

**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
PUBLIC UTILITIES COMMISSION**

National Grid
Least Cost Procurement

:
:

Docket No. 3931

REPORT AND ORDER

On July 17, 2008, the Public Utilities Commission ("Commission") adopted and promulgated Least Cost Procurement Standards ("Standards") pursuant to R.I. Gen. Laws §39-1-27.7. Following the adoption of the Standards and on September 2, 2008, National Grid ("NGrid") filed its proposed Least Cost Procurement Plan ("Plan") in compliance with R.I. Gen. Laws §39-1-27.7 and the Standards promulgated by the Commission. NGrid's Plan contained two parts; one was its Energy Efficiency Procurement Plan and the other, its System Reliability Procurement Plan ("SRPP")¹.

On October 27, 2008, the Commission conducted a hearing on NGrid's Plan. At that hearing, Jeremy Newberger, Manager of Evaluation, testified that the Plan covers a three year period (2009-2011). The focus of the energy efficiency plan is to ramp up program delivery efforts to secure all cost effective energy. He noted that NGrid believes that the prudent and reliable clause in the legislation means that NGrid must manage the implementation of their efforts to ensure that these efforts result in quality, long-lasting installations. He also testified that NGrid's efforts will be balanced and thus include a steady ramping up rather than a flood of energy efficiency in the beginning. Mr. Newberger testified that the focus of the system reliability plan is to identify customer side opportunities beyond energy efficiency that will provide lower costs to ratepayers.²

¹ The Energy Efficiency Procurement Plan and the System Reliability Procurement Plan are attached hereto as Appendix A.

² Transcript of Hearing ("T."), October 27, 2008, at 9-11.

In describing NGrid's Energy Efficiency Plan, Mr. Newberger noted that the three year plan creates \$280 million in net lifetime savings through investments made over the three year period. To calculate net benefits, NGrid used the total resource cost test³. He identified the lifetime cost of energy efficiency to be 4.4 cents per lifetime kilowatt hour compared to the 12.4 cents per kilowatt hour for standard offer service and 10.8 cents per kilowatt hour for last resort service. Mr. Newberger testified that the \$280 million lifetime savings is based on the regional avoided cost study that includes generation, transmission and distribution.⁴

Mr. Newberger noted that the energy efficiency plan does not include great detail and that the detail would be provided when NGrid files its Demand Side Management Plan ("DSM") Plan. He did, however, testify about some key elements of the program including, the refrigerator bounty program, the low income program, the energy audits and bill financing for cities and towns.⁵

Mr. Newberger testified that the \$105 million three year investment in energy efficiency will create \$280 million in lifetime net benefits. He noted that there would be an increase of 0.12 cents per kilowatt hour necessary to fund the 2009 DSM programs, and that NGrid was not at this time requesting an increase to fund the 2010 and 2011 programs. When asked by Commission staff if Regional Greenhouse Gas Initiative ("RGGI") auction funds may be available to offset any necessary increase, Janet Keller, from the Office of Energy Resources ("OER"), indicated that a decision about those funds had not yet been made.⁶

³ The Total Resource Cost Test was approved by the Commission when it promulgated the Standards.

⁴ *Id.* at 9-14.

⁵ *Id.* at 15-27.

⁶ *Id.* at 28-29, 41-44.

Timothy Roughan, testified regarding the SRPP which he described as a plan to determine what other customer side resources should or could stabilize supply costs and provide additional reliability benefits from the transmission supply and the distribution side. Mr. Roughan noted that the proposed funding for the SRPP was approximately \$6 million over three years. He identified one of the areas that NGrid was working on was the automation of customer loads for customers in the Jamestown Newport area. He described the 1000 customer Pilot that will help customers manage their load with automated devices within their homes. NGrid is looking to shed approximately 750 kilowatt hours per substation, two of which are in Newport and the other two in Jamestown. He described equipment being tested as including a technology which will read a meter inside the customer's facility and display that reading on a unit or the customer's computer in real time. The cost to ratepayers for the SRPP would be in addition to the DSM surcharge.⁷

At an Open Meeting on October 30, 2008, the Commission deferred its decision on NGrid's Least Cost Procurement Plan until such time as it has the opportunity to review the specifics of National Grid's DSM programs and further study the SRPP. The Commission's decision to defer the decision was based in part on the fact that NGrid requested an increase in funding for its DSM programs and the Commission wanted the opportunity to review and evaluate the specific DSM programs prior to authorizing any increase in funding to be borne by ratepayers. Furthermore, the Division of Public Utilities and Carriers ("Division"), the OER, and The Energy Council of Rhode Island ("TEC-RI") noted there was insufficient background on the System Reliability Plan to allow those parties to establish and set forth their positions.

⁷ *Id.* at 50-52, 58-60.

On November 7, 2008, NGrid filed a Settlement of the Parties (“2009 Settlement”) of its DSM programs, entered into by the Division, TEC-RI, OER, Energy Consumers Alliance of New England d/b/a People’s Power & Light (“PP&L”) and Environmental Northeast (“ENE”)(collectively referred to as “the Parties”).⁸ The Commission conducted a hearing on this Settlement Agreement on December 15, 2008. During that hearing, the Commission heard additional evidence about the SRPP from Mr. Roughan. After Mr. Roughan’s testimony, OER indicated that it needed more information prior to stating its position as to whether the Commission should approve the Company’s SRPP in Docket No. 3931. Likewise, the Division stated that the Commission could make a decision as to the SRPP at a later date.⁹

On December 23, 2008, the Commission approved a Settlement Agreement between NGrid and the Division increasing the annual DSM charge to customers from 2.0 mills per kilowatt hour to 3.2 mills per kilowatt hour in Docket No. 4000.¹⁰ The Commission found that the Settlement Agreement complied with the mandates of the statute, R.I. Gen. Laws §39-1-27.7 and the Commission’s Least Cost Procurement Standards, that require investing in all efficiency that is less expensive than supply when it is prudent and reliable. Therefore, the Commission’s decision in Docket No. 4000 effectively served to approve the Energy Efficiency Procurement Plan in this Docket. The Commission further found that the benefits of the programs far outweigh the additional and minimal \$0.0012 per kilowatt hour increase cost imposed on customers. The impact on a typical residential customer using 500 kWh per month is a 63 cent increase.

⁸ The Settlement Agreement is attached hereto as Appendix B.

⁹ Transcript of Hearing, Docket No. 4000, December 15, 2008 at 94-128.

¹⁰ Order No. 19806, issued April 6, 2009.

In Docket No. 4000, the Commission was satisfied that NGrid provided detailed information about its proposed system reliability plan and proposed budget for the same. However, the Commission ordered recommendations from the Division, OER and any other party who chose to provide recommendations regarding the SRPP. While the SRPP was part of the current docket, the Commission wanted more information and comment including recommendations on the same. The parties requested opening a separate docket on that one issue; however, the Commission believes there was adequate opportunity to investigate and evaluate NGrid's proposed SRPP in the current docket through data requests and during the hearings when it was discussed. NGrid's proposed SRPP has been available to the parties since September 2, 2008 and the Commission believes that is more than adequate time to raise any issues or concerns that any of the parties may have had with that proposed SRPP.

On December 22, 2008, the Division filed comments with the Commission. The Division recommended conditional approval of the SRPP with conditions: the time period of funding be for a one year trial period, the establishment of a process to assess the program's cost-effectiveness and possibly modify the measure mix for the Aquidneck Island Pilot and the need to minimize the cost of any renewable technologies implemented as part of the Pilot. The Division also suggested that NGrid proceed with only selected technologies from among those proposed, like commercial and industrial demand response, as opposed to residential demand response which it noted was more expensive. Again on February 19, 2009, the Division provided the Commission with the same recommendation but corrected the one year trial date for funding to begin with Commission approval of the SRPP as opposed to January 1, 2009 as originally suggested.

On December 23, 2008, the Energy Efficiency and Resources Management Council ("EERMC") filed a recommendation supporting the Division's proposal for a one-year trial period to provide funding for the initiatives.

On March 20, 2009, NGrid filed a response to the Division's recommendations of December 22, 2008. In that response, NGrid noted that it had discussed the issues raised in the recommendation with the Division. NGrid pointed out that the one-year time period recommended by the Division would not be practical because parts of the Aquidneck Island Pilot program, described above, for the SRPP would require sustained commitment of resources and infrastructure to be successful. NGrid represented that the Division no longer opposed the three year program based on its discussions with the Company. Furthermore, NGrid noted that as part of the Aquidneck Island Pilot, the Company will evaluate the cost-effectiveness of the technologies and measure mix as well as additional value streams. After discussions with the Division, the Company was agreeable to providing status reports every six months.

NGrid also addressed the Division's suggestion that it proceed with only selected technologies. In response to that suggestion, the Company noted that there are only six large customers in the pilot area. Because of the small number, NGrid estimates that it cannot achieve its 2.8 MW target from only this class of customers and therefore stresses that residential demand response options need to be included in the Pilot.

On March 23, 2009, the Office of Energy Resources filed a letter with its "Plan for the Allocation and Distribution of Regional Greenhouse Gas ("RGGI") Auction Proceeds March 2009 in response to the Commission's Request for comments in this docket." The letter noted that the Plan recommends allocating 60% of the proceeds

remaining after the deduction of the administrative funds to the approved Energy Efficiency Procurement Plan. Beyond that the letter did not provide any recommendation to the Commission as to whether or not to approve NGrid's SRPP or any comments about the same. The Commission will assume the OER fully supports NGrid's SRPP especially in light of the fact that it has had more than sufficient opportunity to evaluate that Plan.

In addition to the comments filed by the Division, Bluewater Wind filed comments on March 27, 2009. Bluewater Wind asked the Commission to order NGrid to revise its SRPP to be consistent with the Standards promulgated by the Commission specifically that the SRPP failed to provide a plan for cost-effectively acquiring large-scale amounts of renewable energy in other venues. NGrid responded that its SRPP includes renewable energy sources into the mix of least-cost customer-side activities that are employed.

The Commission is satisfied that both the Energy Efficiency Plan and the System Reliability Plan comply with the law and the Standards. The Commission finds and approves of the high level of energy and economic savings as measured through the TRC and goals of the Energy Efficiency Plan, and specifically notes that the benefits of the program are triple of the cost. Additionally, the annual kW savings for the three year plan exceeds 45 million kW. Funding for the Energy Efficiency Procurement Plan in 2010 and 2011 shall be contingent upon the Commission's approving NGrid's DSM plans for those years. The Commission also notes the overwhelming support of the Plan provided by numerous groups including People's Power and Light, Rhode Island Interfaith Power and Light, the OER, TEC-RI and the Division.

NGrid's SRPP is approved for the three year period. The Commission will defer any decision as to the funding of the SRPP until such time as it determines whether excess funds have been recovered for the Energy Efficiency Plan, in light of the OER recent pronouncement that it will allocate 60% of the proceeds from the RGGI auctions after a deduction for administrative funds will be used to offset the increase in the systems benefit charge. In the event there is excess funding of the Energy Efficiency Procurement Plan, that excess shall be used to offset any costs to ratepayers for the SRPP. Finally, the Commission commends all of the parties, especially the EERMC, for their hard work and diligence in putting together the Least Cost Procurement Plan and recognizes their commitment and dedication to ensuring the maximum benefits for Rhode Island's ratepayers.

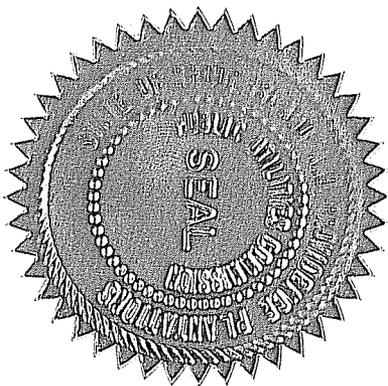
Accordingly, it is hereby

(19621) ORDERED:

1. National Grid's Least Cost Procurement Plan is approved.
2. Funding for the Energy Efficiency Programs for 2010 and 2011 shall be conditioned upon the Commission approving National Grid's DSM plans.
3. The funding for the System Reliability Procurement Plan shall be deferred until it is determined whether excess funds have been recovered from the Energy Efficiency Procurement Plan, in such case the excess funds will be used to offset the funding of the System Reliability Procurement Plan.
4. National Grid shall comply with all other findings and instructions as contained in this Report and Order.

EFFECTIVE AT WARWICK, RHODE ISLAND ON MARCH 31, 2009,
PURSUANT TO AN OPEN MEETING DECISION ON MARCH 31, 2009.
WRITTEN ORDER ISSUED APRIL 17, 2009.

PUBLIC UTILITIES COMMISSION



Elia Germani

Elia Germani, Chairman

Robert B. Holbrook, Commissioner*

Mary E. Bray

Mary E. Bray, Commissioner

*Commissioner Holbrook did not participate in this decision.

2009-2011 ENERGY EFFICIENCY PROCUREMENT PLAN

SUBMITTED BY NARRAGANSET ELECTRIC COMPANY d/b/a NATIONAL GRID

I. Introduction

"The Comprehensive Energy Conservation, Efficiency and Affordability Act of 2006" 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.

The legislation was intended to chart a new course for energy planning and procurement in RI as indicated in the following quote from House Majority Leader, Gordon Fox:

“ The new approach included in this bill establishes the next generation of energy planning and sets a new standard for how states should address energy planning ... It levels the playing field for energy efficiency and other lower-cost, consumer-friendly options, allowing them to compete equally with more traditional energy sources for the first time.”¹

The Comprehensive Energy Bill was created with input from Governor Carcieri's office and was originated in the Senate. On June 23, 2006, it passed both the House and the Senate unanimously, and on June 29th the Governor signed the bill into law.

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, and demand response. Energy efficiency procurement includes “procurement of energy efficiency and energy conservation measures that are

¹ RI general Assembly press release 2/29/06

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¹ RI general Assembly press release 2/29/06

prudent and reliable and when such measures are lower cost than acquisition of additional supply, including supply for periods of high demand.”²

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.”³ 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.”⁴ This plan is submitted in fulfillment of that requirement by The Narragansett Electric Company d/b/a National Grid (“National Grid” or the “Company”).

As required by the Act, draft Standards for governing energy efficiency and system reliability procurement were proposed by the Energy Efficiency and Resources Management Council (“EERMC” or “Council”), a stakeholder oversight board appointed by the Governor and also pursuant to the Act comprised of representatives from “(1) energy regulation and law; (2) large commercial/industrial users, (3) small commercial/industrial users; (4) residential users; (5) low income users; (6) environmental issues pertaining to energy; and (7) energy design and codes.” In preparing the draft Standards, the EERMC consulted with TEC-RI, Environment Northeast, the Office of Energy Resources, the URI Partnership for Energy, and the Company and held informational meetings with the Rhode Island Division of Public Utilities and Carriers. The Commission then opened Docket 3931 “Standards for Energy Efficiency and Conservation Procurement and System Reliability” and issued a Notice of Public Hearing. After accepting motions to intervene, holding a public hearing, accepting public comments, and receiving testimony from interested parties, the Commission issued a final set of Standards at Open Meeting on June 12, 2008. The Standards are included in Attachment A to this plan.

Consistent with the 2006 Act, the Standards require the Company to submit a three year Energy Efficiency Procurement Plan by September 1, 2008 that “shall identify strategies and an approach to planning and implementation of programs that will secure all cost-effective energy efficiency resources that are lower cost than supply and are prudent and reliable.”⁵ All plans regarding procurement of system reliability and energy efficiency procurement in Rhode Island must be built

² RIGL §39-1-27.7

³ RIGL §39-1-27.7

⁴ RIGL §39-1-27.7

⁵ Standards Section 1.2 A

upon the foundation of what has been implemented in the years preceding the development of the plan. In particular, for energy efficiency, the Company has a twenty year track record of continuous and successful implementation of energy efficiency programs that should play a key part in shaping the development of future efforts. The Standards require that the EE Procurement Plan “shall describe the recent energy efficiency programs offered by the Utility and highlight how the EE Procurement Plan supplements and expands upon these offerings.”⁶

This Plan is the product of long and substantive discussions among the members of the EERMC Subcommittee. The Subcommittee includes representatives from the Division of Public Utilities and Carriers, Environment Northeast, National Grid, the Office of Energy Resources, People’s Power and Light, and TEC-RI, as well as members of the Council and the Council’s consultant team from Vermont Energy Investment Corporation. The Council members who have participated in the Sub-Committee process over the past months include Chris Powell (Large Commercial/Industrial Users), Dan Justynski (Small Commercial/Industrial Users), Joe Cirillo (Energy Design and Codes), Sam Krasnow (Environmental Issues), and Joe Newsome (Low Income Users). The Plan was submitted by the Subcommittee to the Council for its consideration at its meeting of August 14, 2008, and was endorsed by the Council at that meeting⁷.

II. Funding Plan

Consistent with the goals of the Standards and the Act, the Company plans to double the amount of savings for RI customers produced by its electric energy efficiency programs, relative to 2008, over the three years from 2009 through 2011 through the implementation of programs that are lower than the cost of supply and are prudent and reliable. The projected cumulative amount of 265,000 net annual MWh savings over the three years is 90% of the “Aggressive Achievable Case” for energy efficiency procurement over the same period presented in Table 1-2 of KEMA’s “The Opportunity for Energy Efficiency that is Cheaper than Supply in Rhode Island: Phase I Report – Submitted July

⁶ Standards, Section 1.2 A. 1. b.

⁷ The Council voted to approve the Plan with the following provisos: (a) that the section regarding the proposed incentive to National Grid be removed and (b) that the approval of the plan is preliminary and that the EERMC reserves the right to comment further even if the comments are negative. As noted below in section G, proviso (a) is moot, since the Company subsequently altered its incentive proposal from what was presented to the Council.

15, 2008 (The ‘Opportunities Report’)” to the EERMC.⁸ Table 1 summarizes the savings goals, budget, and economic benefits for the three year plan, compared to 2008.

The Company’s savings goals for the three-year procurement plan establish a balance between the opportunities identified in the Opportunities Report and the leveraging power of Least Cost Procurement, with the standard of prudence for procurement that is also contained in the Rhode Island statute. In particular, it is important during the first three years of least cost procurement, to create the delivery infrastructure and financing mechanisms to enable the planned program expansion to proceed in a realistic and sustainable manner and to ensure the quality of installations that will ensure continued optimum energy-savings performance of the installed equipment. This is a strategy for Rhode Island, consistent with the Act and the Standards that is at once about dramatic energy cost savings, job creation, and reliability. The proposed three year Energy Efficiency Procurement Plan will deliver lifetime net energy savings of more than \$281 million for Rhode Island ratepayers⁹.

Table 1
2009-2011 Energy Efficiency Procurement Plan: Summary of Benefit, Costs, Savings (\$000)

	2008	2009	2010	2011	3 Year Total
NPV Net Benefits (\$000)	\$60,341	\$78,278	\$93,458	\$109,866	\$281,602
NPV Utility Costs (\$000)	\$14,861	\$24,430	\$34,739	\$43,296	\$102,4661
TRC Benefit / Cost	4.00	3.22	2.95	2.83	2.97
Annual Energy Savings (MWh)	54,268	74,387	88,546	102,566	265,499
Annual kW	9,154	12,555	15,154	17,815	45,524
Lifetime MWh	636,784	893,011	1,084,987	1,272,891	3,250,888
Cost / Lifetime kWh	\$ 0.032	\$ 0.039	\$ 0.044	\$ 0.047	\$ 0.044

Notes: Net benefits = benefits - (participant costs + utility costs - shareholder incentive)
Utility costs exclude shareholder incentive
TRC Benefit/Cost includes shareholder incentive as a cost

A three year funding plan for the Energy Efficiency Procurement is included as Attachment B. This plan first shows the sources of funding that are currently available to fund the energy efficiency programs: DSM charge collected at the current rate of \$0.002/kWh, fund balance interest,

⁸ The Opportunities Report notes that the estimate of achievable potential “generally assumes traditional program approaches and consequently is a provisional first step but not definitive of what is actually achievable under Rhode Island law. This is because under Least Cost Procurement it is possible to leverage higher savings through bolstered marketing, financing, and community based delivery strategies (page 1-6).”

⁹ This estimate of net benefits is based on value components available at the time the Company prepared this plan. The Company is in the process of updating some assumptions—notably avoided transmission and distribution capacity value, water and sewerage value, and discount rate—that may affect the net benefits to be included in the Energy Efficiency Program Plan.

commitments from prior years, customer co-payments received by the Company, and ISO-New England capacity market revenue.

In accordance with the requirement of Standards Section 1.2 A to “identify strategies and an approach to planning and implementation of programs that will secure all cost-effective energy efficiency resources that are lower cost than supply and are prudent and reliable,” the Company seeks the Commission’s approval of the three-year funding plan’s overall spending targets and goals, shown in Part A of Attachment B. In order to double the amount of savings from the programs to achieve \$281 million in net energy savings, the Company projects the need for approximately \$134 million in funding over the three-year period. This is \$71 million in funding more than what the funding would be over the same period using only the current sources of funding and maintaining only the current level of efforts. The total funding translates to \$102 million in efficiency program implementation and evaluation expenses over the three year period¹⁰, \$58 million more than what the expenses would be over the same period at current levels of effort. Supplemental funding is needed to secure efficiency resources that are less costly than supply in compliance with the 2006 Comprehensive Energy Bill and 2008 Procurement Standards and to generate lifetime net energy savings of more than \$281 million for Rhode Island ratepayers.

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 Regional Greenhouse Gas Initiative (RGGI) and forward capacity market auctions, the allocation of auction proceeds to the Company’s energy efficiency programs, and the Company’s success in implementing least cost procurement of energy efficiency.

Because of these uncertainties, the Company proposes in this Procurement Plan to make a specific request for the funding necessary only for the 2009 program year; the Company, after consultation with the Subcommittee, intends to return to the Commission with specific requests for 2010 and 2011, as the uncertainties become less uncertain. The Company proposes to secure the supplemental funding for 2009, in compliance with the adopted standards, through an increase under the existing DSM charge—also known as the systems benefit charge—mechanism (as allowed under R.I.G.L. Section 39-2-1.2). We propose the Commission consider an increase in the DSM charge of \$0.0012/kWh for 2009. This would establish the total DSM charge at \$0.0032/kWh in 2009. Part B of Attachment B shows the calculation of the incremental funding needed to

¹⁰ The difference between funding and utility implementation and evaluation expenses are commitments to future years, co-payments expected to be received during the program year, and the target shareholder incentive.

support the Procurement Plan. Part C of Attachment B shows the estimated savings and lifetime cost per kWh for the three year period.

This proposal assumes no allocation of RGGI funds to energy efficiency in 2009. The Company and several other subcommittee and Council members support the allocation of RGGI funds to the Company's energy efficiency programs. The R.I. General Laws § 23-82-6 establishes that such proceeds shall be used to benefit energy consumers "through investment in the most cost-effective available projects that can reduce long-term consumers energy demands and costs" and mentions energy efficiency several times in that regard. Other RGGI states have also taken this same approach. However, the ultimate decision about the allocation of RGGI auction proceeds resides with the OER, with input from the DEM and the EERMC. A decision about the allocation of RGGI funds has not yet been made, and the timing of this decision is unknown. Therefore, we further propose that if it is decided to allocate RGGI funds to the Company's programs, the Company will file a proposal with the PUC for an adjustment to the funding plan for 2009.¹¹

As with the current funding mechanism, should there be surplus energy efficiency funds at the end of 2009, we propose that these funds, as well as the interest generated by them, be carried over into 2010 and allocated to the programs in that year. If there is carryover, it will reduce any increase in the DSM charge that may be needed for 2010.

While Attachment B does not show sector-specific funding levels, the Company proposes that the energy efficiency programs offered to the low-income sector be subsidized by all the other sectors: residential, small business, and large commercial and industrial. This is a departure from prior years' practice of funding the low-income programs primarily from the residential sector, but is important to providing equitable and sustainable opportunities to all sectors for energy efficiency procurement. The allocation mechanism needs to be developed. At the same time, the programs may be viewed as a tool for economic development. Funding for low-income and economic development will provide a measure of equity in the availability of program funds, which is identified as a desirable objective in the adopted Least Cost Procurement Standards.

¹¹ This adjustment could be an elimination or reduction in the increase in the DSM charge or it could be to maintain the DSM charge at the proposed \$0.0032/kWh and accumulate the funds from the RGGI auction for use in the 2010 program year to mitigate further increases in the DSM charge that would be needed to support further program expansion in 2010 and/or 2011. Note that an allocation in 2009 of funds equivalent to 90% of the RGGI auction at an estimated allowance price of \$5/ton to the energy efficiency programs would eliminate the need for the proposed DSM charge increase. This allocation would also greatly reduce the need for increases in the DSM charge in 2010 and 2011 illustrated in Attachment B. At the proposed program levels a 90% RGGI allocation at \$5/ton would mean only roughly a .0009 and .0019 increase is needed in 2010 and 2011.

The Company intends to work with various market actors to leverage the expenditure of funds it controls in order to achieve program savings goals while controlling costs. The Company has not sufficiently developed these strategies to incorporate them into this Plan. Future updates to this procurement plan will reflect progress made in leveraging other sources of funding and will be included in the November 1 annual Energy Efficiency Program Plan filing. The Company will consider partnering with lending institutions that could make attractive financing terms available given that the Company has a unique and ubiquitous way to bill and collect payments. Other sources of funding to be leveraged include vendors or manufacturers who would benefit from expansion of the energy efficiency industry in Rhode Island.

The Company intends to expand its use of on-bill financing to remove some of the barriers that exist to program participation. On-bill financing is currently used in the small business sector, where the Company pays 70% of the installation cost, and customers may elect to pay their portion up front or over one or two years through monthly payments on their electric bills. No interest payments are made with the on-bill payments, so this is essentially a zero percent loan. The Company plans to expand on-bill financing to advance energy efficiency in cities and towns, which are typically capital-constrained. Initially, the Company would propose a cap on the amount of money it would make available to support on-bill financing.

III. Procurement Components

A. Introduction

The Company expects that energy efficiency procurement under this Plan will be a combination of expanding current program offerings, supplementing current program offerings with new programs or technologies, and exploring new mechanisms to reach the market with energy efficiency consistent with the Commission's Standards. This section outlines, by sector, proposed strategies to supplement and build upon the initial EERMC Opportunity Report – Phase I; new strategies to make available the capital needed to implement projects in addition to the incentives provided; and plans to integrate gas and electric energy efficiency programs to optimize customer energy efficiency. Details on proposed program offerings for 2009 will be provided in the Energy Efficiency Program Plan, due to be filed by November 1, 2008. Inclusion of specific new directions from among those identified below in the Program Plan

may be dependent on program- or measure-specific cost-effectiveness determination and timely development of appropriate delivery infrastructure.

B. Residential Sector

1. The Company has offered a number of programs targeted at the Residential Sector

- a. The low income program, marketed as the Appliance Management Program, is delivered by the State Energy Office and local Community Action agencies. It provides the same services as the EnergyWise program, described below, but no customer contribution is required for equipment installation.
- b. The EnergyWise program offers customers free home energy audits and information on their actual electric usage. Participants in this program receive financial incentives to replace inefficient lighting fixtures, appliances, thermostats, and insulation levels with models that are more energy efficient. The program addresses baseload electric use as well as electric heat in all residential buildings.
- c. The ENERGY STAR Products program includes the ENERGY STAR Appliance Program which promotes the purchase of high efficiency major appliances (refrigerators, dishwashers, clothes washers, room air conditioners, and dehumidifiers) that bear the ENERGY STAR Label. It is offered by several utilities throughout the region.
- d. The ENERGY STAR Lighting program is an initiative implemented jointly with other regional utilities. It provides discounts to customers for the purchase of ENERGY STAR compact fluorescent lamps and fixtures through instant rebates, special promotions at retail stores, or a mail order catalog.
- e. The ENERGY STAR Heating program assists homeowners purchasing or replacing an existing oil or propane heating system with a qualifying ENERGY STAR heating system. Funding is provided by the Company and administered by the State Energy Office.
- f. The ENERGY STAR Air Conditioning program promotes the installation of high efficiency central air conditioners. The program provides training of contractors in installation, testing of the high efficiency systems, tiered rebates for new ENERGY STAR systems, and incentives for checking existing systems.

- g. The Company promotes energy education in schools through the National Energy Education Development (N.E.E.D) Program. This program provides curriculum materials and training for a comprehensive energy education program. The Company also supports the ENERGY STAR Homes Vocational School Initiative which trains students at the nine Rhode Island Career and Technical schools to be ENERGY STAR certified builders.
 - h. The ENERGY STAR Homes Program promotes the construction of energy efficient homes by offering technical and marketing assistance, as well as cash incentives to builders of new energy efficient homes that comply with the program's performance standards.
2. New program directions
- a. Heating, Ventilation, Air Conditioning, Water Heating and Building Envelope
 - Micro CHP - net metering needs to be resolved
 - Room Air Conditioning upgrades including Ductless mini-splits, Room Air Conditioning retrofit kits and Multifamily RAC change outs. Increased Central AC incentives and review cost effectiveness of incentives for brushless motor applications, ENERGY STAR quality installation verification, incentives for air flow improvements, and early replacements
 - Direct load control devices
 - Upgrade thermal measures, including flat roof applications, exterior insulation and finish systems, interior rigid foam, and high expansion foam and consider window film for central air and electric heating customers
 - HVAC occupancy sensors (for example for use in time-share type facilities)
 - Energy management systems for multifamily central A/C with wireless networked programmable controls
 - High performance Window/door replacement
 - Pool covers in enclosed spaces whatever the pool heat source (reduce dehumidification requirements)
 - Parking garage retrofit CO sensors to control exhaust fan speed and on-time

- Flow testing, flow dampening retrofits and duct sealing for stacked exhaust, dampers, actuators, and duct reconfiguration for rooftop make-up air and exhaust, ventilation systems
 - Awnings and Vestibule additions
 - Cool roofs
 - Heat pump water heaters and GFX drain water energy recovery
 - Geothermal heating retrofit
 - Ground source heat pumps for retrofit
- b. Residential Appliances and Lighting
- Residential ENERGY STAR electronics (TVs, set top boxes, video) and appliances, room air conditioners (RAC), dehumidifiers, torchieres, and behavioral education
 - Smart strips - Green strips
 - Second refrigerator bounty program - RAC turn-in events (this was featured in the Opportunities Report)
 - In-home display units informing customers of power consumption in real-time
 - Replacement of laundry equipment (front loading washers, etc.) including Energy Star washers and dryers for common laundries
 - Advanced lighting technologies – LED
- c. New Construction
- Zero energy homes
 - Geothermal heating for residential
 - Ground source heat pumps for new construction, peak cooling
- d. Renewables
- Solar measures - PV, electric solar DHW, and potential pairing with other high value items as an incentive for participation.
- e. Introduce a direct load control program, as recommended by the Opportunities Report

3. Integration with Gas Programs

The Company has been working to integrate the gas and electric residential energy efficiency programs since the gas programs were launched in July 2007.

The Company will seek a higher level of flexibility in program administration to allow for transfer of funds, if necessary, between budgets to allow for integrated services to be delivered.

C. Small and Medium Business

1. Description of recent energy efficiency programs offered by the Company

For over ten years, this program has provided direct retrofit installation of energy efficient lighting, refrigeration and other energy efficient measures to small commercial and industrial customers. Any customer with an average monthly demand of less than 200 kW or annual energy usage of less than 483,600 kWh is eligible for this program. The Company arranges the equipment purchase through a material vendor and installation with an administrative contractor. Customers pay 30% of the cost of installations and the Company pays the balance. Customers may finance the remainder for up to 24 months interest-free through their electric bill. If customers pay their portion up front, they receive a 15% discount off the amount due.

2. New program directions

- a. Introduce a direct load control program, as recommended by the Opportunities Report
- b. Emerging technologies such as LED lighting

3. Integration with Gas Programs

- a. Small Business Services (electric) incorporating prescriptive measures now offered through the High Efficiency Heating program, GasNetworks, and the Commercial Energy Efficiency Program (insulation, controls, stream traps, for example). At this point, the Small Business Program offers a turnkey audit and installation service for electric energy saving measures. On the gas side, audits are done and then additional services/analyses are done if measures are more complex.

The types of measures offered by the electric program are: lighting, thermostats, and custom measures. The types of gas measures that could be considered “retrofit” are

steam traps, thermostats, boiler re-set controls, and attic insulation. There are a number of different options to explore.

- Audit for both gas and electric opportunities at the same time, install electric measures, and leave behind rebate applications for gas measures: Audits would be seamless to the customer. To achieve this, auditors would have to be trained. Also, since customers are used to direct installation, there may not be follow-through on installation of gas measures. Finally, eligibility rules would have to be reviewed because some “small” electric customers may be large gas consumers.
- Direct installs for both electric and gas measures: Alternatively, a turnkey solution could be offered on both gas and electric measures. This turnkey capability does not currently exist on the gas side. Also, eligibility would have to be reviewed, as described above. Additional subcontractors will be needed to install measures like steam traps and insulation.

D. Large Business

1. Description of recent energy efficiency programs offered by the Utility

Design *2000plus* promotes energy efficient design and construction practices in new and renovated commercial, industrial, and institutional buildings. The program also promotes the installation of high efficiency equipment in existing facilities during building remodeling and at the time of equipment failure and replacement. Design 2000plus is known as a lost opportunities program because a customer who does not install energy efficient equipment at the time of new construction or equipment replacement will likely never make the investment for that equipment or will make the investment at a much greater cost at a later time.

Design 2000plus provides both technical and design assistance to help customers identify efficiency opportunities in their new building designs and to help them refine their designs to pursue these opportunities. The program also offers rebates to eliminate or significantly reduce the incremental cost of high efficiency equipment over standard efficiency equipment. Commissioning or quality assurance is also offered to ensure that the equipment and systems operate as intended.

Energy Initiative is a comprehensive retrofit program designed to promote the installation of energy efficient electric equipment such as lighting, motors, heating, and ventilation and air

conditioning (HVAC) systems in existing buildings. All commercial, industrial, and institutional customers are eligible to participate. The Company offers technical assistance to customers to help them identify cost-effective conservation opportunities, and pays rebates to assist in defraying part of the material and labor costs associated with the energy efficient equipment.

2. New program directions

- a. Codes
- b. Expand the retrocommissioning program, as proposed in the Opportunities Report.
- c. Cool Choice and Energy Initiative HVAC controls (electric) and High Efficiency Heating and GasNetworks (gas): More work needs to be done promoting both our gas and electric incentives to installers, building design engineers, and equipment distributors.

3. Integration with Gas Programs

- a. InDemand program tracking system: A gas program tracking system is being developed using InDemand currently used by electric programs
- b. Comprehensive Design Approach, Advanced Buildings and Schools Initiative (electric); Commercial Energy Efficiency Program; and Emerald Network (gas): The nature of these programs under Design 2000plus is to look at how design elements of a new building interact with one another regardless of input energy type. Already, we have looked at a number of projects where potential gas and electric energy savings measures were analyzed. This seems to be working well. Technical Assistance studies (electric) and co-funded engineering studies (gas) need to be better aligned (herein called technical services).
- c. Industrial Processes through Energy Initiative and Design 2000plus (electric) and Commercial Energy Efficiency Program (gas): While not common, there could be opportunities where there are gas and electric savings for a new industrial process.
- d. Retro-Commissioning/Whole Building Assessment: These programs have been successful electric programs. They both look at electric, gas and oil opportunities. It's still early but the current cue of projects has not yielded any significant energy efficient

measures to be funded by gas programs. Likely many no or low cost O&M measures are recommended and implemented that save therms. For technical services, the electric pays 75% for Retro-commissioning and 50% for WBA (and 100% if the customer proceeds with capital projects where incentives are involved). The gas programs only pay up to 50%. As described previously, technical services under the gas and electric programs need to be better aligned so as to be seamless to the customer.

E. Other Elements of the Plan

1. Ramping up strategy:

As mentioned previously, the Company is committed to doubling the amount of savings achieved through the energy efficiency programs. This commitment will require expansion of the workforce in Rhode Island involved with energy efficiency program implementation as well as the development of innovative program delivery mechanisms. These will be presented in the annual Energy Efficiency Program Plans as they are developed. The Company is confident that it will be able to achieve this ramp-up rate over the three-year period in a way that is sustainable and reliable.

2. Equity:

It is important to note that procurement of all cost-effective energy efficiency allows for the development and implementation of programs of varying TRC- test benefit-cost ratios (as long as the programs are cost effective); it does not mean implementing the programs with the highest TRC first. This provision facilitates equity in the energy efficiency programs. Equity has been and will continue to be an important element of program design. All customers contribute to the energy efficiency fund and, therefore, programs will be made available to all customers. This will be reflected in the forthcoming Program Plan. In particular, the Company expects to continue to offer programs to low-income customers, and it expects to propose program elements for economic development. With the proposed subsidization of the low-income sector by all other sectors, some of the funding constraints experienced in prior years will be removed.

3. Interaction with the System Reliability Procurement Plan:

a. The System Reliability Procurement Plan accompanies this Energy Efficiency Procurement Plan. The two plans interact in the areas of proposed direct load control (DLC), renewables, and combined heat and power (CHP) elements. The Company sees

some linkage between the DLC component of the proposed Aquidneck Island pilot and this plan, and will explore funding some portion of the DLC in the pilot from energy efficiency funds. For renewables, the Company will investigate the use of rebates to promote geothermal installations, if they prove to be cost effective. Finally, CHP support is currently available through the Company's gas energy efficiency program. The 2009 Program Plan will continue to promote CHP installations.

4. Discussion of Cost effectiveness criteria:

- a. This plan is based on the 2007 Avoided Cost study. We expect to update it in 2009 after the next avoided cost study is completed.
- b. The standards prescribe the use of the TRC test. It may be reasonable in some cases (pilots programs, training/education programs, marginally not-cost-effective programs) to fund programs that fail the TRC test, as long as the portfolio passes the test. These programs are supported because they will serve the long term objective of the legislation.

F. Budgets and Goals:

The preliminary budget and goals for the Procurement Plan are summarized above in Table 1. The budget in Table 1 includes Utility Costs but does not include the costs of the proposed utility shareholder incentive¹². These goals are presented at the portfolio level, as required by the Standards. They identify projected costs, benefits, initial energy saving goals of the portfolio for each year, and the projected cost effectiveness of the portfolio of energy efficiency programs using a Total Resource Cost (TRC) test as well as the projected cost of efficiency resources in cents/lifetime kWh. The benefits are assessed using a TRC Test perspective, as specified in the adopted Standards. A detailed discussion of program benefits and costs is included in Attachment C. Program specific budgets, benefits, and goals will be filed as part of the Energy Efficiency Program Plan on or before November 1, 2008.

¹² The budget including the costs of the proposed incentive is included in "Total Funding to Meet Goals" in the Funding Plan in Attachment B.

G. Efficiency Performance Incentive Plan:

As specified in the adopted Least Cost Procurement Standards, the “Utility shall have an opportunity to earn a shareholder incentive that is dependent on its performance in implementing the approved EE Procurement Plan...The Utility, in consultation with the Council, will propose an incentive proposal that is designed to promote superior Utility performance in cost-effectively and efficiently securing for customers all efficiency resources lower cost than supply.”

1. Background

The current shareholder incentive in Rhode Island establishes an incentive dollar value that is a percentage of the spending budget. The Company earns the shareholder incentive based on how well it meets its kWh savings goal, and how efficiently it spends the budget to do so. In addition, there are five performance metrics for other objectives consistent with the savings goals. Details on the current incentive structure are provided on pages 11 through 14 of the “Settlement of the Parties for Electric Demand Side Management Programs for 2008.”

2. Proposed Shareholder Incentive for 2009

As directed by the Standards, the Company and the EERMC Subcommittee have reviewed incentive mechanisms in other jurisdiction as well as the existing Rhode Island Mechanism. It is the Company’s opinion that an alternative mechanism would better align the Company’s financial interests with the pursuit of energy efficiency beyond the levels historically pursued, consistent with the expectations of Least Cost Procurement, while controlling costs to the extent feasible. Consistent with this view, the Company proposed alternatives to the current Shareholder Incentive mechanism with the Subcommittee. However, the Company and the Subcommittee were not able to reach an agreement on an alternative. While the Company believes it is important to develop a new mechanism, it also believes that it is critical to begin the essential work of increasing the scope and size of its energy efficiency programs and to focus on the programmatic components of least cost procurement.

Therefore, the Company proposes for 2009 to retain the shareholder incentive mechanism that was approved for 2008 in Docket 3892. The Company is proposing this incentive mechanism for use in 2009 to allow time for consideration of other alternative mechanisms for 2010 and 2011. In that regard, the Company intends to revisit the issue of an alternative

shareholder incentive mechanism with the Subcommittee and reserves the right to file for approval of an alternative mechanism at the appropriate time that would apply for 2010.

The shareholder incentive mechanism for 2008 proposed for use in 2009 is presented below:

The shareholder incentive mechanism will continue to include two components: (1) kWh savings targets by sector and (2) performance-based metrics.

A. kWh Savings:

A target incentive rate of 4.40% will be applied to the eligible spending budget for 2009. The projected spending budget for 2009 is approximately \$24.2 million (see Attachment B). The total target incentive for 2009 would be 4.40% of the approved spending budget, or approximately \$1,065,000 (see Attachment D). Of this total, \$100,000 will be the target incentive for the performance-based metrics and the remainder will be for the kWh savings target.

The threshold performance level for energy savings by sector will remain at 60% of the annual energy savings goal for the sector. The Company must attain at least this threshold level of savings in the sector before it can earn an incentive related to achieved energy savings in the sector. The Company will have the ability to earn an incentive for each kWh saved, once threshold savings for the sector are achieved, up to 125% of target savings.

The incentive cap on energy savings will be equal to 125% of the target incentive amount for energy savings. If the Company achieves this level of exemplary performance, Rhode Island consumers will realize additional savings. Given budget control requirements, this will provide the Company with an incentive to improve the efficiency of its program implementation efforts while providing Rhode Island consumers with value in excess of the incremental incentive that may be earned by the Company.

Final sector spending budgets and savings goals will be provided in the Energy Efficiency Program Plan. Energy savings goals by sector will reflect the expected cost of savings in each sector informed by evaluation studies and will be adjusted to take into account changing rebate policies, the changing market being served, and the proposed expansion of program efforts in 2009. These goals will be carefully reviewed by the Subcommittee to ensure that they represent reasonable and challenging goals for the year.

There are three circumstances that would necessitate the recalculation of the threshold, calculated cap, and incentive for a particular sector:

1. If budgets are adjusted as a consequence of a true up filing in May 2009 (only under the condition that the actual 2008 year end fund balance deviates from projections by more than 20%, as described above, and only then with Commission approval), the threshold and incentive for the affected sectors will be adjusted as will each sector's incentive caps.
2. If the assumptions used to develop savings goals change as a result of evaluation studies completed by September 30, 2009, the Company will recalculate savings goals to account for those evaluation findings and will report actual savings on the same basis.
3. If the actual spending in a sector at year end is greater than or less than the spending budget by more than five percent, the savings goal for that sector will be adjusted by the ratio of actual spending to the spending budget.

None of these changes will affect the target incentive dollars associated with performance metrics. The Company will report program results compared to these revised budgets and goals in its Year-End Report regarding 2009 DSM Program efforts.

B. Performance Metrics

Up to five performance-based metrics will be proposed for 2008, including two that relate to the Residential sector, one that relates to the Small Commercial and Industrial sector, and two that relate to the Large Commercial and Industrial sector. The Company will have the ability to earn \$20,000 for each performance metric it successfully achieves in 2009. Some of the metrics may afford the opportunity to earn a portion of the incentive for partially achieving goals. The total potential incentive for performance metrics is capped at \$100,000. Specific metric proposals for 2009 will be included in the Energy Efficiency Program Plan.

2009-2011 SYSTEM RELIABILITY PROCUREMENT PLAN

SUBMITTED BY NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID

As a part of the larger Least Cost Procurement (LCP) plan, this System Reliability Procurement Plan (SRP), if approved, would provide the first of many pilots to use Alternate Resource Technologies (ARTs) as an alternative or an enhancement to proposed distribution and/or transmission upgrades. These sources include; targeted energy efficiency, demand response including direct load control (DLC), renewable energy generation, and combined heat and power (CHP). For all the ARTs above, analyses would be conducted to determine the cost/benefit of these sources, the affect on end-user price stability, their ability to broaden the fuel diversity used in RI, and the environmental benefits gained from the use of these resources. The costs for this plan would be recovered from RI customers through the necessary filings reviewed and approved by the Public Utilities Commission.

1. CHP

In reviewing NESCAUM's CHP opportunity report, the Company sees that there is economic potential of over 300 MWs of CHP in the state. The report clearly states that without the proposed phase 2 study, this number is still tentative.

The Company has begun offering a gas energy efficiency incentive for CHP. As part of the filing at the Commission, an evaluation was proposed in order to determine the overall cost/benefit of CHP. This cost/benefit analysis would determine actual annualized efficiencies of projects receiving incentives. The annualized efficiency is critical to determine how the CHP measures up against the emissions and efficiency characteristics of the standard alternative of grid power and use of an on-site boiler. This evaluation would be used as an input to the SRP to provide guidance as to the parameters required for CHP. The Company also has promoted the installation of some micro-CHP to residential and small commercial customers.

2. Renewables

In reviewing URI's small scale renewables opportunity report, it appears that offering a credit for photovoltaics (PV) of 150% of the retail price of electricity could provide enough incentive for customers to install more PV. Another option that could provide a similar benefit would be to offer a retail credit, but based on actual hourly commodity prices instead of the current flat standard service offering. The Company could offer an hourly pricing option to customers with PV to determine if this meets the criteria above.

The Company offers an incentive to solar thermal installations for gas water heating customers through its gas efficiency program, and could look to expand this to customers with electric water heating.

With the small amount of hydro potential, case-by-case incentives could be provided to encourage development of these projects.

The Company is investigating the use of rebates to promote geo-thermal installations under its Energy Efficiency plan.

The Company proposes to work with OER to determine how best to promote renewables. Some ideas not listed above: fund additional wind studies; providing a \$/watt PV incentive; and providing on-the-bill financing for renewable projects.

3. Demand Response

This service supports participation of our customers in ISO-New England's forward capacity market (FCM) and demand response programs as well as in areas targeted by the Company for local load relief. Its goal is to help customers efficiently deploy existing and emerging efficiency technologies and strategies to manage their energy costs as well as reduce electrical load during peak hours (typically summer) throughout the Company's service territory. If this load relief can be targeted to a specific area, this reduction may defer capital investments in the distribution

system, assist in stabilizing electricity costs and improve the reliability of the local electrical grid.

With the bulk of demand response in New England contracted from customers by third party demand response providers (i.e. Enernoc, ConsumerPowerline, Comverge, etc.), it is critically important that the Company have access to ISO-NE data as to what resources are available in certain areas on the Company's distribution system. This information could provide relatively low cost assets to respond to Company emergency conditions to better manage the system. The rationale is that the customers are already contracted to respond, and for minimal costs could be asked to respond to a Company request.

Company interest in targeted demand response

The Company has been actively promoting the current generation of targeted demand response programs since 2002. There are a number of design elements that facilitate the development of a targeted demand response program in a specific area. The first element is a capacity shortfall on transmission system over the course of the project. Due to the nature of distribution and transmission system planning and the lead time for construction projects to be planned and completed, the Company works to select an area which is not in imminent danger of insufficient capacity even without the specific distribution or transmission upgrade, but in the event of delays or extraordinary weather, could become overloaded.

A second element in designing the program is the amount of time the estimated capacity shortfall would exist. If the capacity shortfall requires many hours of interruption to manage properly, customers may not participate enough to provide the needed load relief. However, if the shortfall can be identified to a limited number of days and a limited number of peak load hours during those days, then a load curtailment program may provide the necessary load relief if needed, and typically in New England, heat waves are limited to just a few weeks.

The third component is to determine if the existing population of large accounts could provide the necessary load relief.

Finally, the fourth component is the willingness of customers to modify their electrical loads and to evaluate the amount of financial incentive required to induce this modification. According to a 2001 E-Source report 'Making Peak Load Management Work for the Mid-market Industrials, a payment of at least \$0.50 per kWh appears to be the minimum value for successful projects.

History of targeted demand response at the Company

- In 2004 the Company undertook a targeted demand response program (filed with the RI PUC as the Summer Load Relief Program) in the Warwick/Cranston area. This program was initiated to provide area load relief in the event the Company's proposed new substation on Kilvert St., in Warwick, were to experience unexpected construction delays which may prevent it from coming on-line before the heat of the summer, and the need to serve the higher electrical loads that come with the heat.

The Company visited 35 customers with demands over 200 kW who had Company distribution service from either the Pontiac substation in Cranston or the Lincoln Ave. substation in Warwick. Twenty-three of these accounts were offered load shed audits to help them determine specifically how they could participate in any load shed request. This project was initiated due to potential construction delays for the new substation as outlined above. The substation was energized in mid-June, and by the end of June, the other substations (Pontiac and Lincoln Ave) had been off-loaded by approximately 20 MWs. Since no above-average loads were experienced in the early summer, the Company did not call any load shed events prior to the substation being energized. As of that date, the Company has only received 4 agreements back from customers willing to participate in the program. Many customers were interested in the program but were reluctant to sign an agreement to participate, even though no penalties existed for non-performance. The Company coordinated its promotion of the targeted demand response area with the ISO-NE's programs, in response to the increased number of price response events called by the ISO. The Company viewed the ISO programs as something all medium to large Commercial and Industrial customers should be interested in. The Company broadly marketed the ISO programs with this in mind,

offering audits for customers enrolled in either the Company's demand response program or the ISO-NE programs. The audits provided customer education, efficiency project opportunities, as well as guidance for maximizing benefits from participation in the Company's and ISO-New England's demand response programs.

- In 2005, the Company identified the area that served the area fed by the L190 115 kV expansion project. This consisted of loads fed from the Ashaway, Hope Valley, Wakefield, Bonnet, Westerly, Kenyon, LaFayette, Wood River and Peacedale substations. This was an area in its service territory where there are a sufficient number of large customers who have the ability to shed load in a manner that could help the Company meet potential extreme peak loads or unexpected contingency events in the area prior to completion of the transmission upgrade or resulting from delays in the L190 project. Even though the amount of load relief needed was over 50 MWs if there was a failure of one of the 115 kV lines in place, a smaller program was begun with the understanding that, if needed, a significantly larger program might be built off the smaller one. The program was designed for retail delivery service customers in the area who had a minimum monthly billing demand of 200 kilowatts, and who could curtail load by at least 50 kilowatts on short notice.

The Company paid participating customers capacity payments as well as energy payments based upon the amount of load curtailed in each hour of called interruptions. Capacity payments were \$3.00 per kw-month (for three summer months) and energy payments were 50¢ per kWh curtailed. Performance was measured using the same methodology utilized by ISO-NE in their demand response programs. The payments were provided to customers in the form of a bill credit after the end of the season.

Based on the results of NG-RI's sister company, NG-MA, in its Targeted Demand Response Program (also known as the Brockton Pilot), NG-RI anticipated enrolling approximately forty percent (40%) of the eligible customers in the area that could shed 8% of their total load when called upon. In this selected area, there were 51 large customers that represent approximately 34,000 kW of load. Using the percentages above, the Company anticipated enrolling 20-25 customers, and targeting 2,000 to 2,700 kW's of load relief. Twenty-one

customers were enrolled in the program for a total of 1.95 MWs. No calls were made for the summer of 2005 due to cooler than normal weather.

- In 2006 the Company made three calls for load shed in the area and saw peak load reductions ranging from a low of 1.5 MWs, to a high of 2.1 MWs. Twenty-one customers earned credits totaling over \$32,000.
- No calls were made for the summer of 2007 for the same reasons as in 2005.
- In 2008, The L190 transmission line upgrade was energized, and should meet the needs of the area for a projected 10-year period based on the area's historical load growth. Therefore, targeted load relief in the area is no longer needed.

Demand response program specifics

Since 2002, the Company has offered qualifying customers the opportunity to participate in the ISO voluntary Real Time Price Response program as well as their Real Time Demand Response Program. Until 2007 the focus was on the voluntary price response, because there were not significant credits available from the demand response programs to enable customer participation until the transitional forward capacity market began in December 2006.

A key aspect of a planned demand response program is providing customers with a demand response audit that results in an action plan customers can execute that enables them to better manage and automate their load. The Company has offered only a limited number of demand response audits in Rhode Island since 2004 because only limited funding was available through the overall energy efficiency program offerings. We propose to dedicate additional funding for demand response audits in Rhode Island for use by any customer participating in either a Company or ISO-NE demand response program and/or taking advantage of hourly pricing through a third party supplier. In 2008 the proposal is to identify various demand response actions that may be undertaken by customers depending on the level of need and potential credits as well as the actions that customers can take to maximize the benefits from hourly pricing as provided by third party energy suppliers. The audits would identify specific load management strategies that may help customers reduce demand charges, identify additional energy efficiency

and load automation opportunities, increase load factors, and maximize demand response program participation.

Another key aspect to successful demand response is providing information – such as the results of a load shed event – to customers about their energy consumption patterns. Consequently, the Company proposes to fund installation of advanced near real time metering technology for customers who have received load shed audit services and elect to enroll in the Company's distribution demand response program. These meters would assist customers in determining the impact of their actions on their load and assist the Company in assessing the actual demand reduction that is achieved by the customer. Near real time metering information may also supplement other energy efficiency activities at customer sites such as energy consumption analyses and commissioning. The Company would also explore ways to develop customer responsiveness to load and price signals through these meters and other sensing technologies, as well as through enhancements to the internet based Energy Profiler Online service available to large customers.

In addition, the Company will propose to offer financial incentives to encourage the installation costs for devices that can be used to control, monitor, and automate loads. These rebates would be specifically for control of hard wired devices (i.e. controllers on chillers, lighting, etc.) that could be remotely monitored and controlled to shed load upon request, either due to one of the Company's targeted demand response projects, in response to an ISO-NE load shed event, or as part of managing an hourly pricing option from a third party energy supplier. The intent is to assess the benefits and costs of such a demand reduction oriented control installation, and to begin developing cost effective use cases for load automation. The costs of the rebates also would be a part of the program costs recovered from customers in rates.

Table 1. Proposed DR budget for 2009-2011

Program	Year		
	2009	2010	2011
Number of proposed demand response audits	50	75	100
Estimated cost per audit	\$4,000	\$4,250	\$4,500
Estimated annual audit costs	\$200,000	\$318,750	\$450,000
Number of proposed demand response projects	20	40	60
Estimated rebate per project	\$10,000	\$15,000	\$20,000
Estimated annual rebate costs	\$200,000	\$600,000	\$1,200,000
Total proposed costs	\$400,000	\$918,750	\$1,650,000

Target Market and Marketing Approach

Market segments that may be targeted with demand response services include:

- large customers on highly loaded distribution system components;
- small and medium sized customers with potential for direct load control located where past and anticipated load growth has the potential to outpace infrastructure improvements;
- customers who have enrolled in ISO-New England’s demand response programs or who either are currently receiving hourly price signals or have an hourly pricing contract.

The primary population for audit services are customers who participate in ISO-NE Real time Demand Response Programs and the FCM they are transitioning to. Typical customer profiles include customers with newer buildings (office buildings, retail establishments, schools, institutional customers etc.), which currently have building management systems (BMS) to monitor life safety conditions (smoke, fire alarms), security, and HVAC systems. Buildings with modern building management systems are typically less than 25 years old. Using and/or modifying these systems to automate the control should have the potential to garner significant electrical savings, while also providing load control during peak hours of the year. Industrial process customers with potentially controllable or variable production loads are also possible candidates.

The Company's demand response program manager, in consultation with the Company's Account Executives, would market this initiative to customers on a one-to-one basis. Customers would be informed of the potential benefits to their companies, to the utility, and to the regional electricity market. The individual participating customers would not incur any cost for the basic load shed audit up to a cap to be established by the Company.

Target End Uses, Recommended Technologies, and Financial Incentives

The list of measures recommended for consideration by a customer may include some or all of the following:

- automating load shedding measures
 - building management system control changes, including temperature setbacks for HVAC systems;
 - integration of existing building management systems with emerging demand response dispatching systems;
 - lighting controls, either manually or through an EMS;
 - operation of emergency generation under extreme reliability emergencies;
 - integration of services provided through the Retro-Commissioning Initiative with demand response services
- load shift measures
 - scheduling of industrial processes, such as rearranging shift operations
- implementation of efficiency measures that offer options to cost-effectively reduce demand
 - lighting retrofits, including multi level or dimmable electronic ballasts for lighting;
 - cooling system upgrades, including chiller efficiency improvements and CO₂ sensors to regulate air distribution;
 - compressed air system modifications

Energy consumption and load can be controlled by building management systems through various strategies employing equipment such as dimmable electronic ballasts for lighting, temperature setbacks for HVAC systems and CO₂ sensors to regulate air distribution. Utilizing

existing technology within the buildings to automate systems should provide ways for customers to shed load, and potentially allow the Company to control these loads. Open protocol systems are now becoming commonplace and can be integrated into existing systems to provide a much higher level of control.

Demand-reducing measures that also save energy may be run through the Custom Measure approach under Energy Initiative and Design 2000*plus* to determine cost-effectiveness and rebate eligibility under standard energy efficiency protocols. If a measure is not cost-effective, it would not be funded through the energy efficiency programs.

Combined measures that result in energy savings as well as creating ability for customers to reduce short-term demand may be evaluated based on retail bill savings as well as anticipated demand response payments with costs allocated in proportion.

Providing customers access to the payment streams from the ISO-NE demand response programs and FCM, and more importantly, the tools to allow participation, would provide added incentives for customers. An internet enabled gateway also has potential to provide real-time demand data allowing customers to experiment within their facility to modify their load curves and further reduce the overall electric bill. As more experience is gained, the benefit-cost analyses of demand response strategies would be further refined.

Delivery Mechanisms

Following the initial recruitment of customers by the program manager and Account Executives, several technical assistance (TA) contractors would be used to identify demand response options, prepare analyses and reports, and coordinate their implementation. Economies may be achieved if these demand-oriented studies are performed simultaneously with broader energy efficiency TA studies. As mentioned previously, there may be an opportunity to couple demand response audits with retro-commissioning studies.

Evaluation Overview

A process evaluation of the Demand Response program would be completed late in 2009 to determine the amount of automated load shed and the resulting costs to achieve the load shed.

4. Distributed/Targeted Resources in Relation to T&D investments

The company proposes the following pilot for the Aquidneck Island area in RI.

A recent electric distribution level study discussed a wide variety of loading issues on the sub-transmission and distribution systems serving the islands of southeastern Rhode Island. This includes Newport, Middletown, Portsmouth, Jamestown and Prudence Island. The recommended solution of adding a substation and three 13.8 KV feeders is currently on hold pending determination of a suitable location for the new substation. An alternate plan of rebuilding the 23KV loop in the Newport area may be the most viable solution for the near term (next decade).

We propose a pilot program to determine cost/benefit of ARTs that would need to focus on the summer peaks which contribute to the electric system loading, as well as winter peaks which contribute to gas pressure problems at peak.

Description of current issues with electric distribution and transmission

A study titled “Newport, RI Supply and Distribution Study” was published in May 2007 by the Company’s Distribution System Planning group. The study examines all the loads served by the L14 and M13 lines that terminate at Dexter #36 substation in Portsmouth. The customers served are in the communities of Newport, Middletown, Portsmouth, Jamestown and Prudence Island.

A wide variety of loading issues currently exist and are expected to worsen during the study’s 10-year span due to anticipated annual load growth rate of 1.6%. The issues involve thermal

loading on substation transformers, sub-transmission systems and distribution feeders; ground fault circuit breaker duties; loading above ties; and load above risk. Several options for relief of most of these concerns were considered. Three options were rejected and one of two remaining options, involving installation of a new substation and three 13.8KV feeders, was selected. The search for a suitable site for the new substation has not yet borne fruit. If National Grid is unable to secure a suitable site for the new substation, the only real option left is to reinforce the existing 23KV sub-transmission system. The area has a peak load of 146 MWs. The work has been split into 2 phases described below.

Phase 1 is designed to meet the immediate needs for the summer of 2009. The Company plans to expand the 13 kV distribution system by converting some of the load currently served on the 4 kV system, build a new 4 kV feeder, and better balance the 4 kV loads served from the 23 kV supply circuits in the area. This work is expected to alleviate the most critical loading concerns on the 23kV supply and 4kV distribution system until the new substation is constructed. However, if one of the two 23 kV circuits at peak loading conditions feeding the W. Howard and Harrison substations in Newport, and the Eldred and Clark St substations on Jamestown Island, were to go out, this would result in un-served load until repairs are completed.

Phase 2 would be to construct a new substation in the City of Newport. Negotiations continue with the Navy on the use of some of their land for this substation. Additional conversion from 4 kV to 13 kV would be done as well, along with additional balancing of loads on the 23 kV supply circuits. This would depend on siting and building a new substation which would likely take 2-4 years.

Since phase 2 is some years away the use of ARTs in the greater Newport area to relieve peak loading conditions either to prevent the potential loss of one of two 23 kV circuits into the substations discussed above or to provide load relief in the event of the loss of a 23 kV circuit and to allow greater flexibility to restore load quicker, may prove beneficial for the period 2009-2011.

Description of customer base

In order to determine the menu of ARTs to be used in the area, the types and loads of different customer segments is needed. Just under 35,000 electric accounts exist for the communities in question. Figure 1 shows the breakdown by broad customer rate class:

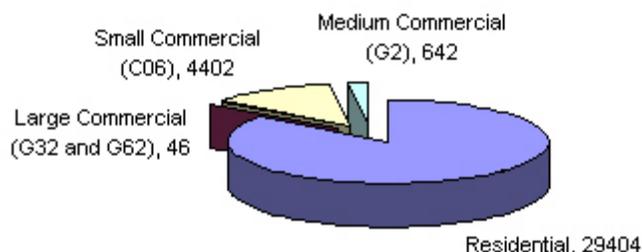


Figure 1 – Newport, Middleton, Portsmouth, Jamestown, Prudence Island customer base

The customer base is largely residential. There are two G62 customers and 44 G3 customers. The G62 customers are fed off of either 13.8 or 69 KV. A majority (32) of the G3 customers are fed via 4KV and all 32 are located in Newport.

Load profiles

An examination of the Company’s loading data for the four 4 kV substations that supply downtown Newport and Jamestown shows that peak loads occur during summer heat waves. By comparing the plot of loads for July-August with the annual load duration curve, one can see the correlation, at least in 2007, of peak loads with the summer heat wave. The daily curve during heat waves shows an extended peak, which may be difficult to reduce without a good mix of ARTs. The two substations shown below, West Howard (peaks at 11 MVA) and Harrison (peaks at 6.4 MVA), largely feed the tourist area and Fifth Ward areas around Lower Thames. The loading curves from both show the number of hours load relief is needed. Peak loads for West Howard Sub occurred from 5:00 – 6:00 PM on August 3rd, 2007. For Harrison Sub, the peak occurred from 4:00 – 5:00 PM on August 2nd, 2007.

July - August 2007 - West Howard Sub Load - MW

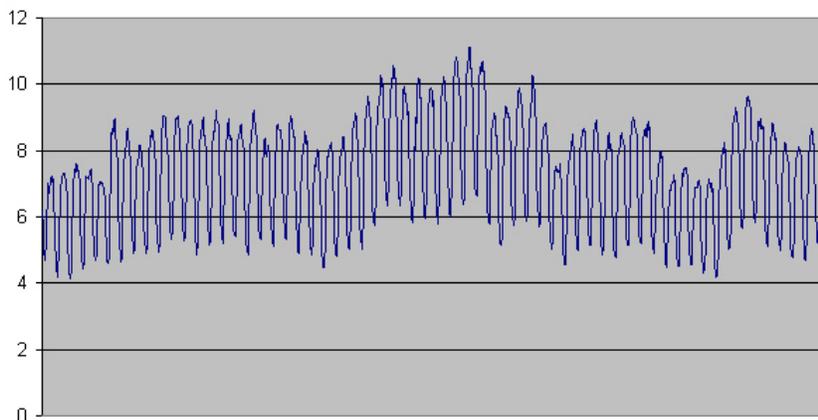


Figure 2 – W Howard loads 2007

Load Duration Curve - West Howard Sub - 2007

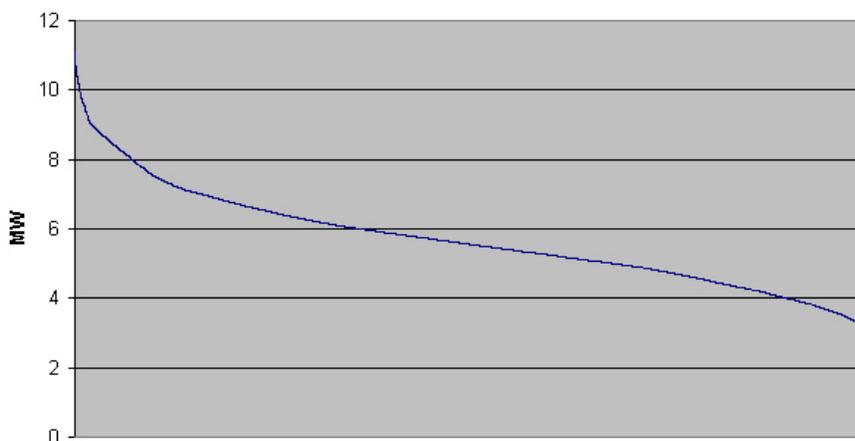


Figure 3 – W Howard load duration curve

July and August Demand - Harrison Sub (Amps on 23KV)

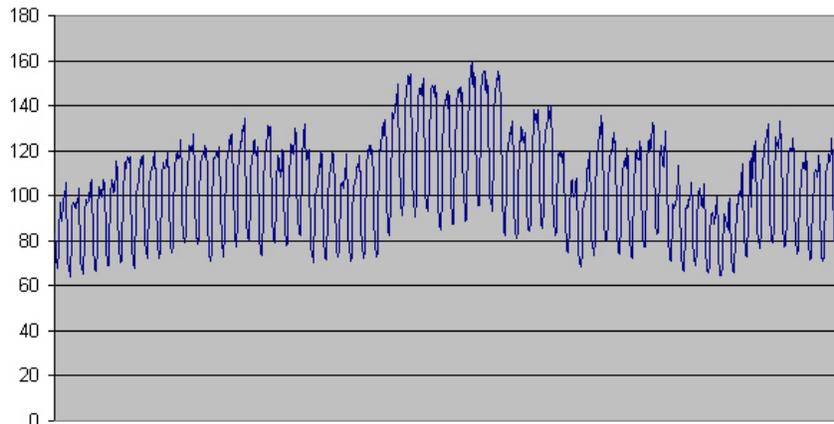


Figure 4 - Harrison substation loads 2007

Harrison Sub - Amps feeding via 23KV - 2007

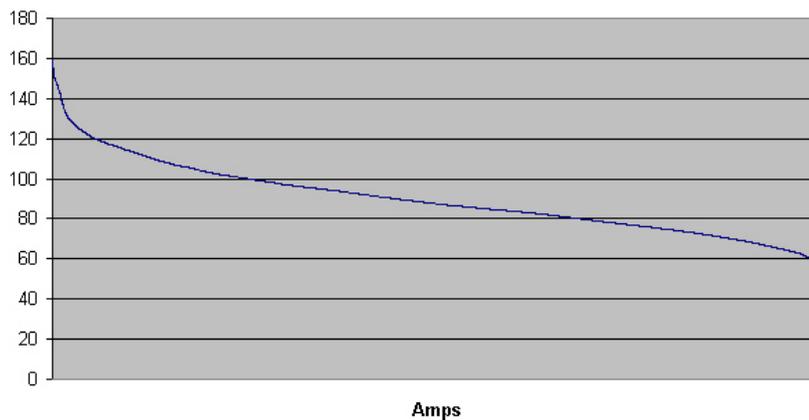


Figure 5 - Harrison Substation load duration curve

July & August 2007 - Jamestown Load - MW

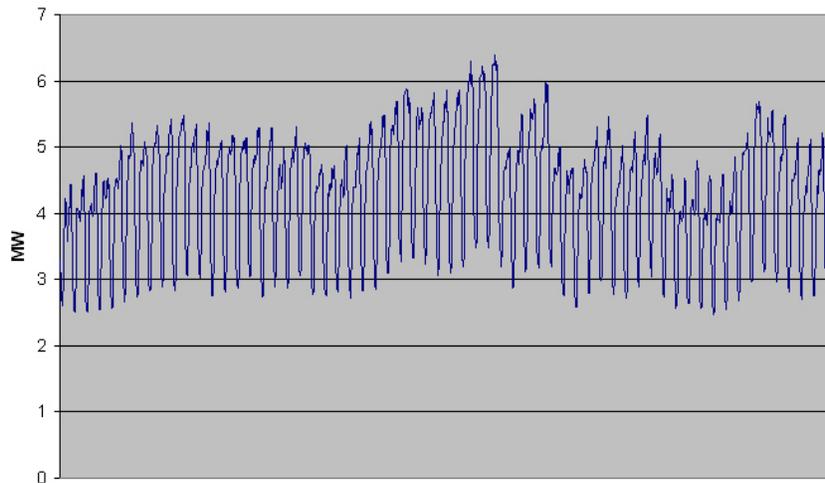


Figure 6 - July and August 2007 Demand - Jamestown Loads

Load Duration Curve - Jamestown RI Load - 2007
(some December data not avail)

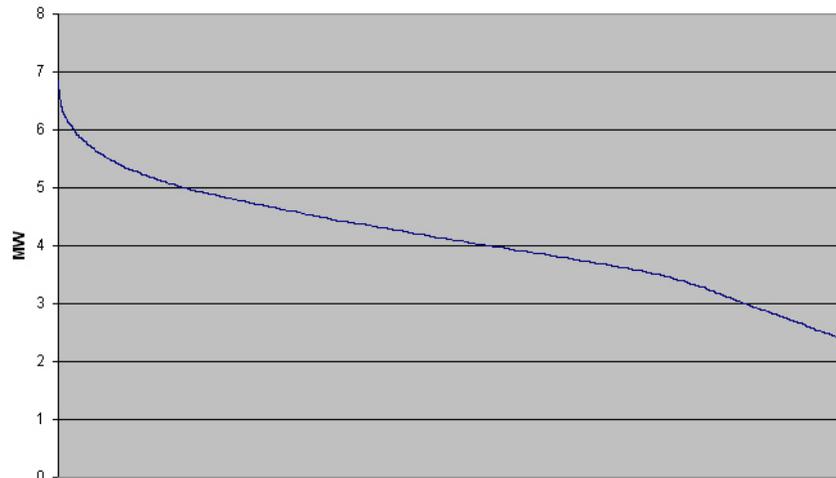


Figure 7 - Jamestown Loads Calendar Year 2007

Peak loads for Jamestown occurred from 5:00 – 6:00 PM on August 4th, 2007

Substation load by customer rate class

Figures 8 and 9 show the breakdown of peak by rate classes in each substation. Rate A16 is the residential portion, C06 and G02 are small C/I, and G32 is larger C/I.

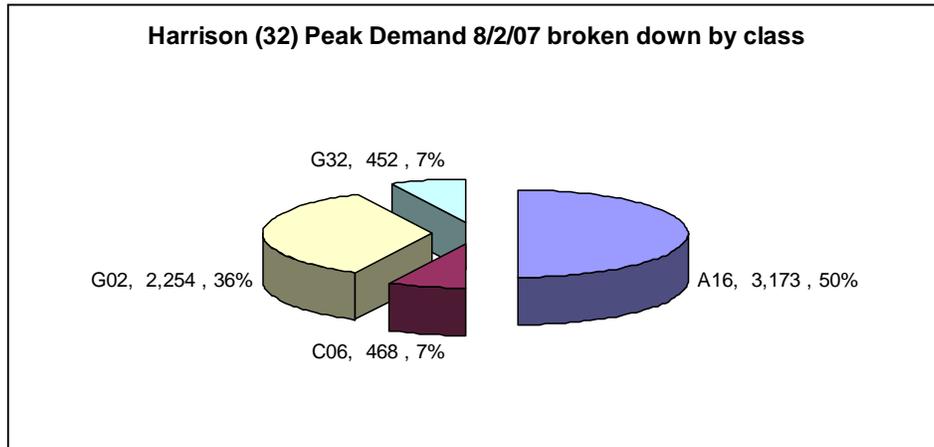


Figure 8 – Peak demand at Harrison Substation by rate class

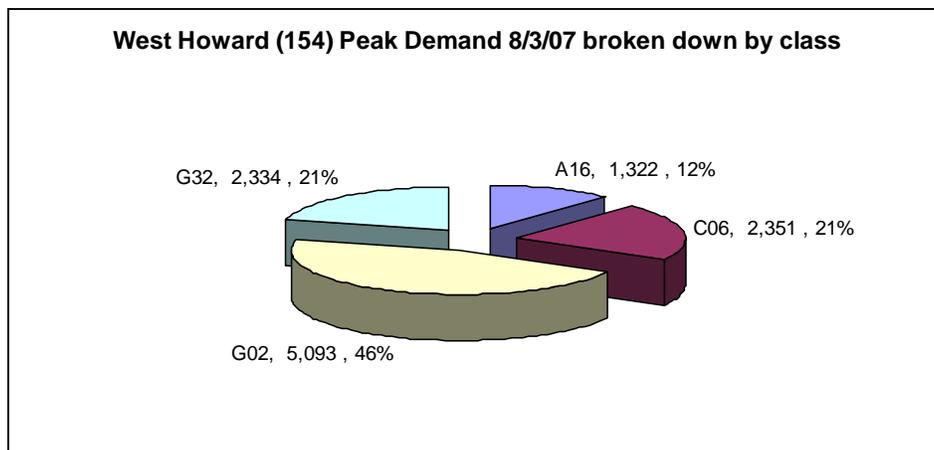


Figure 9 – Peak demand at W. Howard Substation by rate class

As indicated in the Phase 1 plans only, some of the 4 kV feeders out of these two substations are fed from the 23 kV circuit that needs load relief once the work scheduled for the summer of 2009 is completed. Table 2 below shows the customer breakdowns for the 4 kV feeders out of these substations as well as the two substations on Jamestown that ARTs would target.

Table 2. Customer Segmentation for Aquidneck Island

Substation/feeder	Rate class					Total number of customers	Desired load relief
	A16 basic residential	A60 low income	C-06 small commercial	G-02 general C/I	G-32 C/I over 200 kW		
Harrison #32 - Newport							0.75 MW
32J2	813	19	33	20	1	886	
32J4	656	12	39	3	1	711	
total	1469	31	72	23	2	1597	
West Howard #154 - Newport							0.75 MW
154J2	93	0	116	17	1	227	
154J4	0	0	57	11	2	70	
154J6	206	3	56	0	0	265	
154J8	486	3	106	15	1	611	
total	785	6	335	43	4	1173	
Eldred #45 - Jamestown							0.75 MW
45J2	616	14	13	1	0	644	
45J4	493	2	33	4	0	532	
45J6	435	6	14	0	0	455	
Total	1544	22	60	5	0	1631	
Clark St #65 Jamestown							0.75 MW
65J2	661	16	130	24	0	831	
65J12	627	7	73	3	0	710	
Total	1288	23	203	27	0	1541	
overall totals	5086	82	670	98	6	5942	3 MW

Specific ARTs suggested for use

Since the loading issue is resolved with work in Phase 2, load relief of approximately 0.75 MW per 4 kV substation is desired. Within this group of customers, the following ARTs would be offered to residential and small commercial customers over the period 2009-2011:

- 1) Demand response
 - a. HVAC and appliance direct load control (DLC) through the use of thermostat and/or smart plug load control to customers with broadband internet access in their homes and/or small businesses

- i. The Company plans to determine if controlling thermostats during peak conditions on the gas distribution system would alleviate gas pressure issues during these peak hours.
 - ii. The Company sees some linkage between the DLC component of the pilot and the Energy Efficiency Procurement Plan and will explore funding some portion of the DLC in the pilot from energy efficiency funds.
 - b. Conduct demand response audits for customers
 - c. Evaluate an optional critical peak pricing program utilizing DLC hardware and hourly metering systems.
- 2) Renewables
 - a. Solar photo-voltaic panels
 - i. Target is to install 500 kW's
 - ii. Since the Company is in the process of a 25 to 50 MW solar RFP for its MA subsidiary, the cost is estimated to be \$6/watt plus administration for a total of \$3.5 million
 - b. Wind
 - i. Work with the municipalities to initiate a wind turbine studies that may be appropriate
 - ii. \$100,000 proposed to be allocated

3) CHP

Due to a gas constraint in the same geographic area, further study is needed prior to offering a CHP or micro-CHP option.

Table 3 below shows the estimated cost and savings for the entire pilot program.

Table 3. Aquidneck Pilot Budget and Savings, 2009-2011

		Population	Penetration	kW per customer	Total kW	Cost per customer	Total Cost
Demand Response							
Residential DLC *		5168	20%	1	1033.6	\$2,000	\$2,067,200
Small Commercial DLC *		670	20%	5	670	\$5,000	\$670,000
Medium Commercial **		98	25%	15	367.5	\$7,000	\$171,500
Large Commercial **		6	50%	75	225	\$25,000	\$75,000
Demand Response Totals					2296.1		\$2,983,700
Renewable Energy							
Solar PV		5942	2%	4.2	500	\$25,200	\$3,000,000
Wind		1	100%			\$100,000	\$100,000
Renewable Energy Total					500		\$3,100,000
Grand Total					2796.1		\$6,083,700

* the Company would offer enrolled customers an hourly pricing option. The Customer would receive the lower of the standard bill or a bill based on hourly pricing.

** the Company would consider the use of targeted demand response credits as used in the 2004 through 2007 projects: capacity payments of \$3.00 per kW-month (for June, July and August) and energy payments of 50¢ per kWh curtailed.

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ATTACHMENTS

1. Summary of Proposed Changes to Residential Programs for 2009
2. 2009 Residential Electric and Gas Energy Efficiency Programs
3. Summary of Proposed Changes to the Commercial and Industrial Programs for 2009
4. 2009 Commercial and Industrial Electric and Gas Energy Efficiency Programs
5. 2009 Electric Energy Efficiency Program Tables
6. 2009 Gas Energy Efficiency Program Tables
7. Measurement and Verification Plan
8. 2009 Electric Energy Efficiency Program Performance Metrics

1 **I. Introduction and Summary**

2 This Energy Efficiency Program Plan (“EE Program Plan”) for 2009 is submitted by The
3 Narragansett Electric Company d/b/a National Grid (“National Grid” or “Company”) in
4 accordance with R.I.G.L. 39-1-27.7 (the Least Cost Procurement provisions of the
5 Comprehensive Energy Conservation, Efficiency, and Affordability Act of 2006),
6 R.I.G.L. 39-2.1-2(b), and the Rhode Island Public Utilities Commission’s “Standards for
7 Energy Efficiency and Conservation Procurement” approved in order 19344 in Docket
8 3931 on July 17, 2008. This Energy Efficiency Program Plan has been developed in
9 collaboration with the Subcommittee of the Energy Efficiency and Resource
10 Management Council (“EERMC”) and is intended to be consistent with the three-year
11 Energy Efficiency Procurement Plan (“EE Procurement Plan”) submitted by National
12 Grid on September 2, 2008 with approval and support of the EERMC, the Office of
13 Energy Resources, the Division of Public Utilities and Carriers, Environment Northeast,
14 and TEC-RI.

15

16 This Plan is being jointly submitted as a Stipulation and Settlement (“Settlement”),
17 entered into by the Rhode Island Division of Public Utilities and Carriers (“Division”),
18 The Energy Council of Rhode Island (“TEC-RI”), Energy Consumers Alliance of New
19 England d/b/a People’s Power and Light (“PP&L”), Environment Northeast (“ENE”), the
20 Rhode Island Office of Energy Resources, the EERMC, and National Grid (together, the
21 “Parties”), and addresses all issues raised by members Subcommittee¹ concerning the
22 Company’s electric Demand-Side Management (“DSM”) Programs for the year 2009.

23

¹ A DSM collaborative group has been meeting regularly since 1991 to analyze and inform the Company’s electric DSM programs. Members of the Subcommittee presently include the Company, the Division, the Rhode Island Office of Energy Resources (RIOER), TEC-RI, ENE, and PP&L with engagement from EERMC members Joe Newsome (low income users), Chris Powell (large industrial users), Dan Justynski (small commercial/industrial users), Joe Cirrillo (energy design and codes), and Sam Krasnow (environmental issues pertaining to energy). The Subcommittee functioned as the “DSM Collaborative” until 2008. Given the overlapping responsibilities of the Collaborative and the EERMC in working with National Grid on energy efficiency planning, the Collaborative was made into a subcommittee of the EERMC in 2008. The constitution of the Collaborative has varied since 1991, as some organizations have withdrawn and others have joined.

1 This plan builds on the experiences and successes of National Grid’s implementation of
2 the approved electric energy efficiency programs for all customer segments² subject to
3 the budget included in the Settlement filing of November 1, 2007, in Docket No. 3892,
4 which was approved by the Commission in Order 19179 on January 17, 2008, and the gas
5 energy efficiency programs included in the Settlement filing of April 2, 2007, in Docket
6 No. 3790, approved at the Open Meeting on May 23, 2007, and revised in a compliance
7 filing of May 31, 2007.

8
9 The Subcommittee has worked to enhance programs for customers by improving the
10 efficiency and quality of energy-efficient products, expanding services to customers,
11 integrating gas and electric energy efficiency offerings, and continuing to be involved in
12 statewide and regional initiatives.

13
14 This Plan has been developed to take the important first step toward the aim of the “The
15 Comprehensive Energy Conservation, Efficiency and Affordability Act of 2006” to
16 secure all cost-effective energy efficiency resources that are lower cost than supply and
17 are prudent and reliable. Furthermore, this plan is designed to be consistent with the
18 “Principles of Program Design,” outlined in Section 1.3A of the Commission’s
19 “Standards for Energy Efficiency and Conservation Procurement”. All customers will
20 have an opportunity to participate in the cost-effective³ programs and benefit from the
21 low-cost energy efficiency resource. Ramping up of program capability will be done in a
22 manner that ensures quality delivery and is economical and efficient. In addition, the
23 Parties have included an increased emphasis on services for low and moderate income
24 residential consumers as a means of helping these consumers deal with high fuel prices.

25

² The Commission’s Standards Section 1.3.C.1 requires that the EE Program Plan “shall proceed by building upon what has been learned to date in utility program experience.”

³ In accordance with the Commission’s Standards Section 1.3.A.4 research and development and pilot initiatives will not be subject to individualized cost-effectiveness considerations. However, the costs of these initiatives shall be included in the assessment of portfolio level cost-effectiveness as required by Section 1.3.A.4.

1 The Parties agree that 2009, as the first year covered by the Energy Efficiency
2 Procurement Plan, is a pivotal year for advancing energy efficiency in Rhode Island.
3 While much of the increase in program savings is expected to come from meeting pent up
4 demand through expansion of ongoing program efforts, we recognize that efforts in 2009
5 must also lay the groundwork for even greater increases in energy efficiency savings and
6 program innovation in 2010 and 2011. To that end, the Company commits to continue to
7 work on an ongoing basis with the Subcommittee and members of the EERMC's
8 consulting team to explore financing, technological, marketing, integration, and
9 implementation innovations to further advance and deepen energy efficiency for its
10 customers in Rhode Island. Some of the issues this group plans to investigate in 2009
11 include workforce development (and, through it, job creation), integrated and enhanced
12 marketing, communication pathways to increase customer awareness of the enhanced
13 opportunities for energy efficiency, and ways to achieve greater energy efficiency at each
14 customer site.

15

16 In addition to laying this groundwork, this EE Program Plan differs from prior plans in
17 two key areas. The first difference is that this Plan covers both gas and electric energy
18 efficiency. Electric energy efficiency programs have been offered in Rhode Island for
19 over twenty years while natural gas efficiency programs have been offered since mid-
20 2007. Given the continuing integration of gas and electric marketing operations and the
21 Standard's Section 1.3.C.4.b requirement for "integration of electric and natural gas
22 energy efficiency implementation and delivery", this Plan combines gas and electric
23 energy efficiency programs. In order to facilitate the integration of the gas and electric
24 programs, this Program Plan contains funding and goals for the gas programs for the
25 three year period 2009-2011, similar to the timeframe covered by the Least Cost Energy
26 Efficiency Procurement Plan for electric energy efficiency programs.

27

28 The second difference is in the unprecedented level of savings National Grid proposes to
29 achieve in 2009, consistent with the objectives of Least Cost Procurement. This will
30 require development of infrastructure to meet increasing goals. It will also require

1 financing, programmatic, and marketing innovations to tap hard to reach market
 2 segments or segments with large savings potentials. National Grid will work with its
 3 collaborative partners—as well as learn from other best practices being used elsewhere—
 4 to develop its programs in these areas in 2009 to help meet its goals in 2009 and beyond.
 5 This is in accordance with Section 1.3.A.8 which requires “the Utility shall explore as
 6 part of its plan, new strategies to make available the capital needed to effectively
 7 overcome market barriers and implement projects that move beyond traditional financing
 8 strategies.” At the same time, since demand for energy efficiency program services
 9 continues to be strong across all sectors, National Grid is confident that it will meet the
 10 goals for 2009.

11

12 The table below summarizes the goals of this Plan. Subsequent sections highlight the
 13 details of the gas and electric programs for 2009.⁴

14

15

Table 1: 2009 Energy Efficiency Program Plan Summary

Electric Programs by Sector	Proposed Utility Spending in 2009 (\$000)	Annual MWh Savings	Annual kW Savings	Total Benefits (\$000)	B/C Ratio	cents/lifetime kWh
Low Income Residential	\$2,628	1,340	137	\$4,451	1.59	19.2
Non-Low Income Residential	\$7,228	27,729	2,572	\$29,857	3.28	3.4
<u>Commercial and Industrial</u>	<u>\$12,962</u>	<u>50,261</u>	<u>9,764</u>	<u>\$83,094</u>	<u>3.77</u>	<u>3.4</u>
Subtotal	\$22,819	79,331	12,473	\$117,402	3.46	3.6
Gas Programs by Sector	Proposed Utility Spending in 2009 (\$000)	Annual MMBtu Savings		Total Benefits (\$000)	B/C Ratio	
Low Income Residential	\$1,346	13,690		\$2,488	1.71	
Non-Low Income Residential	\$2,047	37,660		\$6,782	2.07	
<u>Commercial and Industrial</u>	<u>\$2,555</u>	<u>89,333</u>		<u>\$9,858</u>	<u>2.27</u>	
Subtotal	\$5,949	140,683		\$19,128	2.11	
Total for Plan	\$28,767			\$136,529		

16

17

Notes: (1) Electric program projections in this table vary from values included for 2009 in the Energy Efficiency Procurement Plan because this Program Plan uses an updated (lower) sales forecast resulting in

⁴ Section 1.3.B.1 requires “the Utility shall include a detailed budget for the EE Program Plan covering the annual period beginning the following January 1, that identifies the projected costs, benefits, and energy savings goals of the portfolio of each program. The budget shall identify at the portfolio level, the projected cost of efficiency resources in cents/lifetime kWh.

1 lower funding, while savings estimates incorporate the most recent evaluation results not available at the
2 time the LCP Plan was filed, resulting in greater energy savings and benefits. Together, these result in a
3 higher B/C ratio.

4 (2) Utility spending does not include customer contributions, evaluation cost, shareholder
5 incentive, and commitments

6

7 **II. 2009 DSM Programs**

8 The DSM programs for 2009 build on the momentum and success of prior DSM
9 programs and services, offering energy efficiency opportunities to all customer
10 segments,⁵ with a focus on providing needed services to low and moderate income
11 residential consumers as a means of reducing bills. In addition, the Company will
12 continue to integrate the delivery of electric energy efficiency programs with its natural
13 gas efficiency programs where practical. The Parties agree to the Company's 2009
14 electric and gas DSM Programs described below⁶:

15

16 **A. Residential Programs**

17 In 2009, the Parties agree to continue the residential programs offered in 2008.
18 The programs are summarized in Table 2 below.

19

20 A summary of the proposed changes in these programs from 2008 are provided in
21 Attachment 1. Descriptions of these programs are provided in Attachment 2.
22 Highlights of proposed program changes for 2009 include integration of gas and
23 electric programs and introduction of a refrigerator bounty program.

24

25 In order to ensure that residential customers are aware of the Company's energy
26 efficiency programs, Company staff will continue to participate in consumer

⁵ Standards Section 1.3.A.2 requires "the Utility should consistently design programs and strategies to ensure that all customers have an opportunity to benefit comprehensively, where appropriate, from expanded investments in this low-cost resource."

⁶ Throughout the program year, the Parties may consider additional enhancements beyond those identified herein as more information becomes available to support an informed review of those potential changes. As part of this process of identifying additional enhancements, in addition to continuing to meet with the Subcommittee, the Company has agreed to regular work sessions with the EERMC's program and policy consultants, the VEIC team.

1 education seminars sponsored by the Office of Energy Resources and/or the
 2 Community Colleges of Rhode Island (CCRI) as it has done in 2008.

3

Table 2. Proposed Residential Energy Efficiency Programs	
EnergyWise Program (Gas and Electric)	The EnergyWise program offers single and multi-family customers free home energy audits of their homes and information on their actual electric and gas usage. Participants in this program receive recommendations and technical assistance as well as financial incentives to replace inefficient lighting fixtures, appliances, thermostats, and insulation levels with models that are more energy efficient. The program addresses baseload electric use as well as gas and electric heat in all residential buildings.
High-Efficiency Heating, Water Heating and Controls Program (Gas Only)	Residential customers who purchase ENERGY STAR® Heating Systems fueled by oil, or high efficiency gas or oil furnaces with high efficiency fans in their existing home are eligible to participate in this program. Incentives are also offered for ENERGY STAR® rated natural gas forced hot water boilers, ECM motors, ENERGY STAR® labeled programmable thermostats, and boiler reset controls.
ENERGY STAR® Homes Program (Gas and Electric)	The ENERGY STAR® Homes Program promotes the construction of energy efficient homes by offering technical and marketing assistance, as well as cash incentives to builders of new energy efficient homes that comply with the program's performance standards.
Single Family Low Income Services (Gas and Electric)	The low income program, marketed as the Appliance Management Program, is delivered by the State Energy Office and local Community Action agencies. It provides the same services as the EnergyWise program, described below, but no customer contribution is required for equipment installation.
Building Practices and Demonstration Program (Gas Only)	Participate in funding for demonstration projects that apply to new or underutilized technologies.
ENERGY STAR® Heating Program (Electric Only)	Homeowners purchasing or replacing an existing oil or propane heating system with a qualifying ENERGY STAR® heating system are eligible to receive a rebate to defray the cost of the higher efficiency system. Funding is provided by the Company and administered by the State Energy Office. (This program is coordinated with gas high efficiency heating program)
ENERGY STAR® Central Air Conditioning Program (Electric Only)	This program promotes the installation of high efficiency central air conditioners. The program provides training of contractors in installation, testing of the high efficiency systems, tiered rebates for new ENERGY STAR® systems, and incentives for checking existing systems.
ENERGY STAR® Lighting (Electric Only)	This is an initiative implemented jointly with other regional utilities. It provides discounts to customers for the purchase of ENERGY STAR® compact fluorescent lamps and fixtures through instant rebates, special promotions at retail stores, or a mail order catalog.
ENERGY STAR® Appliances (Electric Only)	Included in this initiative is the ENERGY STAR® Appliance Program which promotes the purchase of high efficiency major appliances (refrigerators, dishwashers, clothes washers, room air conditioners, and dehumidifiers) that bear the ENERGY STAR® Label. It is offered by several utilities throughout the region.
Information and Education (Electric Only)	The Company promotes energy education in schools through the National Energy Education Development (N.E.E.D) Program. This program provides curriculum materials and training for a comprehensive energy education program. The Company also supports the ENERGY STAR® Homes Vocational School Initiative which trains students at the nine Rhode Island Career and Technical schools to be ENERGY STAR® certified builders.

4

1 **Residential Low-Income Programs**

2 The Company and Subcommittee want customers who have difficulty paying
3 their electric bills to participate in the Company’s energy efficiency programs,
4 especially in these times of escalating energy prices. For this reason, in 2009, this
5 segment of the customer base is being designated as a unique sector and funding
6 for this sector will be subsidized by both non-low income residential and
7 commercial and industrial customers using 10% of all available funding for the
8 electric programs and 20% of all available funding for the gas programs⁷, minus
9 commitments. This is a departure from prior years, where low income programs
10 were funded primarily by the residential sector. As a separate sector, it will have
11 its own savings targets for the Company to meet in order to earn a shareholder
12 incentive. This will ensure that this group of customers is well served by the
13 programs.

14
15 Several of the Company’s proposed programs provide these customers with
16 services that are designed to help reduce their electric bills, including the Single
17 Family Low Income Services Program, the *EnergyWise* Program, and the
18 ENERGY STAR[®] Homes Program. The Single Family Low Income Services
19 Program provides qualifying low-income customers in 1-4 unit dwellings with
20 energy efficiency services. Both low-income and non low-income residential
21 customers receive services through the *EnergyWise* Program and the ENERGY
22 STAR[®] Homes Program. Additional detail about the services offered to
23 economically disadvantaged customers is set forth in Attachment 2.

24

⁷ While low-income customers are very sensitive to high electricity and natural gas costs, especially for space heating, a greater portion of available funding is allocated to the low-income sector for the gas energy efficiency programs because the low-income gas programs are more oriented to savings in space heating than are the electric programs. The Company will use the proposed allocation in 2009 and may reconsider the mechanism for allocating funds to the Low-Income sector in its 2010 Program Plan.

1 **B. Commercial and Industrial Programs**

2

3 In 2009, the Parties agree to continue the commercial and industrial programs
4 offered in 2008. The programs are summarized in Table 3 below.

5

Small/Medium Business Program (Electric Only)	The Small/Medium Business Program provides direct installation of energy efficient lighting and non-lighting retrofit measures. Customers with average monthly demand of less than 200 kW or annual energy usage of less than 300,000 kWh are eligible to participate. The program's lighting measures are delivered through one labor and one product vendor selected through a competitive bidding process. The labor vendor performs lighting analysis, installs measures, and inputs data into a database. Refrigeration measures are performed by a different vendor. These measures include cooler door heaters, fan controls, and freezer door heater controls. The customer pays 30% of the total cost of a retrofit. This amount is discounted 15% for a lump sum payment or the customer has the option of spreading the payments over a two-year period interest free. Gas opportunities will be identified during the audit and referred for further evaluation.
Energy Initiative (Electric Only)	Energy Initiative is a comprehensive retrofit program designed to promote the installation of energy efficient electric equipment such as lighting, motors, and heating, ventilation and air conditioning (HVAC) systems in existing buildings. All commercial, industrial, and institutional customers are eligible to participate. The Company offers technical assistance to customers to help them identify cost-effective conservation opportunities, and pays rebates to assist in defraying part of the material and labor costs associated with the energy efficient equipment.
Design 2000plus (Electric Only)	Promotes energy efficient design and construction practices in new and renovated commercial, industrial, and institutional buildings. The program also promotes the installation of high efficiency equipment in existing facilities during building remodeling and at the time of equipment failure and replacement. Design 2000plus is known as a lost opportunities program because a customer who does not install energy efficient equipment at the time of new construction or equipment replacement will likely never make the investment for that equipment or will make the investment at a much greater cost at a later time. Design 2000plus provides both technical and design assistance to help customers identify efficiency opportunities in their new building designs and to help them refine their designs to pursue these opportunities. The program also offers rebates to eliminate or significantly reduce the incremental cost of high efficiency equipment over standard efficiency equipment. Commissioning or quality assurance is also offered to ensure that the equipment and systems operate as intended.

Commercial Energy Efficiency Program (Gas Only)	Promotes energy efficient gas technologies for commercial, industrial, institutional and large multifamily buildings. Technical assistance services are provided. Gas and electric energy efficiency opportunities are addressed simultaneously through technical assistance. Prescriptive incentives are offered for more common measures such as programmable thermostats, boiler reset controls, steam trap replacements, pipe and/or duct insulation, building shell (walls, roof, floor, crawlspace) insulation, and high efficiency windows. Custom incentives are offered for unique energy efficiency opportunities and comprehensive design projects such as high performance buildings and combined heat and power projects
Commercial High Efficiency Heating Equipment (Gas Only)	Promotes energy efficient gas heating and domestic hot water heating equipment for commercial, industrial, institutional and large multifamily building. Prescriptive incentives are offered for energy efficient heating furnaces, boilers, infrared heaters and domestic hot water systems.
Comm Building Practices & Demonstration Program (Gas Only)	The purpose of the Building Practices and Demonstration Program is to establish successful applications of new or underutilized energy efficient procedures, processes, or technologies and to evaluate the possibility of introducing them into mainstream markets.

1

2 A summary of the proposed changes in these programs from 2008 are provided in
3 Attachment 3. Descriptions of these programs are provided in Attachment 4.
4 Among the highlights of the changes are the reduction in the number of programs
5 on the gas side and the continued integration of gas and electric energy efficiency
6 in Small/Medium Business Program and in combination gas and electric audits.

7

8 In 2009, the Company intends to build on its experience promoting better energy
9 performance in commercial facilities through a number of programmatic changes.
10 The Company will continue to promote best practices in sustainable building
11 design through our Advanced Buildings program and offers a great opportunity to
12 seamlessly integrate our gas and electric energy efficiency offerings in the new
13 construction market. The Company is offering a two tiered rebate for new
14 construction projects that rewards projects that have the potential to save more
15 energy.

16

17 **Community Based Initiative**

18 The Company plans to work with community agencies on Aquidneck Island and
19 municipalities of Newport, Middletown, Portsmouth, and Jamestown, as well as

1 Naval Station -Newport, to explore potential strategies for community based
2 involvement in energy efficiency program implementation, for both residential
3 and commercial and industrial customers. This effort would leverage community
4 involvement in energy efficiency implementation combined with some targeted
5 marketing of program elements in order to assess how these may support the
6 objectives of least cost procurement. Aquidneck Island was selected for this
7 effort since it complements the targeting of this area as part of the System
8 Reliability Procurement Plan. Therefore, in addition to exploring community-
9 based implementation strategies, there may potentially be system reliability
10 benefits from increased energy efficiency in the area.

11

12 **III. Funding, Budgets, Goals, and Cost-effectiveness: Electric Programs**

13 Funding, budgets, goals, and cost-effectiveness information for the proposed electric
14 energy efficiency programs is given in Attachment 5. Table references in the following
15 sections refer to tables in Attachment 5.

16

17 **A. 2009 DSM Program Funding Sources**

18 The sources of funding for the 2009 electric DSM Programs are shown in Table
19 E-1. This funding is consistent with the funding plan contained in the LCP Plan
20 and included the following sources: (1) a statutory-based DSM charge of \$0.0032
21 per kWh (the currently approved \$0.002 per kWh plus the increased \$0.0012 per
22 kWh proposed in the Least Cost Procurement Plan filed September 2, 2008); (2)
23 interest expected to be accrued on the fund balance during the year due to timing
24 differences for collections compared to expenditures; (3) funds expected to be
25 received from Small Business Program co-payments⁸ and from large Commercial
26 and Industrial technical assistance co-payments⁹ in 2009; (4) Large C&I

⁸ The Company provides Small Business customers with the opportunity to finance their share of project costs. The Small Business co-pays identified on Attachment 6 refer to the projected amount of funds customers are expected to repay to the Company in calendar year 2008.

⁹ The Company typically pays the full cost of technical assistance studies for Large Commercial and Industrial program participants and then bills the customer for their share of the technical assistance study

1 commitments from 2008¹⁰; (5) carryover of the 2008 fund balance, if any, and (6)
2 revenue generated by programs' demand savings during the transition period
3 leading up to the start of ISO-New England's (ISO-NE) Forward Capacity Market
4 (FCM), as explained below. The projected funding amounts are also shown in
5 Table E-1.

6
7 As shown in Table E-1, the Company currently projects that the fund balance at
8 year end 2008 will be (\$125,600). This negative fund balance indicates that
9 funding sources in 2008 are expected to be slightly below levels projected when
10 the 2008 Settlement filing was prepared.

11
12 The projected 2009 budget for DSM programs is dependent on a number of
13 projections that inform the amount of funding, including projections of kWh sales
14 of electricity, year-end 2008 large commercial and industrial program
15 commitments, transition period capacity payments received from ISO-NE, and a
16 projection of year-end 2008 spending. With a November 2008 filing date for this
17 Plan, the Company believes it has a good understanding of expected year-end
18 spending and commitments as it develops a projection of available funding for the
19 coming year.

20
21 **B. Transferring of Funds**

22 The Parties will regularly review the amount of funds needed and available for
23 each program (as well as any changes to the overall fund balance, as discussed in
24 Section III.A above) and will transfer monies as needed. The Parties propose to
25 use the same methodology that has been used since 2001 for the transfer of funds
26 from one program to another, or from one sector to another, with one change to

cost. The Large Commercial and Industrial co-pays shown on Attachment 6 reflect the projected amount of technical assistance study funds expected to be repaid by customers in 2008.

¹⁰ As directed by the Commission, the Company encumbers current funding to cover the expected cost of projects it has agreed to fund although those projects will be completed after the current program year.

1 establish transfer approval requirements for transfers between small and large
2 business programs.¹¹ Transfers during the program year may occur as follows:

3 1. Transfers within a Sector:

4 a) For transfers of less than 10% of the originating program's
5 budget, the Company can transfer funds from one program to
6 another program within the same sector without prior approval
7 of the Division.

8 b) For transfers of 10% or more of the originating program's
9 budget, the Company can transfer funds from one program to
10 another program within the same sector with prior approval of
11 the Division.

12 c) For any transfers in the Commercial and Industrial Sector
13 between large commercial and industrial programs (Design
14 2000*plus* and Energy Initiative) and Small/Medium Business
15 Services programs, Division approval is required. In addition,
16 if a transfer would reduce the originating program's budget by
17 more than 20% in aggregate (over the course of the program
18 year), the transfer would require Commission approval as well.

19 2. Transfers between Sectors. The Company can transfer funds from one
20 sector to another sector with prior approval of the Division. If a
21 transfer would reduce the originating sector's budget by more than
22 20% in aggregate (over the course of the program year), the transfer
23 would require Commission approval as well.

24
25 For transfers requiring Division, but not Commission, approval, the Parties will
26 inform the Commission about all the transfers, both between sectors and within
27 sectors, in a timely fashion. The Company will not be permitted to adjust its goals

¹¹ In prior years, small and large business program were in separate sectors. They are being combined into a single Commercial and Industrial sector in 2009 to better align with implementation objectives. However, Parties wanted to treat them separately for the purposes of budget transfers.

1 or incentive target calculations for any transfers between sector budgets except as
2 described in Section IV.A above.

3
4 **C. ISO-NE Capacity Market Revenue**

5 Consistent with the Commission's Standards for Energy Efficiency and
6 Conservation Procurement, the Energy Efficiency Procurement Plan, and
7 Commission decisions in Dockets 3779 and 3892, the Company and the Parties
8 recommend that kW demand savings achieved via the electric energy efficiency
9 programs continue to be reported by the Company to ISO-NE as Other Demand
10 Resources (ODR) during the transition period through 2009. All ISO-NE
11 capacity payments received will be used to supplement the energy efficiency
12 program budgets. FCM payments in Table E-1 are projected transition period
13 capacity payments from measures installed through the Company's programs
14 from June 16, 2006 through November 30, 2009¹².

15
16 The Parties fully agree that the Company should recover all prudently incurred
17 FCM expenses from ISO-NE capacity payment revenue generated by the demand
18 savings from efficiency programs represented by the Company. The Company
19 expects that capacity payments received from the ISO-NE will exceed its
20 administrative and M&V compliance costs of participation in the FCM and will
21 result in additional funds being made available to fund efficiency programs for
22 customers. If these participation costs exceed the capacity payments, the Parties
23 agree that the Company may recover its prudently incurred costs from the energy
24 efficiency program fund. (The Parties reserve the right to examine the actions and
25 expenses of the Company to ensure that only prudently incurred expenses are
26 deducted from ISO-NE capacity payments or the energy efficiency program
27 fund.)

¹² According to transition period rules, demand savings for a month is based on the performance of measures installed through the end of the prior month. Therefore, December 2008 savings will be based on measures installed through the end of November.

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In addition, as part of the FCM, all qualified auction participants are required to post Financial Assurance to provide security that the promised resource will deliver the promised MW at the promised time.¹³ If, as a result of circumstances beyond the control of the Company¹⁴, the Company is unable to provide all or a portion of the megawatts of capacity proposed in its qualification packages and capacity auction bids, some or all of the financial assurance monies would be forfeited. Accordingly, the Parties agree that the Company should recover all prudently incurred Financial Assurance expenses from ISO-NE capacity payments generated by the demand savings represented by the Company or the energy efficiency program fund¹⁵, similar to the procedures described above for administrative and M&V compliance costs.

D. Budgets

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The Parties agree that the portfolio of DSM programs and services for 2008 will have an overall projected budget of approximately \$32.4 million. The Parties agree to segment the budget into three sectors: residential low income, residential non-low income, and commercial and industrial. Proposed sector and program budgets are provided in Table E-2. A comparison of these proposed budgets to the 2008 budget is provided in Table E-3. As seen in this table, funding for all electric programs are proposed to increase significantly over 2008, consistent with the objectives of least cost energy efficiency procurement as the efficiency resource is 3.6 cents/lifetime kWh versus 12.4 cents/kWh for electric supply.

¹³ Since the Company was able to qualify its bid as an existing resource rather than a new resource (because of its activity during the transition period), ISO-NE has notified the Company that it will not be required to post security for Forward Capacity Auction 1. However, the Company will be required to post security for all future capacity auctions.

¹⁴ Such circumstances may include legislative action to alter the DSM charge or discontinue the Company's authority to implement the energy efficiency programs underlying the Qualifications Package, or a Commission decision limiting the Company's role in bidding the demand savings acquired through program efforts into the FCM.

¹⁵ Beginning in 2009, the Company plans to propose setting aside a small portion of the program budget as a contingency fund to cover future Financial Assurance claims that result from the Company's inability to meet its obligation to deliver demand savings due to circumstances beyond its control.

1 The Parties agree that the Company should make every attempt to spend or
2 commit all the funds available for DSM in the year, including any increases in the
3 fund balance due to increased sales or other factors. The Parties also agree to
4 review the status of program budgets regularly to assess whether they are likely to
5 come to a successful completion. If not, the Parties agree to review the
6 advisability of transferring funds to other programs where the money could be
7 more effectively used.

8
9 **E. Cost-Effectiveness**

10 The Company has projected cost-effectiveness for the proposed 2008 programs
11 using the Total Resource Cost (“TRC”) test. The use of this test was required by
12 the Commission’s Standards for Energy Efficiency and Conservation
13 Procurement.¹⁶ The TRC test requires that the total lifetime savings from the
14 efficiency measures will exceed the total costs of the measures (i.e., program and
15 customers costs).

16
17 As is customary in a TRC test, the value of other resource benefits is included in
18 the analysis of expected benefits from program efforts. In this case, the other
19 resource benefits include expected fuel and water savings that are incremental to
20 the electricity savings expected through the electric efficiency programs.

21
22 Table E-4 provides the calculation of 2009 program year cost-effectiveness.
23 Table E-5 shows the goals based on the proposed budgets. Table E-6 shows a
24 comparison of the goals with the approved program goals for 2008. Table E-4
25 shows that the proposed portfolio of programs is expected to have a benefit/cost
26 ratio of 3.46 which means that \$3.46 in benefits is expected to be created for each
27 \$1 invested in the programs. This increase in efficiency investment moves

¹⁶ In prior years, the Utility Cost Test was used.

1 towards a level that is closer to acquiring all energy efficiency resources that are
2 lower cost than supply.

3
4 The cost-effectiveness analyses of the proposed programs use avoided energy
5 supply costs that were developed by Synapse Energy Economics as part of a 2007
6 study that was sponsored by all electric DSM program administrators in New
7 England, as well as some gas program administrators. They reflect current and
8 expected market conditions and are highly influenced by the increasing cost of
9 fossil fuels and expectations about ISO-NE's emerging forward capacity market.
10 Company-specific transmission and distribution capacity values have also been
11 updated to reflect recent data on costs and peak loads. These are the same
12 avoided energy supply costs that were used for the 2008 programs, escalated by
13 one year. The avoided costs used for 2009 are shown in Table E-7.

14
15 The avoided costs include the demand reduction induced price effect (DRIPE)
16 benefits that are projected to result from the installation of energy efficiency
17 measures in 2009. These benefits occur when the retail price of electricity is
18 reduced as a result of the reduced long term demand for electricity stemming from
19 the installation of energy efficiency measures. Some amount of DRIPE benefits
20 have been counted in Rhode Island since 2006. While some Collaborative
21 members have expressed concern about whether DRIPE represents a real benefit
22 to Rhode Island consumers, the Parties have agreed to include DRIPE in value
23 and cost effectiveness calculations for energy efficiency programs in 2009.

24
25 **IV. Funding, Budgets, Goals, and Cost-effectiveness: Gas Programs**

26 Funding, budgets, goals, and cost-effectiveness information for the proposed electric
27 energy efficiency programs is given in Attachment 6. Table references in the following
28 sections refer to tables in Attachment 6.

1 **A. 2009 DSM Program Funding Sources**

2 The sources of funding for the 2009 gas DSM Programs are shown in Table G-1.
3 The Parties agree that the 2009 budget should continue to be funded from the
4 following sources: (1) the statutory-based DSM charge of \$0.15 per dekatherm;
5 (2) interest expected to be accrued on the fund balance during the year due to
6 timing differences for collections compared to expenditures; (3) Large C&I
7 commitments from 2008¹⁷; and (4) carryover of the 2008 fund balance, if any.
8 The projected funding amounts are also shown in Table G-1

9

10 As shown in Table G-1, the Company currently projects that the fund balance at
11 year end 2008 will be \$1,673,200. This indicates that participation in the
12 programs since their inception was slower in developing than anticipated.

13

14 The projected 2009 budget for DSM programs is dependent on a number of
15 projections that inform the amount of funding, including projections of sales of
16 natural gas, year-end 2008 large commercial and industrial program
17 commitments, and a projection of year-end 2008 spending. With a November
18 filing date for this Settlement, the Company believes it has a good understanding
19 of expected year-end spending and commitments as it develops a projection of
20 available funding for the coming year.

21

22 Table G-1 also shows projected funding for 2010 and 2011. As seen in the Table,
23 the company plans to level fund the gas energy efficiency programs in those
24 years, at the full statutory-based DSM charge of \$0.15 per dekatherm. The
25 available funding declines over the three year period chiefly due to the
26 commitments budget. The large commitments budget for each year was set to
27 effectively manage the large commercial and industrial fund balance projected for

¹⁷ As directed by the Commission, the Company encumbers current funding to cover the expected cost of projects it has agreed to fund although those projects will be completed after the current program year.

1 year end 2008 in a way that would result in level implementation funding for the
2 large C&I programs over the three year period.

3
4 **B. Exceptions to the Energy Efficiency Surcharge**

5 1. The Parties agree that gas used for distributed generation (excluding
6 natural gas used by emergency generators) will not be subject to the
7 energy efficiency surcharge when gas used for that purpose can be clearly
8 identified through uniquely metered use and when so requested in writing
9 by the customer.

10
11 2. The 2006 Act allows the Commission to exempt gas used for
12 manufacturing processes from the energy efficiency surcharge where the
13 customer has established a self-directed program to invest in and achieve
14 best effective energy efficiency in accordance with a plan approved by the
15 Commission and subject to periodic review and approval by the
16 Commission. Consistent with prior Commission decisions, the Parties
17 have developed recommendations for a process whereby a manufacturer
18 who so chooses may submit its self-directed program and the required
19 annual reports for approval. The Parties recognize that this process may
20 need to be reviewed and modified after the Commission has accumulated
21 sufficient experience with these programs.

22
23 **C. Transferring of Funds**

24 The Parties will regularly review the amount of funds needed and available for
25 each program and will transfer monies as needed. The Parties propose to use the
26 same rules that are proposed regarding transfers in the electric programs, with the
27 exception that there are no distinct large business and small business programs
28 and, therefore, no applicable transfer rules. Transfers during the program year
29 may occur as follows:

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1. Transfers within a Sector:
 - a) For transfers of less than 10% of the originating program’s budget, the Company can transfer funds from one program to another program within the same sector without prior approval of the Division.
 - b) For transfers of 10% or more of the originating program’s budget, the Company can transfer funds from one program to another program within the same sector with prior approval of the Division.
- 2) Transfers between Sectors. The Company can transfer funds from one sector to another sector with prior approval of the Division. If a transfer would reduce the originating sector’s budget by more than 20% in aggregate (over the course of the program year), the transfer would require Commission approval as well

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

D. Budgets

The Parties agree that the portfolio of gas DSM programs and services for 2008 will have an overall projected budget of approximately \$9.1 million. The Parties agree to segment the budget into three sectors: low-income residential, non-low income residential, and commercial and industrial. Proposed sector and program budgets are provided in Table G-2. A comparison of these proposed budgets to the 2007-08 budget filed with the Commission is also provided in Table G-3.

1 The Parties agree that the Company should make every attempt to spend or
2 commit all the funds available for gas DSM in the year, including any increases in
3 the fund balance due to increased sales or other factors. The Parties also agree to
4 review the status of program budgets regularly to assess whether they are likely to
5 come to a successful completion. If not, the Parties agree to review the
6 advisability of transferring funds to other programs where the money could be
7 more effectively used.

8
9 **E. Cost-Effectiveness**

10 The Company proposes to use the Total Resource Cost Test for determining the
11 cost effectiveness of the 2009 gas energy efficiency programs. This would treat
12 gas and electric programs comparably and contribute to the Standards for Energy
13 Efficiency and Conservation Procurement's requirement for program integration.
14 The TRC test requires that the total lifetime savings from the efficiency measures
15 will exceed the total costs of the measures (i.e., program and customers costs).

16 As is customary in a TRC test, the value of other resource benefits is included in
17 the analysis of expected benefits from program efforts. In this case, the other
18 resource benefits include expected fuel and water savings that are incremental to
19 the electricity savings expected through the electric efficiency programs.

20
21 Table G-4 provides the calculation of 2008 program year cost-effectiveness.
22 Table G-5 shows the benefits and goals based on the proposed budgets. Table G-
23 6 shows a comparison of the goals with the approved program goals for 2007-08,
24 annualized to allow for an effective comparison. Table G-4 shows that the
25 proposed portfolio of programs is expected to have a benefit/cost ratio of 1.80
26 which means that \$1.80 in benefits is expected to be created for each \$1 invested
27 in the programs.

28

1 The cost-effectiveness analyses of the proposed programs use the avoided energy
2 supply costs developed by Synapse Energy Economics as part of a 2007 study
3 that was sponsored by all electric DSM program administrators in New England,
4 as well as some gas program administrators. They reflect current and expected
5 market conditions and are highly influenced by the increasing cost of fossil fuels.
6 The avoided gas costs are shown in Table G-7.

7

8 Table G-8 shows a summary of the projected benefits and costs for the three year
9 gas program planning horizon. The second and third year of the planning horizon
10 are very similar to 2009 because of the assumption of level funding.

11

12 **V. Measurement and Verification Plan**

13

14 The Measurement and Verification Plan for 2009 is presented in tabular form in
15 Attachment 7. The areas proposed for study in 2009 have been chosen based on a
16 number of factors: the relative amount of savings in that program or end use, the vintage
17 of the most recent evaluation study, the relative precision of the recent evaluation study,
18 the available evaluation budget. In addition, some new program areas are designated for
19 both impact (savings) and process evaluations. This list may be added to as the year
20 progresses and different evaluation priorities are identified. In particular, the parties will
21 consider adding Rhode Island-specific impact or process evaluations, as appropriate, that
22 will help inform the Company's efforts towards achieving the goals of least cost
23 procurement.

24

25 **VI. Reporting Obligations**

26

A. Summary of Reporting Obligations

27

1. During 2009, the Company will provide quarterly reports to the
28 EERMC, the Division and the Commission on the most currently
29 available program performance for both gas and electric efficiency
30 programs. These reports will include a comparison of budgets and

1 goals by program to actual expenses and savings on a year-to-date
2 basis, as well as information about the number of customers who
3 may be waiting for energy efficiency program services.

4 2. The Company will provide to the Parties and file with the
5 Commission its 2009 Year-End Report no later than May 31, 2010.

6 3. The Company will provide to the Parties a summary of evaluation
7 results together with a memorandum summarizing the impact of
8 those results on the Company's 2008 programs no later than
9 September 30, 2009.

10 4. The Company will file with the Commission updated savings goals
11 and metric targets for 2009, reflecting the results of completed
12 evaluation studies, no later than September 30, 2009.

13 5. The Company will report on 2009 metric results, achieved gas and
14 electric energy savings in 2009, and earned incentives in its Year-
15 End Report for 2009, to be filed no later than May 31, 2010

16

17 **VII. Incentive**

18 The proposed shareholder incentive mechanism applicable to Company DSM efforts in
19 2009 follows the incentive mechanism applicable to the 2008 electric energy efficiency
20 programs in Docket No. 3892 and the 2007-08 gas efficiency programs in Docket No.
21 3790.

22

23 For electric programs, the shareholder incentive mechanism will continue to include two
24 components: (1) kWh savings targets by sector and (2) performance-based metrics. For
25 gas programs, the incentive will be based on MMBtu savings alone.

26

27

28

1 **A. kWh Savings**

2 The Parties have agreed to retain a target incentive rate of 4.40% in 2009 applied
3 to the eligible spending budget for 2009. The projected spending budget for 2009
4 is approximately \$23.5 million (see Table E-8). The total target incentive for
5 2009 is 4.40% of the approved spending budget, or approximately \$1.036 million
6 (see Table E-9). Of this total, \$150,000 will be the target incentive for the
7 performance-based metrics and the remainder will be for the kWh savings target.

8

9 The threshold performance level for energy savings by sector will remain at 60%
10 of the annual energy savings goal for the sector. The Company must attain at
11 least this threshold level of savings in the sector before it can earn an incentive
12 related to achieved energy savings in the sector. The Company will have the
13 ability to earn an incentive for each kWh saved, once threshold savings for the
14 sector are achieved, up to 125% of target savings. The incentive per kWh saved
15 by sector is provided in Table E-9.

16

17 The incentive cap on energy savings will be equal to 125% of the target incentive
18 amount for energy savings. If the Company achieves this level of exemplary
19 performance, Rhode Island consumers will realize additional savings. Given
20 budget control requirements, this will provide the Company with an incentive to
21 improve the efficiency of its program implementation efforts while providing
22 Rhode Island consumers with value in excess of the incremental incentive that
23 may be earned by the Company. That is, the Company will have an incentive to
24 increase consumers' savings and consumers will realize 95.6% of the savings
25 originally and then all of the savings after the incentive cap is reached.

26

27 Table E-8 provides the derivation of the eligible spending budget that is used to
28 determine the amount of the incentive that the Company may earn if it is
29 successful in achieving its goals for both energy savings and performance metrics.

1 Table E-9 provides a summary of the incentive related to performance metrics and
2 the incentive related to annual energy savings goals by sector. Energy savings
3 goals by sector reflect the expected cost of savings in each sector informed by
4 evaluation studies and have been adjusted to take into account changing rebate
5 policies and the changing market being served. These goals have been carefully
6 reviewed by the Collaborative to ensure that they represent reasonable and
7 challenging goals for the year.

8
9 There are two circumstances that would necessitate the recalculation of the
10 threshold, calculated cap, and incentive for a particular sector.

- 11 1. If the assumptions used to develop savings goals change as a result of
12 evaluation studies completed by September 30, 2009, the Company
13 will recalculate savings goals to account for those evaluation findings
14 and will report actual savings on the same basis.
- 15 2. If the actual spending in a sector at year end is greater than or less than
16 the spending budget by more than five percent, the savings goal for
17 that sector will be adjusted by the ratio of actual spending to the
18 spending budget.

19
20 None of these changes will affect the target incentive dollars associated with
21 performance metrics. The Company will report program results compared to
22 these revised budgets and goals in its Year-End Report regarding 2009 DSM
23 Program efforts.

24
25 **B. MMBtu Savings**

26 For gas efficiency programs, the proposed target incentive is equal to 4.40% of
27 the eligible budget. The eligible budget includes all program expenses shown in
28 Table G-2, except for the commitments budget and the amount budgeted for the

1 target shareholder incentive. Therefore, the total target incentive for 2007 - 2008
2 is 4.40% of approximately \$6.2 million, or \$267,000, as shown in Table G-9.

3

4 The threshold performance level for energy savings by sector will be set at 60%
5 of the annual energy savings goal for the sector. The Company must attain at
6 least this threshold level of savings in the sector before it can earn an incentive
7 related to achieved energy savings in the sector. The Company will have the
8 ability to earn an incentive for each MMBTU saved, once threshold savings for
9 the sector are achieved, up to 100% of the target savings. The incentive per
10 MMBTU saved by sector is provided in Table G-8.

11

12 Energy savings goals by sector reflect the expected cost of savings in each sector
13 informed by results achieved by other gas EE providers in other New England
14 jurisdictions. These goals have been carefully reviewed by the Collaborative to
15 ensure that they represent reasonable goals for the year.

16

17 The threshold, calculated cap, and incentive for a particular sector will be
18 recalculated if the assumptions used to develop savings goals change because of
19 completed evaluation studies. If that occurs, the Company will recalculate
20 savings goals to account for those evaluation findings and will report actual
21 savings on the same basis. The Company will report final program results
22 compared to these revised budgets and goals in its May 31, 2010, Report
23 regarding 2009 Gas Energy Efficiency Program efforts.

24

25 **C. Electric Program Performance Metrics**

26 The Parties have agreed to the inclusion of five performance-based metrics for
27 2009. These metrics include two that relate to the Non-Low Income Residential
28 sector and three that relate to the Commercial and Industrial sector. Each of the
29 proposed performance-based metrics is described in Attachment 6. The Parties

1 agree that the Company will have the ability to earn \$30,000 for each
2 performance metric it successfully achieves in 2009 with an opportunity to earn a
3 portion of the incentive for partially achieving goals for three of the metrics as
4 shown in Attachment 6. The total potential incentive for performance metrics is
5 capped at \$150,000.

6
7 Attachment 8 includes a framework for establishing the goals for the proposed
8 metrics based on currently available information. As detailed in Attachment 6,
9 the Company, with agreement of the Parties, will file with the Commission no
10 later than September 30, 2009, a supplement to this Settlement that provides final
11 goals for each metric. Finalizing the numeric performance targets at a later date
12 will have no impact on the shareholder incentives established for these
13 performance-based metrics. If the Parties are unable to reach agreement about the
14 specific performance goals, the Company reserves the right to file recommended
15 goals with the Commission for its approval by September 30, 2009.

16
17 **VIII. Miscellaneous Provisions**

18 **A. Other Miscellaneous Provisions**

- 19 1. Other than as expressly stated herein, this Settlement establishes no
20 principles and shall not be deemed to foreclose any Party from
21 making any contention in future proceeding or investigation.
- 22 2. This Settlement is the product of settlement negotiations. The
23 content of those negotiations is privileged and all offers of settlement
24 shall be without prejudice to the position of any Party.
- 25 3. Other than as expressly stated herein, the approval of this Settlement
26 by the Commission shall not in any respect constitute a
27 determination as to the merits of any issue in any other proceeding.
- 28 4. The Parties agree that the Subcommittee shall meet no less than six
29 times in 2009 to review the status and performance of the

1 Company's 2009 DSM programs and advise on potential energy
2 efficiency programs for 2010.

3

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

6

7

Respectfully submitted,

8

THE NARRAGANSETT ELECTRIC COMPANY D/B/A

9

NATIONAL GRID



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Thomas Teehan, Esq.

Date

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RHODE ISLAND DIVISION OF PUBLIC UTILITIES AND
CARRIERS

William K. Lueker 11/7/2008

By its Attorney

Date

William K. Lueker, Special Assistant Attorney General

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THE ENERGY COUNCIL OF RHODE ISLAND

John Farley 4/7/2008

John Farley

Date

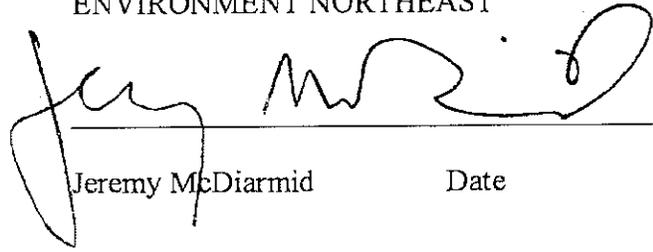
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ENERGY CONSUMERS ALLIANCE OF NEW ENGLAND
D/B/A PEOPLE'S POWER & LIGHT

Karina Lutz 11/5/08
Karina Lutz Date

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ENVIRONMENT NORTHEAST

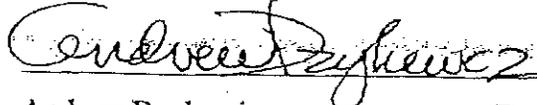
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THE RHODE ISLAND OFFICE OF ENERGY RESOURCES


Andrew Dzykewicz Date 11/07/08

**SUMMARY OF PROPOSED CHANGES TO
 RESIDENTIAL PROGRAMS FOR 2009**

Program	Changes
EnergyWise	<ul style="list-style-type: none"> • Approved contractor list to customers for air sealing and insulation work. • Site assessments can be charged to gas or electric budgets • Additional/on going BPI training • Incentives for weatherization measures installed in gas and electrically heated home and facilities have been standardized to 50% up to \$1500 per gas or electric heating account for insulation, duct insulation and duct sealing. The Company will pay 100% of the cost of air sealing in these facilities. The participant will be responsible for paying 100% of any required attic/building ventilation as required by code when insulation and air sealing are installed.
Low Income Services	<ul style="list-style-type: none"> • Combine the Electric and Gas Low Income Services Programs • Significantly increase frequency of CFLs installed in each home by changing hours of use criteria for existing lights
ENERGY STAR® Appliances	<ul style="list-style-type: none"> • Remove the ENERGY STAR® Clothes Washer Rebate • Add a \$50 refrigerator retail rebate for a limited time • Implement a second refrigerator bounty Program • Add rebates of \$250 for pool pump replacement and to • Add \$10 rebates for electronics and Smart Strips.
High Efficiency Heating	<ul style="list-style-type: none"> • Combine gas and electric programs. • Adjust incentive levels • A \$50 rebate for stand alone water heater tanks with an energy factor of 0.62 or greater

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Program	Changes
COOL SMART ENERGY STAR® Central Air Conditioning and Heat Pumps	<ul style="list-style-type: none"> • Add ENERGY STAR® • Quality Installation verification for replacement systems including systems replaced within the past 3 years with an Environmental Protection Agency (EPA) certificate and \$100 customer incentive through participating contractors. The EPA requires sizing, duct sealing, and airflow and charge adjustments to specific American National Standards Institute/Air Conditioning Contractors of America (ACCA) standards. • If duct modifications (i.e., adding return ducts and/or turning vanes) are needed to meet airflow requirements, contractors may receive an additional \$400 incentive. • Replacement of the minimum standard for eligible equipment with the new ENERGY STAR® standards described above for the \$300 incentive as of April 1, 2009. • Add a \$400 customer incentive for higher CEE-tier 2 equipment (SEER of 15, EER of 12.5 or higher) • Add a \$500 customer incentive for a SEER of 14.5 or greater, and HSPF of 8.2 for split ductless air conditioning or air-to-air heat pump systems with inverter technology • A \$200 customer incentive and a \$100 contractor incentive when sizing is completed for 2009 ENERGY STAR® or CEE-tier 2 equipment • Increase downsizing incentive to \$500 per ½ ton split 50/50 between customer and contractor.
ENERGY STAR® Lighting	<ul style="list-style-type: none"> • Add a \$30 rebate for LED lighting • Add a \$25 rebate for higher end lighting fixtures • Increase CFL and mercury recycling efforts
Energy Efficiency Educational Programs	<ul style="list-style-type: none"> • No Changes
ENERGY STAR® Homes	<ul style="list-style-type: none"> • No changes
Building Practices and Demonstration	<ul style="list-style-type: none"> • No changes

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2009 RESIDENTIAL PROGRAMS

The Company proposes a comprehensive set of residential energy efficiency programs for implementation in 2009. Proposed program changes for 2009 are summarized in Attachment 1. The depth of the programs will significantly expand for 2009. Paramount to this are two objectives: 1) ensuring that the programs are capable of ramping up energy savings in order to address the goal of least cost procurement and 2) integrating the gas and electric programs so that delivery will be seamless to customers.

Residential Programs

The Company is proposing to implement a broad range of gas and electric energy efficiency programs for its residential customers. Wherever possible the gas and electric programs will be combined but funded by separate budgets. These programs are designed to provide energy efficiency opportunities to the diverse segments of residential customers in the state, including homeowners and renters, low-income and moderate income consumers, and those constructing new homes. These programs all include a component of consumer education to help the customer to better understand how to control and manage energy costs. The Company will continue to monitor national and regional initiatives for future consideration in our programs.

A brief description of each proposed residential program is provided in the following table. The Residential programs planned for implementation in 2009 are described in further detail following the table.

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Table 1. Proposed Residential Energy Efficiency Programs	
EnergyWise Program (Funded by Gas and Electric)	The EnergyWise program offers single and multi-family customers free home energy audits of their homes and information on their actual electric and gas usage. Participants in this program receive recommendations and technical assistance as well as financial incentives to replace inefficient lighting fixtures, appliances, thermostats, and insulation levels with models that are more energy efficient. The program addresses baseload electric use as well as gas and electric heat in all residential buildings.
High-Efficiency Heating, Water Heating and Controls Program (Funded by Gas Only)	\$1000 incentive for ENERGY STAR [®] labeled boilers (90% AFUE), \$500 incentive for ENERGY STAR [®] labeled boilers (85% AFUE), (the incentive is awarded based on AFUE, not solely the ENERGY STAR [®] label) \$200 incentive for steam boilers (with electronic ignition, 82% AFUE), \$400 ¹ incentive for high efficiency furnaces (92% AFUE) with ECM Motor or equivalent and \$100 incentive on furnaces (92% AFUE). Incentives are also offered for ENERGY STAR [®] rated natural gas forced hot water boilers, ECM motors, ENERGY STAR [®] labeled programmable thermostats, and boiler reset controls. Incentives are also available for high efficiency gas water heaters.
ENERGY STAR[®] Heating Program (Funded by Electric Only)	Homeowners purchasing or replacing an existing oil or propane heating system with a qualifying heating system are eligible to receive a \$200 rebate to defray the cost of the higher efficiency system. A rebate is also available for high efficiency fans for gas or oil furnaces. (The incentive is awarded based on AFUE, not solely the ENERGY STAR [®] label.) (This program is coordinated with gas high efficiency heating program)
ENERGY STAR[®] Homes Program (Funded by Gas and Electric)	The ENERGY STAR [®] Homes Program promotes the construction of energy efficient homes by offering technical and marketing assistance, as well as cash incentives to builders of new energy efficient homes that comply with the program's performance standards.
Single Family Low Income Services Funded by Gas and Electric)	The low income program, marketed as the Appliance Management Program, is delivered by the Office Energy Resources and local Community Action agencies. It provides the same services as the EnergyWise program, described below, except it also addresses oil heat in all residential buildings and no customer contribution is required for equipment installation.
Building Practices and Demonstration Program (Funded by Gas Only)	Participate in funding for demonstration projects that apply to new or underutilized technologies.
ENERGY STAR[®] Central Air Conditioning Program (Funded by Electric Only)	This program promotes the installation of high efficiency central air conditioners. The program provides training of contractors in installation, testing of the high efficiency systems, tiered rebates for new ENERGY STAR [®] systems, and incentives for checking new and existing systems.
ENERGY STAR[®] Lighting (Funded by Electric Only)	This is an initiative implemented jointly with other regional utilities. It provides discounts to customers for the purchase of ENERGY STAR [®] compact fluorescent lamps and fixtures through instant rebates, special promotions at retail stores, or a mail order catalog.
ENERGY STAR[®] Appliances (Funded by Electric Only)	Included in this initiative is the ENERGY STAR [®] Appliance Program which promotes the purchase of high efficiency major appliances (refrigerators, dishwashers, clothes washers, room air conditioners, and dehumidifiers) that bear the ENERGY STAR [®] Label. It is offered by several utilities throughout the region.

¹ \$200 of this incentive will be funded through the ENERGY STAR[®] heating program.

Table 1. Proposed Residential Energy Efficiency Programs	
Information and Education (Funded by Electric Only)	The Company promotes energy education in schools through the National Energy Education Development (N.E.E.D) Program. This program provides curriculum materials and training for a comprehensive energy education program. The Company also supports the ENERGY STAR [®] Homes Vocational School Initiative which trains students at the nine Rhode Island Career and Technical schools to be ENERGY STAR [®] certified builders.

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Additional details about each proposed program are provided below.

1. EnergyWise Program (Gas and Electric)

Overview

First offered in 1998, this program provides efficiency improvements in existing multifamily and single-family homes to the customer of record. The program provides a free comprehensive assessment of a customer’s energy use and recommends various ways customers can improve their home’s energy electric and gas efficiency. These assessments will be funded by either gas or electric energy efficiency funds. The EnergyWise program seeks to encourage program participants to install cost-effective recommended improvements. Beginning with the audit itself, the process is designed to continually reinforce the benefits and convenience of implementing recommended measures.

An important element of this strategy is follow-up contact with program participants, since most do not enter into agreements to proceed with installations at the time of their audit. Each audit staffperson maintains records on each participant where the results of such contacts are noted. These logs are frequently referenced, especially when a program offering or market conditions change that would lead the staff person to believe that a past participant may be interested in moving forward in light of the changed conditions or offerings.

1

2 Participants in this program receive financial incentives for cost effective measures to
3 replace inefficient lighting fixtures and lamps, appliances, thermostats, and insulation
4 levels with models that are more energy efficient. Customers will also receive the free
5 installation of water saving devices (low flow showerheads and aerators) for water heated
6 by gas and electric.

7

8 For 2009, the Company proposes to implement a new delivery mechanism for 1- 4 unit
9 homes heated with gas and electric. Customers in eligible homes who participate in
10 *EnergyWise* will be able to select an approved contractor to complete their air sealing and
11 insulation work. The Company will monitor these contractors to determine if they have
12 advanced enough technically to begin to expand their roles in future years. To assist in
13 this transformation, the Company will also work with these contractors to determine the
14 possibility of offering those who are interested more advanced BPI training as described
15 below.

16

17 To be eligible for an incentive, a National Grid pre-qualified contractor must be chosen to
18 install program measures. Contractors wishing to become pre-qualified must provide
19 proof of insurance in amounts and coverage acceptable to National Grid. National Grid
20 will perform a background check to verify the contractor's good standing, and to
21 determine if there have been complaints or other issues that would render the contractor
22 ineligible.

23

24 Additionally, the contractor must meet other requirements including certification or
25 accreditation by the Building Performance Institute (BPI). BPI credentialed companies
26 are trained to take into account the complex interactions that affect health, safety,
27 comfort, energy performance, and the durability of homes. BPI standards include

1 comprehensive diagnostic testing, measurement and verification that the work is
2 completed properly, and quality assurance. The Company has reached out to the
3 contractor community and has provided training and assistance in purchasing diagnostic
4 equipment. Additional quality control will be required as contractors begin working with
5 the program, including third party verification. In the interest of achieving high quality
6 installations, the Company, subject to contract terms and available trained personnel, will
7 work toward a system where, when verification is done, the contractor that does the
8 installation is from a different organization than the contractor doing the verification.

9
10 It will be the responsibility of the installation contractor to complete and submit all
11 Company required data with proper supporting documentation. Do-it-yourself work will
12 not be permitted through the program. Work completed through the program must meet
13 all applicable state and local code requirements. It is anticipated that all measures
14 installed will meet ENERGY STAR[®] guidelines, where applicable.

15
16 For the most recent calendar year that data is available, 21% of all households that were
17 audited in 2007 contracted directly with the program implementation contractor to make
18 efficiency improvements. This does not include measures that were recommended but
19 for which the customer arranged for installation through other vendors than the program
20 implementation contractor. The Company may conduct a process evaluation of the
21 EnergyWise program in 2009 to determine ways to increase customer follow-through on
22 audit recommendations.

23
24 **Eligible Population**

25 All residential customers in 1-4 unit buildings are eligible to participate. Multifamily
26 facilities of five or more units are eligible if they have not previously participated in the

1 program in the past five years. The Company proposes to serve 8,437 gas and electric
2 customers (dwelling units) through the *EnergyWise* program in 2009.

3
4 **Program Design**

5 The program will provide incentives covering up to 50% of the cost of installing certain
6 weatherization measures in electric and gas heating single family (1 to 4 dwelling units)
7 homes and multifamily facilities of 5 or greater dwelling units. In 2009, the incentive
8 structure will be the same whether a facility is gas-heated or electric-heated. The
9 maximum incentive offered through this program is \$1,500 per gas or electric heating
10 account. Measures eligible for this incentive through the program include: attic
11 insulation, wall insulation, basement/crawl space insulation, rim joist insulation, duct
12 insulation, gas heating system pipe insulation, ductwork leakage testing, ductwork
13 leakage sealing. Air infiltration sealing where applicable will be performed at no charge
14 to the customer. Customers will also receive the free installation of water saving devices
15 (low flow showerheads and aerators) for water heated by gas or electric. These measures
16 will be funded by either electric or gas energy efficiency funds depending on the heating
17 fuel type. Other measures may be added to the program menu, upon demonstration of
18 cost-effectiveness².

19
20 Eligible customers and/or building managers or associations receive a comprehensive
21 energy audit, energy education, and the installation of low cost efficiency measures (e.g.
22 hot water measures, air sealing for electrically and gas heated facilities, compact
23 fluorescent light bulbs) at no direct cost. Single family and multifamily facilities heated

² Participation and spending for Gas EnergyWise will increase from 2008 to 2009 while the savings are projected to decrease. 2007/2008 Gas EnergyWise savings projections were based on data available at the time. Those savings numbers assumed that every participant totally air sealed and insulated their homes. The Company learned, from the first 18-months of program implementation, that this was not the case—that the measure mix of actual installations differed significantly from the initial assumption. Additionally, the incentive has been increased from 20% to 50% and co-payments will be waived for Low Income participants, both of which also increase the spending relative to savings.

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1 with fuels other than gas and electricity are eligible to participate. All facilities are
2 eligible to have lighting upgrades and refrigerator replacement measures as identified
3 through the home assessment. The contractor puts major measures out to competitive
4 bid in facilities that have greater than twenty units. Major measures include lighting
5 upgrades, electric heat thermostats, replacement of inefficient refrigerators, heat pump
6 testing and upgrades, duct sealing and insulation for electrically and gas heated facilities.
7 The Company will provide incentives of \$200-\$300 to encourage customers to replace
8 inefficient refrigerators. The Company does not require a co-payment for lighting
9 fixtures or lamps installed in single family homes nor the living units of multifamily
10 facilities in order to avoid lost opportunities.

11
12 The program is certified by the Environmental Protection Agency as a “Home
13 Performance with ENERGY STAR[®]” program in the single family sector. This allows
14 the program to use the ENERGY STAR[®] name for marketing purposes, and ensures that
15 the program meets high health and safety standards. The energy audit looks at the house
16 as a system, so that the customer can consider all energy efficiency measures as well as
17 occupant health and safety.

18
19 The program is marketed through direct contact with interested customers and owners,
20 property owners’ associations, bill inserts, customer newsletters, the National Grid
21 website, as part of the Gas Energy Efficiency programs, and other methods. There is
22 often a waiting list for multifamily program services, though the program is usually able
23 to serve customers within the year the participation request is made.

24
25 For multifamily buildings, the comprehensive building analysis will be funded by either
26 gas or electric energy efficiency funds but not both. Electric or gas funds will be used to
27 provide funding for electric or gas weatherization measures including, insulation,

1 showerheads, aerators, air sealing, duct insulation and duct sealing. The program will
2 provide an incentive covering up to 50% of the cost of installing insulation, duct
3 insulation and duct sealing.

4

5 For multifamily facilities the program will target both public housing authorities and
6 privately-owned properties. Through the program, multifamily properties will receive
7 either a prescriptive or custom audit depending on the size of the property or complexity
8 of the project. Incentives described in the Residential High-Efficiency Heating and the
9 Residential High-Efficiency Water Heating Program descriptions will apply to
10 multifamily facilities and condominiums which contain gas heating systems and/or
11 domestic hot water systems that serve individual dwelling units. This type of facility
12 would also be eligible for the single family type GasNetworks ENERGY STAR[®]
13 Thermostat and Gas Boiler Reset incentive programs. Incentive levels for these
14 prescriptive measures may vary for income qualified facilities. Copayments are typically
15 required for insulation, common area lighting, refrigerators, and heat pump tune-ups.

16

17 There is a barrier to participation in multifamily facilities due to the landlord's perception
18 of a split incentive between the landlord and the tenant (in other words, that they will not
19 see the benefit of a project occurring in their facility) for certain program offerings, and
20 occasional landlord unwillingness to allow implementation personnel into their facilities.
21 The Company and the Parties will continue to study ways to overcome these barriers and
22 increase program participation through its incentives and financing options.

23

24 Facilities larger multifamily facilities with central heating plants and domestic hot water
25 systems that are interested in upgrading to high efficient gas systems will be served
26 through the Gas Commercial High-Efficiency Heating and Commercial Energy
27 Efficiency Programs.

1 The program also offers low interest loans for customers who live in one to two unit
2 facilities to install additional weatherization, including insulation and air sealing. These
3 loans are available to customers with homes heated by electricity, oil, propane, and wood,
4 regardless of their level of electric use.

5

6 The Company will make an up-front payment to write down the interest on an unsecured
7 loan. It will plan to provide funds to lower the interest rate to approximately six percent.
8 The Company may adjust the loan rate during the year to respond to market conditions
9 and customer demand. The participating bank will determine loan approval. The
10 Company is researching alternative financing avenues.

11

12 The EnergyWise program also services Public Housing Authority properties and other
13 low income multifamily buildings.

14

15 ***Low Income Services through the Multifamily EnergyWise Program***

16 As noted above the EnergyWise Multifamily Program also services Public Housing
17 Authority properties and other low income multifamily facilities containing five or
18 greater dwelling units. Depending on income eligibility of the tenants, co-payments may
19 be reduced or waived for these larger facilities. If the facility contains at least 50% or
20 more low income dwelling units, co-payments are usually waived on all measures except
21 refrigerators. All customer co-payments are waived for any measure installed in Public
22 Housing Authorities and other low income state and federally funded multifamily
23 facilities. Over the last five years, Narragansett Electric has served over 6,940 low
24 income multifamily dwelling units through the EnergyWise Program. These conditions
25 apply to National Grid electric and gas customers.

26

1 **2. Single Family Low Income Services (Gas and Electric)**

2 **Overview**

3 Electric and heating bills are typically a big burden to low income customers, who often
4 pay a high percentage of their income to cover these bills. Customers who are unable to
5 pay are at great risk for shut-off of services. All customers bear these costs through
6 paying for collection and shut-off visits and the write off of bad debt. Efforts to lower
7 energy bills for low-income customers benefit them directly and all ratepayers indirectly.

8

9 **Eligible Population**

10 Customers who are eligible for the Low Income Heating Assistance Program (LIHEAP)³,
11 also known as fuel assistance, and live in 1-4 unit buildings, are eligible for this
12 program⁴. There is no co-payment requirement. Over the last six years, Narragansett
13 Electric has served over 5,594 low income dwelling units through single family low
14 income program offerings. The Company proposes to serve 1,439 customers (dwelling
15 units) in 2009.

16

17 The Collaborative and Company want customers who have difficulty paying their electric
18 bills to receive assistance from the energy efficiency programs. While the average
19 savings of \$149 per year through the electric measure component and the average savings
20 of \$620 per year through the gas measure component of the program may not be enough
21 to help these customers avoid shut-off, it will certainly provide some assistance and
22 increased control of electric and gas usage. The Collaborative and the Company believe
23 the targeted approach described below is the best way to reach these at risk customers.

³The federal government has set an income level, tied to the median income of each state, which defines the uppermost income boundary for LIHEAP participation. Individual states have some flexibility in defining income eligibility as long as it is not set above the federally defined maximum. Eligibility in this program will track the eligibility for LIHEAP set by the State of Rhode Island.

⁴ In previous years, this program was known as the Appliance Management Program (AMP).

1 In 2009, the Company will continue to work with the Office of Energy Resources (OER)
2 to offer services to low income customer addresses where shut-offs have occurred. In
3 2005, the Company identified approximately 1,400 addresses where shut-offs have
4 occurred and electric usage was at least 10 kWh per day in the non-heating months. The
5 Company provided electronic mailing lists and labels for outreach to these customers and
6 the local agencies contacted the customers. Depending on the area, about ten to fifteen
7 percent of customers contacted requested services through the program. For 2009, the
8 Company will provide an updated list and encourage local agencies to make follow-up
9 outreach phone calls to targeted customers.

10

11 **Program Design**

12 The Company contracts with the Rhode Island Office of Energy Resources (OER) and
13 local weatherization agencies for the delivery of energy efficiency services to eligible
14 customers. OER will continue to maintain a list of eligible clients who are qualified for
15 low income services, who have requested services, and are not yet scheduled to be
16 served.

17

18 The agencies delivering program services focus on both electric energy efficiency
19 opportunities and selected non-electric energy efficiency opportunities. Electric measures
20 are identified through a comprehensive review of the customer's electric and gas bills,
21 existing appliances, and electric and gas use patterns. The Single Family Low Income
22 Services Program provides for the installation of ENERGY STAR[®] refrigerators and
23 lighting, and cost-effective custom measures to replace inefficient equipment and help
24 lower customers' electric bills. In addition, the Company installs electric and gas water
25 heating energy efficiency measures at no cost for participating customers. Eligible gas
26 measures include, heating system replacement (on a qualifying basis), safety inspections,
27 and funding the installation of CO detectors when DOE funds are not available.

1 The Company also funds weatherization work for these customers in one to four unit
2 homes where the primary heating fuel is electricity, gas, oil, propane or wood. This
3 funding supplements federal dollars received by the Office of Energy Resources (OER)
4 for weatherization work. In 2005 and 2007 the Company also began to fund oil and gas
5 heating system replacements respectively through the OER and plans to continue this in
6 2009.⁵ The new hot water and air heating systems are required to meet Federal
7 weatherization program guidelines and have an Annual Fuel Use Efficiency (AFUE) of at
8 least 80% for oil systems and 85% for gas. Installed steam systems have a minimum
9 efficiency of 82%. The Company proposes to continue to work with local Community
10 Action Agencies and the OER to provide no-cost services to income eligible customers in
11 1-4 unit facilities.

12
13 The Company will market the program through direct contact with eligible customers via
14 Company brochures, bill inserts, and the National Grid website. One marketing effort
15 consists of contacting, by mail and/or telephone, customers subscribing to Narragansett
16 Electric's low income rates who have not previously received program services. The
17 program may also be marketed through direct contact with eligible customers by OER
18 and local CAP agencies to customers it serves through state, federal, or local low income
19 programs.

20
21 ***Summary of Low-Income Services through all programs***

22 The table below summarizes the participation by low-income customers in the
23 Company's programs

⁵ Natural gas-fired systems are not eligible for replacement under this program. There are other programs, including those sponsored by the Company, that cover gas-fired systems.

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Table 2

Projected Low-Income Participation in 2009 Programs and Participation History

Program	2009 projected participants	Percentage of Total Participants in 2009	Number of low income participants 2002-2007
Single Family Low Income	1,439	100%	5,594
EnergyWise	1,097	13%	10,682
ENERGY STAR [®] Homes	114	30%	749

Table 3

Projected Low-Income Expenditures in 2009 Programs and Expenditure History

Program	2009 Proposed Low Income Expenditures	Percentage of Total Budget	Low Income Spending for years 2002-2007
Single Family Low Income	\$2,628,200	100%	\$9,224,929
EnergyWise	\$725,200	18%	\$4,311,475
ENERGY STAR [®] Homes	\$258,000	30%	\$1,515,118

3. ENERGY STAR[®] Homes (Gas and Electric)

Overview

The ENERGY STAR[®] Homes Program is part of the national energy efficiency campaign first developed in 1998 by the Environmental Protection Agency (EPA) and United States Department of Energy (DOE). Rhode Island was one of the first states to adopt this program. The homes are designed, site inspected, and performance-tested to achieve a home energy rating which helps consumers differentiate between efficient homes and standard homes.

Eligible Population

Anyone building a home in Rhode Island can participate, regardless of type of heating fuel. The Company plans to serve 380 customers through this program in 2009.

1 **Program Design**

2 For 2009 National Grid will continue to offer three program options that
3 builders/homeowners can choose. The first option, the “Performance Path”, is similar to
4 the previous program and requires a minimum HERS rating of 0.85 to qualify. Any
5 builder hoping to access the \$2,000 Federal tax incentive must use this path. The second
6 option is the “Builder Option Package” (BOPs) that allows a builder to qualify as
7 ENERGY STAR[®] by agreeing to install specific equipment and meeting certain
8 measured performance standards. For both these options, incentives of \$325 to \$500 will
9 be available to builders depending on the new house characteristics and the level of
10 efficiency achieved. The third option is called “Codes Plus”. In this option, the builder
11 will receive specific incentives for energy efficiency improvements above Code
12 requirements.

13

14 The “Codes Plus” option is for builders who are learning how to achieve the new more
15 rigorous ENERGY STAR[®] standards and may not be able to achieve the ENERGY
16 STAR[®] standards immediately. The Codes Plus option ensures that homeowners will
17 receive energy efficiency upgrades above the code during the transition period of the new
18 program. The incentives will be in two categories: Thermal Measures/Practices and
19 Heating/Ventilation/Air Conditioning. The incentives are designed to ensure that a
20 builder would not receive more money through this path than through the other two
21 paths. Typically, the builder would only be eligible for one of these; otherwise, the house
22 would meet ENERGY STAR[®] standards. An incentive of up to \$1500 will be available
23 for the Thermal Measures including CFLs, Air Sealing, Insulation, ENERGY STAR[®]
24 windows, and mechanical ventilation. An incentive of up to \$1,500 will be available for
25 HVAC upgrades including CFLs, Duct Sealing, High Efficiency Heating Systems, ECM
26 Motors, Indirect Water Heating, High Efficiency Air Conditioning, and Quality
27 Installation Verification.

28

1 National Grid will explore opportunities to utilize lessons learned from Massachusetts’
2 experience with the Zero Energy Challenge.

3
4 National Grid will provide training and technical assistance to builders to help them meet
5 these standards. Additionally, in order to help builders with the program transition, the
6 Company plans to offer rebates for specific energy measure upgrades including duct
7 sealing, high efficiency furnaces, blower door verified air tightness and mechanical
8 ventilation, high efficiency air conditioning, and lighting upgrades. Though the existing
9 training structure, National Grid will continue to support the further needs to improve
10 code, as well as promoting current code awareness.

11
12 The 2009 program offered by National Grid and funded through the electric DSM charge
13 provides services to all residential new construction, regardless of fuel type. National
14 Grid will continue the existing program and examine opportunities to realign the funding
15 mechanisms for 2009. In 2009 National Grid will look to drive builders towards greater
16 savings. Options for offering further incentives for increased savings will continue to be
17 reviewed.

18
19 ***Low Income participation in the ENERGY STAR[®] Homes Program***

20 The Company works closely with Rhode Island Housing and developers of affordable
21 housing in Rhode Island to encourage participation in the ENERGY STAR[®] Homes
22 program. Currently Rhode Island Housing encourages developers to receive ENERGY
23 STAR[®] Home certification. About 30% of the homes completed each year through the
24 ENERGY STAR[®] Homes program are for low income families. The Company also
25 plans to continue to work with Rhode Island Housing and the Rhode Island Office of
26 Energy Resources (OER) to support the energy efficiency of Rhode Island’s affordable
27 housing programs.

28

1 **4. High Efficiency Heating Program (Gas and Electric)**

2 **Overview**

3 A typical residential customer spends approximately 44% of his or her energy budget on
4 heating and cooling. To address heating costs, the ENERGY STAR[®] Heating Program
5 and the Company's Residential High-Efficiency Gas Heating program will be combined
6 to provide heating system rebates to all eligible customers.

7

8 **Eligible Population**

9 Residential customers who purchase ENERGY STAR[®] Heating Systems fueled by oil, or
10 high efficiency gas or oil furnaces with high efficiency fans in their existing home are
11 eligible to participate in this program. The Company proposes to serve about 1240
12 customers in 2009. About 1100 of these customers will receive heating system rebates
13 and about 140 will receive ECM motor rebates.

14

15 **Program Design**

16 The Company will continue to offer incentives to customers who purchase ENERGY
17 STAR[®] Heating Systems that are fueled by oil and gas. We will market the program
18 through, contact with air conditioning/heating equipment contractors, our website and
19 word of mouth. In order to encourage higher efficiency and positively reinforce market
20 changes, the Company proposes to continue the rebate in 2009 for ENERGY STAR[®] oil
21 heating systems at \$200. The efficiency requirements are an Annual Fuel Use Efficiency
22 Rating (AFUE) of at least 85x% for forced hot air systems, at least 85% for forced hot
23 water systems, and at least 82% for steam systems. In 2009, oil-fired forced hot air
24 systems are also required to be equipped with an electronically commutated permanent
25 magnet (ECM) motor.

26

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1 For 2009 the Company proposes continuing the Residential High-Efficiency Gas Heating
 2 program which will be jointly operated with GasNetworks and is available to the
 3 Company’s residential heating customers. Program goals include, but are not limited to:

- 4 • Increasing market sector awareness of high-efficiency gas heating equipment
- 5 • Increasing market sector awareness of efficiency enhancements and maintenance to
 6 gas heating equipment
- 7 • Providing product training and program training to trade allies such as plumbing and
 8 heating contractors
- 9 • Increasing customer knowledge of where to obtain high-efficiency heating products
 10 Examining new or underutilized energy efficient heating technologies for potential
 11 residential program development
- 12 • Monitoring customer perception of the performance and reliability of high-efficiency
 13 gas heating equipment and the savings achieved

14
 15

Table 4: Residential High-Efficiency Heating Program: Incentive Table		
Furnaces (forced hot air)	AFUE* 92% or greater	\$100 Incentive
Furnaces (forced hot air with ECM or equivalent)	AFUE* 92% or greater	\$400 Incentive
Boilers (forced hot water)	AFUE* 85% or greater	\$500 Incentive
Boilers (forced hot water)	AFUE* 90% or greater	\$1000 Incentive
Boilers (steam with electronic ignition)	AFUE* 82% or greater	\$200 Incentive

16 AFUE = Annual Fuel Utilization Efficiency

17

18 The Gas Rebate Program will be promoted through a variety of means including, but not
 19 limited to, direct mail campaigns, bill inserts, trade ally events, and contractor job site
 20 visits. Program brochures, builder packets and incentive applications will be the primary
 21 marketing material utilized. The program will be promoted through the National Grid and
 22 GasNetworks websites, where consumers and contractors will have the opportunity to

1 download program incentive applications and learn about program announcements,
2 updates or changes.

3

4 Overall, a strong emphasis will be placed on working with builders and contractors who
5 install heating equipment. Target markets for the program include both new construction
6 and retrofit projects. The retrofit market is seen as the primary driver of high-efficiency
7 forced hot water and steam heating system opportunities, whereas the new construction
8 market is seen as the primary driver for high-efficiency furnaces.

9

10 The incentive is available to residential heating customers (builders and/or homeowners)
11 worth up to \$1000, depending on the type of heating equipment installed. This incentive
12 level is in accordance with the GasNetworks incentive levels offered throughout New
13 Hampshire, Maine, and Massachusetts. Subject to cost-effectiveness, other heating
14 related measures will also be incorporated in the incentive portfolio. The incentive
15 encourages customers to choose a high-efficiency model by influencing a consumer in
16 two ways: bringing attention and perceived value to the high-efficiency equipment as an
17 option as well as offsetting a portion of the higher initial purchase cost of a high-
18 efficiency model compared to a standard-efficiency model. On September 1st of each
19 year, GasNetworks typically makes changes to the incentive levels of the High-Efficiency
20 Heating Program in conjunction with the members of the GasNetworks collaborative.
21 National Grid proposes to adopt this practice. Factors taken into account include market
22 penetration information, changes in incremental costs of high-efficiency equipment, and
23 current program year participation and budget levels. See Table 1 for a listing of eligible
24 equipment under the program and the current incentive level.

25

26 For 2009 the Company proposes continuing an incentive of \$200 for high efficiency gas
27 furnaces equipped with an advanced ECM motor or equivalent energy saving furnace fan

1 (blower) motor, subject to budget limitations. ECM motors in gas or oil furnaces save
2 about 600 kWh of electricity per year for consumers. The Collaborative will monitor any
3 developments in this area.

4
5 **Residential High-Efficiency Water Heating Program (Gas Only)**

6 The Company's Residential High-Efficiency Water Heating program will be jointly
7 operated with GasNetworks and will be available to the Company's residential water
8 heating customers. Similar to the Company's Residential High-Efficiency Heating
9 program, program goals include, but are not limited to:

- 10 • Increasing the demand for residential high-efficiency natural gas water heaters.
11 • Increasing customer and trade ally awareness of the benefits of high-efficiency natural
12 gas water heaters.
13 • Providing training on products and programs to trade allies such as plumbing and
14 heating contractors.
15 • Increasing customer knowledge of where to obtain high-efficiency water heating
16 products.
17 • Monitoring customer perception of the performance and reliability of high-efficiency
18 gas water heating equipment and the savings achieved.

19
20 Program marketing will consist of direct mail campaigns and outreach to contractors,
21 builders, affordable housing developers, community development corporations, and
22 public housing authorities, bill inserts to residential customers, attendance at trade ally
23 training events, radio, and promotion via National Grid's and GasNetwork's websites.

24 While direct customer marketing will generate a portion of the leads for this program, a
25 significant emphasis will be placed on meeting with heating and plumbing contractors at
26 trade shows, training sessions and job sites to encourage contractors to influence
27 consumer purchasing behavior toward this type of product.

1 The program incentive will be \$300 to residential water heating customers who install an
2 indirect water heater to an ENERGY STAR® rated natural gas forced hot water boiler.

3
4 The Company will also provide incentives for on-demand tankless water heaters as an
5 energy saving alternative to the stand alone water heaters. The Company will provide a
6 \$300 incentive for on-demand, tankless water heaters that have a 0.82 Energy Factor with
7 an electronic ignition. The Company is considering higher rebate tiers for higher
8 efficiency on-demand water heaters.

9
10 The Company also proposes to offer a \$50 rebate for stand alone water heater tanks with
11 an energy factor (EF) 0.62 or greater effective 01/01/09, ENERGY STAR® will formally
12 announce the creation of a 0.62 EF tier for stand alone water heaters as a first step to
13 encourage efficiency in this product segment.

14
15 The Company proposes to promote all these technologies and will work with the
16 contractor community to assist it on how to identify the most appropriate application to
17 reap the most energy savings.

18
19 **ENERGY STAR® Programmable Thermostat & Controls (Gas Only)**

20 The ENERGY STAR® Programmable Thermostat Rebate for gas heat will provide home
21 heating customers with an incentive for the purchase and installation of ENERGY
22 STAR® labeled programmable thermostats. Through this program, customers will be
23 eligible for a \$25 mail-in incentive for the installation of up to two ENERGY STAR®
24 qualified programmable thermostats. When applying for a thermostat incentive,
25 residential customers will be required to submit proof-of-purchase for the unit. The
26 ENERGY STAR® website lists and updates all eligible thermostat models. Eligible
27 thermostats may be installed by homeowners, heating contractors or energy auditors. In
28 addition to mail-in incentives, instant incentives, in the form of point-of-sale discounts,
29 will be available through heating contractors and energy auditors.

1 The Company will promote this ENERGY STAR[®] Programmable Thermostat Rebate m
2 via its website, both its thermostat and heating incentive forms, direct mail, bill inserts,
3 and through EnergyWise program auditors. The Company will do outreach to stores such
4 as The Home Depot[®], Lowe's[®], and regional hardware stores. The retailer outreach effort
5 will provide training of these retailers' sales personnel regarding the incentive program
6 and coordinate the ongoing distribution of program incentive forms at these stores. The
7 retailer outreach will be coordinated with that of the ENERGY STAR[®] Lighting and
8 Appliance Programs.

9

10 Rebates of \$100 will be offered for add on outdoor gas boiler reset controls. The
11 modulating outdoor reset control senses the outdoor temperature and keeps the boiler
12 water only as hot as needed reducing consumption 5% to 10% annually. The rebate will
13 cover up to 66% of the cost of the reset.

14

15 **5. 2009 ENERGY STAR[®] Central Air Conditioning Program (Electric only)**

16 **Overview**

17 As noted previously, a typical residential customer spends approximately 44% of his or
18 her energy budget on heating and cooling. To address cooling costs, the ENERGY
19 STAR[®] Central Air Conditioning Program provides funding to offer ENERGY STAR[®]
20 central air conditioning system rebates.

21

22 In 2002, the Company participated in a joint study of HVAC market conditions and
23 efficiency potential in Rhode Island, Connecticut, and Massachusetts. The study
24 identified several key target markets including residential customers who are in the
25 market to purchase central air conditioning (AC) or heat pump systems, residential
26 customers with existing air conditioning systems, and HVAC technicians responsible for

1 servicing and installing this equipment. The market research estimates that
2 approximately 4,200 Rhode Island customers are purchasing replacement or new central
3 air conditioners each year. Recent customer surveys by the Company indicate that about
4 23% of Rhode Island residences, or about 95,000 customers, have central air
5 conditioning.

6

7 The market research documented that energy savings opportunities exist due to the
8 improper design and installation practices of residential AC contractors. Inadequacies
9 documented include over-sizing of systems overall, undersizing of the air distribution
10 system, failure to obtain proper refrigerant charge, and inadequate duct sealing.
11 Significant savings are also available from existing air conditioning systems in
12 customers' homes, where the same conditions of improper refrigerant charge and airflow
13 are common.

14

15 **Eligible customers**

16 Any residential customer installing, servicing or replacing a central air conditioning or
17 heat pump system in an existing home is eligible to participate. Incentives for ENERGY
18 STAR[®] heating and cooling are included in the ENERGY STAR[®] Homes program for
19 new construction. The Company plans to continue ENERGY STAR[®] equipment rebates
20 add an ENERGY STAR[®] Quality Installation component and further expand the scope of
21 program measures and proposes to serve 546 customers in 2009.

22

23 **Program design**

24 The Company began the program in the fall of 2002. The Company has provided
25 rebates to customers for properly installed ENERGY STAR[®] central air conditioning and
26 heat pump systems in existing homes in 2003 throughout 2006. In February of 2006 the
27 program merged with the COOL SMART program in Massachusetts in order to reduce

1 administrative and marketing costs. This also provides consistency for HVAC contractors
2 and distributors which operate in both states.

3

4 The ENERGY STAR[®] specification will be changed to require 14.5 Seasonal Energy
5 Efficiency Ratio (SEER) and 12 EER as of January 1, 2009. The Company plans to
6 phase the ENERGY STAR[®] rebate of \$300 on April 1, 2009 and offer an incentive of
7 \$300 for the new standard on that date plus \$200 additional to consumers and \$100 to
8 contractors when a Manual J sizing is properly completed.

9

10 The Company plans to offer rebates that are consistent with those offered throughout the
11 region. The following is a summary of the Company's proposed tiers and rebate levels
12 for 2009, which are subject to change to be consistent with the regional program:

- 13 • Add ENERGY STAR[®] QIV Quality Installation Verification component for
14 replacement systems including systems replaced within the past 3 years old with
15 an Environmental Protection Agency (EPA) certificate and \$100 customer
16 incentive through participating program QIV contractors. The EPA requires
17 sizing, duct sealing, and airflow and charge adjustments to specific American
18 National Standards Institute ANSI/Air Conditioning Contractors of America
19 ACCA standards.
- 20 • The duct sealing requirement will be funded through the current contractor
21 incentive of \$1 per CFM of duct leakage reduction.
- 22 • Contractors will receive a \$250 incentive for verification and advanced airflow
23 measurement instead of a standard QIV incentive.
- 24 • If duct modifications (i.e., adding return ducts and/or turning vanes) are needed to
25 meet airflow requirements, contractors may receive an additional \$400 incentive.
- 26 • Expanded Negotiated Cooperative Promotion opportunities in cooperation with
27 NEEP and other interested program administrators.

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- 1 • Expand the Early- Replacement component from a seasonal promotion to a
2 standard offer. Enhance the qualifying equipment eligibility criteria to require an
3 existing SEER of 9 or 10.
- 4 • Phase out the \$300 consumer rebate for the purchase and installation of high-
5 efficiency central air conditioning equipment and air source heat pumps that meet
6 the existing ENERGY STAR[®] standard SEER rating of 14, EER of 11.5 effective
7 April 1, 2009. This is to allow time for customers and contractors to become more
8 aware of the new ENERGY STAR[®] standard for 2009.
- 9 • Replacement of the minimum standard for eligible equipment with the new
10 ENERGY STAR[®] standard (SEER 14.5 , EER 12) described above for the \$300
11 incentive as of April 1, 2009.
- 12 • A \$400 customer incentive for higher CEE-tier 2 equipment (SEER of 15, EER of
13 12.5 or higher).
- 14 • A \$500 customer incentive for a SEER of 14.5 or greater, an EER of 11.5 or
15 greater, and an HSPF of 8.2 ENERGY STAR[®]-rated Split Ductless Air to Air
16 Heat Pump systems with Inverter Technology.
- 17 • A \$200 customer incentive and a \$100 contractor incentive when sizing is
18 completed for 2009 ENERGY STAR[®] or CEE-tier 2 equipment.
- 19 • Third party verification of optimal refrigerant charge and system air flow can be
20 performed for any new equipment installation regardless of SEER. The
21 contractor incentive for this “system commissioning” is \$175.
- 22 • Customers receive a \$100 instant credit on their bill from the HVAC contractor
23 for the digital check-up when it is part of work done associated with a tune-up or
24 repair of an eligible unit from a participating contractor who must be QIV listed.
- 25 • A contractor incentive of up to \$175 will be provided to cover the \$100 customer
26 instant credit and \$75 to cover contractor cost associated with the digital check-up
27 provided the unit passes or meets exception condition where at least charge with
28 respect to airflow is within acceptable parameters.

- 1 • A contractor incentive of \$1 per CFM of duct leakage reduction. Typically this is
2 expected to average 100 CFM per home that receives this measure.
- 3 • In addition, we plan to investigate the opportunity to replace standard permanent
4 split capacitor (PSC) motors with brushless furnace fan motors (BFMs) in central
5 air conditioning systems, and develop an appropriate incentive.
- 6 • We also plan to investigate the opportunity to replace fixed orifice coils with
7 thermal expansion valve (TXV) coils at the time of a digital checkup, and to
8 develop an appropriate incentive

9

10 Recent program recommendations from the U.S. Environmental Protection Agency
11 (EPA) and the Air Conditioning Contractors of America (ACCA) include ensuring that
12 the air flow across the indoor coil has been measured and set to correct levels, that ducts
13 are sealed and sized directly, and that the refrigerant charge is at correct levels. For
14 homes where the duct system is currently not operating properly, fixing the ductwork
15 provides additional kW savings.

16

17 These measures are proposed to further support market transformation towards the
18 coming ENERGY STAR[®] and recently adopted ACCA Quality Installation standard. The
19 extra incentive for duct modifications is to offset costs involved in a particularly difficult
20 aspect of that standard. It is critical to provide incentives directly to contractors to
21 reimburse them for the additional costs associated with this work, and also to underline
22 the importance of these advanced installation practices.

23

24 The Company has focused its efforts on both customer education and outreach via bill
25 inserts, fact sheets, and targeted mailings to high users in summer months; contractors'
26 education and outreach via phone calls, mailings, one-on-one meetings, trainings on
27 technical issues, usage of sizing software, and up-selling to high efficiency equipment;
28 and working closely with contractors to encourage participation in the program and
29 installing the air conditioning systems properly.

1 Although new central air conditioning equipment that is properly sized and operating is
2 critical to the energy efficiency of the equipment, HVAC technicians do not, as a
3 standard practice, perform all the needed calculations and tests. The Company has
4 assisted technicians by providing hands-on training and technical support on third party
5 verification of charge and airflow of systems.

6

7 In 2009, the Company proposes to continue activities to educate customers and
8 contractors, to promote installation quality, and to offer the third party verification of the
9 results for central air conditioning tune-ups, including incentives for customers and
10 contractors.

11

12 **6. ENERGY STAR®® Lighting (Electric only)**

13 **Overview**

14 This program is designed to support the development, introduction, sales, promotion, and
15 use of ENERGY STAR® residential lighting products. The Company has provided
16 rebates and actively promoted energy efficient residential lighting since 1991. In 1998,
17 Narragansett Electric joined with other electric utilities in the region through the
18 Northeast Energy Efficiency Partnerships (NEEP) to offer a common residential lighting
19 program to its customers.

20

21 **Eligible Customers**

22 All residential customers are eligible to participate in this program. The Company
23 proposes to serve about 69,000 lighting customers. While this program has been
24 available for a number of years, there are still significant opportunities to encourage
25 customers to use ENERGY STAR® lighting. An evaluation study conducted in
26 Massachusetts in early 2008 found that 21% of all sockets are filled with Compact

1 Fluorescent Lighting (CFL), indicating that a large market potential for energy efficient
2 lighting still exists in customer homes.

3

4 **Program Design**

5 For 2009 the Company proposes to continue offering its residential lighting programs as
6 part of the regional joint efforts. The program offers customers the opportunity to
7 purchase compact fluorescent bulbs (CFL) and fixtures at substantial discounts.
8 Customers have several options for program participation, including redeeming instant
9 rebate coupons for qualifying products purchased in participating retail stores, purchasing
10 reduced price products at retailers where the manufacturer has received a rebate from the
11 Company and passed on the discount directly to retailers and consumers, using the mail
12 order catalog, and making website purchases.

13

14 The Company will continue to work with manufacturers and retailers to offer a good mix
15 of standard, innovative, and specialized CFL product. CFL rebates will be offered in the
16 \$0.60 - \$4.00 range, depending on the style and technology of the bulb (standard,
17 dimmable, 3-way, etc.).

18

19 The Company has found that the “Negotiated Cooperative Promotions” (NCPs) through
20 NEEP are an excellent way to lower rebate costs and encourage retailers and
21 manufacturers to pay for marketing and promotion through their regular channels. Active
22 promotions in 2008 have included retailers: Stop and Shop, Rocky’s, Benny’s, Shaw’s,
23 Whole Foods, and Home Depot. Manufacturers who have participated in Negotiated
24 Cooperative Promotions include: General Electric, Osram Sylvania, TCP, Maxlite, Feit,
25 and Globe. In 2009, the Company will look to expand mercury recycling efforts in
26 Rhode Island by working with retailers.

27

1 The Company proposes to continue rebates for ENERGY STAR[®] fixtures and torchieres.
2 Rebates will be \$10 for exterior fixtures and \$15 for interior fixtures, table lamps, and
3 floor lamps and torchieres and to add \$30 rebates for LED lighting and \$25 rebates for
4 higher end lighting fixtures to help move the market. Rebates on fixtures and bulbs may
5 be adjusted to ensure coordination with regional and national program efforts and to
6 reflect changing Rhode Island market conditions. The Company will also continue to
7 work directly with lighting showrooms to encourage the promotion of high efficiency,
8 high fashion residential CFL fixtures. The Company will continue to support local
9 retailers with promotional materials (signs, coupons, displays) training, and regular sales
10 visits.

11

12 **7. ENERGY STAR[®] Appliances (Electric only)**

13 **Overview**

14 ENERGY STAR[®] is the national program sponsored by the United States Department of
15 Energy and the Environmental Protection Agency to promote energy efficient products to
16 help reduce energy use and prevent air pollution. Energy efficient choices can save
17 families about a third on their energy bill with similar savings of greenhouse gas
18 emissions, without sacrificing features, style or comfort.

19

20 Earning the ENERGY STAR[®] means products meet strict energy efficiency guidelines
21 set by the US Environmental Protection Agency (EPA) and the Department of Energy
22 (DOE).

23

24 This program is part of a regional joint effort by utilities and energy efficiency
25 organizations to encourage the purchase of ENERGY STAR[®] rated major appliances.
26 These appliances include clothes washers, dishwashers, refrigerators, dehumidifiers, and

1 room air conditioners (RAC). Manufacturers build their products to meet or exceed
2 energy efficiency performance specifications established by ENERGY STAR®.
3 Together with manufacturers, local retailers, the DOE, and EPA, the Company works to
4 help identify and promote the purchase of these high efficiency appliances to its
5 customers.

6

7 **Eligible Population**

8 All residential customers are eligible to participate. The Company proposes to serve
9 about 7,600 customers in 2009

10

11 **Program design**

12 The program provides retailer support, training, advertising, consumer education, codes
13 and standards review and advocacy, and manufacturer labeling. For 2009 the Company
14 proposes to continue to provide consumer education on these products and continue to
15 offer rebates for ENERGY STAR® room air conditioners. The Company proposes to
16 offer a refrigerator retail rebate of \$50. The Company proposes to offer a room air
17 conditioner rebate of \$30, and it may be paid directly to industry partners rather than to
18 consumers. The Company, and other sponsors in Vermont and Massachusetts, has
19 issued a request for proposal to work with manufacturers and retailers directly to
20 encourage increased stocking of ENERGY STAR® room air conditioners relative to less
21 efficient models on retail shelves. Customer purchase behavior is largely influenced by
22 what air conditioners are available for purchase at local retailers. It may be that working
23 directly with industry partners is more effective than direct consumer rebates in
24 increasing the market share of ENERGY STAR® room air conditioners. The rebates may
25 be adjusted to ensure coordination with regional and national program efforts and to
26 reflect changing Rhode Island market conditions.

27

1 The Company is proposing to implement a program to remove second refrigerators from
2 homes whereby customers will be given a \$30 bounty for doing so. This program will
3 encourage customers who have operating refrigerators to have a vendor remove their
4 second refrigerator. The vendor will be responsible for having the refrigerator recycled
5 properly.

6
7 The Company is proposing to add rebates of \$250 for pool pump replacement and to add
8 \$10 rebates for electronics and Smart Strips. Smart strips allow some electronics to be
9 turned off while others stay on. Smart strips are a good way to teach customers to turn off
10 appliances. Electronics account for up to 15% of a home's electric usage and is growing
11 as a percentage of household usage.

12
13 An important part of the program is educating customers about ENERGY STAR[®]. The
14 Company sponsors media advertising that promotes ENERGY STAR[®] and specific
15 ENERGY STAR[®] promotions. Additionally, the retail stores are an integral channel for
16 promoting ENERGY STAR[®]. The Company prints and distributes a wide variety of
17 point-of-purchase materials and signs for display in retail stores. The Company also
18 supports cooperative advertising with retailers in various print and newspaper channels.
19 The Company also develops media stories and public relations opportunities about
20 ENERGY STAR[®].

21
22 A nationwide study of consumers' awareness of ENERGY STAR[®] labeling is conducted
23 annually. The most recent study, "National Awareness of ENERGY STAR[®] for 2006 –
24 Analysis of CEE Household Survey" indicates that the existence of utility sponsored
25 programs increases the awareness of ENERGY STAR[®] products. National recognition of
26 the ENERGY STAR[®] label in high-publicity areas (areas with an active local ENERGY
27 STAR[®] program sponsored by a utility, state agency, or other organization for two or
28 more continuous years) was 69% compared to 49% in low-publicity areas. When the
29 ENERGY STAR[®] label is shown, the aided recognition in high-publicity areas rises to

1 79% and in low-publicity areas the value increases to 65%. The Company will inform
2 the Collaborative about future awareness study results.

3

4 **8. Building Practices and Demonstration Program**

5 The Company plans continue its Building Practices and Demonstration Program for
6 residential markets begun in 2007. The purpose of the Building Practices and
7 Demonstration Program is to explore and demonstrate new and/or underutilized energy
8 efficient procedures and equipment, including renewable energy system processes. The
9 Building Practices and Demonstration Program will work to identify which technologies
10 or home building techniques would be well suited for use and installation.

11

12 Input for this program will be drawn from the expertise gathered by the Company's
13 Commercial & Industrial Building Practices & Demonstration Program, as well as input
14 from other utilities, program vendors, energy groups and interested business partners.

15

16 Eligible participants in this program will include homeowners, landlords, as well as home
17 builders. Each participant may be asked to allow monitoring of the installation and/or
18 results, provide historical data, provide tours of the installation by potential users or other
19 interested stakeholders, and share the results in case study format.

20

21 Examples of potential projects include new insulation and weatherization products,
22 advanced heating and water heating products, solar thermal installations, new
23 construction techniques, green homes or very low energy use homes. Specific projects
24 will depend on interest and participation by customers, builders, vendors and
25 manufacturers.

26

1 Marketing of the program will rely on working with industry vendors developing and/or
2 offering new or underutilized natural gas energy efficiency technologies, as well as other
3 interested organizations.

4

5 **9. Energy Efficiency Educational Programs**

6 **Overview**

7 All the residential energy efficiency programs include customer education as a primary
8 element of the program design. In addition, the Company also sponsors educational
9 programs for children and young adults who are among Rhode Island's future ratepayers,
10 builders, and contractors. The budget for educational programs includes three
11 components described below, including a new component that provides general education
12 to all customers about low cost energy efficiency actions they can take.

13

14 **Eligible Population**

15 The first two energy efficiency educational initiatives are targeted toward students. All
16 residential customers can benefit from the public education initiative.

17

18 **Program Design**

19 The three programs are described in detail below.

20 **a) National Energy Education Development (NEED) Project**

21 The National Energy Education Development (NEED) Project is a nonprofit education
22 association that works with thousands of schools nationwide to promote an energy
23 conscious education. NEED is a strategic partner of Rebuild America and **EnergySmart**
24 **Schools**, programs of the U.S. Department of Energy. NEED creates networks of
25 students, educators, and business, government and community leaders to design and
26 implement objective energy education programs. The Rhode Island EnergySmart

1 Schools program includes educational materials for kindergarten to twelfth grade that
2 provide comprehensive, objective information about energy production and consumption,
3 the major energy sources, and their impact on the environment, economy, and society.
4 Services offered include kits and curriculum for students from kindergarten through high
5 school, student/teacher training programs, workshops, and conferences, a summer camp
6 program, scholarships to national energy educational conferences, and youth awards.

7

8 **b) ENERGY STAR[®] Homes Vocational Schools Initiative**

9 The Company currently works with all nine Rhode Island Career and Technical schools
10 on this initiative: Chariho, Coventry, Cranston, Davies, East Providence, Hanley,
11 Newport, Warwick, and Woonsocket. It provides training to vocational school students
12 on building ENERGY STAR[®] homes. These homes are then sold as affordable housing.

13

14 Originally, only Woonsocket and Warwick were participating in the program. In the past
15 year, the other schools were encouraged to participate in cooperation with the Skill USA
16 national competition for vocational schools. Working with the Woonsocket Area Career
17 and Technical Center, the Community College of Rhode Island, and the Rhode Island
18 Builders Association, the Company sponsored a Rhode Island Energy Efficient Building
19 Competition to help students improve performance in the national competition. In
20 preparation, on-site training was provided at all schools on energy efficient building
21 practices. The Company will continue this outreach effort because it will improve
22 Rhode Island's energy efficiency for years to come.

23

24 **c) Public Education Initiative**

25 During 2009, the Subcommittee will discuss how to continue the Company's public
26 education effort to promote energy conservation during times of high energy costs. This
27 may include an advertising campaign to educate customers about low cost steps they can

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- 1 take to lower their electric bills and giving customers a contact number and/or website to
- 2 get more information about energy efficiency programs and additional low cost energy
- 3 saving tips.
- 4

**SUMMARY OF PROPOSED CHANGES TO THE
COMMERCIAL & INDUSTRIAL PROGRAMS
FOR 2009**

Large Business Programs

Category	Energy Initiative	Design 2000plus
General	<ul style="list-style-type: none"> • An “on-bill” payment option will be available to cities and towns. A community will be able to pay for their cost share for electric energy efficiency measures on the bill in up to 24 monthly installments with no interest. • Incentives for cities and towns will be increased from 45% to 70% of the total installed cost of eligible measures or 1.5 year payback to the customer whichever is less. 	
Lighting	<ul style="list-style-type: none"> • No changes 	<ul style="list-style-type: none"> • Design 2000plus prescriptive lighting is being revised significantly to address the current Rhode Island Energy Code. A detailed analysis is underway.
Motors	<ul style="list-style-type: none"> • N/A – prescriptive rebates are not offered under Energy Initiative 	<ul style="list-style-type: none"> • No change
HVAC	<ul style="list-style-type: none"> • No change 	<ul style="list-style-type: none"> • No change
Compressed Air	<ul style="list-style-type: none"> • No changes 	<ul style="list-style-type: none"> • No changes

Category	Energy Initiative	Design 2000 <i>plus</i>
Custom	<ul style="list-style-type: none"> • Provide short term enhanced incentives for new technologies (e.g. conversion of constant volume fume hood exhaust to variable volume with effluent sensing controls). • Change cap so we pay 45% of cost down to a 1.5 year payback rather than the current 45% down to a 2 year payback. This is expected to be helpful for some very attractive projects in manufacturing that are being missed. • 	<ul style="list-style-type: none"> • Provide short term enhanced incentives for new technologies (e.g. conversion of constant volume fume hood exhaust to variable volume with effluent sensing controls). • Comprehensive Chiller - Allow compressor only replacement (retain existing shell and tubes) to qualify for the enhanced incentives provided under Comprehensive Chiller. Eligibility criteria will be set such that compressor efficiency is in line with those available from frictionless bearing type compressors. Air and water cooled chillers shall be eligible.
Advanced Buildings and Comprehensive Design Approach (CDA)	N/A	<ul style="list-style-type: none"> • A \$\$ per square foot incentive is under development.

These proposed enhancements continue to reflect the Company's objectives to improve the way buildings are designed, constructed and operated.

Small/Medium Business Program	No changes.
-------------------------------	-------------

Gas Programs

Commercial Energy Efficiency Program	<ul style="list-style-type: none"> ▪ Custom Level 1 incentives have been increased from \$0.75 per first year estimated therm savings to \$1.50. Level 2 incentives have been increased from \$1.50 per first year estimated therm savings to \$3.00 and applies to solar hot water measures only ▪ Incentives for combined heat and power remain at 2008 levels (\$0.75 and \$1.50 per annual estimated therm saved for Level 1 and Level 2 respectively). However, new eligibility criteria has been developed. See Attachment 4 for details ▪ Prescriptive incentives were added in 2008 for commercial kitchen equipment and will continue in 2009. Customers buying
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	<p>high efficiency commercial fryers and commercial steamers can receive an incentive of \$2,000.</p> <ul style="list-style-type: none"> ▪ Windows, which were previously prescriptive measures will now be custom measures ▪ The Steam Assessment and Savings program, will be rolled out in 2009. 	
<p>Commercial High Efficiency Heating Program</p> <p>The following changes are proposed for 2009:</p>	Product	Change
	Furnaces (up to 150 MBtuh)	<ul style="list-style-type: none"> ▪ Threshold of > 90% AFUE has been raised to >=92% ▪ Incentive has been increased from \$150 to \$300
	Furnaces	<ul style="list-style-type: none"> ▪ Incentive has been increased from \$400 to \$500
	Steam Boilers (up to 300 MBtuh)	Incentive has been increased from \$200 to \$700
	Hydronic Boilers (under 300 MBtuh)	Incentive has been increased from \$500 (< 175MBtuh) and \$700 (175 to 300MBtuh) to \$1,000
	Hydronic Boilers (301to 499 MBtuh)	Incentive has been increased from \$1,000 to 2,000
	Hydronic Boilers (500 to 999 MBtuh)	Incentive has been increased from \$2,000 to \$2,500
	Hydronic Boilers (1000 to 1700 MBtuh)	Incentive has been increased from \$3,000 to \$3,500
	Hydronic Boilers (1701 MBtuh and larger)	Incentive has been increased from \$4,000 to \$5,000
	Condensing Boilers (under 175 MBtuh)	<ul style="list-style-type: none"> ▪ Incentive has been increased from \$600 (< 175MBtuh) and \$1,000 (175 to 300MBtuh) \$2,000 ▪ Threshold of > 90% AFUE has been raised to >=92%
	Condensing Boilers (301 to 499 MBtuh)	<ul style="list-style-type: none"> ▪ Incentive has been increased from \$1,500 to 3,000 ▪ Threshold of > 90% thermal efficiency has been raised to >=92%
	Condensing Boilers (500 to 999 MBtuh)	<ul style="list-style-type: none"> ▪ Incentive has been increased from \$3,000 to \$5,000 ▪ Threshold of > 90% thermal efficiency has been raised to >=92%
	Condensing Boilers (1000 to 1700 MBtuh)	<ul style="list-style-type: none"> ▪ Incentive has been increased from \$4,500 to \$10,000 ▪ Threshold of > 90% thermal efficiency has been raised to >=92%

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	Condensing Boilers (1701 MBtuh and larger)>	<ul style="list-style-type: none">▪ Incentive has been increased from \$6,000 to \$15,000▪ Threshold of > 90% thermal efficiency has been raised to >=92%
	On Demand Tankless Water Heater	Incentive has been increased from \$300 to \$500

These proposed enhancements continue to reflect the Company's objectives to improve the way buildings are designed, constructed and operated.

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- 1 ▪ A targeted approach to direct services to particular customer segments or building
2 types will be considered. Currently the Company is looking at programs targeted
3 at laboratories and data centers where there is significant potential to save energy.
4 Also, the Company is already offering a commercial kitchen equipment gas
5 program which can be expanded to marketing other opportunities like energy
6 efficient kitchen hoods that save both electric and gas and for efficient lighting
7 opportunities.
- 8 ▪ As mentioned in the following paragraphs, refining the integration of gas and
9 electric programs will increase the depth and appeal of programs, which will
10 generate additional savings.
- 11 ▪ Existing buildings present an opportunity to mine savings in large way from the
12 inefficient lighting that has been installed in these facilities over many years.
13 With the advent of high performance lighting technology and control systems on
14 the market, the company expects to ramp up these services to address better
15 lighting practices with the latest advanced lighting practices. These would include
16 the next generation of surface mounted high performance fixtures and controls.

17

18 **Gas and Electric Program Integration.** The delivery of gas and electric energy
19 efficiency services in 2009 will be integrated such that it is seamless to the customer, so
20 that a customer will understand all of the options—both gas and electric—for energy
21 efficiency available to them. Some elements of the programs are already well integrated,
22 for example, in Comprehensive Design Approach or Core Performance projects where
23 gas and electric energy efficiency measures appear in the same technical assistance
24 studies and offer customers high performance equipment selections for both gas and
25 electric systems. However, the programs may not appear integrated in some situations
26 due to differing delivery mechanisms and Company and vendor organizational

1 structures.¹ This is not an impediment to many gas or electric projects that might involve
2 only one technology, for example, for a replacement older boiler or failed motor.

3

4 The paths toward integration that customers take can be simplified whether they are
5 delivered through a vendor and/or account management process. Pivotal to this
6 integration will be effective coordination and training of National Grid field personnel
7 and marketing of the programs. Examples of how this integration may play out are in
8 new construction so that the customer and the practitioners designing the building will
9 have knowledge of and access to all program offerings through one source. In smaller
10 new construction or renovation projects, a lead might come through a vendor of one
11 discipline, for example an electric contractor seeking information on rebates for lighting
12 systems. The Company would then have to find out the scope of the project so
13 opportunities in building envelope and HVAC can be addressed. Thus, gas and electric
14 programs and services can be delivered seamlessly to customers.

15

16 In this section, descriptions of electric and gas programs appear separately. This is
17 practical for a regulatory filing because there is a need to tie budget line items to their
18 description in this filing. Even though the public will see these as integrated, electric
19 measures will be funded through the electric energy efficiency program; while natural
20 gas measures will be funded through the natural gas energy efficiency program. National
21 Grid is committed to full, appropriate integration of gas and electric efficiency programs.
22 However, given the current infrastructure, organization, and implementation procedures,
23 this will be an on-going process. We have taken significant steps in this direction in this
24 Plan, but also commit to working closely over 2009 with the Subcommittee and EERMC
25 Consultant team to achieve much more comprehensive integration of efficiency services.

¹ Electric programs have historically been delivered by Company staff while gas programs are primarily outsourced except for larger and more comprehensive projects.

1 **Electric Programs**

2 **1. Design 2000*plus***

3 **Overview**

4 Offered to commercial and industrial customers since 1988, Design 2000*plus* encourages
5 energy efficiency in new construction, renovations, remodeling, planned replacement of
6 aging equipment and replacement of failed equipment through financial incentives and
7 technical assistance to developers, manufacturers, vendors, customers and design
8 professionals. Financial incentives reduce the incremental cost barrier to investing in
9 efficiency. Technical assistance reduces barriers to more efficient design by providing
10 education and information to participants in the use of energy-efficient engineering
11 practices, including identifying and analyzing potential efficiency opportunities. Design
12 2000*plus* will be integrated with the Commercial Energy Efficiency and High Efficiency
13 Heating Equipment (gas) programs that serve time dependent opportunities. Newly
14 constructed buildings in particular offer the greatest opportunity to integrate all gas and
15 electric energy efficiency offerings, as these projects need to purchase all new equipment.
16 However, even within existing buildings, the programs will now be able to address
17 multiple measures across energy types, including combined heat and power systems as
18 part of a single project.

19

20 **Eligible Population**

21 Design 2000*plus* is available to all non-residential customers. It is available for new
22 construction and remodeling projects such as a new building, expansion or renovation of
23 an existing building, change in the use or function of the building space, new equipment
24 or systems for a new process or expanded operation, replacement of failed equipment, or
25 planned replacement of equipment or systems.

26

1 **Program Design**

2 Design 2000*plus* provides technical consulting and incentives for the installation of many
3 different kinds of energy efficient equipment and systems. Energy efficiency measures
4 which are eligible for incentives include premium efficiency lighting, motors, variable
5 speed drives, heating, ventilating and air conditioning systems (HVAC), refrigeration,
6 industrial process, compressed air, combined heat and power (gas), or any other
7 qualifying efficiency improvement.

8

9 Incentives

10 There are three specific types of incentives. (1) Prescriptive incentives are standardized
11 in terms of incentive level and minimum efficiency criteria, and address specific
12 equipment measures addressing lighting, motors, DHW (gas), compressed air, and
13 HVAC. Incentives for high efficiency alternative equipment and systems are offered to
14 customers on a per unit basis. (2) Custom incentives are offered for any qualifying cost-
15 effective efficiency opportunity, based on the unique energy savings and cost criteria of a
16 project. (3) Comprehensive incentives are based upon evaluation of the whole building
17 and the benefits that come from examining an integrated engineering approach. The
18 latter are primarily, but not solely, applicable to new construction and major renovation
19 among large (>75,000 sq. ft.) buildings. In general, incentives are designed either to
20 cover 60 to 75% of the incremental cost between standard and premium efficiency
21 equipment and systems or to buy down the cost of equipment to the customer to a one
22 and a half year payback, whichever is less. For Comprehensive Design Approach and
23 Comprehensive Chiller projects (described below), incentives cover up to 80% of the
24 incremental cost or buy the cost of the equipment and systems down to a one year
25 payback, whichever is less. Core Performance is a comprehensive track under Design
26 2000plus but for smaller buildings. Core performance is described later in this section.

1 Most incentives will be unchanged in 2009. Attachment 3 details specific changes to
2 measure incentives. The Company will also explore offering upstream incentives to
3 design professionals which will be design to foster more comprehensive projects sooner
4 in the design process.

5

6 Marketing

7 The Company markets Design 2000*plus* through extensive personal communication by
8 account managers with customers, vendors, contractors, design professionals and,
9 seminars, training sessions and other direct marketing approaches. For 2009 the
10 Company will continue to build on this marketing effort by implementing a broader
11 communications plan to customers to underscore the value of implementing energy
12 efficiency solutions in their facilities to control their electricity costs and reduce their
13 building operating costs. It is anticipated that circuit riders will be called on to actively
14 educate and train a large segments of these trade ally groups to ensure higher levels of
15 participation and savings results. The ceiling for achieving greater results has been
16 raised and the necessity of increasing the number of trade allies through increased direct
17 contact will be critical to success. Development of these approaches coupled with direct
18 mail and response campaigns will be part of the overall communications and outreach
19 initiatives planned for 2009.

20

21 In 2009, the Company will also be targeting specific customer segments and building
22 types that might have both unique needs and significant opportunity to reduce energy
23 consumption. With greater need for improved processing of information, it is expected
24 that data centers furnishing this information will offer chances to reduce energy use
25 through improved ventilation and cooling. The Company is currently developing
26 program elements that will look at laboratories and data centers. We will add to these
27 target markets as new ones are identified.

1 The proposed changes to the Design 2000*plus* program for 2008 are summarized in
2 Attachment 3.

3

4 A. Services

5 For new construction and major renovation, the earlier in the design process the
6 Company becomes involved, the more likely it is that a comprehensive solution will be
7 possible. For example, if the customer begins participation in Design 2000*plus* before
8 making final design decisions, there is the advantage that comes from investigating
9 reduced cooling requirements through improved lighting systems. Moreover this
10 improvement may lead to selecting smaller HVAC equipment and contribute to greater
11 efficiency and lower building operating costs. Once the Company identifies an
12 appropriate Design 2000*plus* project, the Company offers technical assistance services,
13 integrated with the customer's design team if they have one.

14

15 The Company will focus on developing a marketing and outreach plan as previously
16 discussed in order to significantly increase our penetration of the new construction and
17 equipment replacement market. It is expected that aside from direct account management
18 contact that a host of media approaches including direct advertising and solicitations will
19 be used to stimulate even more activity and participation by a larger cross section of
20 commercial and municipal customers.

21

22 These technical assistance services include gas and electric engineering evaluations that
23 support best practices in building design and consider energy efficient measure
24 identification, equipment metering or monitoring, improved technical design solutions,
25 customer presentations, and design and construction assistance. Technical assistance
26 provides customers and their design professionals, if any, with detailed engineering

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1 studies that identify alternative energy systems that support lower operating costs in the
2 buildings and the operational benefits that come from this selection. The costs of these
3 energy efficiency studies are usually cost shared at 50% with customers. Technical
4 assistance is available for all customers. While the focus is often early engagement with
5 customers and their design teams for new construction and major renovation, TA studies
6 are also done that focus on specific equipment or systems for existing customers.

7

8 To ensure that energy savings features are installed and operated as designed, the
9 Company provides a commissioning service. This service is an independent third party
10 verification that complex building systems, such as HVAC projects involving energy
11 management systems or other controls, are operating as designed.

12

13 In some circumstances customers may wish to use their own engineer in lieu of a
14 technical assistance (TA) vendor supplied by the Company. In these cases, these
15 companies must adhere to the same standards and criteria for a technical analysis as
16 engineers supplied by National Grid and their work will be reviewed and approved by the
17 Company's technical support consultant.

18

19 Financing for the customer portion of the Design 2000*plus* project is available to
20 customers. Financing is generally arranged with Citicorp Vendor Financing, and
21 includes nominal application and documentation fees, a limited up-front cash requirement
22 of no more than the first month's lease payment, flexible repayment terms of two to
23 seven years, and a simple application process. The amounts available range from \$5,000
24 to \$4,000,000. This arrangement benefits not only the specific customer in need of
25 financing, but also more generally is introducing energy efficiency lending to the
26 financial community, which considers this type of loan unconventional.

1 Design 2000*plus* provides free ballast recycling to customers installing energy efficient
2 lighting under Design 2000*plus*, if necessary. The purpose of this service is to ensure that
3 all ballasts (some of which may contain polychlorinated biphenyls or PCBs) are disposed
4 of in an environmentally sound manner.

5

6 The Company offers the Project Expediter service, which uses pre-qualified contractors
7 to market efficiency services to customers, audit customers' facilities and arrange for the
8 purchase and installation of energy efficient equipment. Under this service, Project
9 Expeditors are authorized by the Company to analyze projects and offer customers
10 incentives without Company preapproval. Project Expeditors are firms that have proven
11 to the Company they do good quality work, understand the Company programs, and
12 accurately make offers and promises to customers. The Company maintains lists of
13 qualified Project Expeditors and makes referrals to customers as appropriate, as well as
14 provides a list on its website. As with most of the other services listed here, Project
15 Expediter is available for both Design 2000*plus* and Energy Initiative, described below.
16 Usually, these installations are retrofits, however, and therefore qualify under Energy
17 Initiative.

18

19 **B. Best Practices Initiatives**

20 a. *Advanced Buildings, LEED and Sustainable Design*

21 The Company is supporting Core Performance developed by the New Buildings Institute
22 (NBI) in cooperation with US EPA, ASHRAE, the US Green Buildings Council and the
23 national Building Operators and Managers Association. Core Performance is a suite of
24 technical resources and design guides that help design professionals create commercial
25 buildings that are energy efficient and provide a healthy work environment for occupants.
26 Core Performance complements the Comprehensive Design Approach and Commercial
27 Energy Efficiency Program (gas) with a special emphasis on smaller buildings. Core

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1 Performance also serves to promote better commercial design practices such that
2 advancements in the Rhode Island building code can be implemented at an accelerated
3 rate. The Company has played a lead role nationally in the development and refinement
4 of Advance Buildings along with other stakeholders and utilities. For 2009, the
5 Company will continue to build on the success of the Core Performance we have been
6 promoting for three years in Rhode Island to address the efficiency needs of new
7 construction projects for commercial buildings less than 75,000 sf. National Grid
8 launched this effort in 2006 with several training programs on the topic offered in RI.
9 Numerous projects have been design in the state using Core Performance and we expect
10 the number to grow as architects and their clients realize that buildings designed this way
11 are practical and cost effective.

12

13 The program will continue to be expanded in 2009 to reach more projects and more
14 design firms with additional staff and through further training and promotional efforts.
15 Also, National Grid continues to work closely with the New Buildings Institute the
16 national organization that manages and promotes and maintains Advanced Buildings
17 across the country to add powerful new features to the program that will increase its
18 appeal and market penetration.

19

20 National Grid will support customers with designs that incorporate the U.S. Green
21 Building Council's "Leadership in Energy and Environmental Design (LEED) Green
22 Building Rating System™" in their new construction projects using our staff LEED
23 Accredited professionals. For many this will include providing them a basic
24 understanding of LEED requirements and guiding them through the process of
25 assembling a qualified design team. Beyond this we will guide customers to the best
26 path for achieving LEED points for Energy and Atmosphere, by providing technical
27 support along with financial incentives.

1

2 The Company expects to incorporate a major outreach effort to architects and other trade
3 allies in its marketing plan under development. This will be necessary to ramp up
4 penetration of Core Performance into the New Construction market. This outreach will
5 include relying on both in-house and outsourced professionals calling on architectural
6 and engineering firms directly as well as providing support materials that identify the
7 value of better performing buildings and the practices necessary to achieve these cost
8 reduction results.

9

10 Core Performance is also supported by the Company's gas Commercial Energy
11 Efficiency Program.

12

13 b. Comprehensive Chiller Program

14 Design 2000*plus* also assists customers in optimizing their building operating systems at
15 the time of their federally mandated replacement or conversion of CFC (R-11, R-12
16 refrigerant) chillers. Customers may either optimize the performance of their existing
17 older building systems or receive technical guidance and recommendations regarding the
18 proper size and efficiency for a replacement chiller plant. This program component,
19 called the Comprehensive Chiller initiative, also helps to reduce peak summer generation
20 demand.

21

22

23

24 c. Economic Development

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1 Design 2000*plus* offers a significant opportunity for economic development in Rhode
2 Island by helping businesses save on their electric costs while at the same time
3 supporting them in their investments in new energy efficient equipment and system
4 improvements to their facilities. To this end, for 2009 the Company will continue to
5 work closely with various economic development groups in the state, including the
6 Rhode Island Economic Development Corporation (RIEDC), to seek ways the Company
7 may provide focused efficiency services. This effort builds on the relationships first
8 established in 2005, and may create a more favorable climate for doing business in Rhode
9 Island. In addition, this effort has afforded the opportunity to coordinate with the gas
10 Economic Development effort. Businesses moving to Rhode Island and businesses that
11 might be expanding, for example, are referred to the Company by the RIEDC. The
12 Company will explain its energy efficiency programs and offer to provide technical
13 assistance and other services.

14

15 Another economic development initiative the Company will undertake in 2009 is to help
16 expand the capability of business that serve the energy efficiency industry in Rhode
17 Island. This will be necessary in order to meet ever increasing demand for our energy
18 efficiency programs.

19

20 This is an effort that will look at the energy efficiency services industry serving both
21 residential and commercial/industrial customers. This workforce development effort
22 will:

23

- 24 ▪ Identify commercial and residential companies, agencies and not-for-profit
25 organizations that are actively performing energy efficiency services in Rhode
26 Island.

27

- 1 ▪ Provide an estimate of additional companies, agencies and non-for-profit
2 organizations that are in industry categories that could potentially perform energy
3 efficiency services in Rhode Island.
4
- 5 ▪ Estimate the size and composition of Rhode Island's commercial and residential
6 "energy efficiency workforce" (based on returned employer surveys).
7
- 8 ▪ Identify specific job titles/professions which employers report are "in demand"
9 and a shortage of which might serve as a barrier to Rhode Island's efforts to
10 achieve energy efficiency objectives.
11
- 12 ▪ Provide recommendations to utilities, energy efficiency companies, state agencies
13 and the state's education/job training system re: meeting identified workforce
14 needs.
15

16 C. Market Transformation Initiatives

17 Design 2000*plus* has a large market transformation component that supports the new
18 construction program toward better performance. By familiarizing the large commercial
19 and industrial segment with higher energy efficiency standards, Design 2000*plus* creates
20 new efficiency standards for construction. The Company actively supports regional and
21 national market transformation programs designed to transform markets for a broad range
22 of energy efficient equipment and services. These activities are discussed below.
23

24 a. Regional Energy Efficient Motors and Unitary HVAC initiatives

25 As a feature of the Design 2000*plus* Program, the Company has supported the MotorUp
26 premium efficiency motor initiative since 1998, a regional market transformation
27 initiative that promotes motor management of high efficiency motors and quality repair

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1 of motors to maintain high efficiency. In the past, the MotorUp program was delivered
2 through a joint effort by participating utilities and energy efficiency agencies in New
3 England, New York and New Jersey through the Northeast Energy Efficiency
4 Partnerships. This extended regional group has decided to end the joint delivery of
5 MotorUp. In its place for 2007, a Motors program was developed by a group that
6 encompasses a smaller region consisting of Massachusetts and Rhode Island utilities.
7 The regional program also called MotorUp has continued to offer consistent equipment
8 efficiency requirements for qualifying “NEMA Premium” motors. Uniform rebates and
9 application forms are used throughout the region. For 2009, Massachusetts and Rhode
10 Island utilities will continue to coordinate the use of a contracted circuit rider to provide
11 outreach to motor dealers, trade allies, vendors and distributors. MotorUp also features a
12 1-800 number for technical assistance, and a central clearing house for application
13 processing. Since 2003, the regional initiative has provided instant rebates at motor
14 dealer sites through participation in MotorUp. The Company expects to continue with
15 this approach in 2009. Additionally, the Company is continuing an effort that was
16 initiated in 2006 and expanded in 2007 for smaller businesses, through the vendors that
17 provide Project Expeditor services, to transform their purchasing practices through motor
18 management best practices, to include larger C&I customers. The Company will work
19 with the customer to facilitate audits of their motor inventory and to develop a motor
20 management plan and purchasing policy to optimize energy efficiency by replacing new
21 or failed motors with a NEMA Premium™ motor.

22

23 The Company has participated in Cool Choice since 1999, a regional program that
24 focuses on promoting the installation of energy efficient unitary HVAC equipment
25 through Design 2000*plus*. In 2007, the Company (as well as other regional sponsors)
26 decided to withdraw from Cool Choice. Since then, the Company has coordinated with
27 utilities in Massachusetts in their effort to operate a joint state-wide program, sharing a
28 rebate worksheet form, a single circuit rider, and a 1-800 information line, similar to

1 what is described above for motors. The program features consistent efficiency rebates
2 level revised to follow CEE's new Tier 2 specifications for <5.4 Ton to <20 Ton units.
3 Incentives are also offered for dual enthalpy economizer controls, demand control
4 ventilation electronically commutated motors (ECM fan motors) in packaged units. The
5 rebates are expected to remain unchanged in 2008.

6

7 The budgets for these initiatives are included in the overall Design2000*plus* program
8 budget.

9

10 b. *High Performance Commercial Lighting Design/DesignLights™ Consortium*

11 In an attempt to continue to promote high quality, high performance lighting with
12 commercial and industrial customers the Company will utilize a series of specialized
13 guidelines, called the *knowhow*™ series, that have been developed by the DesignLights
14 Consortium to help customers with their lighting design decisions. For 2009 the
15 Company will continue to provide additional outreach on the benefits of high quality
16 lighting design to various lighting equipment vendors throughout Rhode Island. The
17 Company proposes to accomplish this through visits, workshops and breakfast meetings
18 with these vendors and with lighting specifiers. These meetings will be educational but
19 also provide an opportunity for these market players to promote high quality, energy
20 efficient lighting that would be eligible for rebate to their customers. As part of this
21 outreach, the Company will also promote best design practices under development by the
22 Office of the Future collaboration and design tools being developed by the USDOE's
23 Commercial Lighting Initiative

24

25 In 2009, the Company will continue to seek out and promote emerging technologies for
26 energy efficient lighting technologies. For example, the Company is following advances

1 in LED lighting technology and is already granting rebates for LED lighting in grocery
2 store refrigeration units. As more of this technology emerges, the Company will promote
3 this to customers.

4

5 The company has been offering a “performance lighting” option which offers an
6 incentive based on the ability of a project to achieve lighting power densities (watts per
7 sq foot) more efficient than what’s required by the Rhode Island State Energy Code.
8 This program targets architect, building design engineers and lighting equipment
9 suppliers who have to ensure that installed lighting meets the code. Performance lighting
10 achieves two things: 1. makes the practitioner more aware of lighting power density
11 requirements in the code and 2. Introduces them to technologies and design that will help
12 their project deliver a lighting power density 15% or more less than code. The Company
13 will continue to offer a “performance lighting” option in 2009 but expand its penetration
14 in the new construction market by offering expanded technical assistance and outreach to
15 lighting practitioners.

16

17 The Company expects to hire a dedicated lighting program manager in 2009 to advance
18 the initiatives described above.

19

20 c. High Performance Schools

21 The Company proposes to continue offering a special initiative targeted to public schools
22 through Design 2000*plus*. While Design 2000*plus* has been effective in reaching public
23 schools, a majority of schools have not participated due to a broad range of market
24 barriers including limited funding and competitive bidding requirements. This program's
25 intent is to help schools minimize the hurdles posed by these market barriers during a

1 time when Rhode Island is seeing an unprecedented level of investment in new and
2 renovated schools.

3

4 The Company proposes to fund the full cost for technical assistance studies for new
5 construction or renovation under Design 2000*plus*. All qualifying cost-effective electric
6 energy saving measures would be addressed through comprehensive treatment. It is
7 anticipated that most projects will involve lighting. A key requirement for this initiative
8 is that lighting must follow the DesignLights™ Consortium guidelines for schools as
9 outlined in "Classroom Lighting knowhow™" guide published by the DesignLights™
10 Consortium and that projects follow the Comprehensive Design Approach (CDA) track
11 which entails an interactive analysis of proposed measures utilizing whole building
12 simulation tools. As an alternative to CDA, smaller school projects may follow the New
13 Buildings Institute Core Performance standards described previously.

14

15 The Company will also continue to participate in the Rhode Island High Performance
16 Schools working group. Its mission is to promote “green” schools design elements to
17 districts considering new schools and to the design community that serves Rhode Island.
18 A circuit rider, funded through a grant from the Henry P. Kendall Foundation and the
19 Company, will work with prospective districts that are considering a high performance
20 school.

21

22 Funding for this initiative is included in the overall Design2000*plus* program budget.

23

24 d. *Building Codes and State Standards*

25 The Parties agree to support work at national and local levels to develop codes and
26 standards that continue to upgrade building energy efficiency. In cooperation with the

1 codes community, including the Building Code Commission, the Company will work
2 with this and other agencies to offer continued improvement on proposed building codes
3 and standards that lead to the future revisions of the Rhode Island State Building Code.

4

5 Continually refining these codes and standards, which complement existing programs
6 such as Design 2000*plus* and Energy Initiative, has a significant impact on
7 institutionalizing progress made through utility programs. Therefore, this initiative
8 focuses on (1) working with national code development organizations such as ASHRAE
9 to upgrade building efficiency codes and (2) working at the local level with Rhode Island
10 and other states in the development of state efficiency codes and standards. The
11 Company will offer support to this effort which will be coordinated primarily through the
12 Northeast Energy Efficiency Partnership (NEEP) and the New Buildings Institute (NBI),
13 organizations with the goal of assisting states and others with the development of codes
14 and standards that are practical and enforceable. For instance, in 2007 Rhode Island
15 upgraded its state energy code to the “2006 International Energy Conservation Code”
16 (IECC-2006) with amendments drafted by NBI. The Company will continue to pursue
17 additional upgrades to the present code through NBI. Part of this effort includes
18 facilitating and supporting the training and education efforts for code enforcers, designers
19 and builders.

20

21 e. Federal Standards

22 Ultimately, markets are transformed towards higher efficiency when newer efficient
23 equipment supplants older inefficient equipment to an extent that the latter is either no
24 longer produced, becomes unattractive to end users or is excluded from the marketplace
25 as the result of various standard-setting processes. Some of these standard setting
26 processes are industry-driven and voluntary; others produce mandatory codes or
27 standards promulgated by federal or state governments.

1

2 The Company agrees to actively track and participate in DOE's standard setting process.
3 DOE's standard setting process involves multiple stakeholder workshops and a public
4 hearing for each standard. These workshops typically seek input on all aspects of the
5 standard setting process. By participating in these workshops and using our experience
6 with energy efficient equipment, the Company feels it will be able to most effectively
7 communicate its support for appropriate standards.

8

9 As Federal standards are raised, participation requirements for Design 2000*plus* and
10 Energy Initiative will be elevated accordingly, pulling the market toward successively
11 higher efficiency strata. The Company believes that active participation in the elevation
12 of energy efficiency standards is an integral part of any transition strategy in respect to
13 ratepayer funded market transformation initiatives.

14

15 Associated costs for this initiative are included in the Design2000*plus* program budget.

16

17 **2. Energy Initiative**

18 **Overview**

19 Offered since 1988, Energy Initiative encourages the replacement of existing equipment
20 and systems with energy efficient alternatives. Its structure is very similar to Design
21 2000*plus*, offering financial incentives, technical assistance, and other ancillary services
22 such as commissioning, comprehensive chiller assistance, financing, and ballast disposal.

23

1 **Eligible Population**

2 Energy Initiative is available to all non-residential customers, although customers with
3 demand below 200 kW are also eligible to participate in the Small/Medium Business
4 program.

5

6 **Program Design**

7 Energy Initiative provides incentives for the installation of many different types of
8 energy efficient equipment, including lighting, motors, energy management systems,
9 programmable thermostats, variable speed drives, refrigeration, industrial process,
10 compressed air, and process cooling. The Company's delivery of Energy Initiative is
11 similar to its delivery of Design 2000*plus*. Energy Initiative offers two types of
12 incentives, prescriptive and custom. Prescriptive incentives are fixed and offered on a
13 per unit basis. Custom incentives are based on the unique energy savings criteria of
14 projects. Both are based on average at 40% of the total installed cost (including labor and
15 equipment) or at a level that buys the equipment down to a two-year payback to the
16 customer, whichever is less.

17

18 As stated under Design 2000*plus*, the Company will look at targeting opportunities for
19 specific market segments and building types. The Company is developing programs
20 around opportunities in laboratories and data center where there is potential to achieve
21 significant energy savings.

22

23 The Office of Energy Resources (RIOER) continues to promote an Energy Services
24 Company (ESCO) initiative to encourage efficiency improvements in Rhode Island's
25 state and municipal facilities. The Company will continue to support the delivery of this
26 service by coordinating its Energy Initiative program services (including incentives) with

1 the ESCOs as they develop technical assessments for these customers. For 2009, the
2 RIOER and the Company will explore ways to help municipalities participate in this
3 initiative. Our gas energy efficiency program offerings will help ESCOs broaden the
4 scope of their services.

5

6 New for 2009 will be an option for on-bill finance option for cities and towns. Through
7 this finance option, customers are able to pay their balance for the cost of their work for
8 up to 24 month period in equal monthly installments on their bill. In addition, the
9 incentive will be increased to up to 70% of the total installed cost of measures for cities
10 and towns. This is similar to the on-bill financing and incentives provided by the
11 Small/Medium Business program. Municipal facilities with an average monthly
12 demand of 200 kW or less will still be treated under the Small/Medium Business
13 program.

14

15 The proposed changes to Energy Initiative for 2009 are shown in Attachment 3.

16

17 A. Services

18 Technical Assistance services are also available to participants in Energy Initiative.
19 These technical assistance services include engineering evaluations of unique or complex
20 process and system improvements. Technical assistance provides customers with
21 detailed engineering studies that provide customers with detailed engineering studies that
22 identify cost effective energy efficient improvements that can be made to building
23 systems and industrial processes. Energy efficient gas opportunities may be addressed
24 simultaneously.

25

26 B. Best Practices Initiatives

1 Energy Initiative offers a significant opportunity for economic development in Rhode
2 Island by helping businesses save on their electric costs while at the same time
3 supporting them in their investments in new energy efficient equipment and system
4 improvements to their facilities. To this end, for 2009 the Company intends to continue
5 to work closely with various economic development groups in the state including the
6 Rhode Island Economic Development Corporation in an attempt to provide focused
7 efficiency services. This effort may lead to fostering a more favorable business climate
8 in Rhode Island to retain businesses in the state. This effort is being coordinated closely
9 with the Economic Development initiative offered under the gas energy efficiency
10 programs.

11

12 The Company also will continue a public education campaign to promote energy
13 efficiency, especially during peak periods. The Company expects to develop brochures
14 and other informational literature and disseminate these to C&I customers through bill
15 inserts, direct mail, e-mail equipment vendors and account managers. Some of the
16 literature and information that can be used is already available from E Source and the
17 American Council for an Energy Efficient Economy, organizations that feature the
18 benefits to customers available from improving their energy use practices.

19

20 C. Market Transformation Initiatives

21 Similar to Design 2000*plus*, the Company's retrofit program includes a strong market
22 transformation component to include the following activities.

23

24 a. Compressed Air Challenge

25 The Company will continue its active sponsorship of the national Compressed Air
26 Challenge (CAC). The CAC is a broad based collaborative of government agencies,

1 compressed air specialists, equipment manufacturers, end-use consumers and utilities
2 whose objective is to promote the substantial energy savings improvements available by
3 means of a comprehensive, systems approach to compressed air system design and
4 operation. The CAC educational and technical materials being disseminated by the
5 Company are intended to increase customer awareness of, and demand for, products and
6 services that encompass a comprehensive, “systems optimization” approach. Coupled
7 with this increased demand for enhanced services from customers, regional compressed
8 air equipment and service vendors will be exposed in depth to the technical approaches
9 promoted by the CAC.

10

11 Over the past few years the Company has been actively coordinating local workshops
12 that have been developed by the CAC. These workshops reflect consensus approaches to
13 a variety of technical issues associated with the comprehensive system approach to
14 compressed air quality, reliability, and efficiency. The first workshop, entitled
15 “Fundamental of Compressed Air Systems,” has been very well received by industrial
16 customers and vendors who have attended to date. The second is a more advanced two-
17 day workshop entitled “Advanced Management of Compressed Air Systems.” This
18 complementary workshop is primarily targeted at larger, more sophisticated customers as
19 well as regional vendors and engineering consultants. The Company anticipates that
20 these workshops will result in an increased number of applications under the Company’s
21 programs that address more comprehensive solutions to system efficiency. The Company
22 expects to hold one Level 1 workshop in Rhode Island. We will also target Rhode Island
23 Customers and compressed air vendors for Level 1 and Level 2 classes that are offered in
24 Eastern Massachusetts.

25

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1 In addition to promoting the two levels of CAC training currently available, the Company
2 will also be providing comprehensive compressed air system O&M initiative for large
3 industrial compressed air users as described below.

4

5 The budget for this initiative is included in the overall budget for Energy Initiative

6

7 b. Compressed Air Operations & Maintenance Improvement Program

8 The Company will continue to offer an O&M program targeted at industrial customers
9 with compressed air systems with a goal of helping them reduce compressed air costs and
10 to promote long term reliability and efficiency in the future. One of the key elements of
11 the O&M program is the repair of widespread compressed air leakage in distribution
12 systems. Experience indicates that air leakage typically wastes 25% of total compressed
13 air produced by a system, wasting significant electric energy. Energy cost savings
14 resulting from the repair of leakage typically produces paybacks as short as 5 months.

15

16 This program will provide participating customers with financial and technical assistance
17 in making low cost system improvements and help customers establish a long term leak
18 management program at their facilities. Participation in the program will include: a
19 compressed air system survey, identification of leakage and other potentially low cost
20 O&M improvements, staff training in leak repairs and planning for continuous system
21 monitoring. Eligible customers must have a minimum of 100 horsepower of compressed
22 air load in their facility. The customer will sign a memorandum of understanding with
23 the Company detailing the responsibilities of both parties.

24

25 The budget for this initiative is included in the overall budget for Energy Initiative.

26

1 c. Building Operator Training and Certification (BOTC)

2 The Building Operator Training and Certification (BOTC) initiative is a collaborative
3 effort among gas and electric utilities in the region. Through this effort a training and
4 certification program is administered and conducted by a third party and offered to
5 commercial and industrial customers. The Company has offered Level 1 of the BOTC
6 initiative for the past six years. . The Company hosted one class in Massachusetts in
7 2008 that was open to Rhode Island customers and plans for 2009 to offer at a minimum
8 one BOTC class.

9

10 The BOTC's objectives include:

- 11 • Increasing O&M personnel knowledge and skills in operating and maintaining
12 commercial and industrial buildings for efficiency, comfort, and safety.
- 13 • Expanding market awareness of the benefits of improved building performance.
- 14 • Building market demand for resource-efficient O&M services.
- 15 • Distinguishing resource-efficient practices, service providers, and knowledgeable
16 building operators in the marketplace.
- 17 • Establishing a Training and Certification program that will become financially self-
18 sustaining in the future.

19

20 In 2007, the Northeast Energy Efficiency Partnerships decided not renew its license for
21 BOC. The company is currently exploring the continuation of a program like BOC
22 along with other energy efficiency program providers in the region and expects to offer a
23 program in 2009. Funding will also be available through the gas energy efficiency
24 program budget

25

1

2 d. Whole Building Assessment and Retro-Commissioning

3 In 2009, the Company will continue to benchmark the energy use of large Commercial
4 and Municipal customers through the Whole Building Assessment initiative to assist
5 them in setting priorities and promote the installation of energy efficiency measures in
6 their facilities. Also, the Company will continue offering a retro-commissioning
7 initiative to help commercial and industrial customers understand how their equipment is
8 operating and make adjustments to improve performance and efficiency

9

10 Whole Building Assessment starts by “benchmarking” the customer’s energy use and
11 comparing it to their peers’ or their own historic consumption characteristics. By
12 gathering their current and historical energy use from the Company’s billing data systems
13 and presenting it in an insightful manner, new energy efficiency strategies may be readily
14 identified, and an action plan leading to an installation can be developed. This initiative
15 provides the opportunity to promote this service in Rhode Island, with the focus on the
16 creation of applications for energy efficiency incentives directly resulting from the
17 findings of the benchmarking exercise.

18

19 As companies become more aware of how and when they use energy in their facilities,
20 they are in a position to assess where the best opportunities lie to develop better operating
21 and maintenance practices. Through benchmarking, building owners and operators
22 achieve a better understanding of the energy related cost of their buildings. Moreover it
23 leads them to reduce operating costs, increase energy efficiency and promote
24 environmentally-friendly operations.

25

1 There are two primary tools the Company will use to accomplish the benchmarking
2 objective. The combination of these approaches and services determined by the
3 Company's Account Managers should help to stimulate greater efficiency savings and
4 reach those customers who may not have taken advantage of the program and services to
5 date.

6

7 • The Company's *Energy Profiler On-Line (EPO)*. This is a tool that is used
8 effectively to identify energy use patterns within large commercial or industrial
9 facilities. It helps to identify energy and demand savings potential by offering
10 detail on current load duration and daily and historical building energy use. EPO
11 can provide an account manager an accurate snapshot of the facility before
12 meeting with the customer. The service can frame discussions to influence better
13 energy use practices and /or further technical assistance to validate the potential
14 of new energy efficient strategies and opportunities.

15

16 • *Commercial and Municipal Benchmarking Services* available through the EPA's
17 Energy Star Portfolio Manager. This is a tool that provides a comparison of the
18 level of annual energy consumption for commercial or institutional customers to
19 that of other facilities with the same function. The buildings are ranked in
20 comparison to the other buildings in a national database, corrected for climate and
21 other key variables. The analysis considers all purchased energy types used in the
22 facility. The customer will be responsible for providing the utility data, and
23 tracking resource consumption and costs. The EPA's ENERGY STAR
24 Benchmarking system utilizing Portfolio Manager is used for this effort. The
25 Company utilizes the benchmarking data to qualify the customer and access the
26 energy intensity of the building. The Company then arranges a lighting and
27 mechanical walk through of the building. The Company then furnishes a written

1 action plan identifying efficiency cost and savings opportunities resulting from
2 the benchmarking. The process recognizes that a customer may be motivated by
3 a comparison to peers as well as the comparison to previous period's
4 consumption. The Company will use the services of a Project Expediter and
5 Technical Assessment vendor to generate opportunity assessment, analysis and
6 follow up services to steer the customer toward an installation of efficiency
7 measures.

8

9

10 Retro-commissioning, is a process of testing, troubleshooting, and adjusting systems in
11 an existing building with the expectation to raise existing performance standards. The
12 retro-commissioning process can significantly reduce energy consumption with little
13 financial investment. Experience suggests that the cost of retro-commissioning can be
14 paid back through improved system performance, reduced energy costs, and improved
15 occupant comfort.

16

17 The Retro-commissioning Initiative is bested suited for the following:

- 18 • Commercial and industrial buildings that have an electric demand greater than 0.5
19 MW.
- 20 • HVAC and process systems
- 21 • Desire to reduce operating costs
- 22 • Use an energy management system

23 The objective of the Retro-commissioning Initiative is to:

- 24 • Reduce operating costs during peak and off peak periods

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- 1 • Develop a comprehensive and acceptable operation and maintenance plan
- 2 • Identify capital projects that can lead to substantial energy savings
- 3 • Educate the building personal how to operate the building efficiently

4

5 Retro-commissioning will entail an assessment of the major building systems effecting
6 energy used. Data is collected on how the systems operate presently and how they were
7 originally designed to operate. Recommendations on where changes should be made to
8 set points, maintenance practices or new energy efficient equipment are presented in a
9 report.

10

11 The Company proposes to perform retro-commissioning services as outlined above with
12 two to three commercial or industrial customers. Incentives will be paid to encourage
13 customers to implement the operations and maintenance (O&M) measures that have a
14 simple payback of less than 2 years. The Company will continue to review the results of
15 the Retro-commissioning Initiative with the Collaborative.

16

17 The expected cost of these retro-commissioning projects is \$40,000. These funds will
18 pay for technical assistance on retrocommissioning studies. Where efficiency
19 opportunities are identified in the studies, they will be processed through the appropriate
20 rebate program.

21 Experience gained by the company over the past several years in offering to over 50
22 customers across New England these expanded services suggest that continuing to
23 develop and enhance Whole Building Assessment and retro-commissioning services to
24 customers to help identify more efficiency options in operating their facilities that will
25 provide additional savings that may be missed without a targeted whole building effort.

1 Many of the measures identified offer immediate to six months paybacks, are low costs
2 and generally involve some degree of control strategies for the buildings. To build on
3 these early results the company plans to continue to offer customers incentives for Whole
4 Building Assessment and retro-commissioning measures that may have less than a 2 year
5 simple payback- a threshold that is currently in place to be eligible for incentives. In
6 addition we believe it makes sense to also include a demand response evaluation to see if
7 we can bundle both Whole Building Assessment and retro-commissioning services with
8 demand response opportunities in the facility studies. We are also interested in
9 determining for 2009 the benefits of working with customer's controls company that
10 would combine a full assessment that includes gas and electrical savings and demand
11 response. This approach will bundle services under one project working with a controls
12 vendor.

13

14 C. Small and Medium Business Program

15 **Overview**

16 For over ten years, this program has provided direct retrofit installation of energy
17 efficient lighting, refrigeration and other energy efficient measures to small commercial
18 and industrial customers, including houses of worship and other smaller non-profit
19 organizations.

20

21 **Eligible Population**

22 Any customer with an average monthly demand of less than 200 kW or annual energy
23 usage of less than 483,600 kWh is eligible for this program.

24

1 **Program Design**

2 The Small/Medium Business Program offers incentives for the installation of energy
3 efficient fluorescent ballasts, lamps, and fixtures; hard-wired and screw-in compact
4 fluorescent systems; high intensity discharge systems; LED lighting, occupancy sensors;
5 energy management systems; and refrigeration measures such as evaporator fan controls,
6 efficient evaporator fan motors, automatic door closers and door heater control devices
7 for walk-in coolers. The Company arranges the equipment purchase through a material
8 vendor and installation with an administrative contractor. Continuing for 2009, the
9 Small/Medium Business Program creates broader program depth and appeal to customers
10 by offering the more comprehensive energy efficiency opportunities. This expansion
11 provides customers the benefit to build on their potential energy savings by examining a
12 broader array of energy efficient opportunities outside the current available measures.
13 For example, LED lighting measures are being offered for customers with case/display
14 refrigeration units as a custom option which will be expanded in 2009.

15

16 Rebates cover 70% of both labor and material costs. Customers may finance the
17 remainder for up to 24 months interest-free through their electric bill. If customers pay
18 their portion up front, they receive a 15% discount off the amount due.

19

20 The Small/Medium Business Program leverages the audit conducted as part of the
21 electric energy efficiency program to identify opportunities for customer participation in
22 the gas energy efficiency programs. Electric program staff have been trained to identify
23 opportunities for gas efficiency, and arrangements are made for follow-up in-depth gas
24 efficiency evaluations where customer interest warrants. (The gas program does not
25 offer a direct install program similar to the electric program.) In the case of measures
26 like energy management systems that can result in both gas and electric savings, the

1 customer is provided a single analysis, quantifying the combined project savings and
2 payback.

3

4 In 2009, the Small/Medium Business Services program will continue to offer a broad
5 selection of comprehensive measures. While potential for significant energy savings in
6 small/medium business rests on improving lighting energy use, the proposed
7 improvements to the program support more comprehensiveness in customers' facilities
8 and build on the experience gained from delivering these services in prior years. These
9 additional energy efficiency measures will include but not be limited to non-prescriptive
10 lighting measures, motor and drive power improvements and other custom energy
11 efficiency opportunities.

12

13

14 **Gas Programs**

15 **1. Commercial Energy Efficiency Program**

16 **Overview**

17 The Commercial Energy Efficiency Program is designed to provide support services and
18 financial incentives that encourage the Company's commercial and industrial customers
19 to install energy efficient natural gas equipment. Virtually any energy efficient gas fueled
20 technology or system design that exceeds the minimum requirements of the local energy
21 code, and which is not covered by another Company program offering, may be eligible
22 for an incentive under this program. This program complements the Company's Design
23 2000plus.

24 **Eligible Population**

25

1 The program will be open to all gas sales customers on a commercial tariff, including
2 multifamily facilities. Incentives provided through the program must be pre-approved by
3 the Company and/or the administrative vendor prior to delivery or installation of
4 product(s) or service(s).

5

6 **Program Design**

7

8 This program will provide financial assistance to customers to help defray the cost of an
9 energy audit by providing co-funding for engineering studies and financial incentives to
10 help fund qualifying energy saving measures. Customers may apply for program
11 services or incentives via a variety of channels including Company representatives,
12 plumbing and heating contractors, engineering firms, energy service companies or
13 equipment vendors. After reviewing the customer's energy efficiency needs, the
14 customer will be offered the appropriate program services. There are three specific
15 categories of incentives. (1) Prescriptive incentives are available for common energy
16 efficiency measures including programmable thermostats, boiler reset controls, steam
17 trap replacements, pipe and/or duct insulation, and building shell (walls, roof, floor,
18 crawlspace) insulation. (2) Prescriptive incentives are available for energy efficient gas
19 fired commercial kitchen equipment. (3) Custom Incentives will be available for
20 projects that demonstrate the use of natural gas more efficiently than typical industry
21 practices, or more efficiently than the minimum building code requirements.

22

23 Prescriptive incentives will be targeted toward all commercial and industrial customers.
24 The Company will rely primarily upon contractors and trade allies to locate candidate
25 facilities and to install the eligible prescriptive measures. This effort will be supported
26 by an extensive outreach and education effort to these trade allies, as well as promotions
27 directed to the customers themselves. Energy audits will not be required for

1 participation. However, pre-approval of the contractor's proposals and the available
2 prescriptive incentive will be required.

3

4 Prescriptive incentives are available to institutional, hospitality and restaurants for high
5 efficient gas steamers and gas fryers. These offerings may be expanded as new
6 technologies are identified through the Building Practices and Demonstration Program

7

8 Custom incentives will be limited to no more than 50% of the eligible installed project
9 costs, and the Company's contribution will be capped at \$100,000 per site and/or
10 project, up to \$250,000 for new construction comprehensive and up to \$150,000 per
11 eligible CHP project.

12

13 Custom Incentives will be classified as either Level One or Level Two. Level One
14 projects will involve less complex technologies and/or highly cost effective
15 technologies and will receive incentives based upon \$1.50 per first year of estimated
16 therm savings². Examples of Level One projects are redesigns of HVAC systems,
17 energy recovery ventilation, most heat recovery applications, building
18 automation/energy management systems, and advanced technology burners and/or
19 burner controls.

20

21 Level Two projects are solar heating technologies and will receive incentives based upon
22 \$3.00 per first year of estimated therm savings. Few applications are expected to reach
23 this threshold. In Program Year 1 the Company will build upon its experiences in other
24 jurisdictions and offer customers the opportunity to incorporate solar thermal
25 technologies such as solar DHW heating, solar pool heating, and solar space heating into

² The Company analyzed the relatively low level of penetration in 2007/08 and determined that the incentive rate of \$0.50/therm was only covering about 20% to 25% of the typical project cost. The increase in incentive is designed to cover more of the project cost and increase penetration.

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1 the program. Incentives may not be applied toward normal maintenance costs and must
2 offset existing or potential gas usage. .

3

4 The Company recognizes the need to promote cost effective gas fired co-generation
5 systems, also called combined heat and power (CHP) where the heat by-product of a gas
6 reciprocating engine or gas turbine can be used to supplement a process heat load in an
7 industrial or institutional facility and also provides electric energy.

8

9 The Company will offer a modified custom incentive for eligible CHP installations.
10 Under this application, CHP systems will receive incentives based upon \$0.75 per first
11 year of estimated therm savings with a project cap of \$100,000. Higher efficiency CHP
12 systems, will receive an incentive of \$1.50 per first year of estimated therm savings with
13 a project cap of \$150,000.

14

15 In 2008, a CHP Task Force made up of outside parties and the Company was convened to
16 develop eligibility criteria for CHP for projects.

17

18 In order to qualify for Tier 1, the project must meet the following requirements:

- 19
- 20 ▪ The project must be cost effective
 - 21 ▪ The project must lead to improvements in energy efficiency or reduction in
22 energy consumption in comparison to a typical facility using New England
23 grid power and an average new boiler (this requirement will be implemented
24 when more data becomes available from studies on the regional power grid
 that will be published later this year.)

- 1 ▪ The system must be designed to demonstrate that a minimum of 10% of the
2 thermal energy output is utilized in an effective manner and optimized to
3 increase the efficiency beyond what it would be under a standard design with
4 separate heating system and electric utility distribution

5 In order for a project to qualify for Tier 2, Tier 1 requirements must be met in
6 addition to the following:³

- 7 ▪ Sum of all usable thermal energy products must constitute at least 20% of the
8 technology's total usable energy output
- 9 ▪ Sum of all usable electric energy must constitute at least 20% of the
10 technology's total usable energy output.
- 11 ▪ The project must be an application of technologies that achieve an average
12 annual fuel conversion efficiency meeting or exceeding the following levels:
- 13 ○ For systems with a total usable energy output of less than 1 MW_{t+e}
14 (thermal plus electric) per hour, an efficiency of 60%
- 15 ○ For systems with a total usable energy output of 1 MW_{t+e}, but less
16 than 100 MW_{t+e}, and efficiency of 63%
- 17 ○ For systems with a total usable energy output of 100 MW_{t+e} or
18 greater, an efficiency of 66%

19 The company will spend no more than \$300,000 per year in incentives for all CHP
20 projects in Rhode Island.

21

22 A. Services

23

³ From: USCHPA and ACEEE, Proposed Legislation for Combined Heat and Power: Introduction and Legislative Language.

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1 Energy Auditing services are for customers intending to proceed with energy efficiency
2 improvements but who require assistance estimating savings and incentive levels. Most
3 participants in this category will be small to medium customers with energy efficiency
4 applications, or large customers with relatively simple energy efficiency projects. It is
5 not required for customers to obtain an energy audit before proceeding with prescriptive
6 energy efficiency measures, nor does the Company intend to provide Energy Auditing
7 services for such projects. This service is provided with no direct cost to the customer.

8

9 Technical Assistance services will be used to evaluate more complex projects that
10 involve technologies associated with mechanical equipment, process equipment, and/or
11 underutilized or emerging green technologies. These types of technologies may include
12 boiler or chiller plant redesigns, heat recovery systems, digital energy management
13 systems, process efficiency improvement projects, and Comprehensive Design Approach
14 or Core Performance projects with associated green building technologies. Services
15 provided under the program will include technical analysis and engineering support for
16 medium to large customers who need assistance evaluating and/or designing complex
17 projects. The Company will cost share these services with the customer up to 50% of the
18 reasonable fees related to the efficiency project, not to exceed \$10,000. An
19 administrative vendor will be capable of providing Engineering services to the customer
20 under contract with the Company at negotiated rates to be established via a competitive
21 bid process.

22

23 Where electric and gas energy savings opportunities exist, such as through a
24 Comprehensive Design Approach or Core Performance project, the Technical Assistance
25 service will address these opportunities simultaneously as mentioned previously in the
26 electric program descriptions.

27

28 B. Economic Redevelopment Program

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1 The Economic Redevelopment Program is designed to improve energy efficiency and
2 reduce energy costs while also helping to foster the rehabilitation of buildings, storefronts
3 and neighborhoods in areas that are in need. Additionally, the program can provide
4 financial incentives and resources to help community based organizations and non-profits
5 increase the energy efficiency of their facilities and reduce their operating costs. Through
6 the program, the Company will work with Chambers of Commerce, economic
7 redevelopment organizations, non-profit organizations, as well as private development
8 corporations and businesses to facilitate the installation of eligible building shell and
9 other measures that increase the energy efficiency of business districts, K-12 public
10 school systems, and public and private subsidized housing. One of the program's
11 objectives is to leverage energy efficiency funds with other investments that are being
12 made for community development purposes.

13

14 Funding through the Economic Redevelopment Program will focus on projects that
15 demonstrate a strong community impact. A project has a strong community impact when
16 it provides for site rehabilitation, creates jobs, provides housing solutions or is integral in
17 providing community based programs.

18

19 The program will be open to all Company multifamily, commercial and industrial
20 customers that meet the program's intent. Maximum funding per project will be
21 \$100,000, with a minimum of 50% matching funds requirement by customer.
22 Applications for funding must include a description of the redevelopment project,
23 information on the sponsoring organization, identification of additional funding sources,
24 types of energy conserving measures to be installed, estimated energy savings and project
25 schedule. Each application for funding will be evaluated and an analysis will be
26 performed to identify cost-effective opportunities for reducing a customer's energy
27 usage. The analysis performed will lead to a report summary of recommendations and a

1 detailed description of the alternatives evaluated, including: total installation costs,
2 annual energy costs, annual savings and simple payback periods.

3

4 C. Market Transformation Initiatives

5 a. Trade Ally Training Program

6 Energy efficiency awareness by the Company's trade allies is crucial to reducing barriers
7 to energy efficiency and increasing acceptance of new technologies. Education activities
8 to this segment will be a critical piece of the Company's promotion efforts.

9

10 The Company will support and undertake a wide range of training events in collaboration
11 with GasNetworks⁴, the ENERGY STAR® Homes Joint Management Committee,
12 Northeast Energy Efficiency Partnerships (NEEP), manufacturing training
13 representatives and other trade allies. Outreach will extend to contractors, engineers,
14 builders, landlords, realtors, facility managers and housing authorities.

15

16 Training activities will be promoted via Company newsletters and direct mail campaigns
17 to contractors, in addition to meeting with trade allies at public events. The GasNetworks
18 website (www.gasnetworks.com) will also be used as a vehicle for promotion, offering
19 trade allies a central source of information on special event training efforts, in addition to
20 joint energy efficiency programs.

21

⁴ GasNetworks is a regional collaborative of natural gas distribution companies that coordinate natural gas energy efficiency programs throughout Maine, Massachusetts and New Hampshire. The benefit of GasNetworks membership is that it allows each participating company to offer regional programs at a lower overall cost to its customers. The GasNetworks programs are consistent wherever they have been offered. The GasNetworks programs have received several national awards from the American Council for an Energy Efficient Economy as exemplary examples of natural gas energy efficiency programs.

1 The budget for the Trade Ally Training Program will be included within each program's
2 budget

3

4 *b. Steam Assessment and Savings Program*

5

6 Over 45% of all the fuel burned by U.S. manufacturers is consumed to raise steam.
7 Steam is used to heat raw materials and treat semi-finished products. It is also a power
8 source for equipment, as well as for building heat and electricity generation. Many of
9 these facilities can recapture energy through the installation of more efficient steam
10 equipment and processes. The Steam Assessment and Savings program has been
11 developed to help these facilities manage their utility expenses through capital
12 improvements via incentives on high efficiency equipment as well as through proper
13 maintenance "best practices" by providing incentives for steam system & steam trap
14 surveys.

15

16 *c. Building Operator Training and Certification (BOTC)*

17

18 Funding through the gas program budget is available to support the BOCT. This program
19 is described previously under the electric program descriptions under Energy Initiative.

20 **2. Commercial High-Efficiency Heating Program**

21 **Overview**

22 The Commercial High-Efficiency Heating program will provide incentives to
23 commercial, industrial, governmental, institutional, non-profit and multifamily facilities
24 that install high-efficiency heating equipment. The incentives will be provided to reduce
25 the incremental cost between standard and high-efficiency equipment.

1

2 **Eligible Population**

3

4 The program will be open to all gas sales customers on a commercial tariff, including
5 multifamily facilities. Incentives provided through the program must be pre-approved by
6 the Company and/or the administrative vendor prior to delivery or installation of
7 product(s) or service(s)

8

9 **Program Design**

10 The Commercial High-Efficiency Heating program is a lost opportunity program
11 intended to provide prescriptive incentives for new heating equipment during a planned
12 replacement or for new construction. Prescriptive incentives are available for furnaces,
13 boilers, infrared heaters and domestic hot water systems.

14

15 The Commercial High-Efficiency Heating program will be promoted primarily to
16 architects, engineers, equipment vendors, contractors and other trade allies. Since many
17 of the trade allies overlap in the residential and smaller multifamily and commercial
18 markets, the program will often be promoted together with the Residential High-
19 Efficiency Heating program. Trade ally awareness will be increased through direct mail,
20 trade publications, newspapers, trade shows/seminars, and site visits. A lot of outreach
21 for this program will be accomplished through Trade Ally Training Program, described
22 previously under the Commercial Energy Efficiency Program.

23

1 The program's incentive schedule will apply to a variety of product types and a broad
2 range of equipment sizes that are appropriate for the commercial market segments. This
3 range provides an opportunity to participate regardless of customer size. There will also
4 be incentives for natural gas fired, low intensity infrared heaters, high efficiency
5 condensing unit heaters and direct fired make-up air systems that are appropriate for the
6 larger commercial and industrial segments. Boiler incentives will be available in a two-
7 tiered matrix: Tier One for high-efficiency non-condensing boilers and Tier Two for
8 high-efficiency fully condensing boilers.

9

10 The Commercial High-Efficiency Heating Incentive Program efficiency ratings for
11 smaller heating equipment (up to 300,000 Btuh input) are measured using AFUE ratings.
12 Efficiency ratings for larger heating equipment, which exceeds the size ranges for AFUE,
13 are measured using a thermal efficiency or steady state rating.

14

15 **3. Building Practices and Demonstration Program**

16

17 The purpose of the Building Practices and Demonstration Program is to establish
18 successful applications of new or underutilized energy efficient procedures, processes, or
19 technologies. Interested parties may file applications for financial and technical
20 assistance directly with the Company. Applications must include a description of the
21 scope of work and an estimate of the savings and benefits to be realized. Participants are
22 required to allow monitoring of the installation and/or results, tours of the installation by
23 potential users or other interested stakeholders, and publication of the results in case
24 study format.

25

THE NARRAGANSETT ELECTRIC COMPANY

d/b/a National Grid

R.I.P.U.C. Docket No. 4000

Attachment 4

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1 To market the program, the Company will rely on industry vendors developing and/or
2 offering new or underutilized natural gas energy efficiency technologies as well as the
3 efforts of Company employees.

4

5 The focus will be technologies that have low customer awareness or market penetration,
6 and the end uses may include cooling, refrigeration, process heat, cooking, thermal
7 measures, cogeneration, load control, or heat recovery. The program may also look at
8 exemplary energy efficient designs or practices as demonstrations.

9

10 Some of the technologies and practices being examined for 2009 include:

- 11 ▪ High efficiency convection ovens
- 12 ▪ High efficiency combination ovens
- 13 ▪ Transport membrane condensers for large steam boilers

14

15 Other new energy efficient gas technologies will be addressed as they are identified

16

17 The Company will develop relationships with key partners and organizations like the
18 Consortium for Energy Efficiency (CEE) Commercial Kitchens Group and the Energy
19 Solutions Center (ESC), to increase its access to new technology information.

20

**Table E-1
National Grid
Electric DSM Funding Sources in 2009 by Sector**

	Projection
Projected kWh Sales¹:	
Low Income Residential	207,328,343
Non-Low Income Residential	2,920,487,437
Commercial & Industrial	<u>4,747,631,672</u>
Total	7,875,447,453
DSM Revenue per kWh (proposed in LCP)	\$0.0032
Projected DSM Revenues (\$000)	
Low Income Residential	\$663.4
Non-Low Income Residential	\$9,345.5
Commercial & Industrial	<u>\$15,192.4</u>
Total	\$25,201.3
Other Sources of DSM Revenues (\$000):	
Projected DSM Fund Balance Interest in 2009 ²	
Low Income Residential	\$0.0
Residential	\$217.6
Commercial & Industrial	<u>\$330.4</u>
Total	\$548.0
Projected Co-Payments by Customers in 2009:	
Low Income Residential	\$0.0
Residential	\$0.0
Commercial & Industrial	<u>\$1,165.4</u>
Total	\$1,165.4
Projected DSM Commitments at Year-End 2008:	
Low Income Residential	\$0.0
Residential	\$0.0
Commercial & Industrial	<u>\$4,500.0</u>
Total	\$4,500.0
Projected 2008 Fund Balance ² :	
Low Income Residential	\$0.0
Residential	(\$1,449.1)
Commercial & Industrial	<u>\$1,323.5</u>
Total ³	(\$125.6)
Projected Payments During Transition Period From ISO-NE ⁴ :	
Low Income Residential	\$28.5
Residential	\$401.5
Commercial & Industrial	<u>\$652.7</u>
Total	\$1,082.7
Subtotal - Other Sources of DSM Revenues:	
Low Income Residential	\$28.5
Residential	-\$830.0
Commercial & Industrial	<u>\$7,972.0</u>
Total	\$7,170.5
Total funding available in 2009 minus commitments	
Low Income Residential	\$691.9
Residential	\$8,515.5
Commercial & Industrial	<u>\$18,664.4</u>
Total	\$27,871.8
Projected Total Funding Available in 2009:	
Low Income Residential	\$691.9
Residential	\$8,515.5
Commercial & Industrial	<u>\$23,164.4</u>
Total	\$32,371.8

Notes:

¹ Projected streetlighting and sales for resale kWh sales have been allocated to each sector based on the percentage of sales in each sector excluding expected streetlighting sales.

² Fund Balance currently tracked by Residential and Commercial and Industrial Sectors; Low-income fund balance and interest not separated out. Fund balance data from September 2008.

³ A projected negative fund balance at year end indicates that projected spending and commitments for 2008 are greater than the actual funding available in 2008.

⁴ The total projection of FCM revenue is allocated by kWh sales to each sector.

Table E-2
National Grid 2009 Electric Energy Efficiency Program Budget (\$000)

	Program Planning & Administration			Rebates and Other Customer Incentives	Evaluation & Market Research	Grand Total
	External	Internal	Marketing			
Non-Low Income Residential						
ENERGY STAR [®] Homes	\$49.0	\$31.7	\$21.0	\$758.9	\$19.2	\$879.8
ENERGY STAR [®] Central Air Conditioning	\$15.0	\$22.7	\$38.7	\$352.7	\$9.7	\$438.7
ENERGY STAR [®] Heating	\$0.0	\$6.9	\$1.5	\$201.5	\$0.0	\$209.9
EnergyWise	\$225.0	\$97.3	\$100.0	\$2,627.8	\$94.9	\$3,145.0
ENERGY STAR [®] Lighting	\$100.0	\$32.4	\$177.8	\$669.9	\$22.0	\$1,002.0
ENERGY STAR [®] Appliances	\$18.4	\$34.0	\$212.0	\$1,208.3	\$53.9	\$1,526.5
EERMC - Residential	\$125.1	\$0.0	\$0.0	\$0.0	\$0.0	\$125.1
Energy Efficiency Educational Programs	\$50.0	\$0.9	\$50.0	\$0.0	\$0.0	\$100.9
Shareholder Incentive	\$0.0	\$339.1	\$0.0	\$0.0	\$0.0	\$339.1
Subtotal - Non-Low Income Residential	\$582.5	\$564.8	\$600.9	\$5,819.0	\$199.7	\$7,767.0
Low Income Residential						
Single Family - Low Income Services	\$35.7	\$78.9	\$60.0	\$2,453.7	\$67.3	\$2,695.6
Shareholder Incentive	\$0.0	\$100.2	\$0.0	\$0.0	\$0.0	\$100.2
Subtotal - Low Income Residential	\$35.7	\$179.1	\$60.0	\$2,453.7	\$67.3	\$2,795.7
Commercial & Industrial						
Design 2000plus ¹	\$340.5	\$502.4	\$21.7	\$6,575.6	\$122.2	\$7,562.4
Energy Initiative ¹	\$350.8	\$535.5	\$13.5	\$5,996.7	\$168.1	\$7,064.5
Small and Medium Business Program	\$240.4	\$83.4	\$50.0	\$5,878.2	\$142.9	\$6,395.0
EERMC - C&I	\$189.9	\$0.0	\$0.0	\$0.0	\$0.0	\$189.9
Shareholder Incentive	\$0.0	\$596.8	\$0.0	\$0.0	\$0.0	\$596.8
Subtotal - Commercial & Industrial	\$1,121.6	\$1,718.1	\$85.1	\$18,450.5	\$433.2	\$21,808.5
Grand Total	\$1,739.8	\$2,461.9	\$746.0	\$26,723.3	\$700.2	\$32,371.2

Notes:

¹ Includes commitments for Design 2000plus and for Energy Initiative:

Total Commitments for 2009 are expected to be \$6,310,700. The allocation between Energy Initiative and Design 2000plus is

Design 2000plus Commitments: \$4,210.7

Energy Initiative Commitments: \$2,100.0

These commitments reflect agreements with customers to provide funding for approved energy efficiency projects that will be completed after year-end 2009.

The split of commitments between the large C&I programs reflects the thinking that more of the commitments will be made in Design 2000 plus

as projects become more comprehensive. This assumption will be re-assessed through the year.

Table E-3
Proposed 2009 Budget Compared to Approved 2008 Budget (\$000)

	Proposed Budget (2009)	Approved Budget (2008)	Change Compared to 2008
Non-Low Income Residential			
ENERGY STAR [®] Homes	\$860.6	\$716.3	\$144.2
ENERGY STAR [®] Central Air Conditioning	\$429.0	\$297.8	\$131.2
ENERGY STAR [®] Heating	\$209.9	\$99.6	\$110.3
EnergyWise	\$3,050.1	\$1,662.7	\$1,387.4
ENERGY STAR [®] Lighting	\$980.0	\$625.9	\$354.1
ENERGY STAR [®] Appliances	\$1,472.6	\$309.1	\$1,163.5
EERMC - Residential ¹	\$125.1	\$124.1	\$1.0
Energy Efficiency Educational Programs	\$100.9	\$31.2	\$69.7
Subtotal - Non-Low Income Residential	\$7,228.2	\$3,866.8	\$3,361.4
Low Income Residential			
Single Family - Low Income Services	\$2,628.3	\$1,475.1	\$1,153.1
Commercial & Industrial			
Design 2000plus	\$7,440.2	\$3,828.9	\$3,611.2
Energy Initiative	\$6,896.4	\$6,340.5	\$556.0
Small and Medium Business Program	\$6,252.1	\$4,263.9	\$1,988.2
EERMC - C&I	\$189.9	\$192.3	(\$2.4)
Subtotal Commercial & Industrial	\$20,778.6	\$14,625.6	\$6,153.0
OTHER EXPENSE ITEMS			
Company Incentive	\$1,036.0	\$647.7	\$388.3
Program Design, Evaluation and Planning	\$700.2	\$400.0	\$300.2
Subtotal Other Items	\$1,736.2	\$1,047.7	\$688.5
TOTAL BUDGET	\$32,371.2	\$21,015.2	\$11,356.0

¹ Includes EERMC allocation for Low Income Residential

Table E-4
Calculation of 2009 Program Year Cost-Effectiveness
Summary of Benefit, Expenses, Evaluation Costs (\$000)

	TRC Benefit/ Cost (2)	Total Benefit	Program Implementation Expenses	Customer Contribution (3)	Evaluation Cost	Shareholder Incentive (4)	¢/Lifetime kWh
Commercial & Industrial							
Design 2000plus	4.82	\$19,544.0	\$3,229.5	\$703.3	\$122.2	NA	2.5
Energy Initiative	4.01	\$43,858.7	\$4,796.4	\$5,971.9	\$168.1	NA	3.0
Small and Medium Business (1)	3.14	\$19,691.4	\$4,746.4	\$1,373.0	\$142.9	NA	4.7
Energy Efficiency and Resources Management Council - Large C	NA	NA	189.9	NA	NA	NA	NA
SUBTOTAL	3.77	\$83,094.1	\$12,962.2	\$8,048.1	\$433.2	\$596.8	3.4
Low Income Residential							
Single Family - Low Income Services	1.59	\$4,450.9	\$2,628.3	\$0.0	\$67.3	\$100.2	19.2
Non-Low Income Residential							
ENERGY STAR [®] Homes	3.00	\$2,639.3	\$860.6	\$0.0	\$19.2	NA	12.1
ENERGY STAR [®] Central Air Conditioning	1.16	\$500.4	\$429.0	-\$8.7	\$9.7	NA	33.6
ENERGY STAR [®] Heating	1.34	\$299.3	\$209.9	\$14.0	\$0.0	NA	15.0
EnergyWise	1.66	\$5,173.9	\$3,050.1	-\$27.7	\$94.9	NA	5.7
ENERGY STAR [®] Lighting	11.85	\$17,046.9	\$980.0	\$436.0	\$22.0	NA	0.9
ENERGY STAR [®] Appliances	1.71	\$4,197.0	\$1,472.6	\$930.0	\$53.9	NA	6.9
Energy Efficiency Education Programs	NA	NA	\$100.9	NA	NA	NA	NA
Energy Efficiency and Resources Management Council - Residen	NA	NA	\$125.1	NA	NA	NA	NA
SUBTOTAL	3.28	\$29,856.8	\$7,228.2	\$1,343.6	\$199.7	\$339.1	3.4
TOTAL	3.46	\$117,401.8	\$22,818.7	\$9,391.7	\$700.2	\$1,036.0	3.6

Notes:

- 1) Small Business program expenses are net of the projected customer co-pay for 2009 installations (\$1,505,699). These costs are included in the Customer Contribution column.
- 2) TRC B/C Test = (Energy + Capacity + Resource Benefits) / (Program Implementation + Evaluation Costs + Customer Contribution + Shareholder Incentive)
Also includes effects of free-ridership and spillover
- 3) Negative customer contribution reflects interaction of free-ridership and spillover costs
- 4) See Table E-9

**Table E-5
2009 Program Year Goals
Summary of Benefits, kW, and kWh by Program**

	Benefits (000s)											Load Reduction in kW					MWh Saved		
	Total	Capacity					Energy					Non Electric		Summer	Winter	Lifetime	Maximum Annual	Lifetime	
		Summer	Winter	Trans	MDC	DRIPE	Peak	Off Peak	Peak	Off Peak	DRIPE	Resource	Non Resource						
Commercial & Industrial																			
Design 2000plus	\$19,544	3,827	\$0	\$811	\$1,914	\$636	\$5,060	\$2,138	\$2,686	\$1,022	\$1,388	\$0	\$61	2,301	1,251	37,016	10,423	162,348	
Energy Initiative	43,859	6,327	0	1,388	3,277	1,334	11,964	4,851	6,298	2,307	3,851	500	1,762	4,823	3,642	60,154	28,808	358,575	
Small and Medium Business	19,691	3,324	0	734	1,734	730	5,465	1,096	2,869	522	1,568	0	1,650	2,641	1,525	31,585	11,030	131,920	
SUBTOTAL	\$83,094	\$13,478	\$0	\$2,933	\$6,925	\$2,701	\$22,488	\$8,086	\$11,852	\$3,850	\$6,807	\$500	\$3,473	9,764	6,418	128,754	50,261	652,843	
Low Income Residential																			
Single Family - Low Income Services	4,451	158	\$0	\$35	\$84	\$37	\$151	\$161	\$330	\$306	\$174	\$2,174	\$840	137	303	1,567	1,340	14,542	
SUBTOTAL	\$4,451	\$158	\$0	\$35	\$84	\$37	\$151	\$161	\$330	\$306	\$174	\$2,174	\$840	137	303	1,567	1,340	14,542	
Non-Low Income Residential																			
ENERGY STAR [®] Homes	2,639	406	\$0	\$84	\$198	\$55	\$118	\$118	\$113	\$109	\$82	\$1,319	\$38	197	149	4,217	648	7,253	
ENERGY STAR [®] Central Air Conditioning	500	197	\$0	\$44	\$105	\$45	\$18	\$4	\$54	\$14	\$15	\$0	\$3	173	6	1,973	93	1,280	
ENERGY STAR [®] Heating	299	19	\$0	\$4	\$10	\$3	\$57	\$14	\$24	\$6	\$11	\$151	\$0	10	1	188	83	1,493	
EnergyWise	5,174	544	\$0	\$120	\$283	\$117	\$1,120	\$1,198	\$632	\$556	\$532	\$21	\$51	424	1,151	5,244	4,392	54,420	
ENERGY STAR [®] Lighting	17,047	1,123	\$0	\$262	\$618	\$328	\$1,963	\$1,930	\$3,792	\$3,735	\$2,332	\$0	\$964	1,184	4,457	10,864	18,074	165,147	
ENERGY STAR [®] Appliances	4,197	517	\$0	\$123	\$291	\$161	\$435	\$429	\$837	\$830	\$573	\$0	\$0	582	443	5,040	4,439	35,784	
SUBTOTAL	\$29,857	\$2,807	\$0	\$637	\$1,504	\$709	\$3,711	\$3,693	\$5,451	\$5,252	\$3,545	\$1,491	\$1,057	2,572	6,208	27,527	27,729	265,377	
TOTAL	\$117,402	\$16,443	\$0	\$3,605	\$8,513	\$3,446	\$26,350	\$11,941	\$17,633	\$9,409	\$10,526	\$4,164	\$5,370	12,473	12,929	157,848	79,331	932,762	

Table E-6
Comparison of Goals to Prior Year

Program	Proposed 2009		2008		Difference	
	Annual Energy Savings (MWh) (1)	Participants	Annual Energy Savings (MWh) (1)	Participants	Annual Energy Savings (MWh)	Participants
Commercial & Industrial						
Design 2000 <i>plus</i>	10,423	239	9,157	159	1,267	80
Energy Initiative	28,808	245	21,039	145	7,769	100
Small and Medium Business	11,030	835	8,698	542	2,332	293
SUBTOTAL	50,261	1,319	38,894	846	11,367	473
Low Income Residential						
Single Family - Low Income Services	1,340	1,439	945	806	395	633
SUBTOTAL	1,340	1,439	945	806	395	633
Non-Low Income Residential						
ENERGY STAR® Homes	648	380	534	335	114	45
ENERGY STAR® Central Air Conditioning Program	93	546	116	620	(23)	(74)
ENERGY STAR® Heating	83	250	50	423	33	(173)
EnergyWise	4,392	6,194	1,875	2,962	2,517	3,232
ENERGY STAR® Lighting	18,074	68,548	11,974	51,650	6,100	16,898
ENERGY STAR® Appliances	4,439	7,600	415	3,750	4,024	3,850
SUBTOTAL	27,729	83,518	14,964	59,740	12,766	23,778
TOTAL	79,331	86,276	54,803	61,392	24,528	24,883

(1) Net Savings for 2008 calculated under "Rhode Island Benefit/Cost Test"; Net savings for 2009 calculated under Total Resource Cost Test.

Table E-7
Annual Electric Avoided Costs for Rhode Island

	1	2	3	4	5	6	7	8	9	10	11	12	13	
	Winter Peak Energy (\$/kWh)	Winter Off-Peak Energy (\$/kWh)	Summer Peak Energy (\$/kWh)	Summer Off-Peak Energy (\$/kWh)	Summer Generation (\$/kW)	Winter Generation (\$/kW)	Capacity DRIPE (\$/kW)	Winter Peak Energy DRIPE (\$/kW)	Winter Off-Peak Energy DRIPE (\$/kWh)	Summer Peak Energy DRIPE (\$/kWh)	Summer Off-Peak Energy DRIPE (\$/kWh)	Transmission (\$/kW)	Distribution (\$/kW)	
1	2009	\$0.100	\$0.077	\$0.101	\$0.070	\$0.00	\$0.00	\$0.015	\$0.012	\$0.025	\$0.011	\$24.74	\$58.42	
2	2010	\$0.099	\$0.074	\$0.101	\$0.067	\$62.82	\$0.00	\$0.00	\$0.044	\$0.036	\$0.033	\$24.74	\$58.42	
3	2011	\$0.095	\$0.070	\$0.099	\$0.065	\$113.30	\$0.00	\$0.00	\$0.042	\$0.034	\$0.031	\$24.74	\$58.42	
4	2012	\$0.091	\$0.067	\$0.094	\$0.063	\$126.76	\$0.00	\$145.37	\$0.025	\$0.021	\$0.042	\$0.019	\$24.74	\$58.42
5	2013	\$0.084	\$0.060	\$0.089	\$0.059	\$134.61	\$0.00	\$93.45	\$0.000	\$0.000	\$0.000	\$0.000	\$24.74	\$58.42
6	2014	\$0.087	\$0.059	\$0.088	\$0.058	\$134.61	\$0.00	\$41.53	\$0.000	\$0.000	\$0.000	\$0.000	\$24.74	\$58.42
7	2015	\$0.083	\$0.058	\$0.090	\$0.055	\$134.61	\$0.00	\$0.00	\$0.000	\$0.000	\$0.000	\$0.000	\$24.74	\$58.42
8	2016	\$0.084	\$0.059	\$0.090	\$0.058	\$134.61	\$0.00	\$0.00	\$0.000	\$0.000	\$0.000	\$0.000	\$24.74	\$58.42
9	2017	\$0.086	\$0.059	\$0.092	\$0.057	\$134.61	\$0.00	\$0.00	\$0.000	\$0.000	\$0.000	\$0.000	\$24.74	\$58.42
10	2018	\$0.083	\$0.058	\$0.088	\$0.056	\$134.61	\$0.00	\$0.00	\$0.000	\$0.000	\$0.000	\$0.000	\$24.74	\$58.42
11	2019	\$0.082	\$0.055	\$0.090	\$0.054	\$134.61	\$0.00	\$0.00	\$0.000	\$0.000	\$0.000	\$0.000	\$24.74	\$58.42
12	2020	\$0.080	\$0.055	\$0.089	\$0.054	\$134.61	\$0.00	\$0.00	\$0.000	\$0.000	\$0.000	\$0.000	\$24.74	\$58.42
13	2021	\$0.081	\$0.056	\$0.092	\$0.053	\$134.61	\$0.00	\$0.00	\$0.000	\$0.000	\$0.000	\$0.000	\$24.74	\$58.42
14	2022	\$0.085	\$0.056	\$0.094	\$0.055	\$134.61	\$0.00	\$0.00	\$0.000	\$0.000	\$0.000	\$0.000	\$24.74	\$58.42
15	2023	\$0.087	\$0.057	\$0.096	\$0.056	\$134.61	\$0.00	\$0.00	\$0.000	\$0.000	\$0.000	\$0.000	\$24.74	\$58.42
16	2024	\$0.088	\$0.058	\$0.097	\$0.057	\$134.61	\$0.00	\$0.00	\$0.000	\$0.000	\$0.000	\$0.000	\$24.74	\$58.42
17	2025	\$0.090	\$0.059	\$0.099	\$0.058	\$134.61	\$0.00	\$0.00	\$0.000	\$0.000	\$0.000	\$0.000	\$24.74	\$58.42
18	2026	\$0.091	\$0.060	\$0.101	\$0.059	\$134.61	\$0.00	\$0.00	\$0.000	\$0.000	\$0.000	\$0.000	\$24.74	\$58.42
19	2027	\$0.093	\$0.061	\$0.102	\$0.061	\$134.61	\$0.00	\$0.00	\$0.000	\$0.000	\$0.000	\$0.000	\$24.74	\$58.42
20	2028	\$0.094	\$0.062	\$0.104	\$0.062	\$134.61	\$0.00	\$0.00	\$0.000	\$0.000	\$0.000	\$0.000	\$24.74	\$58.42
21	2029	\$0.096	\$0.063	\$0.106	\$0.063	\$134.61	\$0.00	\$0.00	\$0.000	\$0.000	\$0.000	\$0.000	\$24.74	\$58.42
22	2030	\$0.098	\$0.065	\$0.108	\$0.064	\$134.61	\$0.00	\$0.00	\$0.000	\$0.000	\$0.000	\$0.000	\$24.74	\$58.42
23	2031	\$0.099	\$0.066	\$0.110	\$0.065	\$134.61	\$0.00	\$0.00	\$0.000	\$0.000	\$0.000	\$0.000	\$24.74	\$58.42
24	2032	\$0.101	\$0.067	\$0.111	\$0.066	\$134.61	\$0.00	\$0.00	\$0.000	\$0.000	\$0.000	\$0.000	\$24.74	\$58.42
25	2033	\$0.103	\$0.068	\$0.113	\$0.068	\$134.61	\$0.00	\$0.00	\$0.000	\$0.000	\$0.000	\$0.000	\$24.74	\$58.42

ENERGY AND GENERATION CAPACITY VALUES (Columns 1 through 11) FROM 2007 AVOIDED ENERGY SUPPLY COMPONENT STUDY, EXHIBIT E-1 RI-CS
TRANSMISSION AND DISTRIBUTION CAPACITY VALUES (12 and 13) FROM COMPANY ANALYSIS, IN 2007\$
All values escalated 1.9% real to 2009\$ and loss factors added

Table E-8
Derivation of the 2009 Spending Budget for Shareholder Incentive Calculation

	Proposed 2009 Budget (\$000)	Commitments and Copays (\$000)	Other Funding Excluded From the Eligible Spending Budget	Eligible Sector Spending Budget (\$000)
Non-Low Income Residential				
ENERGY STAR [®] Homes	\$879.8			
ENERGY STAR [®] Central Air Conditioning	\$438.7			
ENERGY STAR [®] Heating	\$209.9			
EnergyWise	\$3,145.0			
ENERGY STAR [®] Lighting	\$1,002.0			
ENERGY STAR [®] Appliances	\$1,526.5			
EERMC - Residential	\$125.1		\$125.1	
Energy Efficiency Educational Programs	\$100.9			
Shareholder Incentive	\$339.1		\$339.1	
Subtotal - Residential	\$7,767.0	\$0.0	\$464.2	\$7,302.8
Low Income Residential				
Single Family - Low Income Services	\$2,695.6			
Shareholder Incentive	\$100.2		\$100.2	
Subtotal - Low Income Residential	\$2,795.7	\$0.0	\$100.2	\$2,695.6
Commercial & Industrial				
Design 2000plus	\$7,562.4	\$4,210.7		
Energy Initiative	\$7,064.5	\$2,100.0		
Small and Medium Business	\$6,395.0	\$1,165.4		
EERMC - C&I	\$189.9		\$189.9	
Shareholder Incentive	\$596.8		\$596.8	
Subtotal - Commercial & Industrial	\$21,808.5	\$7,476.1	\$786.7	\$13,545.8
Grand Total	\$32,371.2	\$7,476.1	\$1,351.0	\$23,544.2

**Table E-9
Target 2009 Shareholder Incentive**

Incentive Rate: 4.40%

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Sector	Spending Budget	Incentive Rate	Target Incentive	Target Incentive for Performance Metrics	Target Incentive - Annual kWh Savings	Annual kWh Savings Goal	Threshold kWh Savings	Target Incentive Per kWh	Incentive Cap Annual kWh Savings
Low Income Residential	\$2,695,573		\$101,432	\$0	\$101,432	1,340,133	804,080	\$0.076	\$126,790
Non-Low Income Residential	\$7,302,804		\$334,797	\$60,000	\$274,797	27,729,471	16,637,683	\$0.010	\$343,496
Commercial & Industrial	\$13,545,787		\$599,714	\$90,000	\$509,714	50,261,312	30,156,787	\$0.010	\$637,143
Total	\$23,544,164	4.40%	\$1,035,943	\$150,000	\$885,943	79,330,917	47,598,550		\$1,107,429

Notes:

- (1) Sector budget net of projected commitments and copays. See Table E-8
- (2) 4.40% of the sector spending budget.
- (3) Target Incentive Total = Incentive Rate x Spending Budget Total (Column (1)).
- (4) \$30,000 per proposed performance metric.
- (5) Total for Column (3) - Total for Column (4) allocated to sectors based on the relative size of the spending budget in the sector.
- (6) Goal for annual kWh savings by sector. This may be adjusted at year end for evaluation results and actual spending relative to the spending budget. If goal is adjusted, values in columns (7), (8), and (9) will be adjusted as well.
- (7) 60% of Column (5). No incentive is earned on annual kWh savings in the sector unless the Company achieves at least this threshold level of
- (8) Column (5)/Column (6). Applicable to all annual kWh savings up to 125% of target savings if at least 60% of target savings have been achieved.
- (9) Column (5) x 1.25.

**Table G-1
Funding Sources by Sector
2009-2011**

	2009	2010	2011	Total 2009-2011
Gas Energy Efficiency Surcharge per Dth	\$0.150	\$0.150	\$0.150	
Forecasted Use (Dth):				
TOTAL THROUGHPUT				
Low Income Residential Non-Heating	46,696	46,188	45,657	138,541
Low Income Residential Heating	1,459,104	1,444,929	1,431,119	4,335,152
Low-Income subtotal	1,505,801	1,491,117	1,476,776	4,473,693
Residential Non-Heating	517,104	484,039	451,362	1,452,505
Residential Heating	16,579,696	16,716,729	16,852,211	50,148,636
Residential subtotal	17,096,800	17,200,768	17,303,573	51,601,141
Small C&I	2,370,642	2,397,012	2,423,243	7,190,896
Medium C&I	5,300,473	5,423,110	5,545,745	16,269,328
Large LLF	2,655,646	2,655,646	2,674,059	7,985,351
Large HLF	1,034,400	1,034,400	1,040,961	3,109,762
Extra Large LLF	1,206,657	1,206,657	1,569,327	3,982,641
Extra Large HLF	4,948,537	4,950,777	5,806,625	15,705,938
Opt out eligible	(1,193,497)	(1,193,497)	(1,193,497)	(3,580,491)
C&I Subtotal	16,322,858	16,474,104	17,866,463	50,663,425
TOTAL THROUGHPUT	34,925,459	35,165,989	36,646,811	106,738,259
Collections by Sector:				
Uncollectible percentage (from Gas Rate Case)	2.46%	2.46%	2.46%	
Residential Low Income Surcharge Collections	\$220,300	\$218,100	\$216,000	\$654,400
Low Income Weatherization in Base Rates	\$200,000	\$200,000	\$200,000	\$600,000
Total Collections - Low-Income Residential	\$420,300	\$418,100	\$416,000	\$1,254,400
Total Collections - Non-Low Income Residential	\$2,501,400	\$2,516,600	\$2,531,600	\$7,549,600
Total Collections - Commercial and Industrial	\$2,388,100	\$2,410,300	\$2,614,000	\$7,412,400
TOTAL PROJECTED COLLECTIONS	\$5,309,800	\$5,345,000	\$5,561,600	\$16,216,400
OTHER SOURCES OF FUNDING				
Prior Year Fund Balance by Sector¹				
Low Income Residential	\$0	\$0	\$0	\$0
Non-Low Income Residential	\$0	\$0	\$0	\$0
Commercial and Industrial	\$1,673,200	\$0	\$0	\$1,673,200
Projected DSM Fund Balance Interest in Year				
Low Income Residential	\$0	\$0	\$0	\$0
Non-Low Income Residential	\$91,500	\$91,500	\$91,500	\$274,500
Commercial and Industrial	\$168,400	\$168,400	\$168,400	\$505,200
Projected DSM Commitments at Prior Year-End				
Low Income Residential	\$0	\$0	\$0	\$0
Non-Low Income Residential	\$0	\$0	\$0	\$0
Commercial and Industrial	\$378,000	\$1,184,000	\$445,000	\$2,007,000
SUBTOTAL OTHER SOURCES				
Low Income Residential	\$0	\$0	\$0	\$0
Non-Low Income Residential	\$91,500	\$91,500	\$91,500	\$274,500
Commercial and Industrial	\$2,219,600	\$1,352,400	\$613,400	\$4,185,400
POTENTIAL TOTAL FUNDING AVAILABLE MINUS COMMITMENTS				
Low Income Residential	\$420,300	\$418,100	\$416,000	\$1,254,400
Non-Low Income Residential	\$2,592,900	\$2,608,100	\$2,623,100	\$7,824,100
Commercial and Industrial	\$4,229,700	\$2,578,700	\$2,782,400	\$9,590,800
	\$7,242,900	\$5,604,900	\$5,821,500	\$18,669,300
POTENTIAL TOTAL FUNDING AVAILABLE				
Low Income Residential	\$420,300	\$418,100	\$416,000	\$1,254,400
Non-Low Income Residential	\$2,592,900	\$2,608,100	\$2,623,100	\$7,824,100
Commercial and Industrial	\$4,607,700	\$3,762,700	\$3,227,400	\$11,597,800
	\$7,620,900	\$6,788,900	\$6,266,500	\$20,676,300

¹ Fund Balance currently tracked by Residential and Commercial and Industrial Sectors; Low-income fund balance and interest not separated out. Fund balance data from October 2008.

\$1,673,200

Table G-2
National Grid Gas Energy Efficiency Program Budget (\$000)
2009

Program	External	Internal	Marketing	Rebates and Other Customer Incentives	Evaluation & Market Research	Grand Total
NON LOW-INCOME RESIDENTIAL:						
ENERGY STAR® Homes	15,000	187			2,032	17,219
Building Practices and Demonstration Program	2,000	4,170	10,000	22,000	21,010	59,180
Residential High-Efficiency Heating Program	15,100	50,935	293,028	552,780	18,170	930,013
Energy Star Heating System		38,249	175,508	418,860	18,170	650,787
High-Efficiency Water Heating Program	9,600	6,778	71,200	112,500		200,078
ENERGY STAR® Programmable Thermostat Program	5,500	5,908	25,000	21,420		57,828
Gas Networks			21,320			21,320
EnergyWise	13,785	55,411	47,500	915,505	41,538	1,073,739
EERMC - Residential						54,434
Shareholder Incentive						91,527
Subtotal - Non-Low Income Residential	45,885	110,703	350,528	1,323,722	82,750	2,226,112
LOW-INCOME RESIDENTIAL:						
Single Family Low Income Services		17,502		1,323,722	44,767	1,385,991
Shareholder Incentive						60,984
Subtotal - Low Income Residential	0	17,502	0	1,323,722	44,767	1,446,975
COMMERCIAL AND INDUSTRIAL:						
Commercial High Efficiency Heating Program	43,500	42,620	56,000	239,250	23,333	404,703
Commercial Energy Efficiency Program	260,000	204,305	169,165	1,420,000	49,544	2,103,014
Building Practices & Demonstration Program	4,400	6,121	4,000	58,333	21,010	93,864
EERMC - C&I						47,762
Commitments				1,184,000		1,184,000
Shareholder Incentive						114,470
Subtotal - Commercial & Industrial	307,900	253,045	229,165	2,901,583	93,887	3,947,812
Grand Total	353,785	381,250	579,693	5,549,028	221,404	7,620,899

Table G-3
Proposed 2009 Budget Compared to Approved 2008 Budget (\$000)

	Proposed Budget (2009)¹	Approved Budget (2008)	Change Compared to 2008
Non-Low Income Residential			
Residential High-Efficiency Heating, Water-Heating, Controls Program	\$911.9	\$601.2	\$310.6
EnergyWise	\$1,032.2	\$631.8	\$400.4
Building Practices and Demonstration Program	\$38.2	\$35.7	\$2.5
ENERGY STAR [®] Homes	\$15.2	\$141.4	(\$126.2)
EERMC - Residential	\$54.4	\$52.2	\$2.2
Subtotal - Non-Low Income Residential	\$2,051.8	\$1,462.3	\$589.6
Low Income Residential			
Low Income	\$1,341.2	\$933.5	\$407.8
Subtotal - Low Income Residential	\$1,341.2	\$933.5	\$407.8
Commercial & Industrial			
Commercial High Efficiency Heating Equipment	\$381.4	\$268.1	\$113.3
Commercial Energy Efficiency Program	\$2,053.5	\$1,169.2	\$884.2
Comm Building Practices & Demonstration Program	\$72.9	\$201.1	(\$128.2)
EERMC - C&I	\$47.8	\$36.5	\$11.3
Subtotal Commercial & Industrial	\$2,555.5	\$1,674.9	\$880.6
OTHER EXPENSE ITEMS			
Company Incentive	\$267.0	\$179.4	\$87.6
Program Design, Evaluation and Planning	\$221.4	\$95.5	\$125.9
Subtotal Other Items	\$488.4	\$274.9	\$213.5
TOTAL BUDGET	\$6,436.9	\$4,345.5	\$2,091.4

¹ Does not include commitments. Commitments projected to be \$1,184,000 in 2009

Table G-4
Calculation of Program Year Cost-Effectiveness
Values in \$000

	TRC Benefit/ Cost(1)	Total Benefit	Program Implementation Expenses(2)	Customer Contribution	Evaluation Expenses(2)	Shareholder Incentive(3)
Commercial & Industrial						
Commercial Energy Efficiency Program	2.45	\$8,763.2	\$2,053.5	\$1,468.7	\$49.5	NA
Commercial High Efficiency Heating Equipment	1.85	\$919.3	\$381.4	\$93.5	\$23.3	NA
Comm Building Practices & Demonstration Program	1.48	\$175.7	\$72.9	\$25.0	\$21.0	NA
EERMC - C&I	NA	NA	\$47.8	NA	NA	NA
SUBTOTAL	2.27	\$9,858.2	\$2,555.5	\$1,587.2	\$93.9	\$114.5
Low Income Residential						
Low Income	1.79	\$2,487.6	\$1,341.2	\$0.0	\$44.8	NA
EERMC - Low Income Residential			\$4.4			
SUBTOTAL	1.71	2,487.6	1,345.6	0.0	44.8	61.0
Non Low Income Residential						
Energy Star Homes	NA	NA	\$15.2	\$0.0	\$2.0	NA
Energy Wise	2.07	\$2,967.9	\$1,032.2	\$361.4	\$41.5	NA
Residential High-Efficiency Heating, Water-Heating, Controls Progr	2.35	\$3,814.1	\$911.9	\$690.2	\$18.2	NA
Building Practices and Demonstration Program	NA	NA	\$38.2	\$0.0	\$21.0	NA
EERMC - Residential	NA	NA	\$50.0	NA	NA	NA
SUBTOTAL	2.07	\$6,781.9	\$2,047.4	\$1,051.6	\$82.8	\$91.5
TOTAL	2.11	\$19,127.6	\$5,948.5	\$2,638.8	\$221.4	\$267.0

Notes:

- 1) The TRC Test is equal to the expected dollar value of lifetime resource benefits divided by the sum of Implementation Expenses, Customer Contribution, Evaluation Expenses, and the target shareholder incentive.
- 2) Equal to the Net Present Value of the budget amounts provided in Table G-2 excluding Commitments. Subtotal and Total rows include expenses for all line items except Commitments whether or not benefits have been quantified.
- 3) See Table G-9

**Table G-5
Summary of Benefits and Savings by Program**

	Benefits (\$000)			MMBTU Gas Saved	
	Total(1)	Natural Gas(2)	Participant Resource(3)	Annual(4)	Lifetime(5)
Commercial & Industrial					
Commercial Energy Efficiency Program	\$8,763,158	\$8,763,158	\$0	82,198	986,381
Commercial High Efficiency Heating Equipment	\$919,267	\$919,267	\$0	5,683	113,664
Comm Building Practices & Demonstration Program	\$175,735	\$175,735	\$0	1,451	20,317
EERMC - C&I	NA	NA	NA	NA	NA
SUBTOTAL	\$9,858,159	\$9,858,159	\$0	89,333	1,120,361
Low Income Residential					
Low Income	\$2,487,554	\$2,487,554	\$0	13,690	246,418
SUBTOTAL	\$2,487,554	\$2,487,554	\$0	13,690	246,418
Non Low Income Residential					
Energy Star Homes	\$0	\$0	\$0	0	0
Energy Wise	\$2,967,877	\$2,967,877	\$0	15,020	300,394
Residential High-Efficiency Heating, Water-Heating, Controls Program	\$3,814,054	\$3,715,117	\$98,938	22,641	374,263
Building Practices and Demonstration Program	\$0	\$0	\$0	0	0
EERMC - Residential	NA	NA	NA	NA	NA
SUBTOTAL	\$6,781,931	\$6,682,993	\$98,938	37,660	674,657
TOTAL	\$19,127,644	\$19,028,707	\$98,938	140,683	2,041,436

Notes:

- 1) Equal to the sum of Natural Gas benefits and Participant Resource benefits.
- 2) The value of lifetime natural gas savings valued using the avoided gas costs quantified in "Avoided Energy Supply Costs in New England," August, 2007, prepared by Synapse Energy Economics for the Avoided-Energy-Supply-Component Study Group. This is also the source of the electric avoided costs that have been used to assess electric energy efficiency program cost-effectiveness.
- 3) Participant Resource Benefits are equal to the dollar value of expected electricity savings that have not been included in National Grid's electric energy efficiency plans for 2009
- 4) The projection of annual savings reflects results attained for similar programs in other jurisdictions.
- 5) Lifetime savings are equal to annual savings multiplied by the expected life of measures expected to be installed in each program.

Table G-6
Comparison of Goals with Prior Year

Program	Proposed 2009		Proposed 2008 (2)		Difference	
	Annual Energy Savings (MMBTU Natural Gas)(1)(3)	Participants	Annual Energy Savings (MMBTU Natural Gas)(1)(3)	Participants	Annual Energy Savings (MMBTU Natural Gas)(1)	Participants
Commercial & Industrial						
Commercial Energy Efficiency Program	82,198	305	59,819	462	22,379	-157
Commercial High Efficiency Heating Equipment	5,683	150	5,667	150	17	0
Comm Building Practices & Demonstration Program	1,451	1	6,769	3	-5,318	-2
EERMC - C&I	NA	NA	NA	NA	NA	NA
SUBTOTAL	89,333	456	72,255	615	17,078	-159
Low Income Residential						
Low Income	13,690	319	9,643	224	4,047	95
SUBTOTAL	13,690	319	9,643	224	4,047	95
Non-Low Income Residential					0	0
Energy Star Homes	0	0	NA	NA	NA	NA
Energy Wise	15,020	2,243	28,421	1,259	-13,401	984
Residential High-Efficiency Heating, Water-Heating, Controls Progr	22,641	2,370	22,047	2,167	593	203
Building Practices and Demonstration Program	0	10	239	3	-239	7
EERMC - Residential	NA	NA	NA	NA	NA	NA
SUBTOTAL	37,660	4,623	50,707	3,429	-13,046	1,194
TOTAL	140,683	5,398	132,605	4,267	8,078	1,130

Note:

- 1) MMBtu savings for 2009 from Table G-5 and for 2008 from Attachment 8 (Compliance Filing), Page 2 of 3.
- 2) 2008 was an 18 month filing (July 2007-December 2008); for comparison with 2009, values here are 2/3 of what 18 month targets were
- 3) Net Savings for 2008 calculated under "Rhode Island Benefit/Cost Test"; Net savings for 2009 calculated under Total Resource Cost Test.

Table G-7
Natural Gas Avoided Costs for Rhode Island
Used in B/C Model for Rhode Island

Year	RESIDENTIAL			COMMERCIAL & INDUSTRIAL		
	Existing	New	Hot	Non		
	Heating	Heating	Water	Heating	Heating	All
	3-mon.	5-mon.	annual	annual	5-mon.	6-mon.
	\$/Dth	\$/Dth	\$/Dth	\$/Dth	\$/Dth	\$/Dth
2009	14.47	14.23	12.91	10.80	12.12	11.72
2010	13.85	13.61	12.34	10.23	11.50	11.12
2011	13.31	13.08	11.84	9.73	10.97	10.60
2012	12.91	12.68	11.46	9.35	10.57	10.20
2013	12.16	11.94	10.77	8.66	9.83	9.48
2014	12.23	12.01	10.84	8.73	9.90	9.55
2015	12.18	11.95	10.79	8.68	9.84	9.50
2016	12.34	12.11	10.94	8.83	10.00	9.65
2017	12.64	12.41	11.21	9.10	10.30	9.94
2018	12.55	12.32	11.13	9.02	10.21	9.85
2019	12.49	12.26	11.08	8.97	10.15	9.80
2020	12.64	12.41	11.21	9.10	10.29	9.94
2021	12.76	12.53	11.32	9.21	10.41	10.06
2022	13.06	12.82	11.60	9.49	10.71	10.35
2023	13.19	12.95	11.72	9.58	10.82	10.45
2024	13.32	13.08	11.83	9.68	10.93	10.56
2025	13.45	13.21	11.95	9.78	11.04	10.66
2026	13.59	13.34	12.07	9.88	11.15	10.77
2027	13.72	13.48	12.19	9.97	11.26	10.88
2028	13.86	13.61	12.31	10.07	11.37	10.98
2029	14.00	13.75	12.44	10.17	11.48	11.09
2030	14.14	13.88	12.56	10.28	11.60	11.20
2031	14.28	14.02	12.69	10.38	11.71	11.32
2032	14.42	14.16	12.81	10.48	11.83	11.43
2033	14.57	14.31	12.94	10.59	11.95	11.54

Avoided Cost of Natural Gas Delivered to Retail Customers in Southern N.E. by End Use in 2009\$
FROM 2007 AVOIDED ENERGY SUPPLY COMPONENT STUDY
2007\$ escalated 1.9% real to 2009\$

Table G-8
Summary of Gas Program Benefit, Costs, Savings (\$000)
2009-2011 Energy Efficiency Procurement Plan

	Total Portfolio			
	2009	2010	2011	3 Year Total
NPV Net Benefits (\$000)	\$10,052	\$10,421	\$10,890	\$31,363
NPV Utility Costs (\$000)	\$6,170	\$5,896	\$5,646	\$17,711
TRC Benefit / Cost	2.11	2.20	2.30	2.20
Annual Energy Savings (MMBTUs)	140,683	139,779	139,209	419,671
Lifetime MMBTUs	2,041,436	2,026,309	2,016,026	6,083,771
Cost / Lifetime MMBTUs	\$4.446	\$4.300	\$4.165	\$4.304

net benefits = benefits - (participant costs + utility costs+incentive)

utility costs exclude shareholder incentive

**Table G-9
Target 2009 Shareholder Incentive**

Incentive Rate: 4.40%

	(1)	(2)	(3)	(4)	(5)
Sector	Budget	Target Incentive	Annual Savings Goal (MMBTU)	Threshold Savings (MMBTU)	Target Incentive Per MMBTU
Low Income Residential	\$1,385,991	\$60,984	13,690	8,214	\$4.455
Non-Low Income Residential	\$2,080,160	\$91,527	37,660	22,596	\$2.430
Commercial & Industrial	\$2,601,580	\$114,470	89,333	53,600	\$1.281
Total	\$6,067,731	\$266,981	140,683	84,410	

Notes:

- (1) Sector budget excluding the EERMC Assessment, Shareholder Incentives, and Commitments. See Table G-2
- (2) Equal to the incentive rate (4.40%) x Column (1).
- (3) See Table G-5
- (4) 60% of Column (3). No incentive is earned on annual MMBTU savings in the sector unless the Company achieves at least this threshold level of performance.
- (5) Column (2)/Column (3)

Program	Study	Process/ Impact/ Other	New or Carryover	National Grid Estimated Consultant Cost in 2009	RI?	RI
Residential Electric					Y	
ES Appliances	Process and cost-effectiveness evaluation of new measures	P	New	\$70,000	Y	\$15,400
EWise	Impact Evaluation (Gas and Electric)	I	N	\$100,000	Y	\$22,700
C&I Electric					Y	
Lighting	Lighting Persistence (EM&V Forum)	I	C	\$25,000	Y	\$5,500
EI	Benchmarking Process Evaluation	P	C	\$40,000	Y	\$8,800
Custom	2006 CDA	I	C	\$15,000	Y	\$3,300
Custom	2007 Process	I	C	\$70,000	Y	\$15,400
Custom	2008 Lighting	I	N	\$50,000	Y	\$11,000
Custom	2008 Process	I	N	\$80,000	Y	\$17,600
Custom	2008 HVAC	I	N	\$67,500	Y	\$14,900
Custom	Sample Design/Data Analysis	I		\$25,000	Y	\$5,500
SBS	Plug Load Study	O	N	\$25,000	Y	\$5,500
Other Electric					Y	
	Portfolio Level Precision and Confidence	O		\$30,000	Y	\$6,600
	Savings Load Shape (EM&V Forum)	O		\$35,000	Y	\$7,700
	Aquidneck Island/Community Evaluation	O		\$50,000	Y	\$50,000
	2009 Avoided Energy Supply Component Study (75% Elec)	O		\$60,000	Y	\$13,200
Gas					Y	\$0
CEEP	Commercial Energy Efficiency Program (CEEP)	I/P	N	\$100,000	Y	\$26,000
HEHE	Res High Eff Heating Equipment (HEHE)	I/P	N	\$30,000	Y	\$7,800
	Free ridership and spillover	O	N	\$100,000	Y	\$26,000
Weatherization	Res Wx	I/P	N	\$100,000	Y	\$26,000
	Combined Heat and Power (CHP)	I		\$50,000	Y	\$14,600
	MicroCHP Evaluation	I		\$50,000	Y	\$14,600
	Building Practices & Demonstration	I		\$50,000	Y	\$14,600
EWise	Ewise Impact Evaluation	I	N	\$25,000	Y	\$25,000
	2009 Avoided Energy Supply Component Study (25% gas)	O		\$20,000	Y	\$5,200
	Total			\$1,687,500		\$362,900
	Electric Subtotal			\$1,162,500		\$203,100
	Gas Subtotal			\$525,000		\$154,600

will carryover to 2010

Note: RI Tech Pot Study being paid for through EERMC.

2009 PERFORMANCE METRICS

Introduction

Since 2004, a portion of the incentive under the shareholder incentive mechanism for the DSM programs has been reserved for incentivized performance metrics. These performance metrics are established for initiatives offered in Rhode Island for market transformation objectives or for significant improvements in program offerings. In all cases, the metrics are designed to be straightforward measures of progress for initiatives believed worthy of a special targeted focus.

For 2009, the Company proposes performance metrics for five initiatives. For four of these, the essential objective of the individual initiative is not changing from 2008. This reflects the Parties agreement that the metrics are still valid as well as the fact that, for many such initiatives, progress is achieved over time and that it is worthwhile to maintain the focus of program implementation on the policy objective defined by the metric over more than one year.

The Company proposes the performance targets for 2009 described on the following pages. The proposed targets reflect current market conditions and will require significant Company effort to achieve desired results.

Final Metric Targets

Threshold performance for all five metrics will be based on 2008 results. As 2008 results are not yet available, this Attachment provides a process and framework for the calculation of metric targets once results are available. For three metrics (ENERGY STAR® Homes, High Performance Schools, and Core Performance Buildings), the targets may be set early in 2009. For the other two metrics, preliminary MWh targets are included here consistent with the program savings estimates provided in the Settlement, Table E-5.

1 However, if the assumptions used to develop metric MWh targets change as the result of
2 completed evaluation studies, the Parties agree that the performance metric MWh targets
3 may be adjusted accordingly. The Company will recalculate metric targets to account for
4 those evaluation findings and provide them to the Collaborative for review. If the
5 adjusted metric MWh targets vary by more than 5% from the targets included below,
6 Division review and approval will be required. The incorporation of evaluation study
7 results is typically not completed until August of the program year, i.e., the results from
8 evaluation of the 2008 programs will not be incorporated until August 2009. Therefore,
9 the Company proposes to calculate and file revised metric targets, if any, no later than
10 September 30, 2009.

11
12 **Partial Credit**

13
14 The Parties agree that, for three of the metrics, partial credit will be awarded for
15 performance that does not meet the specific numeric target, in recognition of the
16 Company's effort and in recognition that Rhode Island consumers benefit from even
17 partial progress toward the metric's objective. No extra incentive will be awarded for
18 exceeding the numeric target.

19
20 The performance level at which partial achievement will be credited is the "threshold."
21 For the three metrics structured with partial credit in 2009, the threshold will be greater
22 than or equal to final 2008 performance after consideration of the unique attributes of the
23 metric. This provides continuity in the structure of the metric at the same time as
24 creating a clear standard for the Company from which it must improve in order to receive
25 an incentive. .

26
27 The performance level at which the full incentive will be credited is the "target." The
28 incentive for two metrics will be linearly scaled between the threshold and the target. For

1 the schools metric that does not allow for this kind of scaling, the incentive will be
2 credited for incremental levels of performance.

3

4 **Residential Metric 1: ENERGY STAR® Homes**

5 Metric: In 2009, the Company will conduct plans analyses and home ratings and sign
6 ENERGY STAR® builders' agreements for new homes being built in Rhode Island. It
7 will increase the penetration of signed builders agreements in 2009 by 3 percentage
8 points compared to the penetration achieved in 2008. Penetration will be calculated as
9 the number of signed agreements divided by the number of permits for new dwelling
10 units issued.

11 Objective: The metric supports market transformation in the construction of new homes
12 by giving an incentive for an increase in market penetration. This is a leading indicator
13 of future savings in the program.

14

15 Discussion: In 2006 the ENERGY STAR® Homes program was redesigned at the
16 national level to increase efficiency requirements. Signing up builders and home buyers
17 to the more stringent updated ENERGY STAR® Homes program requires builders to
18 agree to a significant change in their building practices, so the trend in penetration can be
19 viewed beginning with that year. Penetration levels for 2006 and 2007 were 15.8% and
20 19.6% respectively. Note that these values include only those who sign ENERGY
21 STAR® agreements; participants through the Code Plus feature of the program will not be
22 counted toward the metric.

23 For 2009, the threshold for this metric is set at 1 percentage point greater than 2008 year-
24 end penetration and the target level of performance is an increase of 3 percentage points
25 over the penetration achieved in 2008. The increase of 3% over year end 2008
26 penetration is comparable to the penetration increase that was observed in 2001-03, when
27 the previous program design was in its initial years of deployment.

1 Partial Performance: The following is proposed for partial achievement toward the target
2 of a 3 percentage point increase in penetration. The incentive for performance between
3 the threshold and the target will be scaled proportionately.

4

ENERGY STAR [®] HOMES			
	Penetration %	Incentive	% of Incentive
Threshold	XX.X% (2008 penetration + 1%)	\$10,000	33%
Target	XX.X% (2008 penetration +3%)	\$30,000	100%

5
6
7 **Residential Metric #2: Savings from Programs other than Residential Lighting**

8
9 Metric: The Company will achieve a target amount of MWh savings from residential
10 non-low income programs other than Residential Lighting in 2009. The target will be
11 calculated as the net annual MWh savings goal for all residential non-low income
12 programs excluding the net annual MWh savings from the Residential Lighting program.

13
14 Objective: This metric encourages the Company to provide sufficient focus on achieving
15 savings objectives in all of its residential energy efficiency programs.

16
17 Discussion: The Company's proposed savings goals for 2009 include objectives that
18 focus on energy efficiency opportunities beyond energy efficient lighting in the
19 Residential Lighting Program. This metric complements and reinforces these other
20 objectives by focusing Company efforts on all residential non-low income programs.
21 The metric incentive will be earned only if savings from programs other than Residential
22 Lighting meet or exceed the combined threshold savings goal for those programs.

23
24 Annual MWh savings will be counted for all residential non-low income programs,
25 excluding Residential Lighting. The proposed target is set at 100% of the net annual

1 MWh savings goal from programs other than Residential Lighting. The goal is set as a
2 MWh target for savings from programs other than Residential Lighting, rather than a
3 percentage of sector savings, because of the individual characteristics of the various
4 programs. There is no threshold for this metric. Without a threshold, this becomes an
5 “all-or-nothing” performance metric. The parties propose this treatment because it
6 efficiently complements the MWh savings incentive for this sector. Recognizing the
7 difficulty in predicting customer demand for program services in these residential
8 programs, this will be a challenging goal to achieve.

9
10 Metric Performance: The following is for achievement of the target savings from
11 residential programs other than the Residential Lighting Program.

RESIDENTIAL OTHER PROGRAM SAVINGS			
Performance	Annual MWh Savings	Incentive	% of Incentive
Target	9,655 MWh (100% of MWh goal) ¹	\$30,000	100%

12
13 There is no threshold for this metric.

14
15
16 **C&I Metric 1: Savings Other Than Prescriptive Lighting Savings in the Energy**

17 **Initiative Program**

18
19 Metric: The Company will achieve a target amount of MWh savings from subprograms
20 other than prescriptive lighting in the Energy Initiative program in 2009. The target will
21 be calculated as the net annual MWh savings from all other subprograms² estimated as
22 part of the planned savings for the Energy Initiative program in 2009.

23

¹ This target is based on program savings estimates contained in Table E-5; it may be changed by September 30, 2009, as noted above.

² For the 2009 Energy Initiative Program, subprograms include Compressed Air, Custom, HVAC, Lighting, Motors, and VSDs.

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1 Objective: This metric encourages the Company to seek comprehensive retrofit projects
2 in existing Commercial and Industrial customer facilities that go beyond prescriptive
3 lighting.

4
5 Discussion: The percentage of savings from prescriptive lighting in the Energy Initiative
6 Program has been increasing over the past few years. This type of measure distribution
7 has helped the Company achieve savings goals but this has perhaps been achieved at the
8 expense of measure diversity. This metric complements and reinforces the overall
9 program savings goals by establishing a performance metric focusing on other
10 subprogram savings. The metric incentive will only be earned only if other subprogram
11 savings meets or exceeds 100% of the kWh savings built into the savings goals.

12
13 As mentioned above, the proposed target is 100% of the MWh savings from all Energy
14 Initiative subprograms except prescriptive lighting consistent with the savings goals for
15 2007. The goal is set as a MWh target for savings, rather than a percentage of program
16 savings, because this provides a clearer target than a percentage, which would be affected
17 by how much prescriptive lighting savings are achieved. There is no threshold for this
18 metric. Without a threshold, this becomes an “all-or-nothing” performance metric. The
19 parties propose this treatment because it efficiently complements the MWh savings
20 incentive for this sector. The Company will share quarterly subprogram MWh savings
21 information with the Collaborative to track metric performance.

22
23 Metric Performance: The following is for achievement of the target savings from Energy
24 Initiative other than prescriptive-lighting.

ENERGY INITIATIVE OTHER SUBPROGRAM SAVINGS			
Performance	MWh Savings	Incentive	% of Incentive
Target	5,254 MWh (2009 plan) ³	\$30,000	100%

³ This target is based on program savings estimates embedded in Table E-5; it may be changed by September 30, 2009, as noted above. There is no threshold for this metric.

1 **C&I Metric 2: High Performance Schools**

2
3 **Metric:** The Company will contract with public or private school projects through
4 Design 2000*plus* to provide full incremental cost for high performance design and
5 construction practices for new construction or major renovations with a special focus on
6 high quality energy efficient lighting. It shall contract with 2 schools in 2009 more than
7 were contracted with in 2008.

8
9 **Objective:** This market capitalizes on the window of opportunity available when school
10 facilities are being built or renovated to increase program participation and energy
11 savings. It assists a portion of the municipal sector that faces continuing funding
12 challenges.

13
14 **Discussion:** Schools present unique opportunities to not only adopt energy efficiency but
15 to enhance student learning through better classroom design. This metric provides
16 technical and financial support from the very beginning of school construction projects,
17 emphasizes thermal, acoustic, and visual comfort, especially in lighting design, and helps
18 cities and towns construct new schools that are high quality, environmentally sensitive,
19 and cost less to operate.

20
21 According to documents from the Department of Education, on average, funding is
22 approved for approximately 15 public school projects per year. In the period 2001
23 through 2006, 11 schools, or 12% (of approximately 90 schools), have participated in the
24 Schools Initiative.⁴

25

⁴ Some of the approved public school projects may be for projects that may not be suitable for the Schools Initiative, in other words, projects that do not involve new construction or major renovation. These may be for partial facility construction, minor renovations, or equipment replacement at the end of its useful life. Many of these have received rebates through the Design 2000*plus* program. In fact, over 75% of the funded public school projects received Design2000*plus* rebates in this period.

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1 The Company placed under contract 1 school in each of 2004 and 2005, zero schools in
2 2006, and two schools in 2007. This indicates the continuing difficulty in recruiting
3 customers to this initiative considering the small number of new schools built each year,
4 the long project development schedules, and the current economic climate, particularly
5 for municipalities. The parties agree to set the threshold equal to the final number of
6 number of schools placed under contract in 2008 and the target at the 2008 participation
7 level plus two additional schools.

8
9 For 2009, the Company will continue to work with the Rhode Island Department of
10 Elementary and Secondary Education to help identify additional participants. The
11 Company has not yet been able to identify a single source of data that tracks funding of
12 private school construction. Nevertheless, the Company will use the same level of effort
13 to offer the program to private schools as to public schools and include contracts with
14 private schools in the performance metric for 2009.

15
16 Partial Performance: Based on historic performance, the small size of the eligible market
17 and the uncertainty about the potential in the private school sector, the following is
18 proposed for partial achievement toward the target of three schools.

SCHOOLS INITIATIVE			
Performance	Signed Agreements	Incentive	% of Incentive
Threshold	2008 participation	\$10,000	50%
Intermediate	2008 participation + 1 school	\$20,000	75%
Target	2008 participation + 2 schools	\$30,000	100%

1 **C&I Metric 3: Core Performance Buildings**

2

3 Metric: The Company will contract with design professionals (architects, engineers,
4 builders) to commit to apply the Core Performance guidelines in the design and
5 construction of new commercial buildings less than 75,000 square feet in area. The
6 Company will sign agreements covering 4 buildings in 2009.

7

8 Objective: The metric supports market transformation in the construction of small to
9 medium size commercial facilities which have not received as much energy efficiency
10 attention as larger construction projects. By introducing the Core Performance guidelines
11 to and securing commitments with design professionals, this effort will affect other
12 facilities with which these professionals are involved.

13

14 Discussion: As noted in Attachment 4, Core Performance is a suite of technical resources
15 and design guides that help design professionals create commercial buildings that are
16 energy efficient and provide a healthy work environment for occupants. The Company
17 has been promoting Core Performance in Rhode Island since 2006 to address the
18 efficiency needs of new construction projects for commercial buildings less than 75,000
19 sf. This effort has featured several training programs on the topic offered in RI.

20

21 For 2009, we expect the number to grow as architects and their clients realize that
22 buildings designed this way are practical and cost effective. The program will continue
23 to be expanded in 2009 to reach more projects and more design firms through further
24 training and promotional efforts. Also, National Grid continues to work closely with the
25 New Buildings Institute, the national organization that manages and promotes and
26 maintains Advanced Buildings across the country to add powerful new features to the
27 program that will increase its appeal and market penetration. Furthermore, the Company
28 is revising the incentive structure for Core Performance to be on a \$/sq. ft. basis—the

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1 same benchmark used by developers. The Company plans to monitor the effectiveness of
2 reaching developers through this new this new incentive strategy and use data gathered to
3 inform future program and metric design.

4

5 The Company projects that it will sign one agreement during 2008. The threshold for the
6 2009 performance metric builds on this achievement and the target establishes a stretch
7 goal to sign additional agreements.

8

9 Partial Performance: The following is proposed for partial achievement toward the
10 target.

11

CORE PERFORMANCE BUIDLINGS			
Performance	Signed Agreements	Incentive	% of Incentive
Threshold	2	\$10,000	33%
Target	4	\$30,000	100%

12

13 The incentive for performance between the threshold and the target will be scaled
14 proportionately.