Jennifer Brooks Hutchinson
Senior Counsel

September 2, 2014

VIA HAND DELIVERY & ELECTRONIC MAIL

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

RE: 2015-2017 Energy Efficiency and System Reliability Procurement Plan Docket No. _____

Dear Ms. Massaro:

Enclosed please find an original and nine (9) copies of National Grid's[1] 2015-2017 Energy Efficiency and System Reliability Procurement Plan (Plan) for approval by the Rhode Island Public Utilities Commission (PUC) in compliance with R.I.G.L. § 39-1-27.7 and the 2014 revisions to the Energy Efficiency Procurement Standards and System Reliability Procurement Standards (Standards), approved by the PUC in Docket 4443.

The Plan is comprised of two parts: Energy Efficiency Procurement and System Reliability Procurement. As in prior years, both parts of the Plan are the product of many meetings and discussions with the members of the Rhode Island Energy Efficiency Collaborative and representatives of the Rhode Island Energy Efficiency Resource Management Council (EERMC). The EERMC voted to endorse the Plan on August 18, 2014.

This Plan is submitted for the Commission's review and approval as a framework for the detailed annual Energy Efficiency Program Plans (EE Program Plans) and annual System Reliability Reports (SRP Reports) to be submitted over the next three years. A detailed EE Program Plan will be filed with the PUC for review and approval by November 1, 2014 for program year 2015, and by October 15 for the following two program years (2016 and 2017). A detailed SRP Report will be filed with the PUC for review and approval on November 1, 2014 and subsequently by November 1 of each year prior to the applicable program year.

[1] The Narragansett Electric Company d/b/a National Grid (National Grid or the Company).

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PUC approval of this Plan will provide essential guidance for development of the Company's annual EE Program Plans and SRP Reports. These annual filings will be based on the latest information about equipment performance, funding sources, and market conditions available at the time of the filing. Therefore, it is possible that there will be variations from the Plan submitted in this instant filing. The Company is committed to reviewing these assumptions annually with the Collaborative Subcommittee and EERMC. Any variations will be described and explained in the annual filings.

Highlights of this Plan include:

- Electric and natural gas savings goals that represent a gradual increase over the last Three-Year Plan and will deliver lifetime benefits of more than $1 billion for Rhode Island electric and gas customers.

- Electric winter and summer demand reduction goals to help mitigate price volatility, reduce strain on the grid, and improve overall system reliability.

- Description of the implementation strategies that will be relied on to meet the savings goals. These are focused on four central themes:

    1. promoting cost efficiency;
    2. empowering communities and markets to be energy efficient;
    3. innovating to capture untapped savings; and
    4. developing opportunities for system-level savings and integration.

- Illustrative annual energy efficiency budgets that show relatively level customer funding required over three years, as costs are managed and funds from the Regional Greenhouse Gas Initiative and the Forward Capacity Market increase.

- Continued operation of the SRP Pilot in Tiverton and Little Compton and strategies to begin to apply early lessons learned to other areas of the state.

While this Plan is submitted by the Company alone, it reflects the input of many parties, including the EERMC and the EERMC's consultant team led by the Vermont Energy Investment Corporation as well as the Collaborative Subcommittee. Members of the Collaborative Subcommittee include the Rhode Island Division of Public Utilities and Carriers and the Division's consultant, Synapse Energy Economics, Environment Northeast, the Office of Energy Resources, People's Power and Light, Rhode Island Alliance for Healthy Homes, and representatives of the EERMC. Many of the Plan components represent areas of significant consensus among the Collaborative Subcommittee members, which the Company anticipates will lead their organizations to submit letters of support for many, if not all, elements of the Plan.

National Grid looks forward to assisting the Commission in the review of 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

Enclosure

cc: Docket 4443 Service List
Karen Lyons, Esq.
Jon Hagopian, Esq.
Steve Scialabba, Division

Certificate of Service

I hereby certify that a copy of the cover letter and/or any materials accompanying this certificate was electronically transmitted to the individuals listed below.

Copies of this filing is being hand delivered to the RI Public Utilities Commission and the RI Division of Public Utilities and Carriers

Joanne M. Scanlon

September 2, 2014
Date

Docket No. 4443 – RI Energy Efficiency and Resource Management Council ("EERMC") – Energy Savings Target (2015-2017)
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The Narragansett Electric Company
d/b/a National Grid

National Grid 2015-2017 Energy Efficiency and System Reliability Procurement Plan

September 2, 2014

Submitted to:

Rhode Island Public Utilities Commission
RIPUC Docket No. _____

Submitted by:

nationalgrid

National Grid 2015-2017 Energy Efficiency and System Reliability Procurement Plan

Table of Contents

Introduction and Summary

"The Comprehensive Energy Conservation, Efficiency and Affordability Act of 2006" (the Act) provides the statutory basis for Least Cost Procurement in the State of Rhode Island. The general purposes of the Act are (1) to provide Rhode Island residents, institutions and businesses the benefit of stability through diversification of energy resources, energy conservation, efficiency, demand management and prudent procurement; (2) to facilitate the development of renewable energy resources; (3) to make the cost of energy more affordable by mitigating demand and rates charged to low-income households; and (4) to strengthen energy planning, program administration, management, and oversight in a manner that is publicly accountable and responsive.

Specifically, the Act provides for Least Cost Procurement of system reliability and energy efficiency and conservation resources. System reliability procurement includes, but is not limited to, renewable energy resources, distributed generation, targeted energy efficiency, direct load control, and demand response. Energy efficiency procurement includes "procurement of energy efficiency and energy conservation measures that are prudent and reliable and when such measures are lower cost than acquisition of additional supply, including supply for periods of high demand."[1]

The Act further requires that "each electrical distribution company shall submit to the Commission on or before September 1, 2008, and triennially on or before September 1, thereafter through September 1, 2017, a plan for system reliability and energy efficiency and conservation procurement."[2] The Act specifies that the plan should include "measurable goals and target percentages for each energy resource, pursuant to standards established by the Commission, including efficiency, distributed generation, demand response, combined heat and power, and renewables."[3]

[1] RIGL §39-1-27.7
[2] RIGL §39-1-27.7
[3] RIGL §39-1-27.7

This 2015-2017 Energy Efficiency and System Reliability Procurement Plan (Plan) is the third such plan submitted in fulfillment of that requirement by The Narragansett Electric Company d/b/a National Grid (National Grid or the Company) for the state of Rhode Island.

The Commission approved the Rhode Island Energy Efficiency Resources Management Council's (EERMC or Council) Electric and Natural Gas Least Cost Procurement Efficiency Savings Targets for Years 2015 – 2017 in compliance with R.I.G.L. §39-1-27.7.1 (2015-2017 Savings Targets) in Docket 4443 at the Open Meeting on March 29, 2014. The cumulative energy efficiency savings targets for the period of 2015 – 2017 are 7.65% of Rhode Island's 2012 electric load and 3.15% of 2012 natural gas load.[4] The Plan is consistent with the revised Energy Efficiency Procurement Standards and System Reliability Procurement Standards (Standards) approved at the Open Meeting on June 10, 2014 as part of Docket 4443, and the cost-effectiveness requirements set forth in R.I.G.L. §39-1-27.7.

This Plan was developed in collaboration with members of the Collaborative Subcommittee (Collaborative). Members of the Collaborative include the Rhode Island Division of Public Utilities and Carriers (Division) and the Division's consultant, Synapse Energy Economics (Synapse), Environment Northeast (ENE), the Office of Energy Resources (OER), People's Power and Light, Rhode Island Alliance for Healthy Homes, EERMC members, and the EERMC's consultant team led by the Vermont Energy Investment Corporation. The EERMC voted to endorse this Plan on August 18, 2014.[5]

The purpose of this Plan is to establish an overarching strategy for the next three years that will lead to successfully meeting the goals of Least Cost Procurement.[6] National Grid seeks Commission approval of this Plan to guide the development of the Energy Efficiency Program Plans for 2015, 2016 and 2017 (EE Program Plans) and the Annual System

[4]Rhode Island Energy Efficiency and Resource Management Council (EERMC), "Energy Efficiency Savings Targets, 2015-2017", Filed September 1, 2013, Docket 4443.
[5] Consistent with RIGL § 42-140.1-5.
[6] As specified by the Standards, every year, the Company will submit to the Public Utilities Commission an Annual Energy Efficiency Program Plan (EE Program Plan) and an Annual System Reliability Plan Report (SRP Report) that will each detail specific steps towards reaching energy efficiency goals and least cost procurement lower than the cost of supply. An EE Program Plan and an SRP Report for 2015 will be submitted to the Commission on or before November 1, 2014.

Reliability Procurement Reports (SRP Reports).[7] This Plan includes annual energy and peak savings goals, transformative energy efficiency themes and implementation strategies, funding plans, illustrative budgets, a shareholder incentive mechanism, and a system reliability procurement plan that will guide the development of detailed EE Program Plans and SRP Reports that will be submitted to the Commission for approval. Therefore, the quantitative aspects of this Plan are illustrative and should be expected to vary in annual plan filings.

Table 1 below summarizes this Plan's electric and natural gas energy efficiency savings goals for each of the next three years, estimated customer benefits, estimated benefit-cost ratios, and the estimated budget needed to procure the cost-effective energy savings each year. In accordance with Rhode Island law and the Standards, the Company seeks the Commission's provisional approval of these three-year energy savings goals and preliminary budget estimates to provide guidance to the Company as it develops its annual EE Program Plans and SRP Reports. As prescribed by the Standards, the Company will submit a detailed EE Program Plan for the next program year by November 1 for program year 2015 and by October 15 for program years 2016 and 2017 for the Commission's review and consideration.

Table 1 shows that the three-year electric energy savings replicate the Commission's March 29, 2014 decision regarding efficiency targets in Docket 4443: meeting 2.50%, 2.55%, and 2.60% of 2012 electric load and 1.00%, 1.05%, and 1.10% of 2012 natural gas load through new energy efficiency measures in 2015, 2016, and 2017 respectively. The Company will be able to meet these energy saving goals cost-effectively through existing measures and new program innovations and enhancements detailed further in this plan. The Company also expects to exceed the approved winter and summer demand savings targets due to the anticipated mix of energy efficiency measures and strategies.

[7] The 2015 Annual EE Program Plan and 2015 SRP Report will be filed with the Commission for approval by November 1, 2014. The 2016 and 2017 Annual EE Program Plans will be filed by October 15, 2015 and October 15, 2016, respectively. The 2016 and 2017 SRP Reports will be filed by November 1, 2015 and November 1, 2016, respectively.

Table 1. 2015-17 Three Year Plan Summary

Electric Programs	2015	2016	2017
Savings and Benefits			
Annual MWh Savings	193,603	197,475	201,347
Lifetime MWh Savings	1,956,845	2,064,074	2,164,927
Savings as a Percent of 2012 sales	2.50%	2.55%	2.60%
Annual Peak kW Savings	31,447	32,209	32,181
Winter Peak kW Savings	33,700	34,871	36,121
Total Benefits	$ 282,875,002	$ 303,660,783	$ 316,528,156
Costs			
Total Spending*	$ 86,741,232	$ 86,052,775	$ 90,867,248
TRC Cents per lifetime kWh	$ 0.055	$ 0.052	$ 0.053
Utility Cost per lifetime kWh	$ 0.043	$ 0.041	$ 0.041
EE Program Charge per kWh**	$ 0.00966	$ 0.00997	$ 0.00941
Benefit Cost Ratio	2.61	2.82	2.76
Participants	TBD	TBD	TBD

*Total Spending includes implementation, evaluation, commitments, EERMC, and shareholder incentive; does not include any incremental funds for System Reliability Procurement

**EE Program Charge reflects revenue from the Regional Greenhouse Gas Initiative and the Forward Capacity Market. These sources of revenue are projected to increase in 2017 and help to reduce the amount of money needed to be collected from customers through the charge.

Natural Gas Programs	2015	2016	2017
Savings and Benefits			
Annual MMBtu Savings	376,915	395,760	414,606
Lifetime MMBtu Savings	4,048,728	4,302,219	4,536,303
Savings as a Percent of 2012 sales	1.00%	1.05%	1.10%
Total Benefits	$ 59,415,057	$ 64,517,962	$ 67,758,168
Costs			
Total Spending*	$ 24,416,348	$ 25,778,730	$ 27,388,832
TRC Dollars per lifetime MMBtu	$ 7.27	$ 7.23	$ 7.28
Utility Cost per lifetime MMBtu	$ 5.91	$ 5.87	$ 5.92
Avg EE Program Charge per Dth	$ 0.681	$ 0.658	$ 0.697
Residential Charge per Dth	$ 0.750	$ 0.726	$ 0.768
C&I Charge per Dth	$ 0.615	$ 0.595	$ 0.629
Benefit Cost Ratio	2.02	2.07	2.05
Participants	TBD	TBD	TBD

*Total Spending includes implementation, evaluation, commitments, EERMC, OER, and shareholder incentive.

The EERMC will continue to provide input to help oversee and conduct an in-depth review of the cost-effectiveness of each EE Program Plan that is submitted to the Commission annually, pursuant to § 39-1-27.7(c)(5) of the General Laws and the Standards.

The Plan also includes an overview of the Company's approach to System Reliability Procurement (SRP) over the 2015-2017 period, developed in accordance with the Standards. The 2015–2017 SRP plan describes National Grid's proposed approach to further test and promote the concept of non-wires alternatives (NWAs) in Rhode Island through a growing list of emerging technologies and best practices. As in the past, annual system reliability procurement reports will continue to be submitted to the Commission for consideration on November 1, of each year. The annual reports will include, among other information, a summary of where NWAs were considered, identification of projects where NWAs were selected as a preferred solution, and implementation and funding plans for selected and ongoing NWA projects.

Energy Efficiency Procurement

Benefits of Least Cost Procurement

Since its implementation, Least Cost Procurement has provided significant benefits to the state of Rhode Island. The 2009-2011 and 2012-2014 Energy Efficiency Procurement Plans and related Annual EE Program Plans guided the Company to implement cost-effective natural gas and electric energy efficiency programs to homeowners, businesses, municipalities, and non-profits throughout the state. These programs enabled electric and natural gas customers to save money on their energy bills, created jobs and local investment in the Rhode Island economy, and reduced overall electricity and natural gas consumption helping to lower greenhouse gas emissions.

As detailed in Table 2, from 2009 to 2013 the Company served 1,186,479 electric program participants[8], resulting in annual electric savings of 537,528 MWh, and lifetime savings of 5,806,047 MWh at an average cost of $0.031 per lifetime kWh saved. The electric savings will avoid over 1.9 million metric tons of carbon dioxide over the lifetime of the installed

[8] Electric participation is aggregate and includes repeat participation by individual customers.

efficiency measures,[9] the equivalent of removing approximately 400,000 cars from the road. The Company also served 164,416 gas participants[10], resulting in annual natural gas savings of 996,306 MMBtu, and lifetime savings of 14,011,117 MMBtu at an average cost of $3.48 per lifetime MMBtu. This reduction in electricity and natural gas consumption over the five year period represents a savings to customers of $807.8 million over the lifetime of the installed efficiency measures.[11] In 2014, the Company continued on the trajectory of savings approved for the second three-year plan, and as of this summer, is on course to meet the 2014 electric savings goal of 255,314 annual MWh and 329,963 annual MMBtu.

Table 2. Summary of 2009-2014 EE Plans

Electric Programs	2009 (Actual)	2010 (Actual)	2011 (Actual)	2012 (Actual)	2013 (Actual)	2014 (Planned)
Annual MWh Savings	81,543	81,275	96,009	119,666	159,035	255,314
Lifetime MWh Savings	899,331	929,242	1,076,778	1,288,325	1,612,371	3,305,615
Total Benefits ($000)	$123,045	$128,864	$151,542	$140,104	$192,418	$367,360
Total Spending* ($000)	$29,536	$29,712	$39,308	$50,719	$72,875	$87,070
TRC Benefit Cost Ratio**	3.02	3.73	3.35	2.24	2.24	3.15
EE Program Charge/kWh	$0.0032	$0.0032	$0.00526	$0.00589	$0.00862	$0.00896
$ per lifetime kwh***	$0.027	$0.027	$0.031	$0.036	$0.039	$0.025
Participants	106,525	153,611	254,747	201,351	470,245	513,134
Natural Gas Programs	**2009 (Actual)**	**2010 (Actual)**	**2011 (Actual)**	**2012 (Actual)**	**2013 (Actual)**	**2014 (Planned)**
Annual MMBtu Savings	195,200	140,097	119,613	229,811	311,585	329,963
Lifetime MMBtu Savings	2,553,828	2,155,112	1,623,922	3,300,583	4,377,672	4,052,374
Total Benefits ($000)	$26,071	$26,309	$18,196	$36,237	$44,747	$49,021
Total Spending* ($000)	$6,552	$5,496	$4,868	$13,310	$19,501	$23,492
TRC Benefit Cost Ratio**	2.83	2.31	2.21	1.68	1.78	1.70
EE Program Charge/Dth	$0.150	$0.150	$0.150 ****$0.411	$0.384	$0.414	$0.600 (Resi) $0.492 (C&I)
$ per lifetime MMBtu***	$2.44	$2.33	$2.73	$3.72	$4.21	$5.45
Participants	8,339	5,670	3,080	11,681	135,646	191,435

*Total Spending includes implementation, evaluation, commitments, EERMC, and shareholder incentive

**TRC Benefit/Cost Ratio = Benefits/(Implementation Expenses + Customer Contribution + Evaluation Cost + Shareholder Incentives).

***Implementation costs/Lifetime savings

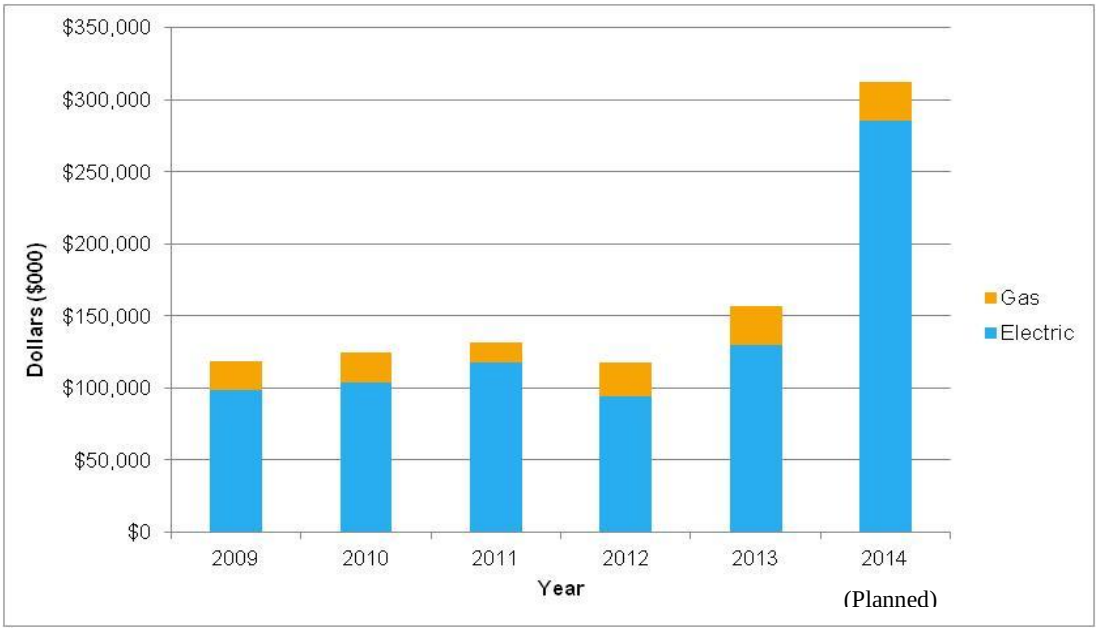
**** December 2011 PUC voted to increase gas EE Program charge to $0.411/Dth.

Actual values are from filed Annual Reports. 2014 Value from 2014 Annual Plan.

[9] ISO New England Electric Generation System Annual Average CO2 Emission Rates 2012.
[10] Gas participation is aggregate and includes repeat participation by individual customers.
[11] Savings equals the value of electric benefits detailed in Table E-2 and G-2 of the Company's Year End Report filings in years 2009-2013.

The electric and natural gas efficiency investments made between 2009 and 2013 also created a positive impact on the Rhode Island economy. Investments made in energy efficiency under Least Cost Procurement are expected to add over $892 million to Rhode Island's Gross State Product and create more than 9,700 job-years of employment.[12]
As the energy savings requirements of Least Cost Procurement grew over the past six years, so have the benefits. Chart 1 details the total benefits of energy efficiency after accounting for program costs. Total benefits include the avoided cost of supply, avoided cost of transmission and distribution, as well as non-electric benefits such as water and maintenance savings.

Chart 1. Net Benefits of Least Cost Procurement



The Company also provided energy efficiency services to delivered fuel heating customers through the income eligible programs. As detailed in table 3, market rate homeowners, with a delivered fuel as a primary heating source, were also eligible for energy efficiency services from 2009-2012 as a result of American Reinvestment and Recovery Act funding, in 2013 from electric EE Program Charge funds, and in 2014 from Regional Greenhouse Gas Initiative funds.

[12] Macroeconomic multipliers for the economic growth and job creation benefits of investing in cost-effective energy efficiency from National Grid's 2014 Regional Economic Model (REMI) Analysis as presented to the Collaborative on May 29, 2014.

Table 3. Historical Market Rate Energy Efficiency Services in Delivered Fuels Sector

Program Year	Oil Savings (Annual MMBtu)	Funding Amount	Funding Source
2010	16,046.6	$910,587	ARRA
2011	30,573.3	$1,707,780	ARRA
2012	14,482.9	$879,220	ARRA & EE Program Charge
2013	15,036.8	$795,463	EE Program Charge
2014	9,921.92 (YTD)	$800,000	RGGI

While there are no oil savings targets in the three-year plan, the Company is committed to continuing its participation in the OER's Thermal Working Group to identify the savings potential, benefits, and options for a more sustainable approach to funding delivered fuel energy efficiency. Over 30% of Rhode Island homeowners use delivered fuels to heat their homes. These homes still need the same energy efficiency solutions as those served by electric and natural gas, and the Company is well-positioned to serve all Rhode Island households.

It is clear that the benefits of Least Cost Procurement far outweigh the costs, providing significant benefits to Rhode Island electric and natural gas customers. The Company appreciates the opportunity to continue working with the Commission and the EERMC to deliver cost-effective energy savings over the next three-years and meet the growing customer demand for energy efficiency programs and services.

Energy Savings Goals

Table 4 details the savings targets for 2015-2017 that were established by the EERMC through careful analysis and approved by the Commission at the Open Meeting on March 29, 2014 in Docket 4443. Each annual EE Program Plan will aim to achieve these targets. However, as noted in the Standards, the savings goals in each EE Program Plan will be updated as needed based on budget considerations, program performance, market conditions, and evaluation studies.

Table 4. 2015-2017 Approved Savings Targets

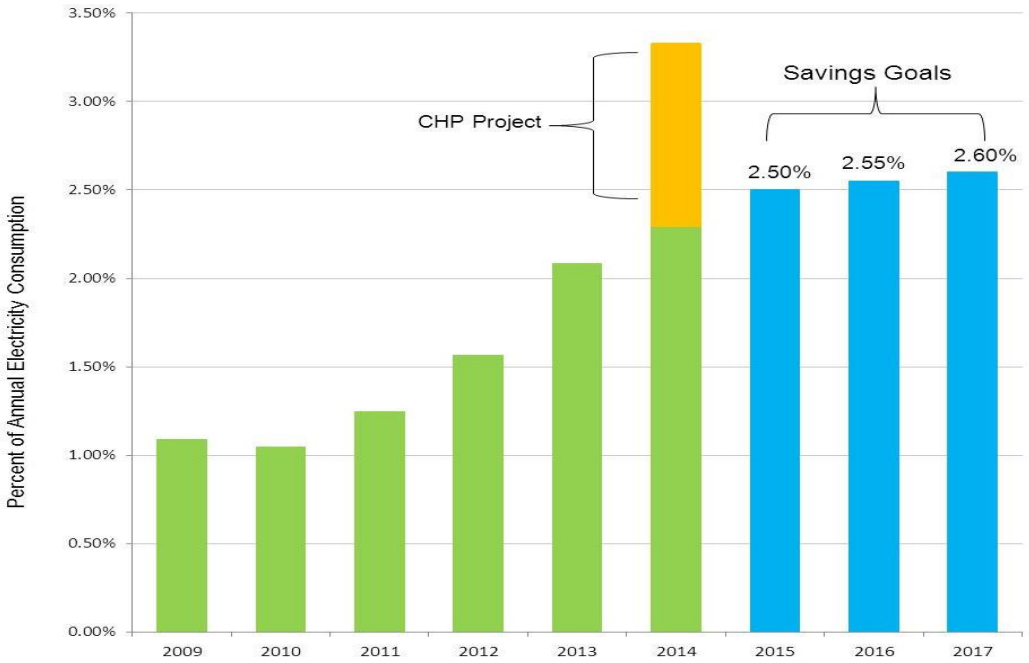
Electric Targets	2015	2016	2017	Total
% of 2012 Electric Sales	2.50%	2.55%	2.60%	**7.65%**
Electricity (Annual MWh)	193,603	197,475	201,347	**592,425**
Summer Demand (kW)	27,268	27,813	28,359	**83,440**
Winter Demand (kW)	27,658	28,211	28,764	**84,633**
Natural Gas Targets	**2015**	**2016**	**2017**	**Total**
% of 2012 Natural Gas Sales	1.00%	1.05%	1.10%	**3.15%**
Natural Gas (Annual MMBtu)	376,915	395,760	414,606	**1,187,281**

The 2015-2017 savings targets proposed here are ambitious and will deliver cost-effective energy savings to Rhode Islanders on a large scale. Achieving these savings targets will enable Rhode Island to remain a leader in energy efficiency and allow more electric and gas customers to benefit from energy efficiency. The electric and natural gas savings goals detailed in the Plan are identical to the approved targets and the demand savings are projected to be higher due to the resulting mix of energy efficiency measures.

Electric Goals

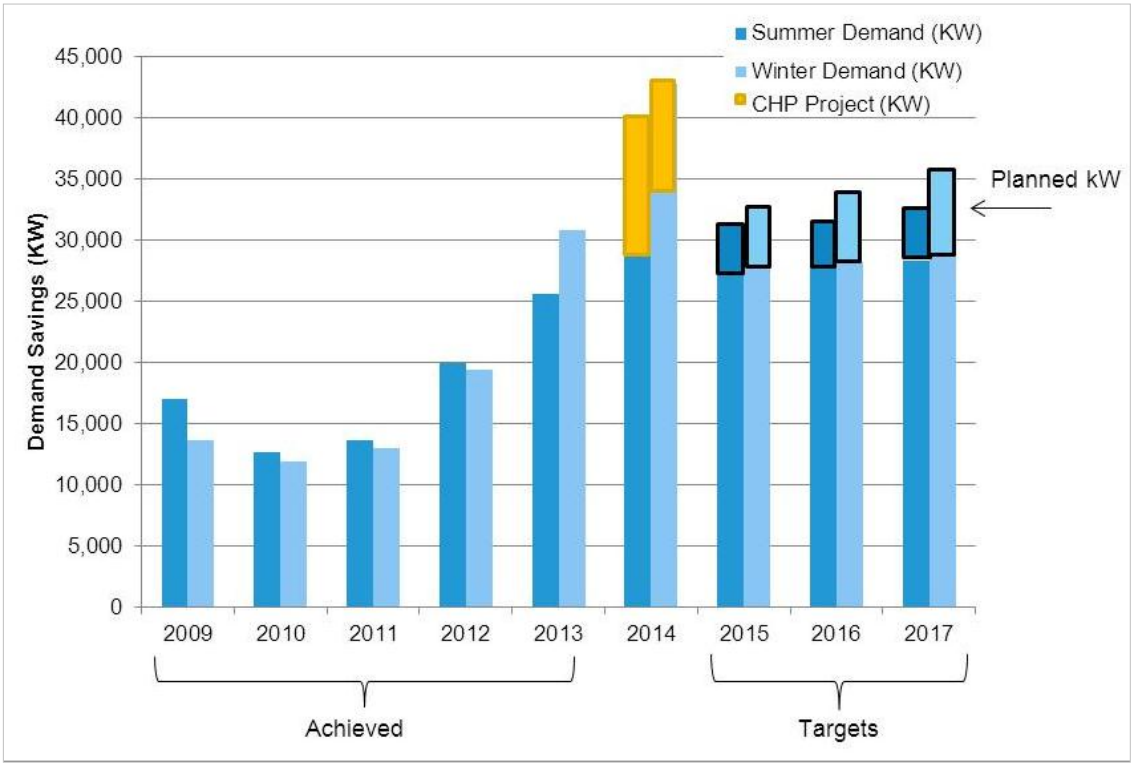
As detailed in Chart 2, the savings goals of 2.50%, 2.55%, and 2.60% of 2012 electric sales match the approved savings targets and represent a gradual increase over achieved electricity savings to date. It should be noted that Program Year 2014 is an outlier from this trend due to the unprecedented savings expected to be achieved by the Toray Plastics (America), Inc. (Toray) combined heat and power (CHP) project. As described in its 2014 EE Program Plan in Docket 4451, the Company made the decision to maintain the trajectory of participation and savings from its core electric energy efficiency programs in 2014, independent of the Toray project, in order to maintain momentum into 2015 and future program years. This created a situation where the savings goals for 2014 exceed the target approved by the Commission in Docket 4202 by 35%. While the Company will continue to promote CHP in the next three years, it is unlikely that any future projects would be as large as Toray.

Chart 2. Electric Energy Efficiency as a Percent of Total Annual Electricity Consumption



In addition to electricity savings targets, the EERMC proposed summer and winter demand kW savings targets. It is important to note, as detailed in Chart 3, that the Company's electric energy efficiency programs have historically provided both winter and summer peak demand savings. This fixed reduction in energy usage over the life of the installed measures can help lower both non-peak and peak demand. However, there are new challenges in the region that have led to the determination that demand savings should be a focus of planning and implementation. For example, during the winters of 2012 and 2013, the region experienced electricity price spikes due to increased demand of natural gas for electric generation and heating, combined with pipeline constraints. Reducing peak demand can help reduce price volatility, reduce strain on the grid, and improve overall system reliability. Having demand savings goals in place will create an incentive to prioritize programs and measures that offer a higher level of summer and winter peak demand savings. For example, to enhance the level of winter peak savings, the Company could increase investments in space heating conservation such as floor, ceiling and wall insulation, and promote high-efficiency hot water heaters. For summer peak, the Company can promote more savings from air conditioning, refrigeration, and lighting.

Chart 3. Summer and Winter Demand Savings

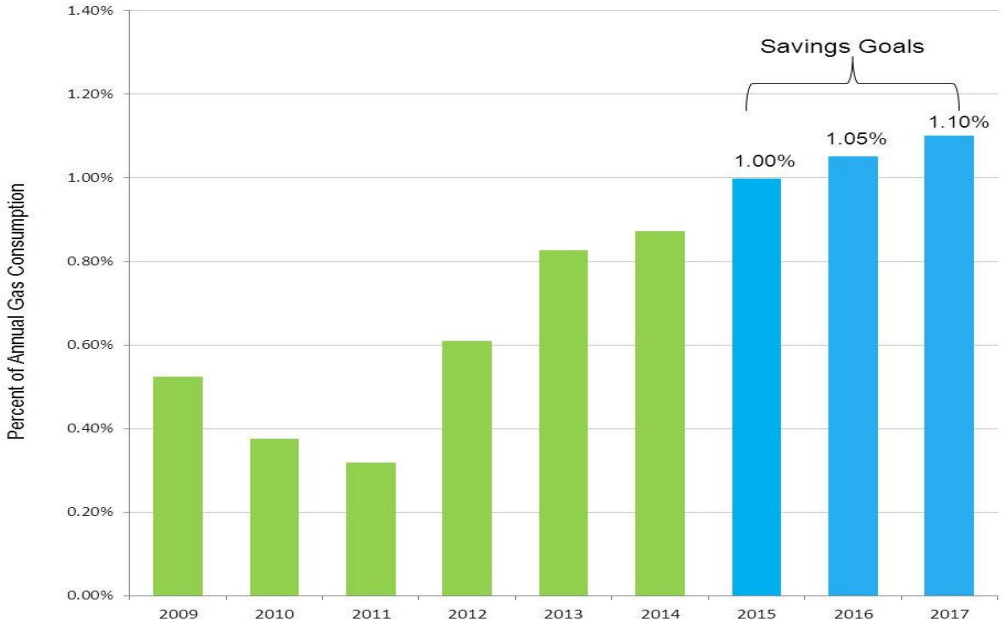


As detailed in Chart 3, the planned demand savings goals represent a reasonable and prudent trajectory based on achieved historical savings. The Company currently anticipates achieving demand savings above the approved targets based on the planned mix of energy efficiency measures over the three-year period. Similar to the electricity savings projections, the Toray CHP project will create unprecedented demand savings. Therefore the proposed demand goals do not build off the 2014 EE Program Plan.

Natural Gas Goals

Since 2011, when amendments to Least Cost Procurement put natural gas on equal footing with electricity, gas energy efficiency savings have been able to significantly increase. Over this time, more customers have been able to participate in and benefit from natural gas energy efficiency programs. The approved natural gas targets build off this trend with savings of 1.00%, 1.05%, and 1.10% of 2012 gas sales in 2015, 2016, and 2017 respectively. As detailed in Chart 4, the proposed gas savings goals match the approved targets and represent steady growth in savings over the next three years.

Chart 4. Gas Energy Efficiency as a Percent of Total Annual Gas Consumption



Three-Year Objectives

One primary objective of this Plan is to create a strategic roadmap for delivering cost-effective electric and natural gas energy efficiency to Rhode Islanders for the period of 2015 through 2017. The Plan highlights the strategies the Company may employ over the next three years in order to meet the EERMC's savings targets for 2015-2017.

Second, the Plan illustrates the estimated funding plan and illustrative budgets, including a shareholder incentive that will be necessary to invest in cost-saving, cost-effective energy efficiency to Rhode Island homes and businesses and to fulfill the statutory requirements of the Least Cost Procurement mandate. A detailed annual program implementation plan and detailed program budget will be developed each year and submitted to the Commission for review and consideration, beginning on November 1, 2014 and on October 15 in each of the two years thereafter.

Energy Efficiency Implementation Strategies

National Grid's experience delivering energy efficiency in Rhode Island has provided a foundation to achieve the ambitious savings and benefits in this Plan. As an energy provider

which serves 99% of Rhode Island homes and businesses, National Grid is in a unique position to leverage its existing infrastructure while providing programs tailored specifically to Rhode Islanders' needs. Over the next three-years the Company will focus on building upon the strength of past performance; increasing savings while managing costs; increasing participation, including both first-time and repeat participation; supporting and strengthening the delivery infrastructure; embracing innovation; and laying the groundwork to integrate new technologies for electric and gas system-level savings.

The 2015-2017 Plan was developed with Rhode Island's energy challenges in mind. For example, New England's increasing dependence on natural gas for both electricity generation and heating fuel has been identified by ISO New England (ISO-NE) and the New England states as a key issue for the region. During the winters of 2012 and 2013, electricity prices in New England rose significantly. While long-term solutions, including the development of new gas pipeline and transmission lines to provide additional supply are debated, energy efficiency can provide immediate, low-cost relief. Lowering demand for electricity by growing participation in energy efficiency and enhancing programs to capture more savings will reduce demand pressures associated with limited natural gas transmission capacity, helping to mitigate winter price spikes and reliability concerns.

Electricity supply price increases from winter capacity constraints combined with a recovering economy is a concern for residential and business customers alike. For example, the 2013/2014 winter average real time price was $132.10/MWh, 84.4% higher than the previous winter.[13] The Company will therefore look to maximize the bill reduction benefits of energy efficiency by being cost efficient. There will be increased attention to initiatives such as behavior and upstream programs that can maximize energy savings while keeping program administration and implementation costs low. In addition, the Company will work with stakeholders to build upon existing financing tools to provide more customers with the ability to benefit from energy efficiency.

[13] Presentation by the RI Office of Energy Resources to the EERMC "Update on Winter Energy Prices and Regional Energy Infrastructure Initiative" May 8, 2014. Data and phrasing in presentation taken from ISO NE presentation on Winter 2013/14 to NEPOOL PC , 5/2/14, Boston, MA.

Lastly, Rhode Island, like many states in the region, is interested in incorporating energy efficiency and other customer-side resources into the delivery system to provide a cleaner, more reliable, and low-cost electric system.[14] The issue of "system integration" or the optimal integration of energy efficiency, demand management, distributed generation, energy storage and flexible demand into the energy delivery system, is complex and likely to affect the scope, scale and range of strategies included in this Plan for the next three years. While it is not realistic to attempt to address these issues fully in the Plan, the Company is committed to working with the OER, EERMC, and the Commission to develop a long-term strategy to fully integrate the full range of customer-side resources into an increasingly reliable, clean, and affordable energy system, consistent with the 2006 least-cost procurement mandate.

Similar to the 2012-2014 Plan, the Company's energy efficiency strategies detailed in this section coalesce around four (4) themes: (1) Promoting cost efficiency; (2) Empowering communities and markets to be energy efficient; (3) Innovating to capture untapped savings; and (4) Developing opportunities for system-level savings and integration. These themes build upon the prior Plan's strategies, and will contribute to the forward progress in Rhode Island for energy efficiency. In addition, these themes will guide the successful development of the annual EE Program Plans over the next three years.

Promoting cost efficiency

Energy efficiency is the least cost resource to meet Rhode Island's energy needs. The benefits of energy efficiency are broad and extend to all customers, regardless of whether they participate directly in efficiency programs. In addition to participant bill savings, these broader benefits include reductions in the price of wholesale energy and capacity that are passed onto all electric customers; improvement in system reliability through reductions in peak demand; lower exposure to volatile fossil fuel prices; and reduced compliance costs with existing and proposed greenhouse gas regulations. While these benefits dramatically outweigh the costs of Rhode Island's energy efficiency programs, and efficiency is cheaper than other forms of energy supply, the Company is cognizant of the full range of cost pressures facing its customers today. Therefore, the Company will continue to focus its

[14] "Reforming the Energy Vision: NYS Department of Public Service Staff Report and Proposal: Case 14-M-0101 (4/24/2014)"

efforts to identify strategies to deliver energy efficiency services as cost-effectively as possible over the next three years, while continuing to optimize the net-benefits of energy efficiency to customers.

Specifically, the Company will focus on the following programs and initiatives:

- *Increase finance options for commercial and residential customers*. Increasing the amount of funding available through financing mechanisms can help lower initial customer costs and may increase program participation. For example, dollars invested in a revolving loan fund can go further than dollars used for rebates as they are repaid to the fund and can be lent out again. In addition, it may be possible to negotiate incentive levels by providing more of the customer incentive through on-bill financing. This will reduce the amount of rebates paid out in a program year, helping to lower costs. Access to low-interest finance remains a critical solution to overcoming the up-front cost of implementing larger energy efficiency projects. The initial cost can deter a building owner from making an investment because they are either reluctant to invest their own capital in energy efficiency projects, do not have access to capital or they choose to make other high priority investments with their available funds. Access to financing can address this barrier and increase customer participation.

  The Company has made great strides in addressing this barrier through the use of revolving loan funds, including on-bill repayment options (OBR), and will build upon these efforts over the next three years.

  - The Company will continue to work with stakeholders to determine the appropriate level of new funding to be injected into the small and large commercial revolving loan funds and will continue its commitment to providing residential customers with financing options.
  - The Company will work with the OER and other stakeholders to enhance energy efficiency financing including the following initiatives:
    - Determine how to leverage the Property Assessed Clean Energy (PACE) Residential Program enacted in 2013. This program will

facilitate investment in energy efficiency and renewable energy by giving municipalities the option to allow homeowners to purchase and install clean energy upgrades and pay them back over time as part of their property assessment.

- Pilot the Home Energy Affordability Loan (HEAL), an energy-based employee benefits program. This program will enlist key employers to offer financing opportunities for employees to implement energy efficiency measures in their home.
- Examine the potential for new and innovative financing vehicles for customers and possibly expand the existing OBR mechanism to include gas measures. The EERMC is commissioning a study to examine the availability, types, viability, and effectiveness of energy efficiency financing strategies as potential tools to support Rhode Island's public policy of Least Cost Procurement. The Company will work with stakeholders to incorporate the results of this study to enhance current, and deploy new financing tools for the full spectrum of customers during the three-year period.

- *Expand upstream incentive programs*. Upstream incentive programs offer payments to wholesalers or distributors that lower the price of energy efficient products for customers and contractors at the time of retail purchase. These programs have been successful at increasing the market penetration and vendor acceptance of efficient technologies, at a significantly reduced unit cost, compared to downstream incentive programs. The Company will continue to explore the market potential and sustainability of upstream incentive mechanisms for measures including, but not limited to, domestic hot water equipment, high efficiency circulator pumps, lighting, heating, ventilation, and air conditioning systems (HVAC), and possibly commercial kitchen equipment related measures.

- *Expand behavioral energy efficiency.* Since April of 2013, the Company has delivered the Home Energy Reports program, a Rhode Island-specialized offering that encourages residential customer behavior change through bi-monthly or quarterly

reports (mail and/or email). The reports provide customers with a snapshot of current energy use, while also comparing usage to that of the previous year and to that of similarly-sized and heated homes within a fixed radius. Home Energy Reports have tremendous reach in terms of participation, are well-received by customers (per multiple surveys), deliver low-cost savings and promote participation in other efficiency programs offered by the Company. Therefore, the Company will seek to expand the Home Energy Reports program over the next three years.

  - Potential enhancements include better targeting and report dissemination based on customer savings potential (more reports to customers with a higher propensity to save), more integration with the Company's marketing plans and strategies, and expansion of the Rewards platform (a pilot offering in 2013 that offered customers points for energy savings that could be redeemed for modest gift cards and/or charitable donations).
  - The Company will also continue the small business behavior pilot initiative and will explore these expanding lower-cost savings initiatives for large customers, specifically the K-12 schools and college campus market sectors.

- *Continue effort to improve Codes and Standards*. Incorporating energy efficiency into buildings at the time of design and construction is by far the most cost-effective way to deploy the benefits of energy efficiency. Improving compliance with building energy codes in residential and commercial buildings (new construction and alterations/additions in existing buildings) helps ensure that energy efficiency is incorporated into buildings at the least cost. Currently Rhode Island is one of the leading states working towards a dedicated effort to improve code compliance rates of its residential and commercial buildings. Efforts to improve code compliance began in 2013 with Energy Code Technical Support, a dedicated effort of state-wide trainings and circuit rider technical assistance offered to building officials and the building industry to boost knowledge and compliance of the prevailing energy code. This effort will continue in the next three years, and expand to e-learning modules that are expected to drive more participation and knowledge about energy codes to a wider audience. The Company will work with the state and local building

departments to offer a voluntary stretch code option to cities and towns to go beyond the energy code. The Company will also continue to work with the OER and Northeast Energy Efficiency Partnerships (NEEP) to develop state level appliance standards adoption procedures and technical specifications for higher standards for state level adoption of appliances.

- *Use data to increase participation.* The Company has highly sophisticated propensity modeling tools which were successfully deployed during the previous three-years to identify and specifically target customers that were more likely to participate in energy efficiency programs. The models also help identify barriers, non-participants, and trends which can support new approaches to reach hard-to-find customers. During the next three years, the Company will continue to use these tools to identify underserved areas, and target households with a higher propensity to save. These tools will also enable the Company to be strategic and cost effective in its outreach, helping to increase marketing effectiveness and lower marketing costs.

Empowering communities and markets to be energy efficient

Every aspect of modern day life and business relies on energy. Energy is embedded in almost everything we do, and energy efficiency should be as well. As the Company develops its energy efficiency programs for the next three-years, it will continue its efforts to reach new markets and participants to help drive the more efficient use of energy in homes, businesses, schools, and communities. In its last three year plan, the Company aspired to offer energy efficiency to everyone and reach customers where they live and work. This commitment will continue to grow over the next three years. Specifically, the Company will implement strategies to increase awareness of energy efficiency programs through the enhancement of existing programs to reach new and repeat customers, leveraging existing partnerships and forging new ones, and enhancing marketing and analytical tools to target customers more effectively.

Below are the specific strategies that National Grid will adopt to reach more customers and more markets in Rhode Island over the next three years:

- *Empower and encourage Rhode Island cities, towns, and communities.* Through various initiatives both within and outside of the Company's Energy Efficiency programs, the Company is bringing its offerings and services to more customers in new and exciting ways. For example, through the Company's current community initiative, the Rhode Island Energy Challenge: Find Your Four!, customers are learning the benefits of energy efficiency, as well as the energy-saving tools provided to them by the Company, from respected individuals within their respective communities. This grassroots/community approach has strengthened the Company's relationship with many communities throughout the State, while also helping it develop new relationships with other important networks in Rhode Island, such as the business, non-profit, and faith communities. Other opportunities exist to drive awareness and participation in energy efficiency into efforts like competitions that award high performing homes in cities and towns, helping develop a roadmap to create energy efficient model communities.

  In the commercial and industrial sector, the Company has been implementing a targeted municipal and state initiative through a dedicated sales and strategy team, while also working with city and town officials to identify energy efficiency opportunities that meet their financial and administrative needs. In addition, the Company is working in partnership with the OER on the Rhode Island Public Energy Partnership (with the OER as the lead). This initiative has picked up a lot of momentum since its inception in 2012 and will continue to serve cities and towns in reducing their energy use and utility bills.

- *Create and expand partnerships and Rhode Island networks*. In the pursuit of expanding efficiency program participation to all Rhode Islanders, the Company will prioritize creating and leveraging existing Rhode Island networks of energy stakeholders. The Company already has a strong working relationship with the OER, and will continue to leverage the many opportunities for collaboration, including the Energy Expo at the Rhode Island Home Show and the Rhode Island Public Energy Partnership. The Company will also pursue new networks as they emerge, including:

- *Rhode Island Alliance for Healthy Homes (RIAHH).* The newly-formed Rhode Island Alliance for Healthy Homes is an inclusive and far-reaching network with the goal of creating healthy, affordable, and safe homes for Rhode Islanders. Energy efficiency is a major contributor to a healthy home, and the Company will devote resources to helping the Alliance achieve its goal, while also utilizing the network to help drive additional Rhode Islanders to its suite of energy efficiency services and offerings.

- *City of Providence Office of Sustainability*. The City of Providence's Sustainability Office has coordinated an ongoing working group that will identify and work with communities within the city to improve efficiency for all using innovative outreach and community leaders to communicate with residents.

- *Faith-based organizations through Rhode Island Interfaith Power and Light.* Over the last few years, the Company has developed strong ties with the faith communities of Rhode Island, primarily with Rhode Island Interfaith Power and Light through the RI Energy Challenge: Find Your Four! Initiative. With about 50% of all Rhode Islanders attending regular religious services, significant opportunity is available for increased partnership and collaboration in helping bring energy efficiency services to customers through their faith communities, and the Company is committed to building these relationships over the next three years.

- *Leverage existing contractor and retail networks.* One of the largest contributing factors to the success of the Company's residential and commercial programs is the strength of relationships with contractors, retailers, distribution partners, and manufacturers. These are the organizations that communicate directly with the customer and contractor community. Continued training and outreach is critical in ensuring that efficient equipment is purchased at critical decision points, that energy saving measures are properly installed, and that the customer is educated about this efficient purchase. In 2015-2017, the Company will focus on expanding these

networks and streamlining existing processes to promote continued benefits from the adoption of energy efficiency and support Rhode Island's economy through job creation and stable business development.

- *Provide customers with tools to manage their energy usage*. In the next three year period the Company intends to help customers access their energy data to allow for greater awareness of energy consumption, building on momentum from the Home Energy Reports program. The Company will seek to achieve this through various methods, including the following: examine the potential for providing automated usage data for the Environmental Protection Agency's Portfolio Manager building energy benchmarking tool; provide automated usage data for the "Green Button" initiative, a nationwide platform for allowing customers to securely receive their energy usage information electronically; and work with Rhode Island stakeholders to identify a strategy for building asset rating in both residential and commercial real estate sectors in Rhode Island. Ultimately, the Company believes that such tools will lead customers to save energy through changes to behavior, operational changes or capital projects.

- *Enhance multifamily services.* The Company recognizes that the Rhode Island multifamily sector, which historically has delivered significant energy savings through the existing programs, still holds considerable potential for efficiency improvements. Many buildings are at or over the five-year window for revisits and would immediately benefit from emerging technologies such as LED lighting. Increased potential can be found in buildings that have never been served through the Company's programs. The Company is seeking to thoroughly evaluate and enhance the current multifamily program structure and offering to achieve the following: 1) deliver services to more multifamily customers, a subset of which will be served for the first time; 2) provide more comprehensive, calibrated, and easy-to-understand efficiency services that are available in multifamily buildings of all sizes, including a focus on whole-building gas measures; 3) benchmark multifamily building energy use; 4) continue coordination between residential and commercial sectors as multifamily services tend to overlap (e.g. common area lighting); 5) create the ability

to segment multifamily customers such that savings potential is captured in the most cost-effective manner; 6) develop stable financing options for multifamily customers; and, 7) develop and enhance strong, enduring relationships with multifamily customers (Rhode Island Housing, housing authorities, private developers, condo associations, affordable housing, community development corporations) that will produce reliable and rich pipelines of projects over the next three years.

- *Tailor efficiency solutions for Rhode Island renters.* Delivering energy efficiency services to renters has historically been a major challenge, due primarily to the inability of renters to make major decisions about energy efficiency upgrades in their home or apartment (e.g. weatherization, insulation, heating system). Furthermore, those who dwell in three or four unit (buildings, many of whom are renters, have historically not been successfully targeted by efficiency programs. These types of structures, which are very prevalent in most Rhode Island cities, have been caught in between the traditional definitions of single and multifamily programs, and subsequently have not been a focus of either. The Company will work to identify more effective solutions to combating these challenges, so that all Rhode Islanders can enjoy the full suite of benefits of energy efficiency.

- *Offer new measures and enhance delivery of the small business program.* The Company has had great success with its small business program in the past and will continue to enhance this delivery channel in the next three years. This may include measure expansion, increased focus on gas measures and refrigerator recycling. Cost efficiencies may be achieved by varying the amount incented and the amount financed depending on the needs of the customer.

- *Enhance new construction and major renovation offerings.* Over the last two years, the Company obtained feedback and input from key stakeholder groups regarding their current perception of National Grid's Commercial New Construction Program. This feedback helped to identify opportunities to improve satisfaction and program participation. These enhancements included a dedicated Company point person for new construction, additional incentives for design teams, and better

documentation/guidance tools, which were all incorporated in early 2014. These enhancements will continue into the next three year plan. With projections showing growth of new construction activities in the coming years, the Company is now equipped to address the volume of participants. There will also be a dedicated effort to engage gut rehab projects and tenant fit-outs (office spaces served through the Sustainable Office Design initiative). In the early part of next three-year cycle, the Company will also develop strategies to revitalize outreach to the local Architects and Engineers (A&E) community.

In the residential sector, the Company has seen an increase in the higher tier energy efficient homes through the New Construction and Renovation program. This increase has demonstrated that achieving higher efficiency homes is feasible and that there is interest in the market. To further develop the higher efficiency residential new construction and renovation market, the Company will pursue opportunities to increase awareness of efficiency benefits, promote successful projects and associated building professionals, and conduct competitions to drive the adoption of achieving better performing, energy efficient homes.

- *Increase participation in the industrial/manufacturing sector.* In 2013, the Company began a dedicated initiative to serve the large industrial/manufacturing sector (above 750 kW of demand). Since then, there has been an increase in industrial customer participation. This initiative will continue to serve the large customers with enhanced features and also expand to medium sized customers above 300kW that have not participated in the last few years. Other enhancements include developing dedicated program approaches, technologies, and incentives tailored to all sizes of manufacturing segments, and possibly introduce Strategic Energy Management /Continuous Energy Improvement strategies to select large industrial/manufacturing customers.

- *Continue C&I targeted sector outreach.* The Company will continue to focus on the largest market sectors with the highest potential for savings and those that require a dedicated approach like hard-to-reach markets and data centers. The commercial and

industrial sales organization is now set up to incorporate the sector concept with dedicated representatives for medium and large accounts. These sectors include: colleges and universities, multifamily, hospitals, municipal and state government, specialty buildings like data centers and nursing homes, grocery stores; and industrial/manufacturing. The Company is also reviewing the possibility of a Sustainable Hospitality Design (SHD) package that will have a targeted initiative focusing on lodging and restaurants. The Company will continue to work closely with the RI Hospitality Association for existing structures, new construction and gut rehabilitations. A new initiative targeting energy efficiency in nursing homes and assisted living facilities is currently in the planning stage and may be launched in 2015. Generally, the objective will be to create mechanisms to identify and serve all market segments.

- *Continue Strategic Energy Management Plans (SEMP) for large C&I customers.* This initiative provides customers with an opportunity to conduct a multi-year approach to planning energy efficiency opportunities that map more closely to their budgeting process. This approach creates an opportunity to go deeper into a customer's operations and reach the technical and achievable savings potential that comes from master planning and execution over a multiyear design and construction process. This strategy will make it possible to give customers the tools to address the technical, financial, and operational barriers to achieving deeper and broader savings, helping them significantly reduce costs and remain competitive in their business environments. Colleges, universities and large hospitals will continue to be served through the Company's SEMP initiative.

Innovating to capture untapped savings

The Company recognizes the rapid advancement in energy efficiency technology and will continue to play a leading role in deploying such technologies to better drive both energy savings and customer program participation. Over the next three years, the Company will continue to participate in regional working groups as program administrators develop appropriate deployment strategies for new technology. The Company will also continue its

commitment to test new and innovative measure and program offerings through pilots. Specifically, the Company will focus on the following:

- *Continue to test new products and technologies as they emerge.* New residential products include remote energy performance software, thermostat strategies, heat pump dryers, demand response technologies, entertainment system controls, smart televisions and gaming systems. The Company will also examine the potential for a smart-connected home with communicating control of appliances as they emerge for consumers. The Company will evaluate current pilots to determine if the new technologies will be cost effective and included in future programs, including Programmable WiFi Communicating Thermostats (PCT) with advanced features, solar thermal heating and hot water systems, and drain water heat recovery.

- *Lay the foundation for Zero Energy Ready (ZER) buildings.* ZER buildings can play a strategic role in achieving Rhode Island's long term energy efficiency goals. Residential and commercial ZER buildings are currently being built in Rhode Island at the will of developers and homeowners. There is an opportunity to develop a standardized definition of ZER, and incentives for supporting ZER buildings. The Company is developing a long-term strategic plan for how the energy efficiency portfolio can encourage and influence a market for ZER buildings in Rhode Island. This effort will be pursued primarily as a research and development effort for the next three-years, along with a select number of demonstration projects. The overall aim of this initiative is to establish a framework of support within the Company's energy efficiency portfolio by influencing the implementation of ZER buildings through market accepted strategies. Specifically in the next three year cycle, following activities are planned: development of a ZER task force that will define the parameters of a ZER building in RI; technical research and development of ZER building characteristics; and, demonstration projects and analysis.

- *Explore and test new technologies to provide deeper savings to Commercial & Industrial (C&I) customers.* The Company will deploy several initiatives to bring greater savings opportunities to C&I customers. The Company plans to expand its

2013 operations and maintenance initiative in the next three year cycle. This initiative will provide incentives for low-cost no cost operations and maintenance related energy efficiency strategies mostly for office and schools. For Large C&I customers, the Company will explore controls based opportunities, especially in facilities that have 24/7 equipment usage. The Company has also identified a number of specialty lighting applications that may become strong sources of energy savings as LED prices fall and technology improves. The Company predicts that these paths may be accessible as early as the fourth quarter of 2015.

- *Promote Solid State Street Lighting.*
    - Customer Owned: Pending approval of the tariff and closing documents currently before the Commission for review in Docket 4442, the Company will work closely with the municipalities that express interest in purchasing the existing National Grid owned street lights and converting the existing lighting to energy efficient solid state street lighting. As is true for all energy efficiency programs, customers that replace existing technologies with qualifying LED street lighting will qualify for a National Grid energy efficiency incentive as funding allows. National Grid staff will work closely with the OER and RIPEP in this process.
    - Company Owned: The Company will continue investigating whether it is able to offer a rate for company owned LED street lights where the net cost to the customer is lower than the existing street lighting rates.

- *Examine the potential for strategic electrification.* In the Northeast, space heating is the largest contributor to residential energy consumption and therefore offers a significant opportunity for energy savings from the installation of high efficiency heating systems, for example high efficiency air source heat pumps. While the Company has achieved success in promoting the replacement of inefficient electric resistance heating equipment with high-efficiency heat pumps, approximately 37% of homes in Rhode Island have oil heat. Strategic electrification is one way to target customers with oil heat. This strategy involves incenting customers to reduce the use of fossil fuels for space heating by switching to electric technologies, like high

efficiency heat pumps, that may increase electric consumption but reduce overall energy usage and costs. As part of the three-year plan the Company will work with the EERMC and the Commission to examine the feasibility of incentivizing strategic electrification under Least Cost Procurement. A determination will need to be made as to whether the Company is permitted to use electric energy efficiency funds to reduce the use of fossil fuels for space heating through electric technologies such as heat pumps.

Developing opportunities for system-level savings and integration

As energy efficiency technologies improve, so too has their ability to be deployed to achieve system impacts. Tools including demand response, direct load control, time-varying electricity rates, distributed generation, and electric vehicles that can serve as energy storage, all have the ability to improve the reliability of the electric system by reducing and managing peak demand, reducing the need for distribution system upgrades, and providing opportunities for customers to take a more active role in managing their energy usage.

This range of new technologies, often described as distributed energy resources (DER), has the opportunity to create a cleaner, more efficient, affordable, and reliable power system. However, with these new opportunities comes a new set of challenges. Over the next three years the Company will work with the EERMC, the OER, and the Commission to assess the feasibility of incorporating DER into the entirety of the Least Cost Procurement Law, specifically continuing the coordination with the System Reliability Plan and the Supply Procurement Plan process. This will include testing demand response and time-of-use rates through pilots; incorporating energy efficiency with distributed generation such as solar and CHP; examining the feasibility of incorporating DER with energy efficiency planning, utility Infrastructure Safety and Reliability Planning, and supply planning for Standard Offer Service; and, analyzing the full costs and benefits of DER to the customer and the electric system.

The Company will proceed with the following strategies to begin examining the potential for this important suite of resources:

- *Research and develop demand response programs.* Demand response is a resource that allows end-use electric customers to reduce their electricity usage in a given time period, or shift that usage to another time period, in response to a price signal, a financial incentive, or a reliability signal. Demand response saves customers money by lowering peak energy usage, when kW units are at elevated prices. The Company will initially research meter technologies and peak demand tariffs that may promote the use of demand response, contingent upon the technologies meeting cost effectiveness criteria. Focus initially will be on targeting customers that are equipped with meters capable of measuring and reporting energy usage in one hour intervals or less. The Company will also examine the potential for gas demand response programs.

- *Pilot behavioral demand response (BDR) programs*. Another strategy for reducing peak load during both the summer and winter months, BDR uses simple outbound communications (text, email, call) to offer simple behavior changes that, when exercised at times of peak energy usage, can offer measurable energy savings for both customers and the grid infrastructure. The Company's current vendor for its Home Energy Reports program is a leading implementer of BDR, and is willing to work with the Company over the next three years on exploring, piloting, and potentially deploying this technology throughout the State.

- *Increase savings from combined heat and power projects (CHP).* The Company believes that significant savings can be generated with CHP in the next three year period. While the Company will continue to focus on large CHP projects, it will explore opportunities that may exist below this level. To this end, the Company is considering the creation of a dedicated CHP Technical Assistance vendor to facilitate identifying and executing CHP projects.

- *Integrate energy efficiency with renewable energy.* Over the course of the three-year plan the Company envisions many opportunities to integrate energy efficiency with renewable energy.

  - In accordance with H-7727/S-2690, the "Distributed Generation Growth Program", the Company will examine the potential to integrate energy efficiency with small and medium scale solar projects. The Company will work with a variety of stakeholders including solar developers, the OER and the Commission to develop appropriate standards to facilitate both the development of solar generation and increase participation in energy efficiency programs in accordance with the law.
  - The Company will also continue working as part of a task force with the OER and CommerceRI to develop opportunities to leverage existing energy efficiency and solar programs to promote increased participation in both programs.

- *Participate in system integration working group.* The Company will work with a Subcommittee of the Collaborative to examine how to best integrate distributed energy resources with energy efficiency planning, System Reliability Procurement, utility Infrastructure Safety and Reliability Planning, and with supply planning for Standard Offer Service. The working group will examine a wide range of issues, including but not limited to:
  - The value of energy use and savings, including cost-effectiveness screening for demand response.
  - Technology innovation and deployment, both customer-facing and grid-facing, including technology that might provide both customer and environmental benefits, but might also increase total electric usage.
  - Impact of LCP strategies on distribution and transmission systems at the utility, state, and regional levels or on the winter natural gas constraint, and the resulting cost impacts.
  - Increasing the nimbleness and ability of the system reliability strategy to address grid issues as they arise.
  - Addressing relevant themes and strategies from the State Energy Plan, including those focused on carbon reduction.

Progress of the sub-committee would be brought back for regular feedback from the EERMC and the OER. It is possible that changes to the current regulatory and oversight systems will be needed in order to achieve the full deployment of distributed energy resources under Least Cost Procurement. The examination of these issues may be done in the context of similar efforts in other states[15], but will recognize that each state has its own operating environment, policy priorities, and regulatory framework.

Funding Plan

The Company's savings goals for the 2015-2017 Plan are "prudent and reliable" and "lower cost than the acquisition of additional supply" and meet the legislative standard for Least Cost Procurement. The standard of prudency has been generally interpreted by the Company, the EERMC, and the Collaborative Subcommittee to be (1) the delivery and funding mechanisms that enable the planned program expansion to proceed in a realistic and sustainable manner, and (2) high quality installations that will ensure continued optimum energy-savings performance of the installed equipment.

National Grid is committed to delivering energy efficiency in the most cost-effective, and cost-efficient, way to benefit its customers. The Company is committed to pursuing deeper energy savings and broad participation in transforming markets while maintaining delivery costs that are comparable to those of regional program administrators and also affirm energy efficiency as the least expensive energy resource for Rhode Island. Through cost-conscious program design and management, the leveraging of alternative sources of funding, and the development of new financing options, National Grid will sustain its business of providing energy efficiency services to its customers at appropriate costs in 2015-2017. In each annual planning process, costs will be reassessed based on program experience, evaluation results, reliable industry projections and, if necessary, will be adjusted appropriately in the annual EE Program Plans filed with the Commission.

[15]For example, New York's recent "Reforming the Energy Vision: NYS Department of Public Service Staff Report and Proposal: Case 14-M-0101 (4/24/2014)" pp. 8,9, states "The approach to distributed resources should be reevaluated to determine how demand management can be used not as a last resort, but rather as a cost effective, primary tool to manage distribution system flows, shape system load, and enable customers to choose cleaner, more resilient power options"

National Grid has worked collaboratively with the EERMC and the Parties to develop an estimated 3-year budget for the 2015-2017 Energy Efficiency and System Reliability Procurement Plan, available as Appendix A.

In order to develop the three year budget, the Company created a business-as-usual (BAU) case scenario based on historical and actual information and adjusted the BAU with projected changes. The projected changes include strategies described in this plan along with anticipated changes in codes and standards, market transformation, and evaluation impacts. These changes are colloquially referred to as cost-drivers. The EERMC's consulting team reviewed and contributed to the cost-driver assumptions.

The proposed three year Energy Efficiency Procurement Plan will deliver lifetime benefits of more than $1 billion for Rhode Island electric and gas customers. In order to deliver these benefits, the Company projects the need for approximately $341 million in funding over the three-year period. Recognizing that efficiency is the least cost energy supply option for customers, the Company will continue to seek to minimize the costs in each annual program implementation plan.

Three Year Budget

The estimated 3-year illustrative budget for 2015-2017 is provided in Table 1 and is available in greater detail in Appendix A; a summary table is presented below. This Plan presents budgets that reflect the cost consciousness described above. Furthermore, each fall the annual budget will be refined through the EERMC and Collaborative Subcommittee processes and detailed in the annual EE Program Plan, to be filed with the Commission by November 1, 2014 and on October 15 in the two following years. The annual EE Program Plans will propose a detailed funding plan and budget – including a fully reconciling funding mechanism proposal – for Commission approval.

Electric Programs	**2015**	**2016**	**2017**
Total Spending*	$ 86,741,232	$ 86,052,775	$ 90,867,248
Natural Gas Programs	**2015**	**2016**	**2017**
Total Spending*	$ 24,416,348	$ 25,778,730	$ 27,388,832
*Total Spending includes implementation, evaluation, commitments, EERMC, and shareholder incentive, and does not include any incremental funding for System Reliability Procurement			

Funding Sources

The following funding sources may be used in each year. The amounts from each source will be detailed in the annual plans. The sources of the electric funding plan in this Plan include funds from the first four sources.

1. One line on the customers' bill currently labeled "Energy Efficiency Programs" comprised of the existing energy efficiency program charge of $0.00896 per kWh plus a fully reconciling funding mechanism charge in accordance with RIGL§ 39-1-27.7. This total of the two factors is represented by the "EE Charge per kWh" row in Appendix A.
2. Projected large C&I commitments.
3. Revenue resulting from the participation of energy efficiency resources in ISO-New England's forward capacity market (FCM).
4. Proceeds from the auction of Regional Greenhouse Gas Initiative (RGGI) allowances pursuant to § 23-82.6 of the General Laws;
5. Funds from any state, federal, or international climate or cap and trade legislation or regulation including but not limited to revenue or allowances allocated to expand energy efficiency programs.
6. Other sources as may be identified by the EERMC and the Company.

The sources of the gas funding plan include the following funding sources:

1. One line on the customers' bill labeled "Energy Efficiency Programs" comprised of the existing average energy efficiency program charge of $ 0.526 per Dth plus a fully reconciling funding mechanism charge in accordance with RIGL § 39-1-27.7. This total of the two factors is represented by the "EE Program Charge per Dth" row in Appendix A.
2. Low Income Weatherization funds from Base Rates.

There are many uncertainties associated with the exact amount of the additional funding that will be needed: Company sales, customer co-payments, commitments made for future years, the settlement price for future RGGI and FCM auctions, the allocation of RGGI auction

proceeds to the Company's energy efficiency programs, identification of additional outside sources of funding, and the Company's success in minimizing costs in order to maximize customer benefit.

Due to these uncertainties, the Company illustrates the amount of funding it expects to need in each year of the three year plan, and asks for provisional approval of these amounts in order to guide the development of the annual EE Program Plans. The Company is required to submit to the Commission its annual EE Program Plans for review and consideration, including a detailed budget and implementation plan each year by November 1 in the initial year and by October 15 in the following two years.

While Appendix A does not show sector-specific funding levels, the Company will continue its practice of having the residential, commercial and industrial sectors subsidize income-eligible sector energy efficiency programs in order to provide equity in the availability of program funds and opportunities to benefit from energy efficiency, which is identified as a desirable objective in the Standards.

The Company intends to work with various market actors (vendors, distributors, designers, and builders) to leverage the expenditure of funds in order to achieve program savings goals while controlling costs. The annual EE Program Plans, including the upcoming November 1 filing of the 2015 Annual EE Program Plan, will reflect progress made in leveraging other sources of funding, if applicable. Planned program elements to leverage other sources and types of funds include:

- *Expansion of financing options.* The Company will work with the OER and other stakeholders to examine the potential for new and innovative financing vehicles for customers. The EERMC is commissioning a study to examine the availability, types, viability, and effectiveness of energy efficiency financing strategies as potential tools to support Rhode Island's public policy of Least Cost Procurement. The Company will work with stakeholders to incorporate the results of this study to deploy new, and enhance current, financing tools to customers during the Plan.
- *Property Assessed Clean Energy.* The Company will work with the OER to determine how best to leverage the recently enacted Property Assessed Clean Energy

(PACE) Residential Program. This program will facilitate investment in energy efficiency and renewable energy by giving municipalities the option to allow homeowners to purchase and install clean energy upgrades and pay them back over time as part of their property assessment.

Shareholder Incentive

The proposed shareholder incentive mechanism, applicable to energy efficiency efforts in 2015 to 2017, will be based on the same metric applicable to the 2014 Energy Efficiency Program Plan Docket No. 4451 as approved at the Open Meeting on December 30, 2013.

Under the current incentive structure, the Company can earn a target based-incentive rate equal to 5.0% of the eligible spending budget in a program year for achieving electric and gas energy savings goals. However, in order to also promote the achievement of demand savings goals, the Company proposes to set aside 30% of the current incentive rate for achieving MW savings goals. This would allow the Company to earn a target-based incentive rate equal to 3.50% of the eligible annual spending budget for achieving MWh savings goals and 1.50% of the annual spending budget for achieving MW savings goals. For gas, where there is no demand savings component, the Company proposes to maintain a target-based incentive rate equal to 5.00% of the eligible annual spending budget for achieving MMBtu savings goals. The proposed incentive structure would not increase the incentive rate; it only distributes the current rate across energy and demand savings.

Table 5. Illustration of Target Shareholder Incentive

Electric Programs	**2015**	**2016**	**2017**
Spending Budget	$ 77,181,356	$ 80,348,063	$ 83,890,988
Target Shareholder Incentive	$ 3,859,068	$ 4,017,403	$ 4,194,549
Energy Savings (3.5%)	$ 2,701,347	$ 2,812,182	$ 2,936,185
Demand Savings (1.5%)	$ 1,157,720	$ 1,205,221	$ 1,258,365
Total Benefits	$ 282,875,002	$ 303,660,783	$ 316,528,156
Natural Gas Programs	**2015**	**2016**	**2017**
Spending Budget	$ 22,321,520	$ 23,593,585	$ 25,096,949
Target Shareholder Incentive (5.0%)	$ 1,116,076	$ 1,179,679	$ 1,254,847
Total Benefits	$ 59,415,057	$ 64,517,962	$ 67,758,168

The mechanism for calculating how much of the above target incentive the Company can earn will remain the same as in Program Year 2014 and will be applied to both energy and demand savings. As in 2014, the proposed incentive mechanism establishes an incentive of 1.25% of the annual spending budget for achieving 75% of the savings goals in a sector. This would increase linearly to 5% of the annual spending budget for achieving 100% and increase linearly from that point to 6.25% of the annual spending budget for achieving 125% of the savings goals.

Expressed mathematically, the shareholder incentive for the 2015, 2016, and 2017 EE Program Plans would be calculated as follows for both energy and demand savings, where SB is the Annual Spending Budget in the sector:

- From 75% of savings to 100% of savings:
    - Incentive = SB x (0.15 x % of savings achieved – 0.10)
        - x 0.7 for electric energy savings
        - x 0.3 for electric demand savings
        - x 1.0 for natural gas savings
- From 100% of savings to 125% of savings:
    - Incentive = SB x (0.05 x % of savings achieved)

The Company believes this structure will incent the Company to achieve savings that approach or exceed 100% of the annual goals. It does so by setting the threshold for savings required to earn an incentive at 75% of the annual savings goals, 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 annual spending budget, and by offering a higher incentive for exceeding 100% of the annual goals.

The threshold performance level for energy savings by sector will be set at 75% of the annual energy and demand 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. The Company will have the ability to earn an incentive for each MWh, MW or MMBtu saved, once threshold

savings for the sector are achieved. The cap for the target incentive amount of energy savings will remain at 125%.

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.

In addition, in order to promote efficiency in spending in the achievement of the energy savings targets, the below metric will be applied only to MWh and MMBtu savings. If the actual implementation expenses in a sector at year end are less than the planned implementation expenses 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. Conversely, 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.

Discount Rate

As prescribed by the Standards, all values in the Plan and the benefit-cost model are stated in present value terms, "using a discount rate that appropriately reflects the risks of the investment of customer funds in energy efficiency; in other words, a low-risk discount rate which would indicate that energy efficiency is a low-risk resource in terms of cost of capital risk, project risk, and portfolio risk".[16]

[16] Energy Efficiency Procurement Standards, Section 1.2.A.ii.c.

Specifically for the 2015-2017 Plan, the Company used a discount rate equal to the twelve-month average of the historic yields from a twenty-year United States Treasury note, using the 2013 calendar year to determine the twelve-month average.

The discount rate will be reviewed and updated for each EE Program Plan, as appropriate, to ensure that the applied discount rate is based on the most recent information available.

Avoided Costs Update for Greenhouse Gas Reduction Values

As prescribed by the Standards, the Company is to assess measure, program and portfolio cost-effectiveness according to the Total Resource Cost test (TRC) that shall include:

> "the costs of CO_2 mitigation as they are imposed and are projected to be imposed by the Regional Greenhouse Gas Initiative. The test shall also include any other utility system costs associated with reasonably anticipated future greenhouse gas reduction requirements at the state, regional, or federal level for both electric and gas programs. A comparable benefit for greenhouse gas reduction resulting from natural gas or delivered fuel energy efficiency or displacement may be considered."[17]

In previous Plans and annual EE Program Plans the Company incorporated the costs of CO_2 mitigation imposed and projected to be imposed by the Regional Greenhouse Gas Initiative (RGGI) in the avoided costs used in the TRC test. In accordance with the Standards, the TRC test now includes the costs associated with reasonably anticipated future federal greenhouse gas regulations. The costs associated with future anticipated federal CO_2 regulations were obtained from Exhibit 4-7 in the "Avoided Energy Supply Costs in New England: 2013 Report".[18]

In addition, the Company, consistent with the Standards and in consultation with the Collaborative, developed a methodology to incorporate the greenhouse gas reduction benefit

[17] Energy Efficiency Procurement Standards and System Reliability Procurement Standards (Standards) approved at the Open Meeting on June 10, 2014 as part of Docket 4443.
[18] Synapse Energy Economics, "Avoided Energy Supply Costs in New England: 2013 Report", prepared for the Avoided-Energy-Supply-Component (AESC) Study Group. July 12, 2013. Exhibit 4-7: Non-Embedded CO_2 Costs (2013 dollars per short ton CO_2).

from reductions in natural gas usage resulting from the Company's energy efficiency programs. In order to monetize and include these avoided costs in the TRC test, first the average carbon content (emissions factor) of natural gas combusted at the end use level (residential and C&I boilers) was determined from Energy Information Administration data.[19] Then that value was multiplied by the same CO_2 allowance price that is applied to the electric sector. These values were then added to the avoided costs per MMBtu of natural gas delivered to retail customers from Appendix C in the Avoided Cost Study.

Timeline

The Standards outline the following timeline for the development of the annual program implementation plans and detailed budgets. National Grid will work with the EERMC and the Parties to meet these deadlines:

a. Three Year Least Cost Procurement Plans
    a. By August 15, 2014 and triennially thereafter: The EERMC will vote whether to endorse the Energy Efficiency Procurement Plan.
    b. September 1, 2014 and triennially thereafter: Submit the Energy Efficiency Procurement Plan for three years of implementation beginning with January 1 of the following year.
    c. September 1, 2014 and triennially thereafter: Submit the System Reliability Procurement Plan, which will propose general planning principles and potential areas of focus that incorporate non-wires alternatives into National Grid's distribution planning process for three years of implementation beginning January 1 of the following year.
b. Annual Energy Efficiency Procurement Plans
    a. National Grid will submit a draft annual EE Program Plan to the Council and the Division of Public Utilities and Carriers for their review and comment annually at least one week before the Council's scheduled meeting prior to the filing date that year.

[19] http://www.eia.gov/environment/emissions/co2_vol_mass.cfm

b. The EERMC shall vote whether to endorse the annual EE Program Plan prior to the prescribed filing date, annually.
c. November 1, 2014 (and on October 15, 2015 and October 15, 2016): Submit the annual program implementation plan and detailed budget for the next program year. The Annual Plan filing shall also provide for adjustment, if necessary, to the remaining years of the Energy Efficiency Procurement Plan based on experience, ramp-up, and increased assessment of the resource levels available.

c. Annual System Reliability Procurement Reports
    a. November 1 annually: Annual System Reliability Procurement Plan and funding plan submitted to the Commission.

System Reliability Procurement

Background

The 2006 Act identified a unique opportunity for Rhode Island to systematically identify and procure customer-side resources that were not only cost-effective compared to traditional supply options, but that could also provide a cost-effective path to lower supply and delivery costs to ratepayers in Rhode Island. Least Cost Procurement might provide savings over time for customers and might lower the volatility and cost uncertainty of the larger energy and capacity markets in New England by securing sources of energy supply and capacity from in-state resources and/or by the deferral or avoidance of distribution system investments.

Traditionally, the solutions to problems such as overloaded facilities, low voltage, contingencies, loss of load, asset condition, and system losses have been provided by capital projects that enhance the utility's delivery systems: new circuits, new substations, or larger conductors. As developing technologies continue to make improvements in energy efficiency, load management, energy storage and distributed generation, the range of possible alternative solutions to traditional utility infrastructure can now increasingly consider demand side management, demand response, direct load control, distributed generation, energy storage and dynamic pricing. As technologies and markets continue to mature and gain momentum, these "non-wires alternatives" (NWAs) are becoming increasingly cost-effective. Recognizing the potential economic benefits of cost-effective NWAs, R.I.G.L. § 39-1-27.7(a)(1) calls for standard and guidelines for "system reliability" resources to include, but not be limited to: distributed renewable energy resources; cost-effective combined heat and power systems; and demand response designed to provide local system reliability benefits through load control or using on-site generating capacity.

On June 7, 2011 the Commission approved significantly revised guidelines for system reliability procurement. The revised guidelines established a procedure and funding options for systematically identifying customer-side and distributed resources that, if cost-effective, defer or avoid distribution upgrades, improve system reliability, and provide for better

utilization of distributed resources. The revised guidelines guided the Company's efforts toward integrating analysis of NWAs into the Company's planning functions and evaluating the specific costs, benefits, and comparability of traditional and NWA solutions.

On June 11, 2014, the Commission approved minor enhancements to the 2011 guidelines intended to broaden the range of methods and technologies that should be considered or utilized in the evaluation of NWA projects.

Section 2.1 (A) of the System Reliability Procurement Standards states:

> The Utility System Reliability Procurement Plan (The SRP Plan) to be submitted for the Commission's review and approval on September 1, 2011 and triennially thereafter on September 1, shall propose general planning principles and potential areas of focus that incorporate non-wires alternatives (NWA) into National Grid's (the Company) distribution planning process for the three years of implementation beginning January 1 of the following year.

This 2015 – 2017 SRP Plan is being submitted consistent with those guidelines and as a part of the larger Least Cost Procurement plan. This Plan describes National Grid's proposed approach to further integrate analysis of NWAs into the Company's transmission and distribution planning functions in Rhode Island. As in the past, annual system reliability procurement reports will continue to be submitted to the Commission for consideration November 1, of each year. The annual reports will include, among other information, a summary of where NWAs were considered, identification of projects where NWAs were selected as a preferred solution, an implementation and funding plan for selected and ongoing NWA projects, and recommendations for demonstration distribution or transmission projects for which the Company will use selected NWA reliability and capacity strategies. The guidelines also stress the importance of continuing to integrate System Reliability Procurement with Energy Efficiency Procurement efforts wherever feasible, to manage demand and optimize grid performance, which the Company intends to do.

The Company's established procedure for considering NWAs evaluates potential NWA solutions in parallel to traditional wires solutions. During the period of 2015 – 2017, the Company will continue to evaluate all transmission and distribution (T&D) projects that meet

the screening criteria established in Section 2.1.D of the guidelines for potential NWA solutions that could reduce, avoid, or defer the traditional wires solution.

Feasible NWAs will be compared to traditional wires solutions based on the following, among other, factors:

- Ability to meet the identified system needs;
- Anticipated reliability of the alternatives;
- Risks associated with each alternative;
- Potential for synergy savings based on alternatives that address multiple needs;
- Operational complexity and flexibility;
- Implementation issues; and,
- Customer impacts.

To facilitate the screening of potential NWA projects and traditional solutions, the Company will continue to utilize the analytical tools, existing evaluation reports and any relevant data available. For each need where an NWA is determined to be the preferred solution, the Company will develop an implementation plan that includes a detailed characterization of the need (in terms of both maximum kW peak reduction and annual required duration hours), the traditional wires solution, a description of the NWA, and an NWA investment scenario, as outlined in the guidelines. This description of the need will include the location and the mix of customers within that location.

Once the annual plan is approved by the PUC, the Company will provide quarterly updates on the progress of any approved demonstration project(s) to the EERMC and Collaborative Subcommittee. After the Company gains experience with initial demonstration project(s) that clearly show the sustained load relief achieved, and NWA projects are identified as preferred solutions to system needs, it will propose NWA projects on a regular basis in the annual SRP plans and reports. Part of the demonstration project phase is to learn how these types of projects will be streamlined internally across the organization and successfully implemented on the customer side.

2015 – 2017 Themes

Over the next three years, the following themes will be considered in order to advance the development, implementation and evaluation of NWAs in Rhode Island:

- *Exploring market-based solutions*: Investigating the potential for third party proposals for NWAs through a competitive RFP process with the goal of increasing the diversity of energy resources and lowering the costs.
- *Applying NWAs as a partial solution*: Testing the efficacy of NWAs as a component to a permanent transmission or distribution solution. This differs from the current NWA efforts which focus on deferring a T&D investment entirely through the NWA.
- *Increasing coordination to maximize benefits to customers* : Focusing on communication and collaboration with other Least Cost Procurement initiatives, such as energy efficiency, to effectively create financial and logistical efficiencies
- *Maximizing benefits to ratepayers*: Examining whether or not benefits to customers may be increased through various funding mechanisms.
- *Applying lessons learned to enhance future results:* As they become available, using the results of any evaluation of on-going projects to enhance the quality of other efforts related either to System Reliability Procurement or other Least Cost Procurement initiatives.

These themes will guide the Company's efforts in broadening the range of applicable projects for which NWAs may be viable, integrating with other Least Cost Procurement initiatives and maximizing benefits to ratepayers.

NWA Technology Options

In the years 2012 through 2014, the Company focused on NWA technologies that were anticipated to be the most cost effective for customers such as baseline energy efficiency, peak demand and geographically-focused energy efficiency and demand response. These technologies and methods were all incorporated into the DemandLink™ pilot, the Company's NWA demonstration project and continue to be utilized today. In 2015-2017, the Company will continue to innovate in these areas, introducing new technologies (e.g. heat

pumps to replace central or window AC, heat pump water heaters to replace traditional units and wi-fi enabled window air conditioners to replace plug load devices), but also place additional focus on incorporating renewable or other types of distributed generation, energy storage and utility-side control technologies such as volt VAR optimization. These NWA technologies are described below:

Renewables and Energy Storage

The Company will continue to work towards integrating renewable sources of energy into its NWA projects where practical. These projects would potentially need to look at energy storage in order to provide load relief for certain hours of the year.

In 2014 as part of an effort initiated by the RI Office of Energy Resources, the Company managed a study that analyzed the potential savings and costs associated with implementing solar DG as an NWA technology. The results of this study will inform a demonstration project administered by the RI OER in the 2014-2015 timeframe. The Company will use the information from both the initial study and the demonstration pilot to enhance its consideration of solar DG in the evaluation of alternatives for future NWA projects. Additionally, because the OER's demonstration project will be administered in the same area as the existing DemandLink™ pilot administered by the Company, wherever practical, the two groups will co-promote and possibly integrate the implementation of the two projects. This is intended to increase the success of both efforts but also more generally, provide insight into how renewables and conservation techniques can be combined to increase participation.

As in the 2012-2014 SRP Plan, as increased amounts of distributed, renewable supply enter service, the impact of these new resources on system reliability will need to be carefully studied, as depending on their concentration and technological make-up, they may either enhance reliability and contribute to NWA solutions, or may cause additional system investments to maintain reliability and power quality for all customers. As noted above, specific aspects of NWA demonstration projects may seek solutions that are more cost effective than new T&D investments, such as targeted storage deployments.

Volt/Var Optimization

The Company is currently conducting a Volt Var Optimization (VVO) demonstration pilot in Rhode Island that tests a centralized control functionality designed to optimize the operation of existing or new reactive resources and voltage regulation devices on seven distribution feeders. Aside from determining the benefits of operating the centralized control systems and requirements for integrating them into existing guidelines for current Volt/Var infrastructure, the project's goals also include an analysis of ways in which these systems might be integrated with other, rapidly developing uses of advanced technology on power distribution systems.

The Company will use the results from this demonstration pilot to determine how VVO might best be incorporated into an NWA project in other parts of the state as well as what load reductions may be expected.

Other Technology Options

The Company, similar to its proposed smart grid pilot filed in 2009, may propose pricing options for customers to incentivize certain behavior (e.g. charging for EVs, peak load rebates to get load relief, time of use or tiered use rates, etc.). To provide actionable information, the Company may need to provide other tools for customers to participate in pricing pilots, such as interval metering with two-way communication, in-facility load management tools, and education seminars to train customers in the use of such tools. The Company would plan to leverage other smart grid type efforts throughout the other service territories the Company serves to provide these services to customers in RI.

Funding

As in the 2012-2014 Plan, this Plan does not project a three year budget for SRP expenditures. Typically, NWAs are identified as the preferred solution to a system need on a rolling basis. It cannot be predicted how many NWA projects will be identified and implemented over the three year period. In addition, the components and structure of any given NWA solution, as well as its duration, are highly dependent on the situational characteristics of the system need for which it is being designed. These unknowns make

illustrative budgeting for System Reliability Procurement an essentially meaningless exercise. Even the costs of the pilot in progress in Tiverton and Little Compton cannot be predicted with confidence over the coming three year period, because they could they could significantly increase or decrease as the pilot and load conditions evolve year to year. .

However, as in the past, annual system reliability procurement budgets will be submitted to the Commission on November 1 of each year. Section H of the guidelines for system reliability procurement approved by the Commission on June 7, 2011 and modified on June 11, 2014 describe five possible funding sources for system reliability investments, including:

1. Capital funds that would otherwise be applied towards traditional wires based alternatives;
2. Existing Utility EE investments;
3. Additional energy efficiency funds to the extent that the NWA can be shown to pass the TRC test with a benefit to cost ratio of greater than 1.0 and such additional funding is approved, which are not currently included in the funding projections presented elsewhere in this Plan;
4. Utility operating expenses to the extent that recovery of such funding is explicitly allowed;
5. Identification of significant customer contribution of third party investment that may be part of a NWA based on benefits that are expected to accrue to the specific customers or third parties.

Conclusion

The standards for system reliability procurement planning approved by the Commission on June 7, 2011 and modified on June 11, 2014 promote a framework for considering and integrating NWAs as possible solutions to planning and reliability issues. As in the past, in the annual System Reliability Procurement Reports, the Company will continue to report on projects where NWAs were considered, projects where NWAs were selected as a preferred solution, and recommendations on pilot distribution projects that will utilize NWA reliability and capacity strategies.

Appendix A: Energy Efficiency Funding Plan

2015 - 2017 Energy Efficiency Plan
Electric Funding Plan

		2014	2015	2016	2017	Three Year Total
PART A: TOTAL FUNDING AND GOALS						
1)	Projected kWh Sales:	7,804,930,467	7,775,715,315	7,885,338,520	7,906,881,852	
2)	Currently Effective EE Charge	$ 0.00896	$ 0.00896	$ 0.00896	$ 0.00896	
3)	**Projected DSM Revenues from DSM Charge = (1) x (2)**	**$ 69,932,177**	**$ 69,670,409**	**$ 70,652,633**	**$ 70,845,661**	**$ 211,168,704**
4)	Other Sources of DSM Funding					
4a)	Projected Commitments from prior year	$ 7,000,000	$ -	$ -	$ -	$ -
4b)	Projected Entering Fund Balance:	$ 4,313,779	$ 4,109,184	$ -	$ -	$ 4,109,184
4c)	Projected Enertering Fund Balance Interest:	$ 325,738	$ 568,365	$ -	$ -	$ 568,365
4d)	Projected Capacity FCM Payments from ISO-NE:	$ 4,608,819	$ 4,189,925	$ 4,524,813	$ 11,819,306	$ 20,534,044
4e)	Projected RGGI Proceeds	$ 800,000	$ 3,635,496	$ 3,817,639	$ 5,500,822	$ 12,953,957
4)	**Subtotal Other Sources of DSM Funding**	**$ 17,048,336**	**$ 12,502,971**	**$ 8,342,452**	**$ 17,320,127**	**$ 38,165,550**
5)	**Projected Funding Available from Traditional Sources = (3) + (4)**	**$ 86,980,513**	**$ 82,173,380**	**$ 78,995,085**	**$ 88,165,789**	**$ 249,334,253**
6)	**Program Expenses to Achieve Goals**	**$ 80,635,968**	**$ 77,181,356**	**$ 80,348,063**	**$ 83,890,988**	**$ 241,420,407**
7)	Additions to Program Expenses					
7b)	Estimated Commitments to Future Years	$ -	$ -	$ -	$ -	$ -
7c)	Finance Funding	$ 1,000,000	$ 4,000,000		$ 1,000,000	$ 5,000,000
7d)	Target Incentive	$ 4,031,798	$ 3,859,068	$ 4,017,403	$ 4,194,549	$ 12,071,020
7e)	EERMC Expenses	$ 816,700	$ 1,020,485	$ 1,012,386	$ 1,069,026	$ 3,101,897
7f)	OER Expenses	$ 565,600	$ 680,323	$ 674,924	$ 712,684	$ 2,067,931
7)	**Subtotal Additions to Program Expenses**	**$ 6,414,098**	**$ 9,559,876**	**$ 5,704,712**	**$ 6,976,260**	**$ 22,240,849**
						$ -
8)	**Total Funding Required = (6) + (7)**	**$ 87,050,066**	**$ 86,741,232**	**$ 86,052,775**	**$ 90,867,248**	**$ 263,661,255**
PART B: FULLY RECONCILING FUNDING						
9)	Projected Funding Available = (5)	$ 86,980,513	$ 82,173,380	$ 78,995,085	$ 88,165,789	$ 249,334,253
10)	Fully Reconciling funding needed from additional source = (8) - (9)	$ 69,553	$ 4,567,852	$ 7,057,690	$ 2,701,459	$ 14,327,002
11)	Fully Reconciling funding charge per kWh = (10) / (1)	$ -	$ 0.00058	$ 0.00089	$ 0.00034	
12)	Currently Effective EE Charge = (2)	$ 0.00896	$ 0.00896	$ 0.00896	$ 0.00896	
13)	Proposed Adjustment to Reflect Fully Reconciling Funding Mechanism = (11) + (12)	$ 0.00896	$ 0.00954	$ 0.00985	$ 0.00930	
14)	Currently Effective Uncollectible Rate	1.25%	1.25%	1.25%	1.25%	
15)	**Proposed Energy Efficiency Program charge per kWh, including uncollectible recovery = (13) / (1-(14))**	**$ 0.00907**	**$ 0.00966**	**$ 0.00997**	**$ 0.00941**	
PART C: GOALS AND COST/LIFETIME kWh						
16)	Goal, Annual MWh	255,314	193,603	197,475	201,347	592,425
17)	Goal, Annual Peak kW Savings	49,773	31,447	32,209	32,181	95,837
18)	Goal, Lifetime MWh	3,305,615	1,956,845	2,064,074	2,164,927	6,185,846
19)	Total benefits	$ 367,359,563	$ 282,875,002	$ 303,660,783	$ 316,528,156	$ 903,063,941
20)	Net benefits = (20) - (8)	$ 280,309,497	$ 196,133,770	$ 217,608,008	$ 225,660,908	$ 639,402,685
21)	Customer Costs	$ 29,626,612	$ 21,550,515	$ 21,705,602	$ 23,620,056	$ 66,876,174
22)	TRC Cost/lifetime kWh = ((8) + (21)) / (18)*1000	$ 0.035	$ 0.055	$ 0.052	$ 0.053	$ 0.053
23)	Benefit Cost Ratio = (19) / ((8) + (21))	3.15	2.61	2.82	2.76	2.73
24)	Utility Spending per lifetime kWh = ((6)+ (7b) + (7c)) / (18)) / 1000	$ 0.026	$ 0.043	$ 0.041	$ 0.041	$ 0.042

Line	Notes:
1	Sales from Company sales forecast (Fall 2013) and includes Streetlights. This forecast excludes 87,473 MWh each year, the gross amount that the Toray CHP is anticipated to generate consistent with Docket 4397. The forecast is expected to be updated in Fall 2014 and will be used in the 2015 EE Annual Plan.
2	2014 EE Charge excludes uncollectable recovery and System Reliability factor. See Line 9, Table E-1, Attachment 4 - Revised in the 2014 EE Plan, Docket 4451.
4b	Projected Fund year-end fund balance is estimated for 2015 and assumed to be $0 in 2016 and 2017 as part of Fully Reconciling Funding.
4c	Projected amount of interest earned is estimated for 2015 and assumed to be $0 in 2016 and 2017 as part of Fully Reconciling Funding.
4d	FCM Payments based on internal estimates.
4f	2015 RGGI proceeds based on 2014 OER Allocation Plan for 2013 revenues. 2016 RGGI proceeds based on assumption of 50% of forecasted revenues for 2014, forecast provided by ENE. 2017 RGGI proceeds based on assumption of 50% of forecasted revenues for 2015, forecast provided by ENE. Settling parties agree this is a reasonable assumption.
6	Program expenses include implementation and evlauation expenses
7d	Target incentive is equal to 5% of program expenses
7e	EERMC Expenses equal to on 1.2% of program expenses + finance funding + target incentive.
14	OER Expenses equal to on 0.8% of program expenses + finance funding + target incentive.
15	Commitments are excluded from TRC Cost/lifetime kWh
16	Commitments are excluded from the Benefit Cost Ratio

2015 - 2017 Energy Efficiency Plan
Gas Funding Plan

	PART A: TOTAL FUNDING AND GOALS	**2014**	**2015**	**2016**	**2017**	**Three Year Total**
1)	Projected Dth Sales:	40,569,962	39,169,564	40,036,453	40,222,486	
2)	Currently Effective Average EE Charge	$ 0.526	$ 0.526	$ 0.526	$ 0.526	
3)	**Projected DSM Revenues from DSM Charge = (1) x (2)**	$ 21,339,800	$ 20,603,190	$ 21,059,174	$ 21,157,028	$ 62,819,392
4)	Other Sources of DSM Funding					
4a)	Projected Commitments from prior year	$ -	$ -	$ -	$ -	$ -
4b)	Projected Entering Fund Balance:	$ 1,835,551	$ (1,752,251)	$ -	$ -	$ (1,752,251)
4c)	Projected Enertering Fund Balance Interest:	$ 114,561	$ 89,550	$ -	$ -	$ 89,550
4d)	Low Income Weatherization in Base Rates	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ 600,000
4)	**Subtotal Other Sources of DSM Funding**	$ 2,150,112	$ (1,462,701)	$ 200,000	$ 200,000	$ (1,062,701)
5)	**Projected Funding Available from Traditional Sources = (3) + (4)**	$ 23,489,912	$ 19,140,489	$ 21,259,174	$ 21,357,028	$ 61,756,691
6)	**Program Expenses to Achieve Goals**	$ 21,793,728	$ 22,321,520	$ 23,593,585	$ 25,096,949	$ 71,012,055
7)	Additions to Program Expenses					
7a)	Estimated Commitments to Future Years	$ -	$ -	$ -	$ -	$ -
7b)	Finance Funding	$ 200,000	$ 500,000	$ 500,000	$ 500,000	$ 1,500,000
7c)	Target Incentive	$ 1,089,686	$ 1,116,076	$ 1,179,679	$ 1,254,847	$ 3,550,603
7d)	EERMC Expenses	$ 245,427	$ 287,251	$ 303,279	$ 322,222	$ 912,752
7e)	OER Expenses	$ 163,618	$ 191,501	$ 202,186	$ 214,814	$ 608,501
7)	**Subtotal Additions to Program Expenses**	$ 1,698,731	$ 2,094,828	$ 2,185,145	$ 2,291,883	$ 6,571,856
8)	**Total Funding Required = (6) + (7)**	$ 23,492,459	$ 24,416,348	$ 25,778,730	$ 27,388,832	$ 77,583,910
	PART B: POTENTIAL INCREMENTAL FUNDING NEEDED					
9)	Projected Funding Available = (5)	$ 23,489,912	$ 19,140,489	$ 21,259,174	$ 21,357,028	$ 61,756,691
10)	Fully Reconciling funding needed from additional source = (8) - (9)	$ 2,548	$ 5,275,859	$ 4,519,556	$ 6,031,805	$ 15,827,219
11)	Fully Reconciling funding charge per Dth = (10) / (1)	$ -	$ 0.134	$ 0.112	$ 0.149	
12)	Currently Effective EE Charge = (2)	$ 0.526	$ 0.526	$ 0.526	$ 0.526	
13)	Proposed Adjustment to Reflect Fully Reconciling Funding Mechanism = (11) + (12)	$ 0.526	$ 0.660	$ 0.638	$ 0.675	
14)	Currently Effective Uncollectible Rate	3.18%	3.18%	3.18%	3.18%	
15)	**Proposed Average Energy Efficiency Program charge per Dth including uncollectible recovery = (13) / (1-(14))**	$ 0.543	$ 0.681	$ 0.658	$ 0.697	
15a)	Proposed Residential Energy Efficiency Program charge per Dth including uncollectible recovery	$ 0.600	$ 0.750	$ 0.726	$ 0.768	
15b)	Proposed Commercial & Industrial Energy Efficiency Program charge per Dth including uncollectible recovery	$ 0.492	$ 0.615	$ 0.595	$ 0.629	
	PART C: GOALS AND COST/LIFETIME Dth					
16)	Goal, Annual Dth	329,963	376,915	395,760	414,606	1,187,281
17)	Goal, Lifetime Dth	4,052,374	4,048,728	4,302,219	4,536,303	12,887,250
18)	Total benefits	$ 49,021,260	$ 59,415,057	$ 64,517,962	$ 67,758,168	$ 191,691,188
19)	Net benefits = (18) - (8)	$ 25,528,801	$ 34,998,709	$ 38,739,232	$ 40,369,336	$ 114,107,277
20)	Customer Costs	$ 5,421,504	$ 5,035,998	$ 5,316,997	$ 5,649,089	$ 16,002,083
21)	TRC Cost/lifetime Dth = ((8) + (20)) / (17)	$ 7.14	$ 7.27	$ 7.23	$ 7.28	$ 7.26
22)	Benefit-Cost Ratio = (18) / (8) + (20)	1.70	2.02	2.07	2.05	2.05
23)	Utility Spending per lifetime Dth = ((6)+ (7b) + (7c)) / (17)	$ 5.70	$ 5.91	$ 5.87	$ 5.92	$ 5.90

Line **Notes:**

1 From the Company's Summer 2014 Gas Forecast. Includes projections for firm and non-firm customers, excludes exempt DG customers.

2 The Currently Effective Average Charge is illustrated as one charge, shared among residential and commercial customers. The charge is separated into separate charges by customer segment on lines 15a and 15b.

4a There are no commitments planned at this time.

4b Projected Fund year-end fund balance is estimated for 2015 and assumed to be $0 in 2016 and 2017 as part of Fully Reconciling Funding.

4c Projected amount of interest earned is estimated for 2015 and assumed to be $0 in 2016 and 2017 as part of Fully Reconciling Funding.

7c Target incentive is equal to 5.0% of program expenses

7d EERMC Expenses equal to on 1.2% of program expenses + finance funding + target incentive.

7e OER Expenses equal to on 1.2% of program expenses + finance funding + target incentive.

15a & 15b The proposed charges by customer segment are estimates. They will be updated each year in the Annual Plans. The estimates are calculated by dividing the average charge (line 15) for each year by the average charge for 2014 to dxetermine the percent difference. The percent difference for each year is then multiplied by the customer segment charge for 2014 (lines 15a and 15b). For example, the calculation for line 15a in 2015 is: $0.659/$0.543 = 1.21; 1.21*$0.600 = $0.726.