Specifically in Rhode Island, the Company is in the process of selecting three vendors who will be allocated a certain number of buildings to work with by the first quarter of 2014. These vendors will be responsible for identifying the O&M measures, project management and implementation of these measures for the selected customers. Buildings ranging from 300 to 750 kW in peak demand will be selected in the last quarter of 2013, so that the pilot can begin in the first quarter of 2014.

School buildings (municipal and/or non municipal) and office buildings were considered a perfect target for this pilot. Incentives for these measures will be based on the Company's "Pay for Performance" package which offers $0.075/kWh and $0.75/therm savings. O&M measures that have a payback period of less than 1.5 years will be eligible for these incentives. The pilot is expected to address 5%-10% savings per measure (mainly HVAC and lighting related) through the implementation of the O&M measures.

In addition, the vendors will also engage these customers in education of O&M procedures so as to provide guidance to facility managers to maintain procedures that ensure the continued operation of facilities thereby leading to utility bill reduction and less maintenance costs. This is in addition to the Building Operator Certification (BOC) trainings that the Company currently offers to all C/I customers in Rhode Island (see section above on BOC).

Strategic Energy Management Planning (SEMP)

Strategic Energy Management Planning (SEMP) Initiative is available to our largest C&I customers who have the potential to go deeper with energy efficiency, and who have a level of in-house sophistication to make organizational changes to plan for multi-year energy planning. A Memorandum of Understanding (MOU) offers a way to document a commitment between the customer and the Company to work together to achieve mutually stated goals through specific actions that are tailored to the customer's facilities over a multi-year planning horizon. As such, an MOU (though non-binding in this case) can set the stage for achieving deeper and more comprehensive energy efficiency savings, and is more likely to succeed than a "one measure" or "one year" approach. Typically, MOUs include participation and a commitment by upper management, the establishment of specific, very aggressive energy efficiency saving targets, and measurement and verification strategies to document savings throughout the target facilities. This offering goes much beyond energy efficiency, and into a much broader sustainability and branding support to the customer. For example, this includes the Company's support (technical, financial or both) for sustainable transportation, water saving strategies, behavior impacts, education etc.

In 2012, the Company established multiyear MOU agreements with two universities. Since the beginning of 2013, the Company has been working with an additional university and the Lifespan hospitals group comprising of Rhode Island's five largest hospitals. The Company is slated to sign an MOU with these two additional customers either towards the end of 2013 or at the beginning of 2014. In 2014, the Company will continue to serve all the existing SEMP customers who have signed up since 2012. In addition, the Company will work towards identifying at least one industrial customer to sign up for the SEMP initiative.

The SEMP has the following features:

- Lays out specific multi-year energy savings goals, based on a blend of the customer's financial criteria (like life-cycle cost, hurdle rate, Net Present Value, Return on Investment etc)
- Pre-determined financial incentives package for signed customers
- Additional assistance based on customer needs like O&M trainings, marketing/case studies, coordination with other building labeling program etc
- Establishes a road map with the customer that has a robust financial model and guidelines for technical and operational aspects of facilities related to energy so as to guide the customer towards a long-term strategic planning of their portfolio of projects

Community Based Initiative - C&I

National Grid is planning to utilize its relationships with large C&I customers for broader customer engagement. By engaging customers where they live and work, National Grid can help foster energy innovation, reduce costs and encourage greater local economic growth. This can be accomplished through employee engagement and/or surrounding community engagement.

National Grid will work with our large C&I customers to plan an "Energy Awareness Day" at their place of work. Expanding on this theme at an "Employee Appreciation" event, National Grid will set up a booth at the company's location and offer free home energy assessments, literature on National Grid's home energy residential programs and other services. Employees will become more energy conscious while learning about the benefits of achieving energy savings. They will in turn bring that knowledge back to the communities in which they live to share with their families, neighbors and friends.

Another opportunity to work with large C&I customers relates to community events. National Grid can partner with large C&I customers to engage their immediate surrounding communities where they have major facilities. Similar to the employee events described above, the community events will seek to engage surrounding residents and small businesses regarding opportunities to conserve energy. Some of the residents may also be employees, but it would not be an employee-focused event.

Combined Heat and Power

A combined heat and power (CHP) facility is "equipment used to produce electric energy and forms of useful thermal energy (such as heat or steam), used for industrial, commercial, heating, or cooling purposes, through the sequential use of energy."[1]

On June 21, 2012, an amendment to the Least Cost Procurement Statute, R.I.G.L. §39-1-27.7, to support the installation and investment in clean and efficient CHP was signed into law.[2] The CHP provision requires the Company to document this support annually in its energy efficiency program plan by including a plan for identifying and recruiting qualified CHP projects, incentive levels, contract terms and guidelines, and achievable megawatt targets.[3] In addition, the law requires that the following criteria be factored into the Company's CHP plan: (i) economic development benefits in Rhode Island; (ii) energy and cost savings for customers; (iii) energy supply costs; (iv) greenhouse gas emissions standards and air quality benefits; and (v) system reliability benefits.[4]

[1] CFR Title 18, Part 292, Sub-Part A, 292.101 – Definitions
[2] See R.I.G.L. § 39-1-27.7(c) (6) (ii) through (iv); For the legislative history, see P.L. 2012, Ch. 363, S2792 Sub A (Enacted June 21, 2012).
[3] See R.I.G.L. § 39-1-27.7(c) (6) (iii).
[4] See Id.

For 2014, the Company will continue to offer a Combined Heat and Power (CHP) incentive. In 2014, the Company's emphasis will be on increasing the support for qualifying efficient CHP projects through the energy efficiency programs, as intended by the legislation. The 2008 Combined Heat and Power Opportunities Report estimated that there is potential for 200 to 330 cost-effective MW of CHP in Rhode Island.[5] Because of the high capital cost and technical requirements of installing CHP, there is a very long lead time for a successful installation. With small numbers of projects and wide ranges of possible project sizes, the Company anticipates substantial variability in MW realized in any given year. The Company believes that a project target may be more appropriate than an annual kW target, as the capacity of the systems will depend on customer interest in any given year. For 2014, the Company has set a goal of two installations[6] in Rhode Island and commitment to at least two additional projects for future years.

To qualify for a CHP energy efficiency incentive, the proposed project must meet the following conditions:

- Host customers must be in the franchise service area of the Company.
- Proposed systems must either be (i) thermal leading and sized so the recoverable heat can be used to offset other facility thermal loads and generate electricity as a by-product, or (ii) using waste energy or waste heat to generate electricity.
- The overall minimum total system efficiency of the proposed CHP units must be 55% or greater[7]. System efficiency is calculated as Annual Useful Energy/Annual Gas Input where
    - Annual useful energy = Annual kWh*3,413/100,000 + utilized thermal output (therms)
    - Annual gas input CHP gas input in therms (HHV)
- The equipment to generate electricity may be an internal combustion engine, gas turbine engine, steam turbine, back pressure turbine, or fuel cell and the facility will capture waste heat for use in the facility; waste to energy systems will also qualify.

The Company will undertake the following steps to support qualified CHP projects.

Identification and Recruitment of Qualified CHP Projects

The Company currently works with vendors and customers to identify CHP opportunities at customer locations. The Company promotes CHP systems and outlines the process for

[5] "Opportunity Report – Phase I," Rhode Island Energy Efficiency and Resources Management Council (EERMC), July 15, 2008

[6] The Toray CHP project, with a nameplate of 12 MW is expected to be installed and commissioned in 2014

[7] The RI DEM's Air Quality Regulations (http://www.dem.ri.gov/pubs/regs/regs/air/air43_12.pdf; Page 11) set a minimum system design efficiency of 55% for CHP to be eligible to apply for Emission Credits. As noted in the Incentive Levels section below, a higher energy efficiency incentive is available for systems with efficiencies of 60% or greater.

qualification and implementation of CHP facilities through the Company's energy efficiency programs. In addition, based on feedback from the successful CHP Public Meeting conducted by the EERMC on September 17, 2013, the Company will consider pre-qualifying or otherwise cooperating vendors that demonstrate consistent ability to meet the Company's study requirements. The Company will continue to communicate criteria for CHP assessment and communicate it to vendors so that their presentations to customers will be more consistent with Company technical assistance requirements.

Scoping Study/Qualification

The Company will offer technical assistance on CHP projects beginning with a preliminary scoping of a potential site. This scoping will be based on an evaluation of:

- Monthly (or hourly, where available) electric, gas, and other fuel usage
- All site-specific forms of thermal energy end uses
- Coincidence of electric and thermal loads
- Proposed project cost

This scoping will determine if further study of the site appears favorable, i.e., provides CHP operating hours and load factors that would be an appropriate application of CHP.

Technical Assistance Study

Assuming a favorable screening, National Grid will co-fund a TA study of CHP with the customer. The TA study will be performed by an independent, qualified engineering firm. This study is to measure thermal loads, appropriate CHP size, compile a budget cost estimate, and identify potential barriers to the technology, etc. National Grid will fund 50% of the cost of any TA study conducted by a preferred vendor selected by the Company, and up to 50% of the TA for other qualifying independent engineering firms. Any TA study by a CHP vendor or its representative which fulfills the CHP TA requirements may be accepted, though no co-funding will be provided. The TA study must be completed, submitted, and approved by the Company prior to implementation.

The TA study must include an assessment of the likely on-peak kW reduction from the facility given its nameplate rating, the net facility output, projected availability based on anticipated site-specific operating characteristics, and performance data on other similar units. (On-peak kW reduction = Net Output x Availability x % Loaded.) This kW load reduction should be used in the benefit-cost screening.

All TA studies should include not just an analysis of the CHP system, but also an analysis of thermal and electric energy efficiency opportunities. These opportunities themselves will be eligible for energy efficiency incentives and will help make sure that the CHP facility is correctly sized for the facility's needs and avoid creating a disincentive for future load reduction at the site. As indicated below, a larger incentive is available for CHP projects that include the implementation of energy efficiency measures at the host facility.

Benefit Cost Screening

The project must pass the Rhode Island TRC benefit cost test (BCR model > 1), a screening process internal to National Grid, similar to other energy efficiency projects, subject to the modifications discussed below. The Company believes CHP is an important initiative that provides significant efficiency and environmental benefits. However, it is important to note that CHP projects do not produce the same level of deferred distribution investment savings as traditional energy efficiency.[8] As a result, these projects, particularly larger CHP projects, may not be able to pass the traditional benefit cost test. Nonetheless, R.I.G.L. §39-1-27.7(c) (6) (iii) directs the Company to support the development of CHP and to consider other criteria for evaluating CHP projects. Accordingly, the Company is proposing modifications to the quantification of benefits for CHP projects within the TRC test in order to facilitate the development of these projects, and that takes into account the statutory criteria as follows[9,10]:

- For CHP systems of less than 1 MW net capacity, the distribution deferral benefit value estimated by the Company based on system wide averages will be multiplied by 0.75 to incorporate an estimate of the reliability experience of discrete deployment of CHP units compared with end-use reduction efficiency measures which are spread across the state;[11]
- For CHP systems equal to or greater than 1 MW net capacity, the distribution benefit will consider location-specific distribution benefits, as opposed to average system-wide benefits. The results of this analysis will replace the adjusted 0.75 of average system-wide distribution benefit described for CHP projects of less than 1 MW. This may entail a detailed engineering analysis performed by the Company, and additional cost. This consideration will have two parts: 1) identification of foreseeable investments that the

[8] With traditional energy efficiency projects, the installed measures permanently reduce load on the electric distribution system and, therefore, reduce the need to make distribution investments. CHP projects may not result in similar deferred distribution investment savings. A CHP unit may not be available at all peak times, and, absent any contractual or mechanical modification to ensure that the load does not reappear, the Company will still need to design and maintain the distribution system for when that unit goes off line during a peak hour on a peak day. This is particularly significant with larger CHP projects, in which a single host customer represents a significant percentage of the total load on a feeder. With multiple smaller units, some level of savings is possible, but these units are still not likely to produce distribution benefits in the same manner as traditional energy efficiency.

[9] The air quality benefit and economic development benefit proposed for CHP systems are supplements to the benefits described for the Total Resource Cost benefit-cost test approved by the Commission in Dockets 3931 and 4202.

[10] In the written order approving the CHP incentive for Toray Plastics in Docket 4397, Commissioner Roberti concurred and raised several questions about the application of the TRC test for CHP projects and the value of the economic benefit described below. The parties believe that the triennial review of the Standards due in 2014 is an appropriate time to take up these issues fully. In addition, the parties have reviewed and updated the economic benefit index for 2014 and the Company has included an updated assessment of the economic benefit in its evaluation plan.

[11] As explained in footnote 9, *supra*, while multiple small CHP units may produce some level of savings, these units are still not likely to produce distribution benefits in the same manner as traditional energy efficiency. Therefore, the 0.75 factor is adopted as a planning assumption to represent the contingency that, when a single CHP unit on a feeder fails to perform, the load reappears on the system. As more CHP units, particularly smaller units, are deployed in the state, the diversity of operation may allow the adjustment factor to be increased. The Company intends to review this planning assumption based on actual experience for future EE Program Plan filings.

CHP installation could potentially help defer, and their value; and 2) whether the unit will be sufficiently reliable, or firmed through the provision of physical assurance by the customer, to enable such savings to be realized;

- For all CHP projects, greenhouse gas mitigation and air quality benefits will be counted as benefits to the extent they are not already captured in the BCR screening values. The environmental/emissions related health costs and benefits will be estimated using methods that are accepted nationally, such as the Co-benefits Risk Assessment (COBRA) Screening Model presented by the U.S. EPA for such purposes. The following table, updated for this plan, illustrates the benefits on a per ton basis resulting from the mitigation of several pollutants by Rhode Island county;

Statewide Health Benefits from One Ton Reduction of Each Pollutant in Indicated County

County	Pollutant				
	VOC	NH3	NOx	SO2	PM
Bristol	$169	$26,211	$0	$10,619	$61,638
Kent	$1,991	$245,623	$0	$25,601	$235,160
Newport	$404	$63,165	$0	$10,832	$103,259
Providence	$5,340	$238,033	$0	$28,457	$233,166
Washington	$514	$80,832	$0	$10,294	$103,615

Value from mitigation of CO2 under enacted legislation in Rhode Island is already embedded in avoided energy costs in benefit-cost analysis.

- For all CHP projects, net economic development benefits will be counted as benefits. The rate of economic development benefit will be $2.51 of lifetime gross state product increase per dollar of program investment, based on updated outputs of the report, "Energy Efficiency in Rhode Island: Engine of Economic Growth," prepared by Environment Northeast in October 2009, using recent energy and investment values[12]; and

- For CHP projects greater of 1 net MW or greater, gas system benefits not paid out as incentives to the Customer via the AGT incentive or gas service contract terms will be counted as benefits.[13]

The Company believes that there are important policy considerations for screening all CHP projects in this manner. Making these modifications to the quantification of benefits for CHP

[12] "Energy Efficiency in Rhode Island: Engine of Economic Growth," prepared by Environment Northeast, October 2009. The multiplier cited is an approximation adapted from the energy efficiency multiplier presented in the report to account for differences between CHP and standard energy efficiency as well as the decreases in energy prices since the ENE report was conducted. The report does not differentiate between job creation and job retention benefits. The Company will attempt to assess whether these benefits can be disaggregated for the purposes of inclusion in the benefit cost test.

[13] For example, a 3 MW installation with an additional sales volume of approximately 150,000 Dth per year would generate approximately $130,000 of marginal revenue per year under current rates. Assuming $100,000 of capital costs, the project could qualify for up to $573,000 in AGT funding, subject to budget limitations.

projects will facilitate the development of CHP projects in Rhode Island that is consistent with the legislature's intent to install and invest in clean and efficient CHP.

The CHP system costs must include: the cost of all fuels; system, auxiliary, and interconnection costs; and CHP maintenance. If the system is receiving a tax credit, it will be treated as a credit against the cost of the CHP project.

Incentive Levels

If a project has been shown to be cost effective, it will be eligible for an incentive. Incentives will be determined following cost effectiveness screening in consultation with National Grid personnel. The following rules will apply to all CHP projects (regardless of size) in the determination of the incentive. However, the amount of incentive the Company is willing to offer and commit to the customer could depend upon the amount of funds that are budgeted or remaining in the budget of the energy efficiency program.

- For cost effective CHP projects, the target energy efficiency installation incentive ("installation incentive") in 2014 is $900 per net kW, where net is nameplate kW output minus CHP auxiliary kW. For CHP projects with efficiencies of 60% or greater, the target installation incentive in 2014 is $1,000 per net kW.
- For cost effective CHP projects where the host customer also commits to implementing energy efficiency measures representing at least 5% of site energy use or the maximum load reduction identified by a TA Study, whichever is less,[14] the maximum installation incentive in 2014 is up to $1,125 per net kW, and the CHP sizing must incorporate the load reduction. For CHP projects with efficiencies of 60% or greater and that have similar energy efficiency participation, the maximum installation incentive in 2014 is up to $1,250 per net kW. A customer may be treated as having made this commitment to energy efficiency if it has made investments to achieve similar load reductions through energy efficiency within the previous five years.
- All CHP projects are also eligible to receive other incentives, such as the Advanced Gas Technology (AGT) incentive, subject to the incentive package cap described below.
- CHP facilities greater than 1 net MW may be offered an additional performance incentive, as further provided in the section entitled "Special Considerations for Large CHP Systems," below.
- The CHP incentive package cap from the Company will be 70% of the total project cost inclusive of the installation incentive, incentives related to gas service, present value of

[14] If CHP facility sizing is determined by electric load (or not constrained by either electric or thermal load), the requirement will be 5% of electric usage; if the facility sizing is determined by thermal load, the requirement will be 5% of thermal energy usage. The energy efficiency measures will themselves be eligible for incentives, and are not part of the CHP incentive package cap described below.

any performance incentive, system reliability procurement incentive, and any other incentives related to the transaction.

- Retainage of 20% of the energy efficiency incentive payment will be held until commissioning is completed.

Other Contract Terms and Guidelines

In order to ensure proper operation of the CHP facility and persistence of energy savings, the following terms and guidelines will be required:

- Minimum requirements document. As part of the TA study, a minimum requirements document ("MRD") will be developed. This MRD will contain engineering hardware and operational specifications that directly affect the savings estimates developed in the TA study. Compliance with the MRD will be necessary to receive rebate payments.
- All systems will require electric, thermal and gas metering for commissioning and monitoring of system efficiencies. Metering hardware and data collection services may be provided at little or no cost to the customer.
- The project must be commissioned. Commissioning is a process following installation whereby a third party verifies that the project is installed and operating as detailed in the TA study and MRD.
- The customer must sign and produce a contract for O&M services for a period of years through the first planned major overhaul of the CHP unit. On-going O&M contracts for a minimum of ten (10) years from project commissioning are recommended.
- The customer must apply for interconnection service as soon as practical and not operate the unit until they receive the authorization to interconnect from the Company. While there may be site-specific interconnection considerations for particular projects, please see the attached link for information on interconnection: http://www.nationalgridus.com/narragansett/business/energyeff/4_interconnect.asp.
- As noted in the EE Program Plan, kW-demand savings achieved via the electric energy efficiency programs, including CHP, will continue to be reported by the Company to ISO-NE as Other Demand Resources ("ODR") and the revenue generated will be used to fund future energy efficiency projects through the Company's programs.

Delivery Service Tariffs Applicable to CHP Installations

Customers receiving an incentive payment for installation of CHP will be billed for delivery service charges on the appropriate general service tariff. The Company's general service tariffs, Rates G-02, G-32 and G-62, include a CHP Minimum Demand Provision that requires CHP installations that receive an energy efficiency incentive pursuant to this Plan to pay the greater of (i) the customer's distribution demand and energy charges under the provision of the applicable general service tariff; or (ii) a minimum charge. The minimum charge is 50% of the distribution demand charges applied to the customer's maximum generation during peak hours plus delivered load charges and monthly customer charge. Note that the Company's general service tariffs contain a "demand ratchet" provision such that the customer's monthly demand

charge billing is based upon the greater of the customer's demand in the current month or 75% of the customer's maximum demand in the preceding 11 months. Therefore, if the CHP unit were to go off line during peak hours in any billing period, the general rates would require the customer to pay the full demand charge for that month based on the metered level of service, and then 75% of that amount for the next 11 months. This rate treatment is designed to mitigate the cross-subsidies from other customers in the same rate class.[15] The Company believes it is very important to assure that a customer who is receiving incentives through the energy efficiency program continues to pay a fair share of the costs of the distribution system upon which the customer will continue to rely when the CHP unit is off-line.

At the request of customers, to allow for planned maintenance, National Grid will work with customers to develop a scheduled maintenance plan. The "demand ratchet" provisions described above will not be enforced for an annual planned maintenance period that is no longer than five consecutive weekdays and that is scheduled for shoulder months of April, May, October, or November. Performance against scheduled maintenance activities will begin once the CHP system has been successfully commissioned and interconnected and all contractual and performance obligations between the CHP system owner and construction firm have been fulfilled.

Special Considerations for Large CHP Projects

A project that is greater than 1 MW of net nameplate capacity shall be defined as a "Large CHP Project" and may be eligible for special considerations that support the development of CHP, while accounting for its unique characteristics.

Qualification:

[15] When a CHP project is installed, the host customer typically enjoys a significant reduction in distribution charges, based on the Company's current back up rate tariffs, which are substantially discounted. However, the costs of providing service to the customer, including maintaining the distribution infrastructure required to serve that customer, remains the same because the CHP unit will not be available at all times, and yet the Company still has a responsibility to maintain sufficient capacity on the system to serve the customer if the unit goes off line during system peak. Thus, the investment needs in the Company's distribution system, and resulting revenue requirement to serve a particular customer does not change absent a firm reduction in load by the customer.

The reduction in distribution payments made by the host customer is ultimately assumed by other customers in the same rate class following the next general rate case. In the case of a large CHP installation greater than 1 MW, this impact would be a material increase in rates for other customers. For example, consider a customer in the G-62 rate class that installs 3 MW of CHP generation. As a result, the customer reduces its annual distribution charges by approximately $96,000 under the current back-up rate, or 1.5 percent of the revenue needed to serve the G-62 class. Since the total cost to serve the G-62 class does not change, the other customers in that class would eventually see an increase of approximately 1.5% in their distribution rates to compensate for the lost revenue contribution of the CHP host customer. Each 3 MW unit would have a similar impact, resulting is an inequitable cross-subsidization by other customers in the same rate class, as the customer saving on distribution costs still requires services and infrastructure in order to serve their needs.

The cost of the project will be reviewed by a design/build or general contractor experienced with CHP projects and revised as necessary.

Incentive and additional terms and conditions:

If a Large CHP Project passes the benefit cost test discussed above, the appropriate incentive will be determined, based on the guidelines for all CHP projects set forth in the section entitled "Incentive Levels," above.

An additional performance-based energy efficiency incentive, capped at $20/kW-year ($1.66/kW-month) for a period of up to ten years, will be offered as part of the incentive package for any project greater than 1 net MW. No payments will be made until the unit is in operation and provides demonstrated load reduction, and will be made semi-annually based on actual metered load reduction. Load reduction performance will be based on a comparison of the customer's metered demand prior to CHP installation to monthly metered demand after the installation averaged for the year.

Performance incentives will be subject to budget limitations and, in all cases, will be subject to the 70% total project cost cap applicable to all CHP projects set forth in the section entitled "Incentive Levels," above. The total incentive package will include any incentives related to gas service, and the present value of the above-described performance incentive. For example, a 3 MW CHP project with a system efficiency of 60% that costs $9 million to build could obtain a maximum incentive package of $6.3 million, but would only qualify for $3,750,000 or less of direct installation incentive, with the minimum 5% of other energy use reductions commitment. If the performance incentive and gas service incentive were valued at $800,000, the total incentive offered to this installation would be $4,550,000. This equates to a direct installation incentive of $1,250/kW, and a total incentive package of $1,516/kW.

The customer will have to repay a portion of the incentive to the Company if the project is abandoned, removed from the premises, sold, or otherwise no longer utilized as the primary source of heat and electricity by the customer, within 10 years from the date of final incentive payment authorization. The repayment will be the energy efficiency installation incentive times the number of years remaining until the required ten years of service divided by ten. Other incentives, such as any AGT incentives, may also have similar reclaim provisions.

<u>Options for CHP proposal that fails cost effectiveness testing</u>

If a CHP project does not pass the benefit-cost test, the Company will work with the customer to develop other solutions that may still support the CHP facility. Such other solutions may include one or all of the following:

- Re-analyzing the optimal size of the CHP unit, or the number of generators. A different sized CHP unit might provide better efficiencies and pass the benefit cost test
- Identifying other load reduction opportunities at the facility. Benefits can be garnered from load reduction in lieu of achieving that load reduction through CHP.

Small Business Direct Install Program

Overview

The Small Business Direct Install Program (DI Program) provides turnkey services to commercial and industrial customers with an average monthly demand of less than or equal to 200 kW.

There is no upper limit of gas consumption that disqualifies a customer from receiving the gas measures offered by the SMB/DI program.

The Company has delivered this DI Program for more than two decades through a local vendor ("Regional Program Administrator" or "RPA"), responsible for program management, data entry, and quality control. The RPA is located in Rhode Island, employing local staff, local electricians, and energy efficiency lighting materials procured through a competitive bid process. As of 2011, customers served by natural gas are also eligible for direct installation of natural gas EEMs.

Customers are provided turnkey services consisting of:

- Energy audit
- Direct installation of measures
- Company incentive contribution of 70% of the total project cost
- On-bill repayment (OBR) option for customers' 30% share of the project costs, either over 24 months at zero (0) percent interest or a lump sum payment with a 15% discount, resulting in most customers' projects having a positive cash flow when they choose the 24- month repayment option.

Since its inception when the DI Program focused primarily on lighting and refrigeration direct install measures, it has broadened its scope to include identifying:

- Cost-effective "custom" electric and gas measures, such as EMS systems
- Time dependent opportunities such as replacing roof top HVAC units and heating systems
- Participation in residential programs where the building owner may have both commercial and residential properties in the building

As has been noted previously, the Company is working with our engineers and technical assistance experts to try and move as many measures from custom to prescriptive or "custom express" as possible. This should encourage the vendor and the customer to apply these measures more frequently and help reduce the transactional costs for the program.

In addition to cost-effective custom and time dependent measures mentioned above, the DI Program offers incentives on the following measures:

- Installation of energy efficient fluorescent ballasts, lamps, and fixtures

- Hard-wired and screw-in compact fluorescent systems
- LED lamps and luminaires
- Occupancy sensors and controls
- Energy management systems
- Thermostats
- Insulation
- Hot water reset
- Low flow pre-rinse spray valves
- Refrigeration measures such as evaporator fan controls, efficient evaporator fan motors, automatic door closers and door heater control devices for walk-in coolers
- Boiler reset control (single stage)
- Pipe insulation

While the most common opportunities for energy efficiency in small business customers' facilities continue to be lighting and refrigeration, the DI comprehensive vendor will identify custom energy efficiency electric and gas measures such as energy management systems and install these measures in customers' facilities.

The Company will continue to pursue the "Main Street" approach as outlined in the 2012 Plan that targets towns where small business customers have historically been under-served. Specifically, the Company will:

- Identify towns that have been under-served based on analysis of overall program participation rates.

- Conduct a marketing campaign promoting the "Main Street" approach in which auditors will spend several days conducting audits and promoting the Small Business Program.

- Seek support from local organizations such as the Chamber of Commerce and local town officials in promoting the Company's energy efficiency program in two of these towns and then analyze participation rates to determine the impact of these efforts.

The SMB/DI Program will continue participating in the Community Initiative that began in 2010. This initiative which is explained in more detail in the Residential section of this report leverages local community organizations to promote energy efficiency, providing incentives for these leads.

Program Changes

Overall, the Company has a strong foundation of experience delivering this program, enabling it to meet program goals and to continue to develop and implement new products and services to these customers such as LEDs, refrigeration measures, and the previously mentioned on-bill repayment (OBR) option. The Company intends to build on these successes with the following program changes or increased focus:

As of January 1, 2013 Corporate National Accounts under 200 kW demand began being served under our National Accounts staff, as decisions on lighting layout and products are frequently decided on a regional or national level and not by store management. National Accounts franchises will qualify for the Small Business Direct Install Program if the sum of the accounts they own is less than 200 kW.

The Company issued three RFPs in Q1 of 2013 related to the Small Business Direct Install program -

1.) The first RFP was focused on selecting an RPA (turnkey vendor) who would be responsible for most, if not all, of the duties of the current RPA. The scope of work for the RPA will indicate the Company's interest in doing more custom type measures. This will include envelope measures that are now offered under Custom such as insulation and air sealing. The RPA may even be asked to help develop tools to more quickly evaluate custom measures.

2.) The second RFP was focused on a vendor that will responsible for the "Customer Directed Option" (CDO) portion of the current program.

The "Customer Directed Option" has been available for some time through the RPA serving Rhode Island. This option allowed customers to use their own electricians and material vendors. The RPA verified the audit, entered data into the workflow system, and that insured that the proposed product met the required technical guidelines. The number of customers participating in this fashion has increased each year. However, the Company feels that it is worth investigating whether or not a new vendor or specifically dedicated resources within the RPA selected could result in smoother experience and more savings for the program.

3.) The third RFP was focused on a vendor that will be responsible for the "Comprehensive Option" portion of the current program.

The "Comprehensive Option" has been available through the RPA serving Rhode Island. This option will be strictly focused on non-lighting measures such as EMS and variable speed drives.

Selections were made in Q3 2013. The selected vendors will be expected to be up and running by October 31, 2013. The Company reserves the right to select one vendor for both the turnkey and Customer Directed Option (with enhanced and dedicated resources) if this option yields the most savings, for both electric and gas, and is best for our customers.

The Company selected the time frame above to insure that the system and the current vendor delivers the greatest possible savings in 2014.

Integration of 2012 Innovations into 2014 Plan

In 2014, the Company will continue its support of the one innovation initiated in mid-2012 related to SMB/DI. The RPA will continue offering Energy Star listed LED lamps with installation at no cost in spaces and conditions that are appropriate. This concept is especially appropriate

for small retail locations, but may apply to other customers as well. It also helps to engage customers with newer technology, drives participation and achieves more program savings.

Small Business Behavioral Pilot

Starting in May 2014 the Company intends to pilot a behavioral treatment for small businesses. O-Power, our current residential behavioral vendor, will be National Grid's partner in this effort. It may include the following elements that have been successful in residential efforts such as –

1. Monthly or quarterly energy reports with peer comparison charts of similar businesses, quick start tips for saving energy immediately (electric and gas), and specific energy savings lists for things like refrigeration.
2. Stickers and posters for placement near energy consuming equipment with proper settings
3. Laminated posters with list of things to make sure are off before closing
4. Links to our current programs.

If this pilot should produce any savings, they will be calculated using home energy reports calculations consistent with the DOE and SEEARP's nationally established best practices for behavior measurement and verification.

Comprehensive Statewide Marketing Program

The 2013 Program Year was the third year in which the Company had an advertising campaign in the market to build awareness of, and amplify the individual program marketing efforts for, Rhode Island's Energy Efficiency Programs to aid in driving participation. Two advertising campaigns were used, one for Residential and the other for Small Business. Radio, print and cinema advertising were key awareness channels in 2013.

The Company also implemented pre/mid/post campaign awareness market research studies in 2013 (only mid to date) and compared them to 2012 and 2011. Results have shown that our new media buying strategy enabled us to achieve a higher awareness level more quickly versus a year ago, with radio being the primary driver.

The Company will continue to implement campaign awareness and copy test market research studies to gain additional customer insights which will continue to improve our communications in the market. The awareness and program marketing campaigns will also be fully integrated and tie-into National Grid's brand to provide a holistic approach and make the most effective use of our marketing dollars to deliver the Company's energy efficiency message to our customers.

ATTACHMENT 3

2014 Measurement and Verification Plan

In 2014, National Grid's Measurement and Verification Plan (M&V) will focus on evaluating Rhode Island specific sites and markets while leveraging as many resources as possible from studies in additional National Grid territories in order to keep costs low. Evaluation budgets are included in Attachment 4, Table E-2 and Attachment 5, Table G-2. The planned studies briefly described below focus on areas of interest to the Rhode Island programs, and build on the deep history of evaluation studies performed by the Company over many years. In order to optimize the use of evaluation resources, where programs are considered to be generally homogeneous with those offered in Massachusetts, the studies will be done in conjunction with the Company's Massachusetts retail affiliate.

A. New Studies Underway or Planned

Commercial and Industrial Custom – Refrigeration, Motor, and Other End Uses

The Custom Refrigeration, Motor, and Other end use study will involve impact evaluation of components of the Large Commercial and Industrial Retrofit and New Construction electric efficiency programs. The studies involve on-site engineering and end-use metering of a statistically drawn random sample of participants. This study will be performed jointly with Massachusetts program administrators. (This study is underway)

Commercial and Industrial – Upstream Lighting impact evaluation

The C&I Upstream Lighting study will involve impact evaluation of components of the Large Commercial and Industrial Retrofit and New Construction electric efficiency programs that are being delivered through upstream delivery channels. The studies involve on-site engineering and end-use metering of a statistically drawn random sample of participants. These studies are being performed jointly with Massachusetts program administrators.

Commercial and Industrial – Prescriptive Non-Lighting

The Company had been planning to study prescriptive energy management systems. In conjunction with Massachusetts, this study has been expanded to all prescriptive end uses, with the exception of lighting. This planned study will involve on-site engineering and end-use metering, and potentially building simulation, of a statistically drawn random sample of participants.

Single Family Low Income Impact Evaluation

This RI-specific impact evaluation of the Single Family Low Income Services program is in progress. It focuses on the electric and gas savings resulting from the participation of these dwellings in in-home retrofit of electrical components and weatherization of electric, gas, and fossil fuel heated homes. It involves using billing analysis and site surveys.

Residential HEHE Process and Impact Evaluation

This RI-specific evaluation will look at both the impacts and program administration of this natural gas program. It will focus primarily on the gas savings being realized by participants from measures that have been offered as well as the effectiveness of program delivery mechanisms.

Small Business Direct Install – Lighting impact evaluation

The Small Business Direct Install Lighting study will be a billing analysis of 2010-11 Program participation. This study is RI-specific and will yield an energy realization rate. For coincidence factors, the Company will continue to use values from the NEEP Evaluation, Measurement and Verification Forum.

Small Business Direct Install – Refrigeration impact evaluation

The Small Business Direct Install Refrigeration study is a study of savings and saving load shapes and is a metered based study of the impacts from refrigeration measures, chiefly in convenience stores. Rhode Island is participating in a regional study.

Residential Lighting Hours of Use

Rhode Island is participating in a regional study to monitor the hours of use of lighting in residences in various room types. This study is underway.

Commercial and Industrial Free Ridership and Spillover

Free ridership and spillover rates for the RI Energy Initiative, Design2000plus, and Small Business Services Programs will be assessed in a survey based study. This study will update the study completed in 2012.

Job Impacts Analysis

The Rhode Island Job Impacts will determine the business and jobs impact due to energy efficiency programs. The study will survey the Company, vendors, distributors, partners and market players to quantify the number of jobs and associated business impacts. The analysis will develop a framework for updating findings annually.

Residential Pilots-Process and Impact Evaluations

Studies will continue to evaluate the process and impacts from residential pilots currently in the field, including residential behavior and product pilots. The studies involve a combination of billing analysis, on-site measurement, and customer surveys. Evaluations are planned to begin as new products or pilots are launched.

B. Recently Completed Evaluation Studies

Recently completed studies that have informed 2014 planning are identified below, along with a brief summary of the impact of those results in planning the Company's 2014 programs. The results of these studies were incorporated into the benefit-cost modeling of the 2014 plan. Some of these studies may be regional, or may have included other National Grid jurisdictions. The 2014 EEPP is adopting the results of these studies because the Rhode Island programs are judged to be similar, either in the measures offered, or in terms of structure or program delivery. In these instances, the impact evaluations have been judged by National Grid to be applicable to Rhode Island.

2013	
Study	**Impact Descriptions**
KEMA, Inc., Impact Evaluation of 2011 Rhode Island Prescriptive Lighting Installations KEMA, Inc., Impact Evaluation of 2011 Rhode Island Custom Lighting Installations	The Custom and Prescriptive Lighting studies involved the impact evaluation of components of the Large Commercial and Industrial electric efficiency programs. The studies included on-site engineering and end-use metering of a statistically drawn random sample of participants. The custom portion of the study was coupled with the results of the 2013 Massachusetts Custom Lighting study.
Energy Efficiency Messaging, Residential Energy Efficiency Program Communications Focus Groups	The study analyzed customers' perceptions of energy efficiency programs and messaging materials via focus group testing.
Synapse Energy Economics, Avoided Energy Supply Costs in New England: 2013 Report	The biennial regional avoided cost study was updated in 2014 for use in program years 2014 and 2015. As with the past several studies, this study was sponsored by all of the gas and electric program administrators in New England, as the markets for electricity and natural gas are regional. .
New England Clean Energy Council Institute, Direct Full-Time Equivalent (FTE) Employment Supported by Energy Efficiency Programs in Rhode Island in 2012	The Rhode Island Job Impacts determined the business and jobs impact due to energy efficiency programs. The study surveyed the Company, vendors, distributors, partners and market players to quantify the number of jobs and associated business impacts. The analysis also provided a framework for updating findings annually.
KEMA, Inc., Impact Evaluation of 2011 Prescriptive Gas Measures	On-site monitoring and verification of installation provided updated impacts for four major prescriptive gas measures. Programs and measures are similar between National Grid affiliates in MA and RI, and results are applied to RI. The overall realization rate for the four measures was about 102% and the relative precision was about ±15%.
KEMA, Inc, and DMI, Inc., Impact Evaluation of 2011-2012 Prescriptive VSDs	This evaluation provided a new estimate of the impacts of prescriptive variable speed drives, based on pre-post metering of measures installed in 2011 and 2012. Programs and measures are similar between National Grid affiliates in MA and RI, and results are applied to RI. Key findings include an annual kWh realization rate was 94% with a relative precision of +/- 23%, and identification of factors that influenced the realization rate.

The Cadmus Group, Inc., 2012 Residential Heating, Water Heating, and Cooling Equipment Evaluation: Net-to-Gross, Market Effects, and Equipment Replacement Timing	The results of this study yielded updated net-to-gross factors and estimates of the timing of equipment replacement for residential heating and cooling measures. Programs and measures are similar between National Grid affiliates in MA and RI, and results are applied to RI.
KEMA, Inc., Process Evaluation of the 2012 Bright Opportunities Program	This study provided net-to-gross ratios for the Commercial Upstream Lighting initiative offered in Massachusetts and Rhode Island, as well as a process assessment of this generally successful initiative.
KEMA, Inc., Impact Evaluation of 2010 Prescriptive Lighting Installations	The RI Prescriptive lighting study listed above did not examine case lighting separately from other lighting systems. To complement the Rhode Island-specific results, this MA study provided impact updates on case lighting.
Opinion Dynamics (2013). Massachusetts Cross-Cutting Behavioral Program Evaluation Integrated Report.	This study provided an updated realization rate for savings from gas customers who participate in the Opt-out channel of the Home Energy Reports program.

2012	
Study	**Impact Descriptions**
NMR Group, Inc., Rhode Island 2011 Baseline Study of Single-family Residential New Construction	Provides a baseline study of the characteristics of single-family homes recently completed in Rhode Island and permitted under the 2009 International Energy Conservation Code (IECC) that did not participate in the Rhode Island Residential New Construction Program (Program). These can be used to update User Defined Reference Home (UDRH) assumptions used in calculating Program savings.
DNV-KEMA, ERS, and APPRISE, Rhode Island Energy Code Compliance Baseline Study	Provides a baseline estimate of statewide energy code compliance for commercial buildings, provides feedback on patterns of compliance and non-compliance, and identifies opportunities for Rhode Island in the quest to achieve greater compliance with state energy codes.
KEMA, Inc., Impact Evaluation of the 2010 Custom –Industrial Process and Compressed Air impact evaluation, September, 2012	Study produced realization rates for energy, seasonal demand, and percent energy on peak for both programs. The RI results were combined with MA results from a parallel study in order to increase the statistic significance of the final results. The final energy realization rate is 92.7%.

ERS, Rhode Island Large Commercial and Industrial Retrofit and New Construction Program Custom Gas Evaluation, September 2012	The Custom Gas study updated study-based realization rates for the Large Commercial and Industrial Retrofit and New Construction programs. The final therms realization rate for the custom gas program was found to be 75.5%.
TetraTech, Final Report – Commercial and Industrial Non-Energy Impacts Study, (prepared for Massachusetts Program Administrators), June 29, 2012	This report provides a comprehensive set of statistically reliable Non-energy impact (NEI) estimates across the range of C&I prescriptive and custom retrofit programs offered by the Massachusetts electric and gas PAs. The analytical methods used allow this report's findings to be applicable to RI.
TetraTech. 2011 Commercial and Industrial Programs Free-ridership and Spillover Study, September 7, 2012	Free ridership and spillover rates for the RI Energy Initiative, Design2000plus, and Small Business Services Programs.
Cadmus, EnergyWise Single Family Impact Evaluation, October 2012	The study provides impacts specific to the RI program for single family households. It includes electric, gas, and oil savings. The study uses billing analysis and engineering analysis.

2011	
Study	**Impact Descriptions**
NMR Group, Inc., Massachusetts Program Administrators Massachusetts Special and Cross-Sector Studies Area, Residential and Low-Income Non-Energy Impacts (NEI) Evaluation, August, 15, 2011.	Identification and quantification of non-energy impacts for residential and low-income programs.
NMR Group, Inc., The Rhode Island Appliance Turn-In Program Process Evaluation, March 4, 2011.	Combined, these two studies assessed free-ridership rates and savings for the Rhode Island Refrigerator and Freezer Recycling program. In addition, the evaluation found that there were three distinct groups of refrigerators being recycled through the program – primary, secondary – replaced, and secondary – not replaced. The study produced updated free-ridership rates and savings for the three categories of refrigerators and freezers.
NMR Group, Inc., The Rhode Island Appliance Turn-In Program Impact Evaluation, October 2011.	

NMR Group, Inc., Results of the Multistate CFL Modeling Effort, April 15, 2011.	This study examined the 2010 Energy Star® Lighting program. The research effort included participation in a multistate modeling effort which resulted in a revised free-ridership estimate for screw-in CFLs.
The Cadmus Group, Impact Evaluation for Rhode Island Multifamily Gas Program EnergyWise Program, July 12, 2011	A billing analysis was conducted for 2010 Multifamily gas participants. Results showed a realization rate of 121% indicating ex post verified savings as 21% greater than the engineering savings estimate.
Opinion Dynamics Corporation, Evaluation of National Grid's Community Pilot Program Energy Action: Aquidneck and Jamestown, September, 2011.	The evaluation examined participation in all energy efficiency programs through the 2009-2010 Community Initiative, known as Energy Action: Aquidneck and Jamestown. The evaluation found that the initiative was cost-effective with a benefit-cost ratio of 2.25. The evaluation also examined processes and made recommendations for increasing participation in future initiatives.
KEMA, Inc., Impact Evaluation of the 2009 Custom HVAC and 2008-2009 Custom CDA Installations, September 1, 2011	Study produced realization rates for energy, seasonal demand, and percent energy on peak for both programs. The RI results were combined with MA results from a parallel study in order to increase the statistic significance of the final results. The final energy realization rate for Custom HVAC is higher than the PY 2011 realization rate by about 10% (increased from 100.5% to 110.4%). The final energy realization rate for Custom CDA is higher than the PY 2011 realization rate by about 20% (increased from 97.2% to 119.6%).
KEMA, Inc., C&I Lighting Loadshape Project, Prepared for the Regional Evaluation, Measurement, and Verification Forum, June 2011.	A compilation of lighting loadshape data from the Northeast. The study provided updated coincidence factors for the Energy Initiative and Small Business Lighting programs. The Small Business program summer coincidence factor went from 0.80 to 0.79, while the Energy Initiative summer coincidence went from 0.88 to 0.89
KEMA, Inc., C&I Unitary HVAC Loadshape Project Final Report, Prepared for the Regional Evaluation, Measurement, and Verification Forum, June 2011.	From end use metering, the study produced updated diversity and equivalent full load hours for unitary HVAC measures
2010	

Study	Impact Descriptions
ADM Associates, Inc., Residential Central AC Regional Evaluation, Final Report, October 2009	KWh and kW savings figures for the installation of efficient residential CAC systems

2009	
Study	**Impact Descriptions**
Nexus Market Research, Residential Lighting Markdown Impact Evaluation, January 20, 2009	Energy and demand savings from the use of lighting markdown products
KEMA, Inc., Design 2000plus Lighting Hours of Use & Load shapes Measurement Study, July 2, 2009	Hours of use, hours of use realization rate, on-peak kWh percentage, load profile, connected demand adjustment factor, summer and winter peak combined coincidence and interactive factors for the prescriptive lighting measures installed by participants of the 2007 National Grid Design2000plus program
2008	
Study	**Impact Descriptions**
Nexus Market Research, Inc., RLW Analytics, Inc., Residential Lighting Measure Life Study, June 4, 2008	Estimation of measure life for lighting products distributed throughout New England
Michael Ozog, Summit Blue, Joint Small Business Services Program Billing Analysis, 2007	Realization rates for lighting measures installed through the Small Business Services program
2007	
Study	**Impact Descriptions**
RLW Analytics, Inc., National Grid Lighting Controls Impact Evaluation, Final Report, 2005 Energy Initiative, Design2000plus and Small Business Services Programs, June 4, 2007	Summer diversity factor, Winter diversity factor, Connected kW realization rate, Hours-of-use reduction realization rate, and percent of energy savings on peak for prescriptive lighting control measures through the Energy Initiative, Design2000plus, and Small Business Services programs.
RLW Analytics, Small Business Services Custom Measure Impact Evaluation, March 23, 2007	Verification of energy savings from custom lighting projects in the Small Business Services program.
RLW Analytics, Impact Evaluation Analysis of the 2005 Custom SBS Program, May 29, 2007	Realization rates for the Small Business Services program

Custom Lighting Evaluation

Type of Study: Impact Evaluation
Evaluation Conducted by: DNV KEMA
Date Evaluation Conducted: April 2012 – September 2013

Evaluation Objective and High Level Findings: This report contains the results of the 2011 Rhode Island Custom Lighting Report, conducted by DNV KEMA between 2012 and 2013. The goal of the evaluation was to provide updated energy and peak realization rates for the Rhode Island's Custom Lighting offerings by coupling the results of four Rhode Island sites with the results of Massachusetts sites from the *Impact Evaluation of 2010 Custom Lighting Installations*, completed by DNV for Massachusetts Program Administrators in 2012. The Rhode Island specific results were lower than those from Massachusetts, mainly due to hours-of-use estimations. The Rhode Island sample, however, was small and is not significant alone. Combined, the two-State sample provided results with high precision.

Programs to which the Results of the Study Apply

- Commercial & Industrial New Construction (Electric Only)
- Commercial & Industrial Retrofit (Electric Only)

Evaluation Recommendations and Program Administrator Response

Recommendation 1: The tracked savings of one project were 33% higher than evaluated due to fewer fixtures being found on-site than were proposed. Improvements in post-inspection processes could mitigate the possibility of misestimations.

Recommendation 2: The estimation of hours of use can be improved by making estimates based on building use and function and by having implementation vendors make use of data such as time clocks and photo sensors.

Recommendation 3: Interactive HVAC effects are not included in project tracking estimates. Since they can contribute significant savings, it is recommended that they be estimated for eligible projects. Both program savings and savings accuracy could benefit.

Explain Whether or Not National Grid Decided to Adopt Recommendations from the Study:
National Grid plans to use the updated energy and demand realization rates in 2014.

Savings Impact:
The energy realization rate decreased from 107% to 91.9%, while the summer and winter peak realization rates increased from 80% and 73% to 110.7% and 79.2% respectively.

Prescriptive Lighting Evaluation

Type of Study: Impact Evaluation
Evaluation Conducted by: DNV KEMA
Date Evaluation Conducted: April 2012 – October 2013

Evaluation Objective and High Level Findings: This report contains the results of the 2011 Rhode Island Prescriptive Lighting Report, conducted by DNV KEMA between 2012 and 2013. The goal of the evaluation was to provide an updated energy and peak realization rates and coincidence factors for the Rhode Island's prescriptive lighting systems and controls.

Programs to which the Results of the Study Apply

- Commercial & Industrial New Construction (Electric Only)
- Commercial & Industrial Retrofit (Electric Only)

Evaluation Recommendations and Program Administrator Response

Recommendation 1: Hours-of-use for schools were found to be lower when evaluated than when they were tracked. National Grid should focus on improving these estimates and screening for overestimates.
Recommendation 2: Some buildings with lighting controls may yield negative savings because manual controls can respond to unnecessary lighting more quickly than can sensors. To gain a better understanding of how controls are affecting lighting use in the field, a pre-post metering study should be considered.
Recommendation 3: Savings from lighting controls are difficult to evaluate due to the challenge of estimating reduced hours-of-use. To improve the estimates of implementation vendors, it is recommended that pre-installation metering be done to establish baseline hours-of-use.

Explain Whether or Not National Grid Decided to Adopt Recommendations from the Study: National Grid has decided to apply the results of the study to lighting systems and controls offered through our Retrofit and New Construction programs, not including daylight dimming, exit signs, upstream lighting and LED case lighting, which were not included in the sample. While New Construction sites were part of the sample design, the results are more applicable to the program than is the old savings source[1], which had a higher than expected realization rate. Estimations of hours-of-use drove the new results and since New Construction and Retrofit lighting differ most in the estimation of wattage, these results are a reasonable placeholder for New Construction until a program-specific evaluation is performed.

Savings Impact:

- Lighting Systems
    - Energy realization Rate: 88.9%
    - Summer and Winter Peak Realization Rate: 97.4%
    - Summer Coincidence Factor: .652

[1] KEMA (2009). *Design 2000plus Lighting Hours of Use and Load Shape Measurement Study.* Prepared for National Grid.

    - Winter Coincidence Factor: .487
- Lighting Controls
    - Energy Realization Rate: 67.6%
    - Summer and Winter Peak Realization Rate: 96.4%
    - Summer Coincidence Factor: .153
    - Winter Coincidence Factor: .184

Energy Efficiency Messaging

Type of Study: Process
Evaluation Conducted by: Residential Energy Efficiency Program Communications Focus Groups
Date Evaluation Conducted: July, 2013

Evaluation Objective and High Level Findings: The object of this study was to develop qualitative insights into how customers respond to energy efficiency marketing materials in order to develop copy that elicits greater rates of participation.

Programs to which the Results of the Study Apply

- High Efficiency Heating (Gas)
- High Efficiency Heating and Cooling (Electric)

Evaluation Recommendations and Program Administrator Response

Recommendation 1: Customers prefer concise advertisements so an effort should be made to streamline marketing text.

Recommendation 2: Customers appreciate transparency when possible. Explaining National Grid's role in energy efficiency and increasing awareness could benefit participation.

Recommendation 3: Marketing materials should focus on financial benefits, ease-of-participation, and social good to attract participants.

Explain Whether or Not National Grid Decided to Adopt Recommendations from the Study: National Grid will be incorporating the results of this study into its marketing materials and strategy for 2014.

Savings Impact: N/A

Avoided Energy Supply Costs in New England: 2013 Report

Type of Study: Planning
Evaluation Conducted by: Synapse Energy Economics
Date Evaluation Conducted: March 2013-August 2013

Evaluation Objective and High Level Findings: Provides projections of marginal energy supply costs that will be avoided due to reductions in the use of electricity, natural gas, and other fuels resulting from energy efficiency programs offered to customers throughout New England. These projections are based on observed facts and expectations regarding future market conditions and future costs.

Programs to which the Results of the Study Apply

- All electric energy efficiency programs
- All natural gas energy efficiency programs

Evaluation Recommendations and Program Administrator Response

Recommendation 1: National Grid has adopted the avoided costs for electric energy, electric capacity, natural gas, other fuels, renewable energy credits, demand reduction induced price effects in its benefit-cost analysis for the 2014 Energy Efficiency Program Plan

Explain Whether or Not National Grid Decided to Adopt Recommendations from the Study: National Grid has incorporated the results of this study into its planning for 2014.

Savings Impact: N/A

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

Type of Study: Process
Evaluation Conducted by: NECEC Institute
Date Evaluation Conducted: May 23, 2013

Evaluation Objective and High Level Findings:
The evaluation quantified the number of direct "Full Time Equivalent" workers supported by energy efficiency programs in Rhode Island in 2012. It also identified lead vendors, contractors and subcontractors involved in the 2012 energy efficiency programs; either as service providers or as participants in training and education efforts.

Working from detailed data about energy efficiency work performed across all programs, the evaluation found that:

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

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

Programs to which the Results of the Study Apply:
Not applicable

Evaluation Recommendations and Program Administrator Response:
The evaluation does not include recommendations.

Savings Impact:
N/A

Impact Evaluation of 2011 Prescriptive Gas Measures

Type of Study: Technology Evaluation
Evaluation Conducted by: DNV KEMA
Date Evaluation Conducted: 6/28/2013

Evaluation Objective and High Level Findings: This report presents the results of the impact evaluation of the Program Year 2011 Massachusetts Prescriptive Gas Measures Program. The evaluation consists of on-site monitoring and verification of the savings for a sample of participants for four of the top five measures installed, in terms of savings.

Programs to which the Results of the Study Apply:

- C&I New Construction (Gas Only)
- C&I Large Retrofit (Gas Only)

Evaluation Recommendations and Program Administrator Response:

The following recommendations were made by the evaluators conducting this study.

Recommendation 1: Condensing Boiler Savings Recommendations:

Size	Efficiency Requirement	Savings (MMBtu)
<= 300 MBH	>=90% AFUE	30.6
301-499 MBH	>=90% Thermal Efficiency	58.4
500-999 MBH	>=90% Thermal Efficiency	107.3
1000-1700 MBH	>=90% Thermal Efficiency	197.2
1701 + MBH	>=90% Thermal Efficiency	345.1

Recommendation 2: Recommended Condensing Furnace Savings

Furnace Efficiency	Savings (MMBtu)
Furnace AFUE => 95% w/ ECM	9.0
Furnace AFUE => 97% w/ ECM	9.9

Recommendation 3: Recommended Infrared Heater and Indirect Water Heater Savings

Measure Type	Savings (MMBtu)
Infrared Heater	12.0
Indirect Water Heater	19.0

Explain Whether or Not the PA Decided to Adopt Recommendations from the Study: National Grid plans to incorporate these recommendations for 2014 savings tracking.

Savings Impact: The overall relative performance for the four measures was about 102% and the relative precision was about ±15.6%. The condensing furnace and condensing boiler measures both had relative performance greater than 100%, at about 160% and 107 % respectively.

Prescriptive VSD Impact Evaluation

Type of Study: Impact Evaluation
Evaluation Conducted by: DNV KEMA
Date Evaluation Conducted: 5/9/2013

Evaluation Objective and High Level Findings: This report presents the results of the Impact Evaluation of Prescriptive Variable Speed Drives (VSD) conducted by DNV KEMA and DMI between 2011 and 2012. The objective of this impact evaluation is to begin to quantify how well prescriptive VSD installations are performing and to estimate the energy and demand savings resulting from a sample of (26) VSDs installed in Massachusetts between 2011 and 2012 using both pre- and post-installation metering.

Programs to which the Results of the Study Apply:

- C&I New Construction and Major Renovation (Electric Only)
- C&I Large Retrofit (Electric Only)

Evaluation Recommendations and Program Administrator Response

Recommendation 1: Many VSDs are installed but never utilized. The motors were observed to operate at 60 Hz after the installation. Post-inspections should be performed to ensure that automatic controls are installed as required by the prescriptive applications.

Recommendation 2: VSD installation dates were found to vary significantly from installation of control sequences. In the majority of installations, the VSD was installed several weeks or months before any type of control sequence was implemented. During this period VSDs would typically operate at 60 Hz. The standard protocol for this evaluation was to await confirmation of the controls installation rather than encourage the installation by calling for updates. In some cases DMI installed kW meters for the pre-retrofit condition, but VSDs were never installed. It is recommended that a six-month follow-up is performed before the full incentive is paid so that proper operation can be confirmed.

Recommendation 3: Once the control sequences were implemented, it was common for VSDs to operate at fixed speeds rather than modulate to maintain set points. This type of operation results in a constant motor input kW and causes the summer demand peak realization ratio to be very high. It is unknown if these sites experience operational issues during extreme conditions as a result.

Recommendation 4: Multiple instances were observed in which the VSD retrofit was replacing an existing drive. In all of these cases, the facility operator reported that the existing drives were failing and had operational issues. It appeared that these failing VSDs were approximately 15 years old or more. The prescriptive VSD application states that incentives are not available to VSDs replacing existing drives. Evaluated savings for two of these installations were found to be small or even zero based on metering data.

Recommendation 5: In at least one case (Site ID 9, see below for more details), energy savings resulted primarily due to proper balancing rather than VSD control of the motor. Prior to the VSD retrofit, a chilled water pump was providing an excess of water to end users and the motor was observed to operate at over 100% load. The VSD installation was used to essentially balance the chilled water flow. This resulted in significant energy savings, the majority of which could have been achieved simply through balancing and without installation of a VSD. It is recommended that a pre-inspection be done to identify cases in which a VSD might not be the most economical solution.

Recommendation 6: Even though the energy realization rate of 94% was good for a program like this, the individual metered VSD energy realization rates varied from -2% to 407%. The -2% case was the only one that was negative, but 15 drives, or 58% of all metered drives had a realization rate less than 100%. The remaining 10 drives or 38% of all metered drives had a realization rate greater than 100%, and in most cases, they were significantly greater. It is recommended that this realization rate be applied to the TRM energy savings estimates as an immediate step.

Recommendation 7: The MA PAs and EEAC should also look to improve upon the motor level savings assumptions following the completion of the current Northeast Energy Efficiency Partnerships (NEEP) VSD Load Shape study. This study includes post-installation metering on hundreds of drives, which would help to refine the TRM savings assumptions for certain motor, and possibly building types.

Recommendation 8: The TRM claims summer kW reductions for hot water pumps and winter kW reductions for chilled water pumps. In most cases, hot water pumps were observed to be shut down for the summer months and chilled water pumps shut down for winter months. It is not expected that this would apply to all of these motor types, but based on the sample observed in this evaluation, it appears that the TRM should be adjusted downwards. Currently, it appears that the TRM assumes 100% of these motors will operate during their off-seasons. It is recommended that the TRM be reviewed, and appropriate adjustments be made to ensure that demand savings are realistic for certain measure types. Consider near-zero summer kW reduction for hot water pumps and near-zero winter kW reduction for chilled water pumps.

Recommendation 9: Summer On-Peak kW reductions in the TRM are generally very close to zero for motor types not related to heating. This seems to be a reasonable assumption for motors with automatic controls as it would be expected that an appropriately-sized motor would operate near full load on a design day; however, the evaluation observed significantly more motors with manual controls than expected, with the motors operating below full-load input kW. Since the TRM predicts near-zero summer kW reductions, this results in very high realization ratios.

Recommendation 10: It is not recommended that the realization rates for demand savings from this study are applied to the TRM due to the poor precisions. However, we think that the observations noted above, plus the results of the aforementioned NEEP study, can be used together to improve upon the savings estimates in the TRM.

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Explain Whether or Not National Grid Decided to Adopt Recommendations from the Study: The updated energy realization rate will be used in 2014.

Savings Impact: Overall, the onsite savings were lower than the tracking estimates with a realization rate of 94%.

2012 Residential Heating, Water Heating, and Cooling Equipment Evaluation: Net-to-Gross, Market Effects, and Equipment Replacement Timing

Type of Study: Market Assessment, Market Characterization
Evaluation Conducted by: Navigant, ODC, and Cadmus
Date Evaluation Conducted: September 1, 2011 - 6/19/2013

Evaluation Objective and High Level Findings: The objectives of this evaluation were to determine free-ridership, spillover, net-to-gross, net market effects, and estimations of timing of equipment replacement for several home heating and cooling measures.

Free-ridership, spillover, and net-to-gross estimates for Cool Smart and HEHE equipment measures are shown in Table 1. The results indicated that the NTG ratios are slightly higher than previously estimated for many measures. Further, the NME analyses and data provide qualitative evidence supporting this finding, and that the primary cause of improved NTG results is a better alignment of equipment efficiency tiers and associated rebate levels – and appropriate changes over time – to move the market.

Table 1: Average FR, SO, and NTG Estimates

Measure	FR	SO	NTG
Boilers, AFUE 90-95.9%	0.32	0.08	**0.76**
Boilers, AFUE ≥96%	0.31		**0.77**
Boilers, Overall	0.31		**0.77**
Furnaces, AFUE ≥95%	0.41	0.22	**0.81**
Central Air Conditioners/Heat Pumps, SEER 14.5-14.9	0.35	0.28	**0.93**
Central Air Conditioners, SEER ≥16	0.42		**0.86**
Central Air Conditioners, Overall	0.40		**0.88**
Ductless Mini-Splits	0.45	0.07	**0.62**
Storage Water Heaters, Energy Factor ≥0.67	0.13	0.13	**1.00**
Tankless Water Heaters, Energy Factor ≤0.94	0.37	0.26	**0.89**
Tankless Water Heaters, Energy Factor ≥0.95	0.28		**0.98**
Tankless Water Heaters, Overall	0.32		**0.93**
Integrated Space Heaters/Water Heaters with a Condensing Boiler	0.34	0.08	**0.74**

This study also addressed the Quality Installation Verification components of the Cool Smart Program. **Error! Reference source not found.** provides a summary of the QIV FR, SO, and NTG values as follows:

Table 2: Quality Installation Verification NTG

Measure	**Average FR**	**Average SO**	**NTG**
Manual J Central Air Conditioners and Heat Pumps	0.38	0.16	0.78
Manual J Heating	NA	0.15	NA
Airflow Testing/Duct Sealing	0.15	0.07	0.92
Refrigerant Testing	0.22	0.24	1.02
Overall QIV	**0.25**	**0.16**	**0.91**

Table 3 provides a breakdown of when efficient equipment is installed; early, as in before old existing equipment fails, new and not replacing anything, at the time of the failure of an existing device, and sometime in-between the other scenarios

Table 3: Equipment Replacement Timing in HEHE and Cool Smart Programs

	Equipment Replacement Timing Shares			
Measure	**Early**	**New**	**Replace-on-Failure**	**In-Between**
Boiler	30.6%	0.0%	44.9%	24.5%
Furnace	23.1%	0.0%	61.5%	15.4%
Central Air Conditioner / Heat Pump	8.0%	50.4%	29.2%	12.4%
Ductless Mini-Split	2.5%	95.1%	0.0%	2.5%
Integrated Boiler / Water Heater	20.0%	0.0%	55.7%	24.3%
Storage Water Heater	33.3%	0.0%	50.0%	16.7%

Tankless Water Heater	28.0%	0.0%	54.8%	17.2%

Programs to which the Results of the Study Apply:

- Residential Cooling and Heating Equipment (CoolSmart) (Electric)
- Residential Heating and Water Heating Equipment (HEHE) (Gas)

Evaluation Recommendations and Program Administrator Response:

Recommendation 1: Since there is a lack of consensus on NTG algorithms, it is recommended that protocols for more consistent evaluation are developed.

Explain Whether or Not the PA Decided to Adopt Recommendations from the Study: National Grid plans to apply these results to its 2014 savings tracking.

Savings Impact: For the measures in the study, each timing-of-replacement has a different baseline and gross savings. A weighted average of the different timing scenarios and gross savings will be used for each measure in 2014. The updated Net-to-gross factors will affect net savings.

Impact Evaluation of 2010 Prescriptive Lighting Installations

Type of Study: Impact Evaluation
Evaluation Conducted by: DNV KEMA
Date Evaluation Conducted: 6/21/2013

Evaluation Objective and High Level Findings: This document summarizes the work performed by DNV KEMA Energy and Sustainability (DNV KEMA) between 2011 and 2013 to quantify the actual energy and demand savings due to the installation of 56 Prescriptive Lighting projects installed through the Massachusetts Energy Efficiency Program Administrator's (PAs) C&I New Construction & Major Renovation and C&I Large Retrofit programs in 2010. Note that this document presents the final results following 12 months of metering for the four Prescriptive Lighting categories of interest, Systems, Controls, Advanced Lighting Design and Refrigerated LED Case Lighting.

Programs to which the Results of the Study Apply:

- C&I New Construction and Major Renovation (Electric Only)
- C&I Large Retrofit (Electric Only)

Evaluation Recommendations and Program Administrator Response:

Recommendation 1: This report recommends that the TRM be updated to utilize a refrigeration system efficiency of 1.9 kW/Ton. This value is based on a larger proportion of lower temperature freezer cases than cooler cases found in these applications.

Explain Whether or Not the PA Decided to Adopt Recommendations from the Study:
National Grid plans to use the updated values for LED case lighting in 2014 savings tracking.

Savings Impact: Refrigerated LED Case Lighting Systems energy kWh realization rate including HVAC interactive effects was 94.3% with a relative precision of +/-6.3% at the 90% confidence interval.

Massachusetts Cross-Cutting Behavioral Program Evaluation Integrated Report

Type of Study: Impact and Process Evaluation
Evaluation Conducted by: Opinion Dynamics with Navigant Consulting and Evergreen Economics
Date Evaluation Conducted: June 20, 2013

Evaluation Objective and High Level Findings

This report includes impact findings of behavior/feedback programs and pilots administered by National Grid, NSTAR, Western Massachusetts Electric Company (WMECo) and Cape Light Compact (CLC) during the 2012 program year. It also includes process findings for CLC's Smart Home Energy Monitoring Pilot (SHEMP) from 2009 - 2012. The evaluation developed its savings estimate based on a billing analysis of the entire program population and its randomly assigned control groups using a linear fixed effects regression. A channeling analysis was then performed to determine what portion of HER savings, as measured through the billing analysis, were captured in other programs. For more information, please see section 3.1 of the study.

The evaluation includes the following findings that are applicable to the RI Home Energy Report Program:

- National Grid and NSTAR electric programs have demonstrated an average adjusted net savings gain of 27% from program year (PY) 1 to PY2, and 16% from PY2 to PY3. Gas programs have demonstrated an average adjusted net savings gain of 20% from PY1 to PY2, and 23% from PY2 to PY3.

- For National Grid and NSTAR behavior/feedback programs, the report found savings estimate ratios to adjust implementer estimate of savings based on comparison of treatment and control group usage for each month of participation. The savings estimates range between 90% - 111%.

Programs to which the Results of the Study Apply:

- Home Energy Reports Electric
- Home Energy Reports Gas

Evaluation Recommendations and Program Administrator Response:

There were no recommendations as part of this report.

Savings Impact:

For the National Grid programs, the evaluation developed a savings estimate ratio that will be applied for 2014. The savings estimate ratio was derived by comparing the evaluation's billing analysis and channeling analysis to the vendor-performed billing and channeling analysis:

$$\text{Savings Estimate Ratio}_{u,f} = \frac{(\text{Estimated Modeled Savings})_u = \sum_{n=0}^{n} n\text{-kWh Savings}_{u,n,f}}{(\text{OPOWER Reported Savings})_u = \sum_{n=0}^{n} n\text{-kWh Savings}_{u,n,f}}$$

(Equation 3)

where:
n is the average number of participants in a given cohort
u is a given utility
c is a given cohort
i is a given time period
f is a given fuel type

Please refer to section 3.1.2 of the report for additional information

ATTACHMENT 4

Table E-1
National Grid
Electric DSM Funding Sources in 2014 by Sector
$(000)

		Projections by Sector			
		Income Eligible Residential	Non-Income Eligible Residential	Commercial & Industrial	Total
(1)	**Projected Budget (from E-2):**	**$ 9,914.89**	**$ 26,091.69**	**$ 51,457.76**	**$87,464.3**
	Sources of Other Funding:				
(2)	Projected DSM Commitments at Year-End 2013:	$0.0	$0.0	$7,000.0	$7,000.0
(3)	Projected Year-End 2013 Fund Balance and Interest:	$0.0	$2,185.2	$2,454.3	$4,639.5
(4)	Projected FCM Payments from ISO-NE:	$188.8	$1,725.0	$2,695.0	$4,608.8
(5)	Projected RGGI Payments:	$0.0	$800.0	$0.0	$800.0
(7)	**Total Other Funding:**	**$188.8**	**$4,710.2**	**$12,149.3**	**$17,048.3**
(8)	**Customer Funding Required:**	**$9,726.1**	**$21,381.5**	**$39,308.5**	**$70,416.0**
(9)	**Forecasted kWh Sales:**	**321,789,891**	**2,940,325,373**	**4,593,603,582**	**7,855,718,845**
(10)	**Energy Efficiency Program charge per kWh:**				**$ 0.00896**
(11)	Currently Effective EE Charge				$ 0.00862
(12)	Adjustment to Reflect Fully Reconciling Funding Mechanism				$ 0.00034

Notes:
(1) Projected Budget from E-2 includes Regulatory costs allocated to each sector based on forecasted sales.
(2) The total projection of FCM revenue is allocated by kWh sales to each sector.

(3) Projected street lighting and sales for resale kWh have been allocated to each sector based on the forecasted of sales in each sector excluding expected street lighting sales.
(4) Fund balance projections include projected revenue and spend through year end with Low Income sector set to $0 through projected subsidization from other sectors, minus commitments.

Table E-2
National Grid
2014 Electric Energy Efficiency Program Budget ($000)

	Program Planning & Administration	Marketing	Rebates and Other Customer Incentives	Sales, Technical Assistance & Training	Evaluation & Market Research	Shareholder Incentive	Grand Total
Non-Income Eligible Residential							
Residential New Construction	$34.2	$24.7	$75.0	$776.4	$5.5		$915.7
ENERGY STAR® HVAC	$28.4	$220.2	$573.2	$98.0	$27.5		$947.2
Energy*Wise*	$148.4	$286.3	$4,365.0	$1,648.6	$13.4		$6,461.8
Energy*Wise* Multifamily	$31.6	$51.4	$2,039.0	$297.8	$0.8		$2,420.6
ENERGY STAR® Lighting	$122.3	$569.9	$6,140.0	$557.4	$83.4		$7,473.0
ENERGY STAR® Appliances	$48.8	$524.9	$687.0	$1,165.3	$3.2		$2,429.2
Home Energy Reports	$51.9	$18.1	$2,336.9	$38.2	$81.9		$2,527.0
Energy Efficiency Educational Programs	$0.0	$0.0	$0.0	$50.7	$0.0		$50.7
Residential Products Pilot	$14.8	$16.9	$142.9	$74.2	$35.3		$284.1
Community Based Initiatives - Residential	$10.6	$0.4	$15.0	$200.4	$37.8		$264.2
Comprehensive Marketing - Residential[2]	$28.7	$552.1	$0.0	$1.2	$0.9		$582.8
Residential Shareholder Incentive	$0.0	$0.0	$0.0	$0.0	$0.0	$1,217.8	$1,217.8
Subtotal - Non-Income Eligible Residential	**$519.7**	**$2,264.9**	**$16,373.9**	**$4,908.2**	**$289.8**	**$1,217.8**	**$25,574.3**
Income Eligible Residential							
Single Family - Income Eligible Services	$145.0	$18.7	$5,370.4	$1,672.9	$85.6		$7,292.5
Income Eligible Multifamily	$38.7	$10.9	$1,745.7	$297.0	$4.0		$2,096.3
Income Eligible Shareholder Incentive	$0.0	$0.0	$0.0	$0.0	$0.0	$469.4	$469.4
Subtotal - Income Eligible Residential	**$183.7**	**$29.6**	**$7,116.1**	**$1,969.9**	**$89.6**	**$469.4**	**$9,858.3**
Commercial & Industrial							
Large Commercial New Construction	$255.8	$288.1	$5,744.6	$1,727.7	$212.4		$8,228.6
Large Commercial Retrofit	$490.3	$220.2	$22,044.9	$2,652.6	$272.4		$25,680.5
Small Business Direct Install	$313.7	$265.8	$11,023.5	$1,042.2	$161.7		$12,807.0
Community Based Initiatives - C&I	$3.0	$0.1	$0.0	$38.4	$12.9		$54.4
Commercial Pilots	$6.4	$26.5	$279.1	$52.0	$0.2		$364.3
Comprehensive Marketing - C&I	$11.2	$126.4	$0.0	$12.6	$0.3		$150.6
Finance Costs	$0.0	$0.0	$1,000.0	$0.0	$0.0		$1,000.0
Commercial & Industrial Shareholder Incentive	$0.0	$0.0	$0.0	$0.0	$0.0	$2,364.3	$2,364.3
Subtotal - Commercial & Industrial	**$1,080.4**	**$927.2**	**$40,092.1**	**$5,525.6**	**$660.0**	**$2,364.3**	**$50,649.5**
Regulatory							
OER	$565.6	$0.0	$0.0	$0.0	$0.0		$565.6
EERMC	$816.7	$0.0	$0.0	$0.0	$0.0		$816.7
Subtotal - Regulatory	**$1,382.3**	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$1,382.3**
Grand Total	**$3,166.1**	**$3,221.6**	**$63,582.1**	**$12,403.6**	**$1,039.4**	**$4,051.5**	**$87,464.3**
Incremental System Reliability	$74.0	$75.0	$116.7	$13.5	$120.0	$0.0	$399.2

Notes:

(1) 2014 Commitments are anticipated to be $0.

(2) For more information on Finance Costs, please refer to the 2014 C&I Program Description, Attachment 2.

(3) The Small Business Revolving loan fund supports the on-bill repayment of projects. The loan fund does not require additional funds for copays in 2014. Please see table E-10.

(4) OER is 0.8% and EERMC is 1.2% of customers' EE Program Charge collected on Table E-1, minus 2%.

(5) Incremental System Reliability funds are included for illustrative purposes. They are part of the 2014 System Reliability Procurement Report, filed as a separate docket.

Table E-3
National Grid
Derivation of the 2014 Spending and Implementation Budgets ($000)

	Proposed 2014 Budget From E-2	Commitments, Copays and Finance Costs	Regulatory Costs	Shareholder Incentive	Evaluation Expenses	Eligible Sector Spending Budget for Shareholder Incentive on E-9	Implementation Expenses for Cost-Effectiveness on E-5
Non-Income Eligible Residential							
Residential New Construction	$915.7				$5.5		$910.3
ENERGY STAR® HVAC	$947.2				$27.5		$919.7
EnergyWise	$6,461.8				$13.4		$6,448.3
EnergyWise Multifamily	$2,420.6				$0.8		$2,419.8
ENERGY STAR® Lighting	$7,473.0				$83.4		$7,389.6
ENERGY STAR® Appliances	$2,429.2				$3.2		$2,426.0
Home Energy Reports	$2,527.0				$81.9		$2,445.1
Energy Efficiency Educational Programs	$50.7				$0.0		$50.7
Residential Products Pilot	$284.1				$35.3		$248.8
Community Based Initiatives - Residential	$264.2				$37.8		$226.4
Comprehensive Marketing - Residential2	$582.8				$0.9		$581.9
Residential Shareholder Incentive	$1,217.8			$1,217.8			$0.0
Subtotal - Non-Income Eligible Residential	**$25,574.3**	**$0.0**	**$0.0**	**$1,217.8**	**$289.8**	**$24,356.5**	**$24,066.7**
Income Eligible Residential							
Single Family - Income Eligible Services	$7,292.5				$85.6		$7,206.9
Income Eligible Multifamily	$2,096.3				$4.0		$2,092.3
Income Eligible Shareholder Incentive	$469.4			$469.4			$0.0
Subtotal - Income Eligible Residential	**$9,858.3**	**$0.0**	**$0.0**	**$469.4**	**$89.6**	**$9,388.8**	**$9,299.2**
Commercial & Industrial							
Large Commercial New Construction	$8,228.6	$0.0			$212.4		$8,016.1
Large Commercial Retrofit	$25,680.5	$0.0			$272.4		$25,408.1
Small Business Direct Install	$12,807.0	$0.0			$161.7		$12,645.3
Community Based Initiatives - C&I	$54.4				$12.9		$41.5
Commercial Pilots	$364.3				$0.2		$364.1
Comprehensive Marketing - C&I	$150.6				$0.3		$150.2
Finance Costs	$1,000.0	$1,000.0					$1,000.0
Commercial & Industrial Shareholder Incentive	$2,364.3			$2,364.3			$0.0
Subtotal - Commercial & Industrial	**$50,649.5**	**$1,000.0**	**$0.0**	**$2,364.3**	**$660.0**	**$47,285.2**	**$47,625.2**
Regulatory							
OER	$565.6		$565.6				$565.6
EERMC	$816.7		$816.7				$816.7
Subtotal - Regulatory	**$1,382.3**	**$0.0**	**$1,382.3**	**$0.0**	**$0.0**	**$0.0**	**$1,382.3**
Grand Total	**$87,464.3**	**$1,000.0**	**$1,382.3**	**$4,051.5**	**$1,039.4**	**$81,030.5**	**$82,373.5**

Notes:

(1) Finance Costs are capital costs to secure outside financing funds. Like the historical treatment of copays, outside finance costs do not directly lead to savings, therefore they are excluded from the eligible spending budget and a shareholder incentive is not collected on these funds. They are counted as an implementation expense.

(2) Spending budget = Total Budget from E-2 minus Commitments, Copays, Outside Finance Costs, Regulatory costs, and shareholder incentive.

(3) Implementation Expenses = Total Budget from E-2 minus Commitments, Copays, Evaluation expenses, and shareholder incentive.

(4) OER Costs = 0.8% of customer EE Charge collections, minus 2%. These costs were not illustrated in the Three Year Plan.

(5) EERMC Costs = 1.2% of customer EE Charge collections, minus 2%.

(6) System Reliability Procurement funds represent additional funds not included in the calculation of shareholder incentive and are not included in this table. They are shown on Table E-2 and E-5

Table E-4
National Grid
Proposed 2014 Budget Compared to Approved 2013 Budget ($000)

	Proposed Implementation Budget 2014	Approved Implementation Budget 2013	Difference
Non-Income Eligible Residential			
Residential New Construction	$910.3	$1,869.4	-$959.1
ENERGY STAR® HVAC	$919.7	$1,303.7	-$384.0
Energy*Wise*	$6,448.3	$6,750.9	-$302.6
Energy*Wise* Multifamily	$2,419.8	$1,405.7	$1,014.1
ENERGY STAR® Lighting	$7,389.6	$4,234.6	$3,155.0
ENERGY STAR® Appliances	$2,426.0	$2,439.6	-$13.6
Home Energy Reports	$2,445.1	$1,419.8	$1,025.3
Energy Efficiency Educational Programs	$50.7	$55.3	-$4.6
Residential Products Pilot	$248.8	$590.3	-$341.4
Community Based Initiatives - Residential	$226.4	$498.6	-$272.2
Comprehensive Marketing - Residential[2]	$581.9	$1,590.4	-$1,008.5
Subtotal - Non-Income Eligible Residential	**$24,066.7**	**$22,158.2**	**$1,908.5**
Income Eligible Residential			
Single Family - Income Eligible Services	$7,206.9	$6,242.5	$964.4
Income Eligible Multifamily	$2,092.3	$1,675.4	$416.9
Subtotal - Income Eligible Residential	**$9,299.2**	**$7,917.9**	**$1,381.3**
Commercial & Industrial			
Large Commercial New Construction	$8,016.1	$9,394.8	-$1,378.7
Large Commercial Retrofit	$25,408.1	$11,785.6	$13,622.4
Small Business Direct Install	$12,645.3	$11,585.7	$1,059.5
Community Based Initiatives - C&I	$41.5	$148.0	-$106.6
Commercial Pilots	$364.1	$319.2	$44.8
Comprehensive Marketing - C&I	$150.2	$555.1	-$404.9
Finance Costs	$1,000.0	$1,080.0	-$80.0
Subtotal Commercial & Industrial	**$47,625.2**	**$34,868.6**	**$12,756.7**
Regulatory			
EERMC	$816.7	$816.7	$0.0
OER	$565.6	$544.4	$21.2
Subtotal Regulatory	**$1,382.3**	**$1,361.1**	**$21.2**
TOTAL IMPLEMENTATION BUDGET	**$82,373.5**	**$66,305.8**	**$16,067.7**
OTHER EXPENSE ITEMS			
Commitments	$0.0	$7,000.0	-$7,000.0
Small Business Revolving Loan Fund	$0.0	$0.0	$0.0
Company Incentive	$4,051.5	$3,240.7	$810.8
Evaluation	$1,039.4	$950.3	$89.1
Subtotal - Other Expense Items	**$5,090.9**	**$11,191.0**	**-$6,100.1**
TOTAL BUDGET	**$87,464.3**	**$77,496.8**	**$9,967.5**

Notes:

(1) Program Implementation Budget excludes Commitments, Company Incentive and Evaluation; derived on Table E-3

(2) Total Budget includes Implementation, Commitments, Evaluation; illustrated on Table E-3

Table E-5
National Grid
Calculation of 2014 Program Year Cost-Effectiveness
All Dollar Values in ($000)

	TRC Benefit/ Cost[1]	Total Benefit	Program Implementation Expenses[2]	Customer Contribution	Evaluation Cost	Shareholder Incentive	¢/Lifetime kWh
Non-Income Eligible Residential							
Residential New Construction	1.42	$ 1,335.1	$ 910.3	$ 25.9	$ 5.5	NA	12.5
ENERGY STAR® HVAC	1.68	$ 2,064.1	$ 919.7	$ 278.4	$ 27.5	NA	13.4
Energy*Wise*	2.64	$ 17,058.7	$ 6,448.3	$ -	$ 13.4	NA	8.0
Energy*Wise* Multifamily	1.17	$ 3,148.7	$ 2,419.8	$ 262.3	$ 0.8	NA	10.2
Home Energy Reports	1.87	$ 4,713.7	$ 2,445.1	$ -	$ 81.9	NA	10.1
ENERGY STAR® Lighting	2.45	$ 32,829.1	$ 7,389.6	$ 5,939.9	$ 83.4	NA	4.4
ENERGY STAR® Products	1.36	$ 3,732.8	$ 2,426.0	$ 311.2	$ 3.2	NA	9.4
Energy Efficiency Education Programs		$ -	$ 50.7	$ -	$ -	NA	
Residential Products Pilot		$ -	$ 248.8	$ -	$ 35.3	NA	
Community Based Initiatives - Residential		$ -	$ 226.4	$ -	$ 37.8	NA	
Comprehensive Marketing - Residential		$ -	$ 581.9	$ -	$ 0.9	NA	
n-Income Eligible Residential SUBTOTAL	**2.00**	**$ 64,882.1**	**$ 24,066.7**	**$ 6,817.7**	**$ 289.8**	**$ 1,217.8**	**6.4**
Income Eligible Residential							
Single Family - Income Eligible Services	1.59	$ 11,618.5	$ 7,206.9	$ 1.2	$ 85.6	NA	16.6
Income Eligible Multifamily	1.19	$ 2,497.1	$ 2,092.3	$ 1.6	$ 4.0	NA	11.2
Income Eligible Residential SUBTOTAL	**1.43**	**$ 14,115.6**	**$ 9,299.2**	**$ 2.8**	**$ 89.6**	**$ 469.4**	**15.0**
Commercial & Industrial							
Large Commercial New Construction	8.02	$ 67,859.5	$ 8,016.1	$ 235.6	$ 212.4	NA	2.4
Large Commercial Retrofit	4.08	$ 185,220.3	$ 25,408.1	$ 19,758.5	$ 272.4	NA	2.1
Small Business Direct Install	2.25	$ 35,282.1	$ 12,645.3	$ 2,906.3	$ 161.7	NA	6.1
Community Based Initiatives - C&I		$ -	$ 41.5	$ -	$ 12.9	NA	
Commercial Pilots		$ -	$ 364.1	$ -	$ 0.2	NA	
Comprehensive Marketing - C&I		$ -	$ 150.2	$ -	$ 0.3	NA	
Finance Costs		$ -	$ 1,000.0	$ -	$ -	NA	
C&I SUBTOTAL	**3.92**	**$ 288,361.9**	**$ 47,625.2**	**$ 22,900.4**	**$ 660.0**	**$ 2,364.3**	**2.6**
Regulatory							
OER			$ 565.6				
EERMC			$ 816.7				
Regulatory SUBTOTAL			**$ 1,382.3**				
TOTAL	**3.13**	**$ 367,359.6**	**$ 82,373.5**	**$ 29,720.9**	**$ 1,039.4**	**$ 4,051.5**	**3.4**

Notes:
(1) TRC B/C Test = (Energy + Capacity + Resource Benefits) / (Program Implementation + Evaluation Costs + Customer Contribution + Shareholder Incentive)
Also includes effects of free-ridership and spillover.
(2) For Implementation Expenses derivation, see Table E-3.
(3) System Reliability may leverage some of the energy efficiency savings and benefits. Energy efficiency savings and benefits are attributed to the program in which they occur. The incremental costs of System Reliability appears below along with the resulting Total in order to illustrate that the existing Energy Efficiency programs are cost effective with the additional expenses. For more information please see the 2014 System Reliability Procurement Report.

System Reliability Procurement	1.79	$ 1,114.9	$ 279.2	$ 1.9	$ 120.0	$ -	
Total with System Reliability	3.13	$ 368,474.46	$ 82,652.65	$ 29,722.82	$ 1,159.36	$ 4,051.53	3.6

Table E-6
National Grid
Summary of 2014 Benefits and Savings by Program

	Benefits (000's)													Load Reduction in kW			MWh Saved	
		Capacity					Energy					Non Electric						
		Generation					Winter		Summer								Maximum	
	Total	Summer	Winter	Trans	MDC	DRIPE	Peak	Off Peak	Peak	Off Peak	DRIPE	Resource	Non Resource	Summer	Winter	Lifetime	Annual	Lifetime
Non-Income Eligible Residential																		
Residential New Construction	$1,335	$108	$0	$40	$172	$4	$138	$184	$72	$84	$56	$220	$258	62	78	999	631	7,514
ENERGY STAR® HVAC	$2,064	$281	$0	$111	$477	$15	$160	$133	$190	$90	$84	$492	$30	194	130	2,747	726	9,120
Energy*Wise*	$17,059	$510	$0	$381	$1,635	$68	$2,029	$2,003	$561	$514	$725	$6,792	$1,841	1,445	3,847	9,360	7,674	80,804
Energy*Wise* Multifamily	$3,149	$183	$0	$92	$395	$16	$640	$561	$204	$197	$274	$261	$327	232	731	2,264	2,888	26,418
Home Energy Reports	$4,714	$306	$0	$541	$2,322	$0	$457	$584	$177	$234	$92	$0	$0	13,182	52,558	13,182	25,028	25,028
ENERGY STAR® Lighting	$32,829	$2,126	$0	$1,257	$5,395	$228	$5,992	$6,992	$2,552	$2,959	$2,959	$0	$2,368	3,712	7,425	30,939	35,731	308,065
ENERGY STAR® Products	$3,733	$216	$0	$138	$593	$29	$519	$650	$243	$287	$328	$0	$730	425	415	3,390	3,639	29,268
Non-Income Eligible Residential SUBTOTAL	**$64,882**	**$3,731**	**$0**	**$2,561**	**$10,988**	**$362**	**$9,936**	**$11,107**	**$3,998**	**$4,363**	**$4,517**	**$7,766**	**$5,554**	**$19,251**	**65,183**	**62,882**	**76,317**	**$486,215**
Income Eligible Residential																		
Single Family - Income Eligible Services	$11,619	$465	$0	$202	$867	$29	$824	$1,057	$380	$468	$342	$4,064	$2,920	419	849	4,994	3,967	43,875
Income Eligible Multifamily	$2,497	$112	$0	$58	$250	$11	$458	$408	$135	$133	$195	$55	$681	154	585	1,436	2,113	18,711
Income Eligible Residential SUBTOTAL	**$14,116**	**$577**	**$0**	**$260**	**$1,117**	**$40**	**$1,282**	**$1,465**	**$515**	**$601**	**$538**	**$4,119**	**$3,601**	**572**	**1,434**	**6,430**	**6,080**	**62,586**
Commercial & Industrial																		
Large Commercial New Construction	$67,860	$12,985	$0	$5,282	$22,666	$793	$9,908	$5,324	$4,806	$2,439	$3,421	$204	$34	9,679	7,172	130,532	27,472	350,890
Large Commercial Retrofit	$185,220	$28,497	$0	$10,439	$44,793	$1,261	$69,223	$29,050	$35,451	$12,721	$16,094	-$109,521	$47,212	15,273	13,577	258,784	124,275	2,148,112
Small Business Direct Install	$35,282	$5,719	$0	$2,468	$10,592	$413	$8,978	$2,269	$4,318	$1,009	$3,019	-$3,503	$0	4,997	2,956	60,858	21,170	257,811
C&I SUBTOTAL	**$288,362**	**$47,201**	**$0**	**$18,189**	**$78,051**	**$2,467**	**$88,108**	**$36,643**	**$44,575**	**$16,168**	**$22,534**	**-$112,821**	**$47,245**	**29,950**	**23,704**	**450,173**	**172,917**	**2,756,813**
TOTAL	**$367,360**	**$51,509**	**$0**	**$21,010**	**$90,156**	**$2,869**	**$99,326**	**$49,215**	**$49,088**	**$21,133**	**$27,588**	**-$100,936**	**$56,400**	**49,773**	**90,321**	**519,485**	**255,314**	**3,305,615**

Table E-7
National Grid
Comparison of 2013 and 2014 Goals

	Proposed 2014			Approved 2013			Difference	
	Annual Energy Savings (MWh)	Participants	Population Reached	Annual Energy Savings (MWh)	Participants	Population Reached	Annual Energy Savings (MWh)	Participants
Non-Income Eligible Residential								
Residential New Construction	631	458	8%	883	734	0%	(252)	(276)
ENERGY STAR® HVAC	726	1,946	0%	513	2,234	1%	213	(288)
Energy*Wise*	7,674	7,600	2%	7,059	7,800	2%	615	(200)
Energy*Wise* Multifamily	2,888	4,500	1%	2,129	3,700	1%	760	800
Home Energy Reports	25,028	227,600	58%	15,325	246,500	63%	9,703	(18,900)
ENERGY STAR® Lighting	35,731	247,240	63%	24,757	181,560	47%	10,975	65,680
ENERGY STAR® Products	3,639	13,285	3%	4,872	24,450	6%	(1,234)	(11,165)
Non-Income Eligible SUBTOTAL	**76,317**	**502,629**	**129%**	**55,538**	**466,978**	**120%**	**20,779**	**35,651**
Income Eligible Residential								
Single Family - Income Eligible Services	3,967	2,450	6%	4,131	2,501	6%	(164)	(51)
Income Eligible Multifamily	2,113	3,520	8%	2,057	3,100	7%	56	420
Income Eligible SUBTOTAL	**6,080**	**5,970**	**14%**	**6,188**	**5,601**	**13%**	**(164)**	**(51)**
Commercial & Industrial								
Large Commercial New Construction	27,472	2,192	26%	29,302	1,260	15%	(1,830)	932
Large Commercial Retrofit	124,275	833	10%	47,600	982	12%	76,675	(150)
Small Business Direct Install	21,170	1,510	3%	20,192	1,667	3%	978	(157)
C&I SUBTOTAL	**172,917**	**4,535**	**8%**	**97,093**	**3,910**	**7%**	**75,824**	**625**
TOTAL	**255,314**	**513,134**	**104%**	**158,820**	**476,488**	**97%**	**96,494**	**36,646**

Notes:

(1) There are additional Low Income participants in Residential New Construction.

(2) Proposed 2014 Participants for Commerical & Industrial programs based on average savings per participant from 2013 actuals.

(3) % Population reached for both C&I and Residential New Construction assumes an annual new home growth rate of 1.5%

(4) A customer can participate in more than one program, for example, ENERGY STAR® Lighting and Home Energy Reports, therefore the population reached can be more than 100%.

(5) In 2012, the Company modified how it counts participants to better identify unique participants in an effort better estimate penetration rates. Please see the Main Text for a description.

(6) The total poplulation for Residential New Construction is the number of new customer homes that will be built in 2014, which is estimated as 1.5% of the current customer base.

Table E-8
National Grid
Avoided Costs Used in 2014 Benefit-Cost Model

	Rhode Island					DRIPE for Installations in 2014				
	Winter Peak Energy	Winter Off-Peak Energy	Summer Peak Energy	Summer Off-Peak Energy	Annual Market Capacity Value	Winter Peak Energy	Winter Off-Peak Energy	Summer Peak Energy	Summer Off-Peak Energy	Annual Market Capacity Value
Units:	$/kWh	$/kWh	$/kWh	$/kWh	$/kW-yr	$/kWh	$/kWh	$/kWh	$/kWh	$/kW-yr
Period:										
2014	0.066	0.058	0.054	0.048	20.41	0.006	0.002	0.005	0.001	0.00
2015	0.065	0.058	0.056	0.048	21.38	0.023	0.007	0.019	0.006	0.00
2016	0.062	0.056	0.056	0.047	19.25	0.024	0.007	0.021	0.006	0.00
2017	0.059	0.052	0.061	0.049	21.38	0.023	0.007	0.024	0.006	18.575
2018	0.062	0.054	0.065	0.051	55.36	0.023	0.007	0.024	0.006	15.754
2019	0.067	0.058	0.070	0.054	61.17	0.020	0.006	0.021	0.005	12.790
2020	0.076	0.067	0.075	0.062	112.96	0.015	0.005	0.015	0.004	9.733
2021	0.076	0.068	0.078	0.063	137.51	0.011	0.003	0.011	0.003	6.583
2022	0.079	0.071	0.078	0.066	137.51	0.007	0.002	0.007	0.002	5.013
2023	0.081	0.073	0.083	0.068	137.51	0.004	0.001	0.004	0.001	3.393
2024	0.084	0.075	0.086	0.070	137.51	0.000	0.000	0.000	0.000	1.722
2025	0.089	0.080	0.092	0.074	137.51					
2026	0.091	0.082	0.095	0.077	137.51					
2027	0.095	0.084	0.098	0.079	137.51					
2028	0.098	0.086	0.100	0.080	137.51					
2029	0.101	0.088	0.103	0.083	137.51					
2030	0.105	0.090	0.106	0.085	137.51					
2031	0.108	0.093	0.110	0.087	137.51					
2032	0.112	0.095	0.114	0.090	137.51					
2033	0.116	0.098	0.118	0.092	137.51					
2034	0.120	0.100	0.121	0.095	137.51					
2035	0.124	0.103	0.126	0.098	137.51					
2036	0.128	0.106	0.130	0.101	137.51					
2037	0.132	0.109	0.134	0.103	137.51					
2038	0.137	0.112	0.139	0.106	137.51					
2039	0.141	0.115	0.143	0.109	137.51					
2040	0.146	0.118	0.148	0.112	137.51					
2041	0.151	0.121	0.153	0.116	137.51					
2042	0.156	0.125	0.159	0.119	137.51					
2043	0.162	0.128	0.164	0.122	137.51					

From 2013 Avoided Cost Study
Appendix B

Table E-9
National Grid
2014 Targeted Shareholder Incentive

Incentive Rate: 5.00%

Sector	(1) Spending Budget $(000)	(2) Target Incentive $(000)	(3) Annual kWh Savings Goal	(4) Threshold kWh Savings	(5) Target Incentive Per kWh
Income Eligible Residential	$9,389	$469	6,079,828	4,559,871	$0.077
Non-Income Eligible Residential	$24,356	$1,218	76,316,827	57,237,620	$0.016
Commercial & Industrial	$47,285	$2,364	172,917,343	129,688,007	$0.014
Total	$81,031	$4,052	255,313,998	191,485,499	$0.016

Notes:

(1) Eligible Spending Budget excludes EERMC, OER, Finance Costs, and Shareholder Incentive. See Table E-3 for details.

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

(3) See Table E-7

(4) 75% of Column (3). No incentive is earned on annual kWh savings in the sector unless the Company achieves at least this threshold level of performance.

(5) Column (2)*1000/Column (3). This illustration is for achieved savings equal to the savings target. The incentive earned per kWh will vary with the percent of the savings target achieved

The shareholder incentive will be calculated as follow, where SB is the Spending Budget in the sector:

- From 75% of savings to 100% of savings: Shareholder Incentive = SB x (0.15 x % of savings achieved – 0.10)
- From 100% of savings to 125% of savings: Shareholder Incentive = SB x (0.05 x % of savings achieved)

Table E- 10
National Grid
Revolving Loan Fund Projections

Large C&I Revolving Loan Fund

(1)	**Total Loan Fund Deposits Through 2013**	**$**	**8,979,678**
	Estimated Outstanding Loan Balance		
(2)	Total Value of Disbursed Loans [1]	$	3,026,711
(3)	2013 Repayments from loans[2]	$	(1,477,874)
(4)	**Total**	**$**	**1,548,837**
	Projected Fund Status, Year End 2013		
(5)	Estimated Outstanding Loan Balance Total	$	1,548,837
(6)	Committed Loans	$	4,754,205
(7)	Uncommitted Funds[3]	$	2,676,637
(8)	**Total**	**$**	**8,979,678**
	Loan Funds Available in 2014		
(9)	Uncommitted Funds	$	2,676,637
(10)	2014 Repayments from from loans[4]	$	3,181,830
(11)	2014 Finance Budget[5]	$	1,000,000
(12)	**Total Available for Loans in 2014**	**$**	**6,858,467**
(13)	**Projected Total Loan Fund Deposits Through 2014**	**$**	**9,979,678**

Notes

1 Includes loans created in 2012 & 2013

2 Includes repayments from the loans in line (2), shown as a negative number. Only includes repayments anticipated in calendar year 2013.

3 Uncommitted Funds are estimated, they depend on loan creation dates and repayment schedules

4 2014 Repayments are a combination of repayments from loans created in 2012, 2013 and projected to be created in 2014. Only includes repayments projected in calendar year 2014.

5 2014 Finance is a budget item included on Table E-2

Small Business Revolving Loan Fund

(1)	**Total Loan Fund Deposits Through 2013**	**$**	**4,158,972**
	Estimated Outstanding Loan Balance		
(2)	Total Value of Disbursed Loans[1]	$	3,126,662
(3)	2013 Repayments from loans[2]	$	(2,290,153)
(4)	**Total**	**$**	**836,509**
	Projected Fund Status, Year End 2013		
(5)	Estimated Outstanding Loan Balance Total	$	836,509
(6)	Projected Loans[3]	$	1,736,949
(7)	Uncommitted Funds	$	1,585,514
(8)	**Total**	**$**	**4,158,972**
	Loan Funds Available in 2014		
(9)	Uncommitted Funds	$	1,585,514
(10)	2014 Repayments from from loans[4]	$	1,655,863
(11)	2014 Finace Budget	$	-
(12)	**Total Available for Loans in 2014**	**$**	**3,241,378**

Notes

1 Includes loands created from 2011 to mid-2013.

2 Includes repayments from the loans in line (2), shown as a negative number. Only includes repayments anticipated in calendar year 2013.

3 Loans projected to be created by year-end 2013.

4 2014 Repayments are a combination of repayments from loans created in 2012 and 2013.

ATTACHMENT 5

Table G-1
National Grid
Gas DSM Funding Sources in 2014 by Sector
$(000)

	Projections by Sector			
	Income Eligible Residential	**Non-Income Eligible Residential**	**Commercial & Industrial**	**Total**
(1) **Projected Budget (from G-2):**	**$5,214.7**	**$10,905.4**	**$9,663.9**	**$25,784.0**
Sources of Other Funding:				
(2) Estimated Year-End 2013 Fund Balance and Interest:	$ (200.0)	$ (1,860.3)	$ 4,010.4	$ 1,950.1
(3) Low Income Weatherization in Base Rates:	$ 200.0			$ 200.0
(4) **Total Other Funding:**	**$ 0.0**	**$ (1,860.3)**	**$ 4,010.4**	**$ 2,150.1**
(5) **Customer Funding Required:**	**$ 5,214.6**	**$ 12,765.7**	**$ 5,653.5**	**$ 23,633.9**
(6) **Forecasted Dth Sales:**				
(7) Forecasted Dth Sales:	1,825,536	18,568,082	25,485,379	45,878,997
(8) Uncollectible Rate of 2.46%:	44,908	456,775	626,940	1,128,623
(9) **Forecasted Dth Sales:**	**1,780,628**	**18,111,307**	**24,858,438**	**44,750,374**
(10) **Energy Efficiency Program Charge per Dth:**	**$ 0.5955**	**$ 0.5955**	**$ 0.4742**	
(11) Currently Effective EE Program Charge	$ 0.4144	$ 0.4144	$ 0.4144	
(12) Adjustment to Reflect Fully Reconciling Funding Mechanism	$ 0.1812	$ 0.1812	$ 0.0598	

Notes

(1) Projected Budget from G-2 includes Regulatory costs allocated to each sector based on forecasted sales.

(2) Fund Balance projetions include projected revenue and spend through year end, with Low Income sector set to $0 through projected subsidization from other sectors. Also includes contribution from C&I sector to Residential sector consistent with 2013 Plan.

Table G-2
National Grid
2014 Gas Energy Efficiency Program Budget ($000)

	Program Planning and Administration	Marketing	Rebates and Other Customer Incentives	Sales, Technical Assistance and Training	Evaluation & Market Research	Shareholder Incentive	Grand Total
Non-Income Eligible Residential:							
ENERGY STAR® HVAC	$53.6	$279.0	$1,621.6	$214.9	$36.9	$0.0	$2,206.0
Energy*Wise*	$105.4	$62.9	$4,600.0	$279.2	$31.3	$0.0	$5,078.8
EnergyWise Multifamily	$21.0	$5.3	$1,210.0	$188.3	$7.9	$0.0	$1,432.5
Home Energy Reports	$18.0	$0.2	$412.4	$37.2	$27.8	$0.0	$495.6
Residential Products Pilot	$2.4	$18.1	$69.4	$59.1	$0.1	$0.0	$149.1
Residential New Construction	$7.3	$0.4	$450.0	$180.6	$1.5	$0.0	$639.9
Comprehensive Marketing - Residential	$2.5	$151.8	$0.0	$0.3	$0.1	$0.0	$154.8
Community Based Initiatives - Residential	$0.9	$0.0	$30.0	$13.5	$5.1	$0.0	$49.5
Residential Shareholder Incentive	$0.0	$0.0	$0.0	$0.0	$0.0	$510.3	$510.3
Subtotal - Non-Income Eligible Residential	**$211.2**	**$517.8**	**$8,393.4**	**$973.1**	**$110.7**	**$510.3**	**$10,716.5**
Income Eligible Residential:							
Single Family - Income Eligible Services	$24.4	$12.2	$1,972.0	$693.8	$17.3	$0.0	$2,719.7
Income Eligible Multifamily	$56.8	$6.1	$1,897.5	$255.6	$13.1	$0.0	$2,228.9
Income Eligible Shareholder Incentive	$0.0	$0.0	$0.0	$0.0	$0.0	$247.4	$247.4
Subtotal - Income Eligible Residential	**$81.1**	**$18.3**	**$3,869.5**	**$949.4**	**$30.4**	**$247.4**	**$5,196.1**
Commercial & Industrial							
Large Commercial New Construction	$77.2	$131.4	$1,545.3	$517.7	$79.7	$0.0	$2,351.3
Large Commercial Retrofit	$121.9	$209.3	$3,037.6	$820.7	$97.5	$0.0	$4,286.8
Small Business Direct Install	$7.5	$80.5	$328.3	$218.6	$27.3	$0.0	$662.1
Commercial & Industrial Multifamily	$14.2	$41.3	$368.2	$98.3	$0.3	$0.0	$522.2
Commercial & Industrial Pilots	$6.9	$32.9	$327.4	$69.4	$0.2	$0.0	$436.9
Finance Costs	$0.0	$0.0	$500.0	$0.0	$0.0	$0.0	$500.0
Comprehensive Marketing - Commercial & Industrial	$3.9	$176.7	$0.0	$10.6	$0.1	$0.0	$191.2
Community Based Initiatives - C&I	$0.0	$0.0	$0.0	$30.0	$0.0	$0.0	$30.0
Commercial & Industrial Shareholder Incentive	$0.0	$0.0	$0.0	$0.0	$0.0	$424.0	$424.0
Subtotal - Commercial & Industrial	**$231.5**	**$671.9**	**$6,106.8**	**$1,765.3**	**$205.1**	**$424.03**	**$9,404.6**
Regulatory							
EERMC	$280.2	$0.0	$0.0	$0.0	$0.0	$0.0	$280.2
OER	$186.8	$0.0	$0.0	$0.0	$0.0	$0.0	$186.8
Subtotal - Regulatory	**$466.9**	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$466.9**
Grand Total	**$990.7**	**$1,208.0**	**$18,369.6**	**$3,687.7**	**$346.2**	**$1,181.8**	**$25,784.0**

Notes:

(1) OER is equal to 0.8% and EERMC is equal to 1.2% of total collections from customers' Energy Efficiency Program Charge, reduced by 2%.

Table G-3
National Grid
Derivation of the 2014 Spending & Implementation Budgets ($000)

	Proposed 2013 Budget From G-2 ($000)	Outside Finance and Stakeholder Oversight Costs ($000)	Shareholder Incentive ($000)	Evaluation Costs ($000)	Eligible Sector Spending Budget for Shareholder Incentive on G-9 ($000)[1]	Implementation Expenses for Cost-Effectiveness on G-5 ($000)[2]
Non-Income Eligible Residential						
ENERGY STAR® HVAC	$ 2,206.0		$ -	$ 36.9		$ 2,169.1
Energy*Wise*	$ 5,078.8		$ -	$ 31.3		$ 5,047.5
EnergyWise Multifamily	$ 1,432.5		$ -	$ 7.9		$ 1,424.6
Home Energy Reports	$ 495.6		$ -	$ 27.8		$ 467.8
Residential Products Pilot	$ 149.1		$ -	$ 0.1		$ 149.0
Residential New Construction	$ 639.9			$ 1.5		
Comprehensive Marketing - Residential	$ 154.8		$ -	$ 0.1		$ 154.7
Community Based Initiatives - Residential	$ 49.5		$ -	$ 5.1		$ 44.4
Residential Shareholder Incentive	$ 510.3		$ 510.3	$ -		$ -
Subtotal - Non-Income Eligible Residential	**$ 10,716.5**	**$ -**	**$ 510.3**	**$ 110.7**	**$ 10,206.1**	**$ 10,095.4**
Income Eligible Residential						
Single Family - Income Eligible Services	$ 2,719.7		$ -	$ 17.3		$ 2,702.4
Income Eligible Multifamily	$ 2,228.9		$ -	$ 13.1		$ 2,215.9
Income Eligible Shareholder Incentive	$ 247.4		$ 247.4	$ -		$ -
Subtotal - Income Eligible Residential	**$ 5,196.1**	**$ -**	**$ 247.4**	**$ 30.4**	**$ 4,948.7**	**$ 4,918.3**
Commercial & Industrial						
Large Commercial New Construction	$ 2,351.3		$ -	$ 79.7		$ 2,271.6
Large Commercial Retrofit	$ 4,286.8		$ -	$ 97.5		$ 4,189.4
Small Business Direct Install	$ 662.1		$ -	$ 27.3		$ 634.9
Commercial & Industrial Multifamily	$ 522.2		$ -	$ 0.3		$ 521.9
Commercial & Industrial Pilots	$ 436.9		$ -	$ 0.2		$ 436.6
Finance Costs	$ 500.0	$ 500.0	$ -	$ -		$ 500.0
Comprehensive Marketing - Commercial & Industrial	$ 191.2		$ -	$ 0.1		$ 191.1
Community Based Initiatives - C&I	$ 30.0		$ -	$ -		$ 30.0
Commercial & Industrial Shareholder Incentive	$ 424.0		$ 424.0	$ -		$ -
Subtotal - Commercial & Industrial	**$ 9,404.6**	**$ 500.0**	**$ 424.0**	**$ 205.1**	**$ 8,480.5**	**$ 8,775.5**
Regulatory						
EERMC	$ 280.2	$ 280.2				$ 280.2
OER	$ 186.8	$ 186.8				$ 186.8
Subtotal - Regulatory	**$ 466.9**	**$ 466.9**	$ -	$ -		**$ 466.9**
Grand Total	**$ 25,784.0**	**$ 466.9**	**$ 1,181.8**	**$ 346.2**	**$ 23,635.3**	**$ 24,256.1**

Notes:
(1) Eligbile Sector Spending Budget = Budget from G-2 minus Regulatory Costs, Finance Costs, and Shareholder Incentive
(2) Implementation Expenses = Budget from G-2 minus Evaluation Costs and Shareholder Incentive

Table G-4
National Grid
Proposed 2014 Budget Compared to Approved 2013 Budget ($000)

	Proposed Budget 2014 from G-2	2013 Approved Gas Budget	Difference
Non-Income Eligible Residential			
ENERGY STAR® HVAC	$ 2,206.0	$ 2,441.9	$ (235.9)
EnergyWise	$ 5,078.8	$ 3,511.6	$ 1,567.2
EnergyWise Multifamily	$ 1,432.5	$ 464.5	$ 968.0
Home Energy Reports	$ 495.6	$ 304.6	$ 191.0
Residential Products Pilot	$ 149.1	$ 172.9	$ (23.8)
Residential New Construction	$ 639.9	$ 344.2	$ 295.7
Comprehensive Marketing - Residential	$ 154.8	$ 174.6	$ (19.8)
Community Based Initiatives - Residential	$ 49.5	$ 60.0	$ (10.5)
Residential Shareholder Incentive	$ 510.3	$ 373.7	$ 136.6
Subtotal - Non-Income Eligible Residential	**$ 10,716.5**	**$ 7,847.9**	**$ 2,868.5**
Income Eligible Residential			
Single Family - Income Eligible Services	$ 2,719.7	$ 2,450.1	$ 269.6
Income Eligible Multifamily	$ 2,228.9	$ 1,628.6	$ 600.3
Income Eligible Shareholder Incentive	$ 247.4	$ 203.9	$ 43.5
Subtotal - Income Eligible Residential	**$ 5,196.1**	**$ 4,282.7**	**$ 913.4**
Commercial & Industrial			
Large Commercial New Construction	$ 2,351.3	$ 2,202.1	$ 149.2
Large Commercial Retrofit	$ 4,286.8	$ 3,163.2	$ 1,123.6
Small Business Direct Install	$ 662.1	$ 159.2	$ 502.9
Commercial & Industrial Multifamily	$ 522.2	$ 421.5	$ 100.8
Commercial & Industrial Pilots	$ 436.9	$ 301.5	$ 135.3
Finance Costs	$ 500.0	$ 300.0	$ 200.0
Comprehensive Marketing - Commercial & Industrial	$ 191.2	$ 165.2	$ 26.0
Community Based Initiatives - C&I	$ 30.0	$ -	$ 30.0
Commercial & Industrial Shareholder Incentive	$ 424.0	$ 320.6	$ 103.4
Subtotal Commercial & Industrial	**$ 9,404.6**	**$ 7,033.4**	**$ 2,371.1**
Regulatory			
EERMC	$ 280.2	$ 225.6	$ 54.5
OER	$ 186.8	$ 150.4	$ 36.4
Subtotal Regulatory	**$ 466.9**	**$ 376.0**	**$ 90.9**
TOTAL BUDGET	**$ 25,784.0**	**$ 19,540.0**	**$ 6,244.0**

Table G-5
National Grid
Calculation of 2014 Program Year Cost-Effectiveness
All Dollar Values in ($000)

	Rhode Island Benefit/ Cost	Total Benefit	Program Implementation Expenses	Customer Contribution	Evaluation Cost	Shareholder Incentive	TRC $/Lifetime MMBtu
Non-Income Eligible Residential							
Energy Star® HVAC	1.11	$ 4,155.9	$ 2,169.1	$ 1,547.0	$ 36.9		$ 9.93
EnergyWise	1.35	$ 8,758.3	$ 5,047.5	$ 1,400.2	$ 31.3		$ 10.76
EnergyWise MultiFamily	2.64	$ 4,711.7	$ 1,424.6	$ 352.5	$ 7.9		$ 9.72
Home Energy Reports	1.19	$ 591.7	$ 467.8	$ -	$ 27.8		$ 6.71
Residential New Construction	1.14	$ 871.4	$ 638.4	$ 122.6	$ 1.5		$ 12.43
Comprehensive Marketing - Residential		$ -	$ 154.7	$ -	$ 0.1		
Community Based Initiatives - Residential		$ -	$ 44.4	$ -	$ -		
Residential Products Pilot		$ -	$ 149.0	$ -	$ 0.1		
Non-Income Eligible Residential Subtotal	**1.35**	**$ 19,089.0**	**$ 10,095.4**	**$ 3,422.3**	**$ 105.6**	**$ 510.3**	**$ 10.48**
Income Eligible Residential							
Single Family - Income Eligible Services	1.01	$ 2,736.0	$ 2,702.4	$ -	$ 17.3		$ 20.21
Income Eligible Multifamily	4.25	$ 9,483.5	$ 2,215.9	$ -	$ 13.1		$ 6.24
Income Eligible Residential Subtotal	**2.47**	**$ 12,219.5**	**$ 4,918.3**	**$ -**	**$ 30.4**	**$ 247.4**	**$ 10.07**
Large Commercial & Industrial							
Large Commercial New Construction	2.52	$ 6,172.6	$ 2,271.6	$ 99.6	$ 79.7		$ 3.43
Large Commercial Retrofit	2.22	$ 14,055.2	$ 4,189.4	$ 2,032.2	$ 97.5		$ 3.65
Small Business Direct Install	1.18	$ 829.9	$ 634.9	$ 42.8	$ 27.3		$ 9.38
Commercial & Industrial Multifamily	1.45	$ 1,141.4	$ 521.9	$ 266.2	$ 0.3		$ 6.80
Comprehensive Marketing - Commercial and Industrial		$ -	$ 191.1	$ -	$ 0.1		
Commercial and Industrial Pilots		$ -	$ 436.6	$ -	$ 0.2		
Community Based Initiatives - C&I		$ -	$ 30.0	$ -	$ -		
Finance Costs		$ -	$ 500.0	$ -	$ -		
Commercial & Industrial Subtotal	**1.87**	**$ 22,199.0**	**$ 8,775.5**	**$ 2,440.9**	**$ 205.1**	**$ 424.0**	**$ 4.33**
Regulatory							
EERMC			$ 280.2				
OER			$ 186.8				
Regulatory Subtotal			**$ 466.9**				
Grand Total	**1.69**	**$ 53,507.6**	**$ 24,256.1**	**$ 5,863.2**	**$ 341.1**	**$ 1,181.8**	**$ 6.88**

Table G-6
National Grid
Summary of 2014 Benefits and Savings by Program

	Benefits ($000)			MMBTU Gas Saved	
	Total(1)	Natural Gas(2)	Non-Gas Benefit (3)	Annual	Lifetime(4)
Non-Income Eligible Residential					
Energy*Wise*	$8,758.3	$5,493.0	$3,265.4	30,120	602,399
Energy Star® HVAC	$4,155.9	$3,332.6	$823.3	22,735	378,064
EnergyWise Multifamily	$4,711.7	$1,707.6	$3,004.2	9,924	183,703
Home Energy Reports	$591.7	$591.7	$0.0	73,877	73,877
Residential New Construction	$871.4	$871.4	$0.0	4,018	61,362
Non-Income Eligible Residential SUBTOTAL	**$19,089.0**	**$11,996.2**	**$7,092.9**	**140,674**	**1,299,404**
Income Eligible Residential					
Single Family - Income Eligible Services	$2,736.0	$1,227.3	$1,508.6	6,730	134,600
Income Eligible Multifamily	$9,483.5	$3,300.0	$6,183.5	19,595	356,974
Income Eligible Residential SUBTOTAL	**$12,219.5**	**$4,527.4**	**$7,692.1**	**26,325**	**491,574**
Commercial & Industrial					
Large Commercial New Construction	$6,172.6	$6,169.9	$2.8	35,393	714,325
Large Commercial Retrofit	$14,055.2	$14,050.5	$4.6	135,056	1,731,419
Small Business Direct Install	$829.9	$824.2	$5.6	12,348	75,135
Commercial & Industrial Multifamily	$1,141.4	$1,140.3	$1.1	6,127	115,878
Commercial & Industrial SUBTOTAL	**$22,199.0**	**$22,184.9**	**$14.1**	**188,924**	**2,636,757**
TOTAL	**$53,507.6**	**$38,708.4**	**$14,799.1**	**355,923**	**4,427,735**

Table G-7
National Grid
Comparison of 2013 and 2014 Goals

	Proposed 2014			Approved 2013			Difference	
	Annual Energy Savings (MMBTU Natural Gas)	Participants	Population Reached	Annual Energy Savings (MMBTU Natural Gas)	Participants	Population Reached	Annual Energy Savings (MMBTU Natural Gas)	Participants
Non-Income Eligible Residential								
Energy*Wise*	30,120	2,000	1%	30,333	2,000	1%	-213	0
Energy Star® HVAC	22,735	2,887	1%	19,544	1,578	1%	3,191	1,310
EnergyWise Multifamily	9,924	2,200	1%	5,605	700	0%	4,319	1,500
Home Energy Reports	73,877	180,000	87%	35,781	136,475	66%	38,097	43,525
Residential New Construction	4,018	412	13%	2,900	584	19%	1,118	-172
Non-Income Eligible Residential SUBTOTAL	**140,674**	**187,499**	**89%**	**94,161**	**141,337**	**67%**	**46,512**	**46,163**
Income Eligible Residential								
Single Family - Income Eligible Services	6,730	420	2%	6,250	400	2%	480	20
Income Eligible Multifamily	19,595	2,530	13%	16,562	2,200	11%	3,033	330
Income Eligible Residential SUBTOTAL	**26,325**	**2,950**	**15%**	**22,812**	**2,600**	**13%**	**3,513**	**350**
Commercial & Industrial								
Large Commercial New Construction	35,393	213	4%	35,967	170	4%	-574	44
Large Commercial Retrofit	135,056	673	14%	123,451	235	5%	11,605	439
Small Business Direct Install	12,348	372	2%	6,583	209	1%	5,765	163
Commercial & Industrial Multifamily	6,127	818	TBD	4,800	600	TBD	1,327	218
Commercial & Industrial SUBTOTAL	**188,924**	**2,076**	**9%**	**170,802**	**1,213**	**5%**	**18,122**	**863**
TOTAL	**355,923**	**192,526**	**76%**	**287,775**	**145,150**	**57%**	**68,148**	**47,376**

Note:

(1) Participants can participate in more than one program, for example Home Energy Reports and EnergyWise. Therefore, participation can be greater than 100%.

(2) The total poplulation for Residential New Construction is the number of new customer homes that will be built in 2014, which is estimated as 1.5% of the current customer base.

Table G-8
National Grid
Avoided Costs Used in 2014 Benefit-Cost Model

	RESIDENTIAL				COMMERCIAL & INDUSTRIAL			ALL
Year	Non Heating	Hot Water	Heating	All	Non Heating	Heating	All	RETAIL END USES
2013	5.32	5.78	6.90	6.73	5.51	6.35	6.05	6.41
2014	5.53	5.98	7.10	6.93	5.72	6.56	6.26	6.61
2015	5.54	5.98	7.09	6.93	5.72	6.56	6.26	6.61
2016	5.61	6.08	7.21	7.03	5.81	6.66	6.36	6.71
2017	5.71	6.34	7.51	7.30	5.96	6.91	6.57	6.95
2018	6.02	6.62	7.79	7.58	6.26	7.20	6.86	7.24
2019	6.46	6.95	8.08	7.90	6.66	7.53	7.22	7.58
2020	6.73	7.20	8.33	8.15	6.93	7.78	7.48	7.83
2021	6.87	7.36	8.48	8.30	7.07	7.93	7.62	7.98
2022	7.07	7.55	8.67	8.50	7.27	8.12	7.82	8.18
2023	7.20	7.67	8.80	8.62	7.40	8.25	7.95	8.30
2024	7.33	7.82	8.95	8.77	7.53	8.39	8.08	8.44
2025	7.52	7.99	9.12	8.94	7.72	8.57	8.27	8.62
2026	7.64	8.13	9.25	9.07	7.84	8.70	8.39	8.75
2027	7.76	8.25	9.37	9.19	7.96	8.82	8.51	8.87
2028	7.86	8.34	9.46	9.29	8.06	8.91	8.61	8.97
2029	7.86	8.34	9.46	9.29	8.06	8.91	8.61	8.97
2030	7.86	8.34	9.46	9.29	8.06	8.91	8.61	8.97
2031	7.86	8.34	9.46	9.29	8.06	8.91	8.61	8.97
2032	7.86	8.34	9.46	9.29	8.06	8.91	8.61	8.97
2033	7.86	8.34	9.46	9.29	8.06	8.91	8.61	8.97
2034	7.86	8.34	9.46	9.29	8.06	8.91	8.61	8.97
2035	7.86	8.34	9.46	9.29	8.06	8.91	8.61	8.97
2036	7.86	8.34	9.46	9.29	8.06	8.91	8.61	8.97
2037	7.86	8.34	9.46	9.29	8.06	8.91	8.61	8.97
2038	7.86	8.34	9.46	9.29	8.06	8.91	8.61	8.97
2039	7.86	8.34	9.46	9.29	8.06	8.91	8.61	8.97
2040	7.86	8.34	9.46	9.29	8.06	8.91	8.61	8.97
2041	7.86	8.34	9.46	9.29	8.06	8.91	8.61	8.97
2042	7.86	8.34	9.46	9.29	8.06	8.91	8.61	8.97
2043	7.86	8.34	9.46	9.29	8.06	8.91	8.61	8.97

From 2013 Avoided Cost Study
Appendix C for Southern New England

Table G-9
National Grid
2014 Targeted Shareholder Incentive

Incentive Rate: 5.00%

Sector	(1) Eligible Spending Budget $(000)	(2) Target Incentive $(000)	(3) Target Savings Goal (MMBTU)	(4) Threshold Savings (MMBTU)	(5) Target Incentive Per Annual MMBTU
Income Eligible Residential	$4,949	$247.4	26,325	19,744	$9.399
Non-Income Eligible Residential	$10,206	$510.3	140,674	105,505	$3.628
Commercial & Industrial	$8,481	$424.0	188,924	141,693	$2.244
Total	$ 23,635	$1,181.8	355,923	266,942	$3.320

Notes:

(1) Eligible Spending Budget excludes EERMC, OER, Finance Costs, and Shareholder Incentive. See Table G-3 for details.

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

(3) See Table G-7

(4) 75% of Column (3). No incentive is earned on annual MMBTU savings in the sector unless the Company achieves at least this threshold level of performance.

(5) Column (2)*1000/Column (3). This illustration is for achieved savings equal to the savings target. The incentive earned per MMBtu will vary with the percent of the savings target achieved

The shareholder incentive will be calculated as follow, where SB is the Spending Budget in the sector:
• From 75% of savings to 100% of savings: Shareholder Incentive = SB x (0.15 x % of savings achieved – 0.10)
• From 100% of savings to 125% of savings: Shareholder Incentive = SB x (0.05 x % of savings achieved)