

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

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**In Re: The Narragansett Electric Company  
d/b/a National Grid  
Energy Efficiency Program Plan for 2013**

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**Docket No. 4366**

**ENERGY EFFICIENCY PROGRAM PLAN FOR 2013**

**SETTLEMENT OF THE PARTIES**

**November 2, 2012**



November 2, 2012

**VIA HAND DELIVERY & ELECTRONIC MAIL**

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

**RE: Docket 4366 – The Narragansett Electric Company, d/b/a National Grid  
2013 Energy Efficiency Program Plan**

Dear Ms. Massaro:

Enclosed are ten (10) copies of National Grid's<sup>1</sup> the proposed Energy Efficiency Program Plan for 2013 (the "2013 Plan" or "Plan"). As in past years, the Plan is being filed as a settlement, agreed to by the participating members of the Energy Efficiency Subcommittee of the Energy Efficiency Resources Management Council ("EERMC").

This year's energy efficiency annual plan filing is made pursuant to the System Reliability and Least Cost Procurement statute, R.I.G.L. § 39-1-27.7, and is consistent with the framework and savings goals established in the Three Year Energy Efficiency Procurement Plan ("Three Year Plan") filed in Docket 4284.

The 2013 Plan proposes total budgets of \$77.5 million and \$19.5 million for electric and gas, respectively. These expenditures are estimated to create substantial annual and lifetime savings for customers, with Rhode Island customers realizing \$2.19 in benefits for every \$1 invested in the Plan programs. The electric plans are expected to produce lifetime savings of 1,582,496 MWh, which translates into lifetime bill savings of approximately \$103 million. The gas plans are expected to produce lifetime savings of 3,830,689 MMBtu, which translates into a lifetime bill savings of approximately \$35 million. Over all, the Plan will generate economic benefits of more than \$462 million over the life of the measures, with \$358 million in benefits coming from the electric energy efficiency programs, and \$104 million in benefits coming from the natural gas programs.

This year's Plan proposes to continue the implementation strategies from the 2012 Plan to deliver the themes set forth in the Three Year Plan: (i) creating energy efficiency opportunities for every Rhode Island customer, (ii) targeting customer segments, (iii) using the latest innovation, and (iv) focusing on economic mechanisms that facilitate participation and create economic benefits. Total participants in both gas and electric programs are projected to increase from 379,281 in 2012 to 621,494 in 2013.

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

In accordance with the requirements of Least Cost Procurement, R.I.G.L. § 39-1-27.7, to achieve the energy efficiency goals, the Plan proposes a fully reconciling funding mechanism that would increase the current \$0.00589 per kWh Energy Efficiency Program (“EEP”) charge by \$0.00273 per kWh for a total EEP charge of \$0.00862 per kWh. The Plan also proposes to increase the current \$0.384 per dekatherm charge by \$0.030 per dekatherm, resulting in a total \$0.414 per dekatherm EEP charge for gas programs.<sup>2</sup> Both the electric and natural gas implementation budgets are lower than was predicted in the Three Year Plan filed on September 7, 2011, and EEP charges are lower for natural gas and equal to Three Year Plan projections for electric energy efficiency. The members of the Collaborative Subcommittee have reviewed and approved the reasonableness of the Plan funding levels.

This year also marks the first energy efficiency annual plan filing since R.I.G.L. § 39-1-27 was amended to provide support for the development of combined heat and power (“CHP”) facilities through the energy efficiency programs under Least Cost Procurement. The amended statute directs the Company to document support for CHP in its annual energy efficiency plan filing, and sets forth specific criteria that the Company must factor into its CHP plan and program. The amended statute calls for the Commission to evaluate the submitted CHP program as part of the annual energy efficiency plan, and to issue an order approving the energy efficiency plan and programs within sixty (60) days of the filing. Accordingly, the Company has included its CHP proposal in compliance with the amended statute as part of its commercial and industrial energy efficiency programs and initiatives for 2013.

The significant components of the 2013 CHP program include:

- Streamlining technical assistance studies;
- Modifications to the quantification of benefits for CHP projects within the TRC benefit cost test, which is the traditional screening process that all energy efficiency projects must pass in order to be cost-effective;
- Enhanced incentive offerings, with higher incentives available for CHP projects with efficiencies of 60% or greater or that also commit to implementing specified levels of energy efficiency measures; The maximum incentive package cap is 70% of the total project cost, inclusive of all incentives; and
- Provisions related to commissioning, interconnection, and maintenance to make sure that the CHP facility operates as intended over a long period of time and provide the expected energy efficiency benefits.

In order to assure that a customer who receives incentives for a CHP installation through this section of the energy efficiency program continues to pay a fair share of the costs of the distribution system upon which the customer will continue to rely when the CHP unit is

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<sup>2</sup> These calculations are based on a January 1, 2013 effective date; however, the Company does not object to utilizing a February 1, 2013 effective date for the change in the EEP charge if the Commission prefers. In such event, the total electric EEP charge would be \$0.00888 per kWh, and the total gas EEP charge would be \$0.420 per dekatherm.

inevitably off-line, the Company is proposing that, going forward, such customers be billed for delivery service charges on the appropriate general service tariff, rather than the existing back up rates (B-32 and B-62). Accordingly, the Company requests approval of the enclosed revised general service tariffs, General C&I Rate G-02, 200 kW Demand Rate G-32, and 3,000 kW Demand Rate G-62 and Back-up Service rates, C&I Back-up Service Rate B-32 and 3,000 kW Demand Back-up Service Rate B-62, effective January 1, 2012. The proposed tariffs will replace R.I.P.U.C. 2087, R.I.P.U.C. 2088, R.I.P.U.C. 2089, R.I.P.U.C. 2122, and R.I.P.U.C. 2123, respectively. Rates G-02, G-32 and G-62 have been revised to reflect that customers who install CHP units through the provisions of the Energy Efficiency Plan will pay the greater of the customer's distribution demand and energy charges under the provision of the applicable general service tariff, or a minimum charge as set forth in the revised tariffs. In addition, the current back-up service rates have been revised to clarify that customers who benefit from incentives through the Energy Efficiency CHP Program will receive back-up and delivery service on the appropriate general service tariff. The Company believes that this rate treatment will mitigate the cross-subsidies from other customers caused by the reduction in distribution payments made by the CHP host customer. Attachment 1 to this cover letter contains a clean version of the proposed tariffs and Attachment 2 contains a version that is marked to show changes from the current tariffs.

Subsection (c)(5) of the Least Cost Procurement statute, R.I.G.L. § 39-1-27.7 provides the EERMC with the specific responsibility for reviewing and approving the cost-effectiveness of the Plan to be submitted to the Commission for review and approval of the full funding. The 2013 Plan has been reviewed and approved by the EERMC and complies with all aspects of the Least Cost Procurement statute, as recently amended. In order to deliver the expected economic benefits from the 2013 Plan and to meet the 2013 goals the Plan seeks to achieve, the Company respectfully requests that the Commission approve this Plan.

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

Very truly yours,



Jennifer Brooks Hutchinson

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

## **Attachment 1**

Clean Version of Tariffs

**THE NARRAGANSETT ELECTRIC COMPANY  
C&I BACK-UP SERVICE RATE (B-32)  
RETAIL DELIVERY SERVICE**

**AVAILABILITY**

This service shall apply to Customers in the class identified below:

- (i) who receive all or any portion of their electric supply from non-emergency generation unit(s) with a nameplate rating greater than 30 kW ("Generation Units"), where electricity received by the Customer from the Generation Units is not being delivered over Company-owned distribution facilities pursuant to an applicable retail delivery tariff, and
- (ii) who expect the Company to provide retail delivery service to supply the Customer's load at the service location when the Generation Units are not supplying all of that load.

Electric delivery service under this rate is applicable to customers with a facility demand of 25 kilowatts or more. Notwithstanding the foregoing, the Company may require any customer with a 12-month average Demand greater than 3,000 kW at its facility to take service on the 3,000 kW Demand Back-up Service Rate B-62 (subject to the settlement provisions in Docket No. 2290).

Customers who receive incentive payments for the installation of non-emergency generation units configured for Combined Heat and Power ("CHP") through the Company's approved Energy Efficiency Plan after the effective date of this tariff, and who would otherwise be eligible for this rate, will receive retail delivery service on General C&I Rate G-02 or 200kW Demand Rate G-32, as applicable.

All Customers served on this rate must elect to take their total electric delivery service under the metering installation as approved by the Company

**EXEMPTION FOR CUSTOMER ACCOUNTS ASSOCIATED WITH ELIGIBLE NET METERING SYSTEMS**

Customers accounts associated with Eligible Net Metering Systems, as defined in R.I Public Laws of 2011, Chapters 134 and 147, shall be exempt from back-up service rates commensurate with the size of the generating facility and subject to the statutory three (3) percent cap on the aggregate amount of net metering in Rhode Island.

**TYPES OF SERVICE**

"Back-Up" Retail Delivery Service consists of the Company standing ready to provide retail delivery service to the Customer's load when a non-emergency generator that supplies electricity to the Customer without using Company-owned distribution facilities does not supply all of the Customer's load.

"Supplemental" Retail Delivery Service is the delivery over Company-owned distribution facilities of electricity which is utilized at the Customer's facilities.

**MONTHLY CHARGE**

The Monthly Charge will be the sum of the Back-Up Service Charges, and the Supplemental Service Charges, as stated below

THE NARRAGANSETT ELECTRIC COMPANY  
**C&I BACK-UP SERVICE RATE (B-32)**  
RETAIL DELIVERY SERVICE

**DETERMINATION OF BILLING DEMAND FOR BILLING SUPPLEMENTAL AND BACK-UP per kW (DEMAND) CHARGES**

The Billing Demand for each month for purposes of billing Back-Up and Supplemental Service shall be the greatest of the following:

- 1) The greatest fifteen-minute peak coincident demand of the generation meter(s) plus the demand from the meter(s) at the Customer's service entrance(s) occurring in such month during Peak hours as measured in kW;
- 2) 90% of the greatest fifteen-minute peak coincident demand of the generation meter(s) plus the demand from the meter(s) at the Customer's service entrance(s) occurring in such month during Peak hours as measured in kilovolt-amperes;
- 3) 75% of the greatest Demand as so determined above during the preceding eleven months.

**BACK-UP RETAIL DELIVERY SERVICE**

**a) Rates for Back-Up Retail Delivery Service**

Customer Charge per month See R.I.P.U.C. No. 2095, Summary of Retail Delivery Rates

Distribution Charge per kW See R.I.P.U.C. No. 2095, Summary of Retail Delivery Rates

The Distribution Charge per kW applicable to Back-up Retail Delivery Service shall be equal to \$5.04 (representing the base distribution kW charge applicable to Back-up Service as approved in R.I.P.U.C. Docket No. 4065), plus the approved Operation and Maintenance and CapEx factors applicable to Back-up Service, both per the Company's approved Infrastructure Safety and Reliability Plan, multiplied by a factor of 10%, representing the likelihood that, on average, an outage of an individual customer's generator will occur coincident with the Company's distribution system peak demand approximately 10% of the time.

**b) Determination of Back-Up Service Kilowatt Demand**

The Back-Up Service Demand shall be the greater of:

- 1) the fifteen-minute reading from the Customer's generation meter(s) as measured in kilowatts at the time of the Billing Demand in excess of 200 kW;
- 2) 90% of the fifteen-minute reading from the Customer's generation meter(s) as measured in kilovolt-amperes at the time of the Billing Demand in excess of 200 kW; or
- 3) One hundred percent (100%) of the greatest Back-up Service Demand as determined above during the preceding eleven (11) months.

**c) Installation of Meters on Generation**

The Customer shall permit the Company to install meter(s) on the Generation Units providing electricity to the Customer, for purposes of billing under the terms of this rate. The meter shall be in accordance with the Company's reasonable specifications. The Customer will reimburse the Company for the installed cost of the



THE NARRAGANSETT ELECTRIC COMPANY  
**C&I BACK-UP SERVICE RATE (B-32)**  
RETAIL DELIVERY SERVICE

meter and any associated equipment. The Customer shall provide reasonable access to the Company during normal business hours to read such meter in order to bill the Customer for service under this rate.

**PEAK AND OFF-PEAK PERIODS**

PEAK HOURS:	June - September	-- 8 a.m. - 10 p.m. Weekdays,
	December - February	-- 7 a.m. - 10 p.m. Weekdays
	October – November and	
	March - May	-- 8 a.m. - 9 p.m. Weekdays
OFF-PEAK HOURS:	All other hours	

Weekdays shall mean Monday through Friday, excluding the following holidays: New Year's Day, President's Day, Memorial Day, Independence Day, Columbus Day (observed), Labor Day, Veterans Day, Thanksgiving Day and Christmas Day.

**SUPPLEMENTAL RETAIL DELIVERY SERVICE**

**a) Rates for Supplemental Retail Delivery Service**

<u>Transmission Charge per kW</u>	See R.I.P.U.C. No. 2095, Summary of Retail Delivery Rates
<u>Distribution Charge per kW in excess of 200 kW</u>	See R.I.P.U.C. No. 2095, Summary of Retail Delivery Rates
<u>Distribution Charge per kWh</u>	See R.I.P.U.C. No. 2095, Summary of Retail Delivery Rates
<u>Non-Bypassable Transition Charge per kWh</u>	See R.I.P.U.C. No. 2095, Summary of Retail Delivery Rates

**b) Assessment of Kilowatt-hour Charges**

For purposes of billing kWh charges for Supplemental Distribution and Transmission Service, Customers will be billed on the greater of (i) the actual kWh delivered by the Company or (ii) 90% of the actual kVAh delivered.

For purposes of billing kWh charges for Standard Offer Service, Non-Bypassable Transition Service and Energy Efficiency Programs, Customers will be billed on actual kWh delivered by the Company.

**c) Determination of Kilowatt Demand**

The Supplemental Distribution Service Demand for each month shall be the Billing Demand in excess of the Back-up Service Demand, but in no case less than 0 kW.

The Supplemental Transmission Service Demand for each month shall be:

- 1) The greatest fifteen-minute peak from the meter(s) at the Customer's service entrance(s) occurring in such month during Peak hours as measured in kW at the time of Billing Demand; or

THE NARRAGANSETT ELECTRIC COMPANY  
**C&I BACK-UP SERVICE RATE (B-32)**  
RETAIL DELIVERY SERVICE

- 2) 90% of the greatest fifteen-minute peak demand from the meter(s) at the Customer's service entrance(s) occurring in such month during Peak hours as measured in kilovolt-amperes at the time of Billing Demand

**OPTIONAL DETERMINATION OF DEMAND**

A Customer who has been served under this rate for one year or more may upon written request have the Demand for each month used for Supplemental Service be based upon the greatest of items (1) and (2) set forth above for Billing Demand, beginning with the next month after such request and running for a period of not less than two consecutive months. In such case, the Distribution Charge per kW, the Distribution Charge per kWh, the Transmission Charge per kW and the Transmission Charge per kWh for Supplemental Service will be increased by 20% during any such period.

In addition, the Company may, at its discretion, agree to a lower demand determination for Back-Up Service below fifteen-minute peak coincident demand of the generation meter(s) if a Customer has installed equipment or configured its facilities in such a manner that automatically limits the requirement for Back-Up Service to the lower agreed-upon demand. Under such a situation, the Customer must demonstrate to the Company's reasonable satisfaction that the Customer's facilities are configured so as to limit the demand that can be placed on the distribution system, or must install and maintain, at no cost to the Company, an automated demand limiter or other similar device as agreed to by the Company which limits deliveries to the Customer over the Company's distribution system based on the lower agreed-upon demand. This equipment can not adversely affect the operation of the Company's distribution system or service to other customers. Such interruptible Back-Up Service shall be negotiated by the Customer and the Company under a separate contract which shall be specific to an individual customer's circumstances.

**RATE ADJUSTMENT PROVISIONS**

Transmission Service Charge Adjustment

The prices under this rate as set forth under "Monthly Charge" may be adjusted from time to time in the manner described in the Company's Transmission Service Cost Adjustment Provision. This provision shall not apply for Back-Up Retail Delivery Service and shall only apply to Supplemental Retail Delivery Service.

Transition Charge Adjustment

The prices under this rate as set forth under "Monthly Charge" may be adjusted from time to time in the manner described in the Company's Non-Bypassable Transition Charge Adjustment Provision. This provision shall not apply for Back-Up Retail Delivery Service and shall only apply to Supplemental Retail Delivery Service.

Standard Offer Adjustment

All Customers served on this rate must pay any charges required pursuant to the terms of the Company's Standard Offer Adjustment Provision, whether or not the Customer is taking or has taken Standard Offer Service. This provision shall not apply for Back-Up Retail Delivery Service and shall only apply to Supplemental Retail Delivery Service.

THE NARRAGANSETT ELECTRIC COMPANY  
**C&I BACK-UP SERVICE RATE (B-32)**  
RETAIL DELIVERY SERVICE

Energy Efficiency Programs

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Energy Efficiency Program Provision as from time to time effective in accordance with law. This provision shall not apply for Back-Up Retail Delivery Service and shall only apply to Supplemental Retail Delivery Service.

Infrastructure, Safety and Reliability Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Infrastructure, Safety and Reliability Provision as from time to time effective in accordance with law.

Customer Credit Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Customer Credit Provision as from time to time effective in accordance with law.

LIHEAP Enhancement Plan Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's LIHEAP Enhancement Plan Provision as from time to time effective in accordance with law.

Revenue Decoupling Mechanism Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Revenue Decoupling Mechanism Provision as from time to time effective in accordance with law.

Net Metering Provision and Qualifying Facilities Power Purchase Rate

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Net Metering Provision and Qualifying Facilities Power Purchase Rate as from time to time effective in accordance with law.

**STANDARD OFFER SERVICE**

Any Customer served under this rate who is eligible for Standard Offer Service shall receive such service pursuant to the Standard Offer Service tariff. This provision shall not apply for Back-Up Retail Delivery Service and shall only apply to Supplemental Retail Delivery Service.

**CREDIT FOR HIGH VOLTAGE DELIVERY**

If the Customer takes delivery at the Company's supply line voltage, not less than 2400 volts, and the Company is saved the cost of installing any transformer and associated equipment, a credit of 42 cents per kilowatt of supplemental distribution billing demand for such month shall be allowed against the amount determined under the preceding provisions.

An additional credit of \$2.00 per kilowatt of the supplemental distribution billing demand for such month shall also be allowed if the Customer accepts delivery at not less than 115,000 volts, and the Company is saved the cost of installing any transformer and associated equipment.

**THE NARRAGANSETT ELECTRIC COMPANY  
C&I BACK-UP SERVICE RATE (B-32)  
RETAIL DELIVERY SERVICE**

The total amount of the credit allowed under this provision shall not exceed the sum of the Customer Charge, the Distribution Charge per kW and the Distribution Charge per kWh.

**HIGH-VOLTAGE METERING ADJUSTMENT**

The Company reserves the right to determine the metering installation. Where service is metered at the Company's supply line voltage, in no case less than 2400 volts, thereby saving the Company transformer losses, a discount of 1% will be allowed from the amount determined under the preceding provisions.

**SECOND FEEDER SERVICE**

Except as provided below, Customers receiving second feeder service shall pay \$2.00 per 90% of KVA of reserved second feeder capability. The charge for second feeder capability shall apply only to Customers with second feeder capability installed on or after May 1, 1998. The charge for second feeder capability shall not apply to Customers taking service within the Capital Center of Providence or within the downtown Providence underground network system. The Company's Construction Advance Policy 3 shall apply to determine any advance contribution by the customer, using an estimate of revenues to be derived from this second feeder rate. The Company reserves the right to decline second feeder service for engineering reasons.

An additional \$0.42 per 90% of KVA of reserved second feeder capability shall be charged if an additional transformer is required at the Customer's facility.

**GROSS EARNINGS TAX**

A Rhode Island Gross Earnings Tax adjustment will be applied to the charges determined above in accordance with Rhode Island General Laws.

**GROSS EARNINGS TAX CREDIT FOR MANUFACTURERS**

Consistent with the gross receipts tax exemption provided in Section 44-13-35 of Rhode Island General Laws, eligible manufacturing customers will be exempt from the Gross Earnings Tax to the extent allowed by the Division of Taxation.

Eligible manufacturing customers are those customers who have on file with the Company a valid certificate of exemption from the Rhode Island sales tax (under section 44-18-30(7) of Rhode Island General Laws) indicating the customer's status as a manufacturer. If the Division of Taxation (or other Rhode Island taxing authority with jurisdiction) disallows any part or all of the exemption as it applies to a customer, the customer will be required to reimburse the Company in the amount of the credits provided to such customer which were disallowed, including any interest required to be paid by the Company to such authority.

**TERMS AND CONDITIONS**

The Company's Terms and Conditions in effect from time to time, where not inconsistent with any specific provisions hereof, are a part of this rate.

Effective: JANUARY 1, 2013

**THE NARRAGANSETT ELECTRIC COMPANY  
3,000 kW DEMAND BACK-UP SERVICE RATE (B-62)  
RETAIL DELIVERY SERVICE**

**AVAILABILITY**

This service shall apply to Customers in the class identified below:

- (i) who receive all or any portion of their electric supply from non-emergency generation unit(s) with a nameplate rating greater than 30 kW ("Generation Units"), where electricity received by the Customer from the Generation Units is not being delivered over Company-owned distribution facilities pursuant to an applicable retail delivery tariff, and
- (ii) who expect the Company to provide retail delivery service to supply the Customer's load at the service location when the Generation Units are not supplying all of that load.

Electric delivery service under this rate is applicable to those Customers who would otherwise be served under the Company's 3,000 kW Demand Rate G-62 if the Generation Units were not supplying electricity to the Customer.

Customers who receive incentive payments for the installation of non-emergency generation units configured for Combined Heat and Power ("CHP") through the Company's approved Energy Efficiency Plan after the effective date of this tariff, and who would otherwise be eligible for this rate, will receive retail delivery service on 3,000 kW Demand Rate G-62.

All Customers served on this rate must elect to take their total electric delivery service under the metering installation as approved by the Company.

**EXEMPTION FOR CUSTOMER ACCOUNTS ASSOCIATED WITH ELIGIBLE NET METERING SYSTEMS**

Customers accounts associated with Eligible Net Metering Systems, as defined in R.I Public Laws of 2011, Chapters 134 and 147, shall be exempt from back-up service rates commensurate with the size of the generating facility and subject to the statutory three (3) percent cap on the aggregate amount of net metering in Rhode Island.

**TYPES OF SERVICE**

"Back-Up" Retail Delivery Service consists of the Company standing ready to provide retail delivery service to the Customer's load when a non-emergency generator that supplies electricity to the Customer without using Company-owned distribution facilities does not supply all of the Customer's load.

"Supplemental" Retail Delivery Service is the delivery over Company-owned distribution facilities of electricity which is utilized at the Customer's facilities.

**MONTHLY CHARGE**

The Monthly Charge will be the sum of the Back-Up Service Charges, and the Supplemental Service Charges, as stated below.

THE NARRAGANSETT ELECTRIC COMPANY  
**3,000 kW DEMAND BACK-UP SERVICE RATE (B-62)**  
RETAIL DELIVERY SERVICE

**DETERMINATION OF BILLING DEMAND FOR BILLING SUPPLEMENTAL AND BACK-UP PER KW (DEMAND) CHARGES**

The Billing Demand for each month for purposes of billing Back-Up and Supplemental Service shall be the greatest of the following:

- 1) The greatest fifteen-minute peak coincident demand of the generation meter(s) plus the demand from the meter(s) at the Customer's service entrance(s) occurring in such month during Peak hours as measured in kW;
- 2) 90% of the greatest fifteen-minute peak coincident demand of the generation meter(s) plus the demand from the meter(s) at the Customer's service entrance(s) occurring in such month during Peak hours as measured in kilovolt-amperes;
- 3) 75% of the greatest Demand as so determined above during the preceding eleven months.

**BACK-UP RETAIL DELIVERY SERVICE**

**a) Rates for Back-Up Retail Delivery Service**

<u>Customer Charge per month</u>	See R.I.P.U.C. No. 2095, Summary of Retail Delivery Rates
<u>Distribution Charge per kW</u>	See R.I.P.U.C. No. 2095, Summary of Retail Delivery Rates

The Distribution Charge per kW applicable to Back-up Retail Delivery Service shall be equal to \$2.57 (representing the base distribution kW charge applicable to Back-up Service as approved in R.I.P.U.C. Docket No. 4065), plus the approved Operation and Maintenance and CapEx factors applicable to Back-up Service, both per the Company's approved Infrastructure Safety and Reliability Plan, multiplied by a factor of 10%, representing the likelihood that, on average, an outage of an individual customer's generator will occur coincident with the Company's distribution system peak demand approximately 10% of the time.

**b) Determination of Back-Up Service Kilowatt Demand**

The Back-Up Service Demand shall be the greater of:

- 1) the fifteen-minute reading from the Customer's generation meter(s) as measured in kilowatts at the time of the Billing Demand;
- 2) 90% of the fifteen-minute reading from the Customer's generation meter(s) as measured in kilovolt-amperes at the time of the Billing Demand; or
- 3) One hundred percent (100%) of the greatest Back-up Service Demand as determined above during the preceding eleven (11) months.

THE NARRAGANSETT ELECTRIC COMPANY  
**3,000 kW DEMAND BACK-UP SERVICE RATE (B-62)**  
RETAIL DELIVERY SERVICE

c) **Installation of Meters on Generation**

The Customer shall permit the Company to install meter(s) on the Generation Units providing electricity to the Customer, for purposes of billing under the terms of this rate. The meter shall be in accordance with the Company's reasonable specifications. The Customer will reimburse the Company for the installed cost of the meter and any associated equipment. The Customer shall provide reasonable access to the Company during normal business hours to read such meter in order to bill the Customer for service under this rate.

**PEAK AND OFF-PEAK PERIODS**

PEAK HOURS:	June – September	-- 8 a.m. - 10 p.m. Weekdays,
	December - February	-- 7 a.m. - 10 p.m. Weekdays
	October – November and	
	March – May	-- 8 a.m. - 9 p.m. Weekdays

OFF-PEAK HOURS: All other hours

Weekdays shall mean Monday through Friday, excluding the following holidays: New Year's Day, President's Day, Memorial Day, Independence Day, Columbus Day (observed), Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day.

**SUPPLEMENTAL RETAIL DELIVERY SERVICE**

a) **Rates for Supplemental Retail Delivery Service**

<u>Transmission Charge per kW</u>	See R.I.P.U.C. No. 2095, Summary of Retail Delivery Rates
<u>Distribution Charge per kW</u>	See R.I.P.U.C. No. 2095, Summary of Retail Delivery Rates
<u>Distribution Charge per kWh</u>	See R.I.P.U.C. No. 2095, Summary of Retail Delivery Rates
<u>Non-Bypassable Transition Charge per kWh</u>	See R.I.P.U.C. No. 2095, Summary of Retail Delivery Rates

b) **Assessment of Kilowatt-hour Charges**

For purposes of billing kWh charges for Supplemental Distribution and Transmission Service, Customers will be billed on the greater of (i) the actual kWh delivered by the Company or (ii) 90% of the actual kVAh delivered.

For purposes of billing kWh charges for Standard Offer Service, Non-Bypassable Transition Service and Energy Efficiency Programs, Customers will be billed on actual kWh delivered by the Company.

THE NARRAGANSETT ELECTRIC COMPANY  
**3,000 kW DEMAND BACK-UP SERVICE RATE (B-62)**  
RETAIL DELIVERY SERVICE

c) **Determination of Supplemental Service Kilowatt Demand**

The Supplemental Distribution Service Demand for each month shall be the Billing Demand in excess of the Back-Up Service Demand, but in no case less than 0 kW.

The Supplemental Transmission Service Demand for each month shall be:

- 1) The greatest fifteen-minute peak from the meter(s) at the Customer's service entrance(s) occurring in such month during Peak hours as measured in kW at the time of Billing Demand; or
- 2) 90% of the greatest fifteen-minute peak demand from the meter(s) at the Customer's service entrance(s) occurring in such month during Peak hours as measured in kilovolt-amperes at the time of Billing Demand.

**OPTIONAL DETERMINATION OF DEMAND**

A Customer who has been served under this rate for one year or more may upon written request have the Demand for each month used for Supplemental Service be based upon the greatest of items (1) and (2) set forth above for Billing Demand, beginning with the next month after such request and running for a period of not less than two consecutive months. In such case, the Distribution Charge per kW, the Distribution Charge per kWh, the Transmission Charge per kW and the Transmission Charge per kWh for Supplemental Service will be increased by 20% during any such period.

In addition, the Company may, at its discretion, agree to a lower demand determination for Back-Up Service below fifteen-minute peak coincident demand of the generation meter(s) if a Customer has installed equipment or configured its facilities in such a manner that automatically limits the requirement for Back-Up Service to the lower agreed-upon demand. Under such a situation, the Customer must demonstrate to the Company's reasonable satisfaction that the Customer's facilities are configured so as to limit the demand that can be placed on the distribution system, or must install and maintain, at no cost to the Company, an automated demand limiter or other similar device as agreed to by the Company which limits deliveries to the Customer over the Company's distribution system based on the lower agreed-upon demand. This equipment can not adversely affect the operation of the Company's distribution system or service to other customers. Such interruptible Back-Up Service shall be negotiated by the Customer and the Company under a separate contract which shall be specific to an individual customer's circumstances.

**RATE ADJUSTMENT PROVISIONS**

**Transmission Service Charge Adjustment**

The prices under this rate as set forth under "Monthly Charge" may be adjusted from time to time in the manner described in the Company's Transmission Service Cost Adjustment Provision. This provision shall not apply for Back-Up Retail Delivery Service and shall only apply to Supplemental Retail Delivery Service.

**Transition Charge Adjustment**

The prices under this rate as set forth under "Monthly Charge" may be adjusted from time to time in the manner described in the Company's Non-Bypassable Transition Charge Adjustment Provision. This provision shall not apply for Back-Up Retail Delivery Service and shall only apply to Supplemental Retail Delivery Service.



**THE NARRAGANSETT ELECTRIC COMPANY  
3,000 kW DEMAND BACK-UP SERVICE RATE (B-62)  
RETAIL DELIVERY SERVICE**

Standard Offer Adjustment

All Customers served on this rate must pay any charges required pursuant to the terms of the Company's Standard Offer Adjustment Provision, whether or not the Customer is taking or has taken Standard Offer Service.

This provision shall not apply for Back-Up Retail Delivery Service and shall only apply to Supplemental Retail Delivery Service.

Energy Efficiency Programs

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Energy Efficiency Program Provision as from time to time effective in accordance with law. This provision shall not apply for Back-Up Retail Delivery Service and shall only apply to Supplemental Retail Delivery Service.

Infrastructure, Safety and Reliability Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Infrastructure, Safety and Reliability Provision as from time to time effective in accordance with law.

Customer Credit Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Customer Credit Provision as from time to time effective in accordance with law.

LIHEAP Enhancement Plan Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's LIHEAP Enhancement Plan Provision as from time to time effective in accordance with law.

Revenue Decoupling Mechanism Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Revenue Decoupling Mechanism Provision as from time to time effective in accordance with law.

Net Metering Provision and Qualifying Facilities Power Purchase Rate

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Net Metering Provision and Qualifying Facilities Power Purchase Rate as from time to time effective in accordance with law.

**STANDARD OFFER SERVICE**

Any Customer served under this rate who is eligible for Standard Offer Service shall receive such service pursuant to the Standard Offer Service tariff. This provision shall not apply for Back-Up Retail Delivery Service and shall only apply to Supplemental Retail Delivery Service.

**THE NARRAGANSETT ELECTRIC COMPANY  
3,000 kW DEMAND BACK-UP SERVICE RATE (B-62)  
RETAIL DELIVERY SERVICE**

**CREDIT FOR HIGH VOLTAGE DELIVERY**

If the Customer takes delivery at the Company's supply line voltage, not less than 2,400 volts, and the Company is saved the cost of installing any transformer and associated equipment, a credit of 42 cents per kilowatt of supplemental distribution billing demand for such month shall be allowed against the amount determined under the preceding provisions.

An additional credit of \$2.00 per kilowatt of the supplemental distribution billing demand for such month shall also be allowed if the Customer accepts delivery at not less than 115,000 volts, and the Company is saved the cost of installing any transformer and associated equipment. The total amount of the credit allowed under this provision shall not exceed the sum of the Customer Charge, the Distribution Charge per kW and the Distribution Charge per kWh.

**HIGH-VOLTAGE METERING ADJUSTMENT**

The Company reserves the right to determine the metering installation. Where service is metered at the Company's supply line voltage, in no case less than 2400 volts, thereby saving the Company transformer losses, a discount of 1% will be allowed from the amount determined under the preceding provisions.

**SECOND FEEDER SERVICE**

Except as provided below, Customers receiving second feeder service shall pay \$2.00 per 90% of KVA of reserved second feeder capability. The charge for second feeder capability shall apply only to Customers with second feeder capability installed on or after May 1, 1998. The charge for second feeder capability shall not apply to Customers taking service within the Capital Center of Providence or within the downtown Providence underground network system. The Company's Construction Advance Policy 3 shall apply to determine any advance contribution by the customer, using an estimate of revenues to be derived from this second feeder rate. The Company reserves the right to decline second feeder service for engineering reasons.

An additional \$0.42 per 90% of KVA of reserved second feeder capability shall be charged if an additional transformer is required at the Customer's facility.

**GROSS EARNINGS TAX**

A Rhode Island Gross Earnings Tax adjustment will be applied to the charges determined above in accordance with Rhode Island General Laws.

**GROSS EARNINGS TAX CREDIT FOR MANUFACTURERS**

Consistent with the gross receipts tax exemption provided in Section 44-13-35 of Rhode Island General Laws, eligible manufacturing customers will be exempt from the Gross Earnings Tax to the extent allowed by the Division of Taxation.

Eligible manufacturing customers are those customers who have on file with the Company a valid certificate of exemption from the Rhode Island sales tax (under section 44-18-30(7) of Rhode Island General Laws) indicating the customer's status as a manufacturer. If the Division of Taxation (or other Rhode Island taxing authority with jurisdiction) disallows any part or all of the exemption as it applies to a customer, the customer will be required to reimburse the Company in the amount of the credits provided to such customer which were disallowed, including any interest required to be paid by the Company to such authority.

**THE NARRAGANSETT ELECTRIC COMPANY**  
**3,000 kW DEMAND BACK-UP SERVICE RATE (B-62)**  
**RETAIL DELIVERY SERVICE**

**TERMS AND CONDITIONS**

The Company's Terms and Conditions in effect from time to time, where not inconsistent with any specific provisions hereof, are a part of this rate.

Effective: JANUARY 1, 2013

THE NARRAGANSETT ELECTRIC COMPANY  
**GENERAL C&I RATE (G-02)**  
RETAIL DELIVERY SERVICE

**AVAILABILITY**

Electric delivery service under this rate is available for all purposes to customers with a Demand of 10 kilowatts or more. If electricity is delivered through more than one meter, except at the Company's option, the Monthly Charge for service through each meter shall be computed separately under this rate. Notwithstanding the foregoing, the Company may require any customer with a 12-month average Demand greater than 200 kW to take service on the 200 kW Demand Rate G-32.

This rate will also apply to customers who receive incentive payments for the installation of non-emergency generation configured to provide Combined Heat and Power ("CHP") through the Company's approved Energy Efficiency Plan after the effective date of this tariff, and who would otherwise be eligible to receive service on C&I Back-up Service Rate B-32.

This rate is also available to customers who install on-site non-emergency generating units powered by Eligible Renewable Energy Resources, as defined in 2004 R.I. Pub. Laws 205 up to an aggregate nameplate capacity of 3 MW for all customers having installed such generation and are therefore exempt from the backup service rates. However, any customer exempted from the backup service rates under this provision shall nevertheless be required to install metering pursuant to the backup service tariff that shall provide information on the operation of the generation unit.

**MONTHLY CHARGE**

The Monthly Charge will be the sum of the Retail Delivery Service Charges set forth in the cover sheet of this tariff.

**RATE ADJUSTMENT PROVISIONS**

Transmission Service Charge Adjustment

The prices under this rate as set forth under "Monthly Charge" may be adjusted from time to time in the manner described in the Company's Transmission Service Cost Adjustment Provision.

Transition Charge Adjustment

The prices under this rate as set forth under "Monthly Charge" may be adjusted from time to time in the manner described in the Company's Non-Bypassable Transition Charge Adjustment Provision.

Standard Offer Adjustment

All Customers served on this rate must pay any charges required pursuant to the terms of the Company's Standard Offer Adjustment Provision, whether or not the Customer is taking or has taken Standard Offer Service.

Energy Efficiency Programs

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Energy Efficiency Program Provision as from time to time effective in accordance with law.

THE NARRAGANSETT ELECTRIC COMPANY  
**GENERAL C&I RATE (G-02)**  
RETAIL DELIVERY SERVICE

Infrastructure, Safety and Reliability Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Infrastructure, Safety and Reliability Provision as from time to time effective in accordance with law.

Customer Credit Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Customer Credit Provision as from time to time effective in accordance with law.

LIHEAP Enhancement Plan Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's LIHEAP Enhancement Plan Provision as from time to time effective in accordance with law.

Revenue Decoupling Mechanism Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Revenue Decoupling Mechanism Provision as from time to time effective in accordance with law.

Net Metering Provision and Qualifying Facilities Power Purchase Rate

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Net Metering Provision and Qualifying Facilities Power Purchase Rate as from time to time effective in accordance with law.

**STANDARD OFFER SERVICE**

Any Customer served under this rate who is eligible for Standard Offer Service shall receive such service pursuant to the Standard Offer Service tariff.

**DEMAND**

The Demand for each month under ordinary load conditions shall be the greatest of the following:

- a) The greatest fifteen-minute peak occurring during such month as measured in kilowatts,
- b) 90% of the greatest fifteen-minute peak occurring during the month as measured in kilovolt-amperes, where the Customer's Demand exceeds 75 kilowatts,
- c) 75% of the greatest Demand as so determined above during the preceding eleven months,
- d) 10 kilowatts.

Any Demands established during the eleven months prior to the application of this rate shall be considered as having been established under this rate.

Any Demand established during the Scheduled Maintenance Period, as defined below, will not be considered during billing periods subsequent to the Scheduled Maintenance Period in the calculation of c) above.

THE NARRAGANSETT ELECTRIC COMPANY  
**GENERAL C&I RATE (G-02)**  
RETAIL DELIVERY SERVICE

**OPTIONAL DETERMINATION OF DEMAND**

A Customer who has been served hereunder for one year or more may upon written request have the Demand for each month, beginning with the next month after such request and running for a period of not less than two consecutive months, be based upon the greatest of items a), b) and d) above. In such case, the Distribution Charge per kW, the Distribution Charge per kWh, the Transmission Charge per kW and the Transmission per kWh will be increased by 20% during any such period.

**COMBINED HEAT AND POWER ("CHP") PROGRAM PROVISIONS**

Minimum Demand

Customers who receive an incentive payment for the installation of a CHP non-emergency generation unit through the Company's Energy Efficiency Program after the effective date of this tariff will be subject to a monthly Minimum Demand Charge. For Customers subject to this CHP Minimum Demand Provision, the monthly Demand will be the greater of:

- a) the Demand as determined above; or
- b) the Minimum Demand, which shall be 50% of the greatest fifteen-minute reading from the Customer's generation meter(s) as measured in kilowatts during the month;

The Customer Charge, Transmission Demand Charge, all per kWh charges and any other applicable charges and credits will be in addition to the Minimum Demand Charge.

Scheduled Maintenance

Customers may, at their option, request one annual Scheduled Maintenance Period which may occur during no more than five (5) consecutive week-days during the months of April, May, October and November. This request must be submitted to the Company in writing at least 30 days in advance, and must specify the exact dates and duration of the Scheduled Maintenance Period. The Company will notify the Customer in writing within five (5) business days of receiving the Customer's request whether the Scheduled Maintenance Period is acceptable. Meter readings during this Scheduled Maintenance Period will be used in determining the Customer's Demand for the current month, but will not be used during subsequent billing periods for purposes of determining Demand (See Demand above).

Metering Requirements

The Customer shall permit the Company to install meter(s) on the Generation Units providing electricity to the Customer, for purposes of billing under the terms of this rate. The meter shall be in accordance with the Company's reasonable specifications. The Customer will reimburse the Company for the installed cost of the meter and any associated equipment. The Customer shall provide reasonable access to the Company during normal business hours to read such meter in order to bill the Customer for service under this rate.

**CREDIT FOR HIGH VOLTAGE DELIVERY**

If the Customer takes delivery at the Company's supply line voltage, not less than 2,400 volts, and the Company is saved the cost of installing any transformer and associated equipment, a credit of 42 cents per kilowatt of billing demand for such month shall be allowed against the amount determined under the preceding provisions.

**THE NARRAGANSETT ELECTRIC COMPANY  
GENERAL C&I RATE (G-02)  
RETAIL DELIVERY SERVICE**

**HIGH-VOLTAGE METERING ADJUSTMENT**

The Company reserves the right to determine the metering installation. Where service is metered at the Company's supply line voltage, in no case less than 2400 volts, thereby saving the Company transformer losses, a discount of 1% will be allowed from the amount determined under the preceding provisions.

**GROSS EARNINGS TAX**

A Rhode Island Gross Earnings Tax adjustment will be applied to the charges determined above in accordance with Rhode Island General Laws.

**GROSS EARNINGS TAX CREDIT FOR MANUFACTURERS**

Consistent with the gross receipts tax exemption provided in Section 44-13-35 of Rhode Island General Laws, eligible manufacturing customers will be exempt from the Gross Earnings Tax to the extent allowed by the Division of Taxation.

Eligible manufacturing customers are those customers who have on file with the Company a valid certificate of exemption from the Rhode Island sales tax (under section 44-18-30(7) of Rhode Island General Laws) indicating the customer's status as a manufacturer. If the Division of Taxation (or other Rhode Island taxing authority with jurisdiction) disallows any part or all of the exemption as it applies to a customer, the customer will be required to reimburse the Company in the amount of the credits provided to such customer which were disallowed, including any interest required to be paid by the Company to such authority.

**TERMS AND CONDITIONS**

The Company's Terms and Conditions in effect from time to time, where not inconsistent with any specific provisions hereof, are a part of this rate.

Effective: JANUARY 1, 2013

THE NARRAGANSETT ELECTRIC COMPANY  
**200 kW DEMAND RATE (G-32)**  
RETAIL DELIVERY SERVICE

**AVAILABILITY**

Electric delivery service shall be taken under this rate for all purposes by any customer who is placed on the rate by the Company in accordance with this paragraph. The Company shall place on this rate any customer who has a 12-month average Demand of 200 kW or greater for 3 consecutive months as soon as practicable. Notwithstanding the foregoing, the Company may require any customer with a 12-month maximum demand of 3,000 kW or greater to take delivery service on the 3,000 kW Demand Rate G-62 (subject to the settlement provisions in Docket No. 2290).

If electricity is delivered through more than one meter, except at the Company's option, the Monthly Charge for delivery service through each meter shall be computed separately under this rate. If any electricity is delivered hereunder at a given location, then all electricity deliveries by the Company at such location shall be delivered hereunder.

New Customers: Service will initially be taken under this rate by any new customer who requests service capability of 225 kVA or greater.

Transfers From Rate G-32: Any customer whose 12-month average demand is less than 180 kW for twelve consecutive months may elect to transfer from the 200 kW Demand Rate G-32 to another available rate.

This rate will apply to customers who receive incentive payments for the installation of non-emergency generation configured to provide Combined Heat and Power ("CHP") through the Company's approved Energy Efficiency Plan after the effective date of this tariff, and who would otherwise be eligible to receive service on C&I Back-up Service Rate B-32.

This rate is also available to customers who install on-site non-emergency generating units powered by Eligible Renewable Energy Resources, as defined in 2004 R.I. Pub. Laws 205 up to an aggregate nameplate capacity of 3 MW for all customers having installed such generation and are therefore exempt from the backup service rates. However, any customer exempted from the backup service rates under this provision shall nevertheless be required to install metering pursuant to the backup service tariff that shall provide information on the operation of the generation unit.

**MONTHLY CHARGE**

The Monthly Charge will be the sum of the Retail Delivery Service Charges set forth in the cover sheet of this tariff.

**PEAK OFF-PEAK PERIODS**

PEAK HOURS:	June - September	-- 8 a.m. - 10 p.m. Weekdays,
	December - February	-- 7 a.m. - 10 p.m. Weekdays
	October - November and	
	March - May	-- 8 a.m. - 9 p.m. Weekdays

OFF-PEAK HOURS: All other hours

Weekdays shall mean Monday through Friday, excluding the following holidays: New Year's Day, President's Day, Memorial Day, Independence Day, Columbus Day (observed), Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day.



THE NARRAGANSETT ELECTRIC COMPANY  
**200 kW DEMAND RATE (G-32)**  
RETAIL DELIVERY SERVICE

**RATE ADJUSTMENT PROVISIONS**

Transmission Service Charge Adjustment

The prices under this rate as set forth under “Monthly Charge” may be adjusted from time to time in the manner described in the Company’s Transmission Service Cost Adjustment Provision.

Transition Charge Adjustment

The prices under this rate as set forth under “Monthly Charge” may be adjusted from time to time in the manner described in the Company’s Non-Bypassable Transition Charge Adjustment Provision.

Standard Offer Adjustment

All Customers served on this rate must pay any charges required pursuant to the terms of the Company’s Standard Offer Adjustment Provision, whether or not the Customer is taking or has taken Standard Offer Service.

Energy Efficiency Programs

The amount determined under the preceding provisions shall be adjusted in accordance with the Company’s Energy Efficiency Program Provision as from time to time effective in accordance with law.

Infrastructure, Safety and Reliability Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company’s Infrastructure, Safety and Reliability Provision as from time to time effective in accordance with law.

Customer Credit Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company’s Customer Credit Provision as from time to time effective in accordance with law.

LIHEAP Enhancement Plan Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company’s LIHEAP Enhancement Plan Provision as from time to time effective in accordance with law.

Revenue Decoupling Mechanism Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company’s Revenue Decoupling Mechanism Provision as from time to time effective in accordance with law.

Net Metering Provision and Qualifying Facilities Power Purchase Rate

The amount determined under the preceding provisions shall be adjusted in accordance with the Company’s Net Metering Provision and Qualifying Facilities Power Purchase Rate as from time to time effective in accordance with law.

THE NARRAGANSETT ELECTRIC COMPANY  
**200 kW DEMAND RATE (G-32)**  
RETAIL DELIVERY SERVICE

**STANDARD OFFER SERVICE**

Any Customer served under this rate who is eligible for Standard Offer Service shall receive such service pursuant to the Standard Offer Service tariff.

**DEMAND**

The Demand for each month under ordinary load conditions shall be the greatest of the following:

- a) The greatest fifteen-minute peak occurring in such month during Peak hours as measured in kilowatts,
- b) 90% of the greatest fifteen-minute peak occurring in such month during Peak hours as measured in kilovolt-amperes,
- c) 75% of the greatest Demand as so determined above during the preceding eleven months, and
- d) 10 kilowatts.

Any Demand established during the Scheduled Maintenance Period, as defined below, will not be considered during billing periods subsequent to the Scheduled Maintenance Period in the calculation of c) above.

**OPTIONAL DETERMINATION OF DEMAND**

A Customer who has been served hereunder for one year or more may upon written request have the Demand for each month, beginning with the next month after such request and running for a period of not less than two consecutive months, be based upon the greatest of items (a), (b) and (d) above. In such case, the Distribution Charge per kW, the Distribution Charge per kWh, the Transmission Charge per kW and the Transmission per kWh will be increased by 20% during any such period.

**COMBINED HEAT AND POWER ("CHP") PROVISIONS**

Minimum Demand

Customers who receive an incentive payment for the installation of a CHP non-emergency generation unit through the Company's Energy Efficiency Program after the effective date of this tariff will be subject to a monthly Minimum Demand Charge. For Customer's subject to this CHP Minimum Demand Provision, the monthly Demand will be the greater of:

- a) the Demand as determined above; or
- b) the Minimum Demand, which shall be 50% of the greatest fifteen-minute reading from the Customer's generation meter(s) as measured in kilowatts during peak hours;

The Customer Charge, Transmission Demand Charge, all per kWh charges and any other applicable charges and credits will be in addition to the Minimum Demand Charge.

Scheduled Maintenance

Customers may, at their option, request one annual Scheduled Maintenance Period which may occur during no more than five (5) consecutive week-days during the months of April, May, October and November. This request must be submitted to the Company in writing at least 30 days in advance, and must specify the exact dates and duration of the Scheduled Maintenance Period. The Company will notify the Customer in writing

THE NARRAGANSETT ELECTRIC COMPANY  
**200 kW DEMAND RATE (G-32)**  
RETAIL DELIVERY SERVICE

within five (5) business days of receiving the Customer's request whether the Scheduled Maintenance Period is acceptable. Meter readings during this Scheduled Maintenance Period will be used in determining the Customer's Demand for the current month, but will not be used during subsequent billing periods for purposes of determining Demand (See Demand above).

Metering Requirements

The Customer shall permit the Company to install meter(s) on the Generation Units providing electricity to the Customer, for purposes of billing under the terms of this rate. The meter shall be in accordance with the Company's reasonable specifications. The Customer will reimburse the Company for the installed cost of the meter and any associated equipment. The Customer shall provide reasonable access to the Company during normal business hours to read such meter in order to bill the Customer for service under this rate.

**CREDIT FOR HIGH VOLTAGE DELIVERY**

If the Customer takes delivery at the Company's supply line voltage, not less than 2,400 volts, and the Company is saved the cost of installing any transformer and associated equipment, a credit of 42 cents per kilowatt of billing demand for such month shall be allowed against the amount determined under the preceding provisions.

An additional credit of \$2.00 per kilowatt of the billing demand for such month shall also be allowed if said customer accepts delivery at not less than 115,000 volts, and the Company is saved the cost of installing any transformer and associated equipment.

The total amount of the credit allowed under this provision shall not exceed the sum of the Customer Charge, the Distribution Charge per kW and the Distribution Charge per kWh.

**HIGH-VOLTAGE METERING ADJUSTMENT**

The Company reserves the right to determine the metering installation. Where service is metered at the Company's supply line voltage, in no case less than 2400 volts, thereby saving the Company transformer losses, a discount of 1% will be allowed from the amount determined under the preceding provisions

**SECOND FEEDER SERVICE**

Except as provided below, Customers receiving second feeder service shall pay \$2.00 per 90% of KVA of reserved second feeder capability. The charge for second feeder capability shall apply only to Customers with second feeder capability installed on or after May 1, 1998. The charge for second feeder capability shall not apply to Customers taking service within the Capital Center of Providence or within the downtown Providence underground network system. The Company's Construction Advance Policy 3 shall apply to determine any advance contribution by the customer, using an estimate of revenues to be derived from this second feeder rate. The Company reserves the right to decline second feeder service for engineering reasons.

An additional \$0.42 per 90% of KVA of reserved second feeder capability shall be charged if an additional transformer is required at the Customer's facility.

THE NARRAGANSETT ELECTRIC COMPANY  
**200 kW DEMAND RATE (G-32)**  
RETAIL DELIVERY SERVICE

**GROSS EARNINGS TAX**

A Rhode Island Gross Earnings Tax adjustment will be applied to the charges determined above in accordance with Rhode Island General Laws.

**GROSS EARNINGS TAX CREDIT FOR MANUFACTURERS**

Consistent with the gross receipts tax exemption provided in Section 44-13-35 of Rhode Island General Laws, eligible manufacturing customers will be exempt from the Gross Earnings Tax to the extent allowed by the Division of Taxation.

Eligible manufacturing customers are those customers who have on file with the Company a valid certificate of exemption from the Rhode Island sales tax (under section 44-18-30(7) of Rhode Island General Laws) indicating the customer's status as a manufacturer. If the Division of Taxation (or other Rhode Island taxing authority with jurisdiction) disallows any part or all of the exemption as it applies to a customer, the customer will be required to reimburse the Company in the amount of the credits provided to such customer which were disallowed, including any interest required to be paid by the Company to such authority.

**TERMS AND CONDITIONS**

The Company's Terms and Conditions in effect from time to time, where not inconsistent with any specific provisions hereof, are a part of this rate.

Effective: JANUARY 1, 2013

THE NARRAGANSETT ELECTRIC COMPANY  
**3000 kW DEMAND RATE (G-62)**  
RETAIL DELIVERY SERVICE

**AVAILABILITY**

Electric delivery service shall be taken under this rate for all purposes by any customer who is placed on the rate by the Company in accordance with this paragraph. The Company shall place on this rate any customer who has a 12-month maximum Demand of 3,000 kW or greater. Delivery service can be taken under this rate by customers who do not meet the qualifications on a voluntary basis.

If electricity is delivered through more than one meter, except at the Company's option, the Monthly Charge for service through each meter shall be computed separately under this rate. If any electricity is delivered hereunder at a given location, then all electricity delivered by the Company at such location shall be delivered hereunder.

New Customers: Delivery service will initially be taken under this rate by any new customer who requests delivery service capability of 3,375 kVA or greater.

Transfers From Rate G-62: Any customer whose 12-month maximum demand is less than 2,700 kW for twelve consecutive months may elect to transfer from the 3,000 kW Demand Rate G-62 to another available rate.

Customers who can certify that their operations reflect a permanent reduction in demand to less than 2,700 kW may request a transfer from Rate G-62 effective the billing month following the Company's receipt of the Customer's written request. If, during the subsequent twelve (12) billing months, the Customer's demand exceeds 2,700 kW for any month, the Customer will be placed back on Rate G-62 on the next billing month and all bills issued to the Customer following its initial transfer from Rate G-62 will be recalculated as if the Customer had been billed on Rate G-62 and the Customer will be charged the difference.

This rate will apply to customers who receive incentive payments for the installation of non-emergency generation configured to provide Combined Heat and Power ("CHP") through the Company's approved Energy Efficiency Plan after the effective date of this tariff, and who would otherwise be eligible to receive service on 3,000 kW Demand Back-up Service Rate B-62.

This rate is also available to customers who install on-site non-emergency generating units powered by Eligible Renewable Energy Resources, as defined in 2004 R.I. Pub. Laws 205 up to an aggregate nameplate capacity of 3 MW for all customers having installed such generation and are therefore exempt from the backup service rates. However, any customer exempted from the backup service rates under this provision shall nevertheless be required to install metering pursuant to the backup service tariff that shall provide information on the operation of the generation unit.

**MONTHLY CHARGE**

The Monthly Charge will be the sum of the Retail Delivery Service Charges set forth in the cover sheet of this tariff.

**PEAK, SHOULDER AND OFF-PEAK PERIODS**

PEAK HOURS:	June - September	-- 8 a.m. - 10 p.m. Weekdays,
	December - February	-- 7 a.m. - 10 p.m. Weekdays
	October - November and	
	March - May	-- 8 a.m. - 9 p.m. Weekdays

THE NARRAGANSETT ELECTRIC COMPANY  
**3000 kW DEMAND RATE (G-62)**  
RETAIL DELIVERY SERVICE

OFF-PEAK HOURS: All other hours

Weekdays shall mean Monday through Friday, excluding the following holidays: New Year's Day, President's Day, Memorial Day, Independence Day, Columbus Day (observed), Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day.

**RATE ADJUSTMENT PROVISIONS**

Transmission Service Charge Adjustment

The prices under this rate as set forth under "Monthly Charge" may be adjusted from time to time in the manner described in the Company's Transmission Service Cost Adjustment Provision.

Transition Charge Adjustment

The prices under this rate as set forth under "Monthly Charge" may be adjusted from time to time in the manner described in the Company's Non-Bypassable Transition Charge Adjustment Provision.

Standard Offer Adjustment

All Customers served on this rate must pay any charges required pursuant to the terms of the Company's Standard Offer Adjustment Provision, whether or not the Customer is taking or has taken Standard Offer Service.

Energy Efficiency Programs

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Energy Efficiency Program Provision as from time to time effective in accordance with law.

Infrastructure, Safety and Reliability Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Infrastructure, Safety and Reliability Provision as from time to time effective in accordance with law.

Customer Credit Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Customer Credit Provision as from time to time effective in accordance with law.

LIHEAP Enhancement Plan Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's LIHEAP Enhancement Plan Provision as from time to time effective in accordance with law.

Revenue Decoupling Mechanism Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Revenue Decoupling Mechanism Provision as from time to time effective in accordance with law.

THE NARRAGANSETT ELECTRIC COMPANY  
**3000 kW DEMAND RATE (G-62)**  
RETAIL DELIVERY SERVICE

Net Metering Provision and Qualifying Facilities Power Purchase Rate

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Net Metering Provision and Qualifying Facilities Power Purchase Rate as from time to time effective in accordance with law.

**STANDARD OFFER SERVICE**

Any Customer served under this rate who is eligible for Standard Offer Service shall receive such service pursuant to the Standard Offer Service tariff.

**DEMAND**

The Demand for each month under ordinary load conditions shall be the greatest of the following:

- a) The greatest fifteen-minute peak occurring in such month during Peak hours as measured in kilowatts,
- b) 90% of the greatest fifteen-minute peak occurring in such month during Peak hours as measured in kilovolt-amperes,
- c) 75% of the greatest Demand as so determined above during the preceding eleven months, and
- d) 10 kilowatts.

Any Demand established during the Scheduled Maintenance Period, as defined below, will not be considered during billing periods subsequent to the Scheduled Maintenance Period in the calculation of c) above.

**OPTIONAL DETERMINATION OF DEMAND**

A Customer who has been served hereunder for one year or more may upon written request have the Demand for each month, beginning with the next month after such request and running for a period of not less than two consecutive months, be based upon the greatest of items (a), (b) and (d) above. In such case, the Distribution Charge per kW, the Transmission Charge per kW and the Transmission per kWh will be increased by 20% during any such period.

**COMBINED HEAT AND POWER ("CHP") PROVISIONS**

Minimum Demand

Customers who receive an incentive payment for the installation of a CHP non-emergency generation unit through the Company's Energy Efficiency Program after the effective date of this tariff will be subject to a monthly Minimum Demand Charge. For Customer's subject to this CHP Minimum Demand Provision, the monthly Demand will be the greater of:

- a) the Demand as determined above; or
- b) the Minimum Demand, which shall be 50% of the greatest fifteen-minute reading from the Customer's generation meter(s) as measured in kilowatts during peak hours;

The Customer Charge, Transmission Demand Charge, all per kWh charges and any other applicable charges and credits will be in addition to the Minimum Demand Charge.

THE NARRAGANSETT ELECTRIC COMPANY  
**3000 kW DEMAND RATE (G-62)**  
RETAIL DELIVERY SERVICE

Scheduled Maintenance

Customers may, at their option, request one annual Scheduled Maintenance Period which may occur during no more than five (5) consecutive week-days during the months of April, May, October and November. This request must be submitted to the Company in writing at least 30 days in advance, and must specify the exact dates and duration of the Scheduled Maintenance Period. The Company will notify the Customer in writing within five (5) business days of receiving the Customer's request whether the Scheduled Maintenance Period is acceptable. Meter readings during this Scheduled Maintenance Period will be used in determining the Customer's Demand for the current month, but will not be used during subsequent billing periods for purposes of determining Demand (See Demand above).

Metering Requirements

The Customer shall permit the Company to install meter(s) on the Generation Units providing electricity to the Customer, for purposes of billing under the terms of this rate. The meter shall be in accordance with the Company's reasonable specifications. The Customer will reimburse the Company for the installed cost of the meter and any associated equipment. The Customer shall provide reasonable access to the Company during normal business hours to read such meter in order to bill the Customer for service under this rate.

**CREDIT FOR HIGH VOLTAGE DELIVERY**

If the Customer takes delivery at the Company's supply line voltage, not less than 2,400 volts, and the Company is saved the cost of installing any transformer and associated equipment, a credit of 42 cents per kilowatt of billing demand for such month shall be allowed against the amount determined under the preceding provisions.

An additional credit of \$2.00 per kilowatt of the billing demand for such month shall also be allowed if said customer accepts delivery at not less than 115,000 volts, and the Company is saved the cost of installing any transformer and associated equipment.

The total amount of the credit allowed under this provision shall not exceed the sum of the Customer Charge, the Distribution Charge per kW and the Distribution Charge per kWh.

**HIGH-VOLTAGE METERING ADJUSTMENT**

The Company reserves the right to determine the metering installation. Where service is metered at the Company's supply line voltage, in no case less than 2400 volts, thereby saving the Company transformer losses, a discount of 1% will be allowed from the amount determined under the preceding provisions.

**SECOND FEEDER SERVICE**

Except as provided below, Customers receiving second feeder service shall pay \$2.00 per 90% of KVA of reserved second feeder capability. The charge for second feeder capability shall apply only to Customers with second feeder capability installed on or after May 1, 1998. The charge for second feeder capability shall not apply to Customers taking service within the Capital Center of Providence or within the downtown Providence underground network system. The Company's Construction Advance Policy 3 shall apply to determine any advance contribution by the customer, using an estimate of revenues to be derived from this second feeder rate. The Company reserves the right to decline second feeder service for engineering reasons.



THE NARRAGANSETT ELECTRIC COMPANY  
**3000 kW DEMAND RATE (G-62)**  
RETAIL DELIVERY SERVICE

An additional \$0.42 per 90% of KVA of reserved second feeder capability shall be charged if an additional transformer is required at the Customer's facility.

**GROSS EARNINGS TAX**

A Rhode Island Gross Earnings Tax adjustment will be applied to the charges determined above in accordance with Rhode Island General Laws.

**GROSS EARNINGS TAX CREDIT FOR MANUFACTURERS**

Consistent with the gross receipts tax exemption provided in Section 44-13-35 of Rhode Island General Laws, eligible manufacturing customers will be exempt from the Gross Earnings Tax to the extent allowed by the Division of Taxation.

Eligible manufacturing customers are those customers who have on file with the Company a valid certificate of exemption from the Rhode Island sales tax (under section 44-18-30(7) of Rhode Island General Laws) indicating the customer's status as a manufacturer. If the Division of Taxation (or other Rhode Island taxing authority with jurisdiction) disallows any part or all of the exemption as it applies to a customer, the customer will be required to reimburse the Company in the amount of the credits provided to such customer which were disallowed, including any interest required to be paid by the Company to such authority.

**TERMS AND CONDITIONS**

The Company's Terms and Conditions in effect from time to time, where not inconsistent with any specific provisions hereof, are a part of this rate.

Effective: JANUARY 1, 2013

## **Attachment 2**

Redlined Version of Tariffs

**THE NARRAGANSETT ELECTRIC COMPANY  
C&I BACK-UP SERVICE RATE (B-32)  
RETAIL DELIVERY SERVICE**

**AVAILABILITY**

This service shall apply to Customers in the class identified below:

- (i) who receive all or any portion of their electric supply from non-emergency generation unit(s) with a nameplate rating greater than 30 kW ("Generation Units"), where electricity received by the Customer from the Generation Units is not being delivered over Company-owned distribution facilities pursuant to an applicable retail delivery tariff, and
- (ii) who expect the Company to provide retail delivery service to supply the Customer's load at the service location when the Generation Units are not supplying all of that load.

Electric delivery service under this rate is applicable to customers with a facility demand of 25 kilowatts or more. Notwithstanding the foregoing, the Company may require any customer with a 12-month average Demand greater than 3,000 kW at its facility to take service on the 3,000 kW Demand Back-up Service Rate B-62 (subject to the settlement provisions in Docket No. 2290).

Customers who receive incentive payments for the installation of non-emergency generation units configured for Combined Heat and Power ("CHP") through the Company's approved Energy Efficiency Plan after the effective date of this tariff, and who would otherwise be eligible for this rate, will receive retail delivery service on General C&I Rate G-02 or 200kW Demand Rate G-32, as applicable.

All Customers served on this rate must elect to take their total electric delivery service under the metering installation as approved by the Company

**EXEMPTION FOR CUSTOMER ACCOUNTS ASSOCIATED WITH ELIGIBLE NET METERING SYSTEMS**

Customers accounts associated with Eligible Net Metering Systems, as defined in R.I Public Laws of 2011, Chapters 134 and 147, shall be exempt from back-up service rates commensurate with the size of the generating facility and subject to the statutory three (3) percent cap on the aggregate amount of net metering in Rhode Island.

**TYPES OF SERVICE**

"Back-Up" Retail Delivery Service consists of the Company standing ready to provide retail delivery service to the Customer's load when a non-emergency generator that supplies electricity to the Customer without using Company-owned distribution facilities does not supply all of the Customer's load.

"Supplemental" Retail Delivery Service is the delivery over Company-owned distribution facilities of electricity which is utilized at the Customer's facilities.

**MONTHLY CHARGE**

The Monthly Charge will be the sum of the Back-Up Service Charges, and the Supplemental Service Charges, as stated below

THE NARRAGANSETT ELECTRIC COMPANY  
**C&I BACK-UP SERVICE RATE (B-32)**  
RETAIL DELIVERY SERVICE

**DETERMINATION OF BILLING DEMAND FOR BILLING SUPPLEMENTAL AND BACK-UP per kW (DEMAND) CHARGES**

The Billing Demand for each month for purposes of billing Back-Up and Supplemental Service shall be the greatest of the following:

- 1) The greatest fifteen-minute peak coincident demand of the generation meter(s) plus the demand from the meter(s) at the Customer's service entrance(s) occurring in such month during Peak hours as measured in kW;
- 2) 90% of the greatest fifteen-minute peak coincident demand of the generation meter(s) plus the demand from the meter(s) at the Customer's service entrance(s) occurring in such month during Peak hours as measured in kilovolt-amperes;
- 3) 75% of the greatest Demand as so determined above during the preceding eleven months.

**BACK-UP RETAIL DELIVERY SERVICE**

**a) Rates for Back-Up Retail Delivery Service**

Customer Charge per month See R.I.P.U.C. No. 2095, Summary of Retail Delivery Rates

Distribution Charge per kW See R.I.P.U.C. No. 2095, Summary of Retail Delivery Rates

The Distribution Charge per kW applicable to Back-up Retail Delivery Service shall be equal to \$5.04 (representing the base distribution kW charge applicable to Back-up Service as approved in R.I.P.U.C. Docket No. 4065), plus the approved Operation and Maintenance and CapEx factors applicable to Back-up Service, both per the Company's approved Infrastructure Safety and Reliability Plan, multiplied by a factor of 10%, representing the likelihood that, on average, an outage of an individual customer's generator will occur coincident with the Company's distribution system peak demand approximately 10% of the time.

**b) Determination of Back-Up Service Kilowatt Demand**

The Back-Up Service Demand shall be the greater of:

- 1) the fifteen-minute reading from the Customer's generation meter(s) as measured in kilowatts at the time of the Billing Demand in excess of 200 kW;
- 2) 90% of the fifteen-minute reading from the Customer's generation meter(s) as measured in kilovolt-amperes at the time of the Billing Demand in excess of 200 kW; or
- 3) One hundred percent (100%) of the greatest Back-up Service Demand as determined above during the preceding eleven (11) months.

**c) Installation of Meters on Generation**

The Customer shall permit the Company to install meter(s) on the Generation Units providing electricity to the Customer, for purposes of billing under the terms of this rate. The meter shall be in accordance with the Company's reasonable specifications. The Customer will reimburse the Company for the installed cost of the

**THE NARRAGANSETT ELECTRIC COMPANY  
C&I BACK-UP SERVICE RATE (B-32)  
RETAIL DELIVERY SERVICE**

meter and any associated equipment. The Customer shall provide reasonable access to the Company during normal business hours to read such meter in order to bill the Customer for service under this rate.

**PEAK AND OFF-PEAK PERIODS**

PEAK HOURS:	June - September	-- 8 a.m. - 10 p.m. Weekdays,
	December - February	-- 7 a.m. - 10 p.m. Weekdays
	October – November and	
	March - May	-- 8 a.m. - 9 p.m. Weekdays
OFF-PEAK HOURS:	All other hours	

Weekdays shall mean Monday through Friday, excluding the following holidays: New Year's Day, President's Day, Memorial Day, Independence Day, Columbus Day (observed), Labor Day, Veterans Day, Thanksgiving Day and Christmas Day.

**SUPPLEMENTAL RETAIL DELIVERY SERVICE**

**a) Rates for Supplemental Retail Delivery Service**

<u>Transmission Charge per kW</u>	See R.I.P.U.C. No. 2095, Summary of Retail Delivery Rates
<u>Distribution Charge per kW in excess of 200 kW</u>	See R.I.P.U.C. No. 2095, Summary of Retail Delivery Rates
<u>Distribution Charge per kWh</u>	See R.I.P.U.C. No. 2095, Summary of Retail Delivery Rates
<u>Non-Bypassable Transition Charge per kWh</u>	See R.I.P.U.C. No. 2095, Summary of Retail Delivery Rates

**b) Assessment of Kilowatt-hour Charges**

For purposes of billing kWh charges for Supplemental Distribution and Transmission Service, Customers will be billed on the greater of (i) the actual kWh delivered by the Company or (ii) 90% of the actual kVAh delivered.

For purposes of billing kWh charges for Standard Offer Service, Non-Bypassable Transition Service and Energy Efficiency Programs, Customers will be billed on actual kWh delivered by the Company.

**c) Determination of Kilowatt Demand**

The Supplemental Distribution Service Demand for each month shall be the Billing Demand in excess of the Back-up Service Demand, but in no case less than 0 kW.

The Supplemental Transmission Service Demand for each month shall be:

- 1) The greatest fifteen-minute peak from the meter(s) at the Customer's service entrance(s) occurring in such month during Peak hours as measured in kW at the time of Billing Demand; or

THE NARRAGANSETT ELECTRIC COMPANY  
**C&I BACK-UP SERVICE RATE (B-32)**  
RETAIL DELIVERY SERVICE

- 2) 90% of the greatest fifteen-minute peak demand from the meter(s) at the Customer's service entrance(s) occurring in such month during Peak hours as measured in kilovolt-amperes at the time of Billing Demand

### **OPTIONAL DETERMINATION OF DEMAND**

A Customer who has been served under this rate for one year or more may upon written request have the Demand for each month used for Supplemental Service be based upon the greatest of items (1) and (2) set forth above for Billing Demand, beginning with the next month after such request and running for a period of not less than two consecutive months. In such case, the Distribution Charge per kW, the Distribution Charge per kWh, the Transmission Charge per kW and the Transmission Charge per kWh for Supplemental Service will be increased by 20% during any such period.

In addition, the Company may, at its discretion, agree to a lower demand determination for Back-Up Service below fifteen-minute peak coincident demand of the generation meter(s) if a Customer has installed equipment or configured its facilities in such a manner that automatically limits the requirement for Back-Up Service to the lower agreed-upon demand. Under such a situation, the Customer must demonstrate to the Company's reasonable satisfaction that the Customer's facilities are configured so as to limit the demand that can be placed on the distribution system, or must install and maintain, at no cost to the Company, an automated demand limiter or other similar device as agreed to by the Company which limits deliveries to the Customer over the Company's distribution system based on the lower agreed-upon demand. This equipment can not adversely affect the operation of the Company's distribution system or service to other customers. Such interruptible Back-Up Service shall be negotiated by the Customer and the Company under a separate contract which shall be specific to an individual customer's circumstances.

### **RATE ADJUSTMENT PROVISIONS**

#### Transmission Service Charge Adjustment

The prices under this rate as set forth under "Monthly Charge" may be adjusted from time to time in the manner described in the Company's Transmission Service Cost Adjustment Provision. This provision shall not apply for Back-Up Retail Delivery Service and shall only apply to Supplemental Retail Delivery Service.

#### Transition Charge Adjustment

The prices under this rate as set forth under "Monthly Charge" may be adjusted from time to time in the manner described in the Company's Non-Bypassable Transition Charge Adjustment Provision. This provision shall not apply for Back-Up Retail Delivery Service and shall only apply to Supplemental Retail Delivery Service.

#### Standard Offer Adjustment

All Customers served on this rate must pay any charges required pursuant to the terms of the Company's Standard Offer Adjustment Provision, whether or not the Customer is taking or has taken Standard Offer Service. This provision shall not apply for Back-Up Retail Delivery Service and shall only apply to Supplemental Retail Delivery Service.

THE NARRAGANSETT ELECTRIC COMPANY  
**C&I BACK-UP SERVICE RATE (B-32)**  
RETAIL DELIVERY SERVICE

Energy Efficiency Programs

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Energy Efficiency Program Provision as from time to time effective in accordance with law. This provision shall not apply for Back-Up Retail Delivery Service and shall only apply to Supplemental Retail Delivery Service.

Infrastructure, Safety and Reliability Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Infrastructure, Safety and Reliability Provision as from time to time effective in accordance with law.

Customer Credit Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Customer Credit Provision as from time to time effective in accordance with law.

LIHEAP Enhancement Plan Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's LIHEAP Enhancement Plan Provision as from time to time effective in accordance with law.

Revenue Decoupling Mechanism Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Revenue Decoupling Mechanism Provision as from time to time effective in accordance with law.

Net Metering Provision and Qualifying Facilities Power Purchase Rate

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Net Metering Provision and Qualifying Facilities Power Purchase Rate as from time to time effective in accordance with law.

**STANDARD OFFER SERVICE**

Any Customer served under this rate who is eligible for Standard Offer Service shall receive such service pursuant to the Standard Offer Service tariff. This provision shall not apply for Back-Up Retail Delivery Service and shall only apply to Supplemental Retail Delivery Service.

**CREDIT FOR HIGH VOLTAGE DELIVERY**

If the Customer takes delivery at the Company's supply line voltage, not less than 2400 volts, and the Company is saved the cost of installing any transformer and associated equipment, a credit of 42 cents per kilowatt of supplemental distribution billing demand for such month shall be allowed against the amount determined under the preceding provisions.

An additional credit of \$2.00 per kilowatt of the supplemental distribution billing demand for such month shall also be allowed if the Customer accepts delivery at not less than 115,000 volts, and the Company is saved the cost of installing any transformer and associated equipment.

**THE NARRAGANSETT ELECTRIC COMPANY  
C&I BACK-UP SERVICE RATE (B-32)  
RETAIL DELIVERY SERVICE**

The total amount of the credit allowed under this provision shall not exceed the sum of the Customer Charge, the Distribution Charge per kW and the Distribution Charge per kWh.

**HIGH-VOLTAGE METERING ADJUSTMENT**

The Company reserves the right to determine the metering installation. Where service is metered at the Company's supply line voltage, in no case less than 2400 volts, thereby saving the Company transformer losses, a discount of 1% will be allowed from the amount determined under the preceding provisions.

**SECOND FEEDER SERVICE**

Except as provided below, Customers receiving second feeder service shall pay \$2.00 per 90% of KVA of reserved second feeder capability. The charge for second feeder capability shall apply only to Customers with second feeder capability installed on or after May 1, 1998. The charge for second feeder capability shall not apply to Customers taking service within the Capital Center of Providence or within the downtown Providence underground network system. The Company's Construction Advance Policy 3 shall apply to determine any advance contribution by the customer, using an estimate of revenues to be derived from this second feeder rate. The Company reserves the right to decline second feeder service for engineering reasons.

An additional \$0.42 per 90% of KVA of reserved second feeder capability shall be charged if an additional transformer is required at the Customer's facility.

**GROSS EARNINGS TAX**

A Rhode Island Gross Earnings Tax adjustment will be applied to the charges determined above in accordance with Rhode Island General Laws.

**GROSS EARNINGS TAX CREDIT FOR MANUFACTURERS**

Consistent with the gross receipts tax exemption provided in Section 44-13-35 of Rhode Island General Laws, eligible manufacturing customers will be exempt from the Gross Earnings Tax to the extent allowed by the Division of Taxation.

Eligible manufacturing customers are those customers who have on file with the Company a valid certificate of exemption from the Rhode Island sales tax (under section 44-18-30(7) of Rhode Island General Laws) indicating the customer's status as a manufacturer. If the Division of Taxation (or other Rhode Island taxing authority with jurisdiction) disallows any part or all of the exemption as it applies to a customer, the customer will be required to reimburse the Company in the amount of the credits provided to such customer which were disallowed, including any interest required to be paid by the Company to such authority.

**TERMS AND CONDITIONS**

The Company's Terms and Conditions in effect from time to time, where not inconsistent with any specific provisions hereof, are a part of this rate.

Effective: ~~August 15, 2012~~ JANUARY 1, 2013



**THE NARRAGANSETT ELECTRIC COMPANY  
3,000 kW DEMAND BACK-UP SERVICE RATE (B-62)  
RETAIL DELIVERY SERVICE**

**AVAILABILITY**

This service shall apply to Customers in the class identified below:

- (i) who receive all or any portion of their electric supply from non-emergency generation unit(s) with a nameplate rating greater than 30 kW ("Generation Units"), where electricity received by the Customer from the Generation Units is not being delivered over Company-owned distribution facilities pursuant to an applicable retail delivery tariff, and
- (ii) who expect the Company to provide retail delivery service to supply the Customer's load at the service location when the Generation Units are not supplying all of that load.

Electric delivery service under this rate is applicable to those Customers who would otherwise be served under the Company's 3,000 kW Demand Rate G-62 if the Generation Units were not supplying electricity to the Customer.

Customers who receive incentive payments for the installation of non-emergency generation units configured for Combined Heat and Power ("CHP") through the Company's approved Energy Efficiency Plan after the effective date of this tariff, and who would otherwise be eligible for this rate, will receive retail delivery service on 3,000 kW Demand Rate G-62.

All Customers served on this rate must elect to take their total electric delivery service under the metering installation as approved by the Company.

**EXEMPTION FOR CUSTOMER ACCOUNTS ASSOCIATED WITH ELIGIBLE NET METERING SYSTEMS**

Customers accounts associated with Eligible Net Metering Systems, as defined in R.I Public Laws of 2011, Chapters 134 and 147, shall be exempt from back-up service rates commensurate with the size of the generating facility and subject to the statutory three (3) percent cap on the aggregate amount of net metering in Rhode Island.

**TYPES OF SERVICE**

"Back-Up" Retail Delivery Service consists of the Company standing ready to provide retail delivery service to the Customer's load when a non-emergency generator that supplies electricity to the Customer without using Company-owned distribution facilities does not supply all of the Customer's load.

"Supplemental" Retail Delivery Service is the delivery over Company-owned distribution facilities of electricity which is utilized at the Customer's facilities.

**MONTHLY CHARGE**

The Monthly Charge will be the sum of the Back-Up Service Charges, and the Supplemental Service Charges, as stated below.

THE NARRAGANSETT ELECTRIC COMPANY  
**3,000 kW DEMAND BACK-UP SERVICE RATE (B-62)**  
 RETAIL DELIVERY SERVICE

**DETERMINATION OF BILLING DEMAND FOR BILLING SUPPLEMENTAL AND BACK-UP PER KW (DEMAND) CHARGES**

The Billing Demand for each month for purposes of billing Back-Up and Supplemental Service shall be the greatest of the following:

- 1) The greatest fifteen-minute peak coincident demand of the generation meter(s) plus the demand from the meter(s) at the Customer's service entrance(s) occurring in such month during Peak hours as measured in kW;
- 2) 90% of the greatest fifteen-minute peak coincident demand of the generation meter(s) plus the demand from the meter(s) at the Customer's service entrance(s) occurring in such month during Peak hours as measured in kilovolt-amperes;
- 3) 75% of the greatest Demand as so determined above during the preceding eleven months.

**BACK-UP RETAIL DELIVERY SERVICE**

**a) Rates for Back-Up Retail Delivery Service**

Customer Charge per month

See R.I.P.U.C. No. 2095, Summary of Retail Delivery Rates

Distribution Charge per kW

See R.I.P.U.C. No. 2095, Summary of Retail Delivery Rates

The Distribution Charge per kW applicable to Back-up Retail Delivery Service shall be equal to \$2.57 (representing the base distribution kW charge applicable to Back-up Service as approved in R.I.P.U.C. Docket No. 4065), plus the approved Operation and Maintenance and CapEx factors applicable to Back-up Service, both per the Company's approved Infrastructure Safety and Reliability Plan, multiplied by a factor of 10%, representing the likelihood that, on average, an outage of an individual customer's generator will occur coincident with the Company's distribution system peak demand approximately 10% of the time.

**b) Determination of Back-Up Service Kilowatt Demand**

The Back-Up Service Demand shall be the greater of:

- 1) the fifteen-minute reading from the Customer's generation meter(s) as measured in kilowatts at the time of the Billing Demand;
- 2) 90% of the fifteen-minute reading from the Customer's generation meter(s) as measured in kilovolt-amperes at the time of the Billing Demand; or
- 3) One hundred percent (100%) of the greatest Back-up Service Demand as determined above during the preceding eleven (11) months.

**THE NARRAGANSETT ELECTRIC COMPANY  
3,000 kW DEMAND BACK-UP SERVICE RATE (B-62)  
RETAIL DELIVERY SERVICE**

**c) Installation of Meters on Generation**

The Customer shall permit the Company to install meter(s) on the Generation Units providing electricity to the Customer, for purposes of billing under the terms of this rate. The meter shall be in accordance with the Company's reasonable specifications. The Customer will reimburse the Company for the installed cost of the meter and any associated equipment. The Customer shall provide reasonable access to the Company during normal business hours to read such meter in order to bill the Customer for service under this rate.

**PEAK AND OFF-PEAK PERIODS**

PEAK HOURS:	June – September	-- 8 a.m. - 10 p.m. Weekdays,
	December - February	-- 7 a.m. - 10 p.m. Weekdays
	October – November and	
	March – May	-- 8 a.m. - 9 p.m. Weekdays

OFF-PEAK HOURS: All other hours

Weekdays shall mean Monday through Friday, excluding the following holidays: New Year's Day, President's Day, Memorial Day, Independence Day, Columbus Day (observed), Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day.

**SUPPLEMENTAL RETAIL DELIVERY SERVICE**

**a) Rates for Supplemental Retail Delivery Service**

<u>Transmission Charge per kW</u>	See R.I.P.U.C. No. 2095, Summary of Retail Delivery Rates
<u>Distribution Charge per kW</u>	See R.I.P.U.C. No. 2095, Summary of Retail Delivery Rates
<u>Distribution Charge per kWh</u>	See R.I.P.U.C. No. 2095, Summary of Retail Delivery Rates
<u>Non-Bypassable Transition Charge per kWh</u>	See R.I.P.U.C. No. 2095, Summary of Retail Delivery Rates

**b) Assessment of Kilowatt-hour Charges**

For purposes of billing kWh charges for Supplemental Distribution and Transmission Service, Customers will be billed on the greater of (i) the actual kWh delivered by the Company or (ii) 90% of the actual kVAh delivered.

For purposes of billing kWh charges for Standard Offer Service, Non-Bypassable Transition Service and Energy Efficiency Programs, Customers will be billed on actual kWh delivered by the Company.

THE NARRAGANSETT ELECTRIC COMPANY  
**3,000 kW DEMAND BACK-UP SERVICE RATE (B-62)**  
RETAIL DELIVERY SERVICE

c) **Determination of Supplemental Service Kilowatt Demand**

The Supplemental Distribution Service Demand for each month shall be the Billing Demand in excess of the Back-Up Service Demand, but in no case less than 0 kW.

The Supplemental Transmission Service Demand for each month shall be:

- 1) The greatest fifteen-minute peak from the meter(s) at the Customer's service entrance(s) occurring in such month during Peak hours as measured in kW at the time of Billing Demand; or
- 2) 90% of the greatest fifteen-minute peak demand from the meter(s) at the Customer's service entrance(s) occurring in such month during Peak hours as measured in kilovolt-amperes at the time of Billing Demand.

**OPTIONAL DETERMINATION OF DEMAND**

A Customer who has been served under this rate for one year or more may upon written request have the Demand for each month used for Supplemental Service be based upon the greatest of items (1) and (2) set forth above for Billing Demand, beginning with the next month after such request and running for a period of not less than two consecutive months. In such case, the Distribution Charge per kW, the Distribution Charge per kWh, the Transmission Charge per kW and the Transmission Charge per kWh for Supplemental Service will be increased by 20% during any such period.

In addition, the Company may, at its discretion, agree to a lower demand determination for Back-Up Service below fifteen-minute peak coincident demand of the generation meter(s) if a Customer has installed equipment or configured its facilities in such a manner that automatically limits the requirement for Back-Up Service to the lower agreed-upon demand. Under such a situation, the Customer must demonstrate to the Company's reasonable satisfaction that the Customer's facilities are configured so as to limit the demand that can be placed on the distribution system, or must install and maintain, at no cost to the Company, an automated demand limiter or other similar device as agreed to by the Company which limits deliveries to the Customer over the Company's distribution system based on the lower agreed-upon demand. This equipment can not adversely affect the operation of the Company's distribution system or service to other customers. Such interruptible Back-Up Service shall be negotiated by the Customer and the Company under a separate contract which shall be specific to an individual customer's circumstances.

**RATE ADJUSTMENT PROVISIONS**

**Transmission Service Charge Adjustment**

The prices under this rate as set forth under "Monthly Charge" may be adjusted from time to time in the manner described in the Company's Transmission Service Cost Adjustment Provision. This provision shall not apply for Back-Up Retail Delivery Service and shall only apply to Supplemental Retail Delivery Service.

**Transition Charge Adjustment**

The prices under this rate as set forth under "Monthly Charge" may be adjusted from time to time in the manner described in the Company's Non-Bypassable Transition Charge Adjustment Provision. This provision shall not apply for Back-Up Retail Delivery Service and shall only apply to Supplemental Retail Delivery Service.

**THE NARRAGANSETT ELECTRIC COMPANY**  
**3,000 kW DEMAND BACK-UP SERVICE RATE (B-62)**  
**RETAIL DELIVERY SERVICE**

Standard Offer Adjustment

All Customers served on this rate must pay any charges required pursuant to the terms of the Company's Standard Offer Adjustment Provision, whether or not the Customer is taking or has taken Standard Offer Service.

This provision shall not apply for Back-Up Retail Delivery Service and shall only apply to Supplemental Retail Delivery Service.

Energy Efficiency Programs

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Energy Efficiency Program Provision as from time to time effective in accordance with law. This provision shall not apply for Back-Up Retail Delivery Service and shall only apply to Supplemental Retail Delivery Service.

Infrastructure, Safety and Reliability Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Infrastructure, Safety and Reliability Provision as from time to time effective in accordance with law.

Customer Credit Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Customer Credit Provision as from time to time effective in accordance with law.

LIHEAP Enhancement Plan Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's LIHEAP Enhancement Plan Provision as from time to time effective in accordance with law.

Revenue Decoupling Mechanism Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Revenue Decoupling Mechanism Provision as from time to time effective in accordance with law.

Net Metering Provision and Qualifying Facilities Power Purchase Rate

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Net Metering Provision and Qualifying Facilities Power Purchase Rate as from time to time effective in accordance with law.

**STANDARD OFFER SERVICE**

Any Customer served under this rate who is eligible for Standard Offer Service shall receive such service pursuant to the Standard Offer Service tariff. This provision shall not apply for Back-Up Retail Delivery Service and shall only apply to Supplemental Retail Delivery Service.

**THE NARRAGANSETT ELECTRIC COMPANY  
3,000 kW DEMAND BACK-UP SERVICE RATE (B-62)  
RETAIL DELIVERY SERVICE**

**CREDIT FOR HIGH VOLTAGE DELIVERY**

If the Customer takes delivery at the Company's supply line voltage, not less than 2,400 volts, and the Company is saved the cost of installing any transformer and associated equipment, a credit of 42 cents per kilowatt of supplemental distribution billing demand for such month shall be allowed against the amount determined under the preceding provisions.

An additional credit of \$2.00 per kilowatt of the supplemental distribution billing demand for such month shall also be allowed if the Customer accepts delivery at not less than 115,000 volts, and the Company is saved the cost of installing any transformer and associated equipment.

The total amount of the credit allowed under this provision shall not exceed the sum of the Customer Charge, the Distribution Charge per kW and the Distribution Charge per kWh.

**HIGH-VOLTAGE METERING ADJUSTMENT**

The Company reserves the right to determine the metering installation. Where service is metered at the Company's supply line voltage, in no case less than 2400 volts, thereby saving the Company transformer losses, a discount of 1% will be allowed from the amount determined under the preceding provisions.

**SECOND FEEDER SERVICE**

Except as provided below, Customers receiving second feeder service shall pay \$2.00 per 90% of KVA of reserved second feeder capability. The charge for second feeder capability shall apply only to Customers with second feeder capability installed on or after May 1, 1998. The charge for second feeder capability shall not apply to Customers taking service within the Capital Center of Providence or within the downtown Providence underground network system. The Company's Construction Advance Policy 3 shall apply to determine any advance contribution by the customer, using an estimate of revenues to be derived from this second feeder rate. The Company reserves the right to decline second feeder service for engineering reasons.

An additional \$0.42 per 90% of KVA of reserved second feeder capability shall be charged if an additional transformer is required at the Customer's facility.

**GROSS EARNINGS TAX**

A Rhode Island Gross Earnings Tax adjustment will be applied to the charges determined above in accordance with Rhode Island General Laws.

**GROSS EARNINGS TAX CREDIT FOR MANUFACTURERS**

Consistent with the gross receipts tax exemption provided in Section 44-13-35 of Rhode Island General Laws, eligible manufacturing customers will be exempt from the Gross Earnings Tax to the extent allowed by the Division of Taxation.

Eligible manufacturing customers are those customers who have on file with the Company a valid certificate of exemption from the Rhode Island sales tax (under section 44-18-30(7) of Rhode Island General Laws) indicating the customer's status as a manufacturer. If the Division of Taxation (or other Rhode Island taxing authority with jurisdiction) disallows any part or all of the exemption as it applies to a customer, the customer will be required to reimburse the Company in the amount of the credits provided to such customer which were disallowed, including any interest required to be paid by the Company to such authority.

THE NARRAGANSETT ELECTRIC COMPANY  
**3,000 kW DEMAND BACK-UP SERVICE RATE (B-62)**  
RETAIL DELIVERY SERVICE

**TERMS AND CONDITIONS**

The Company's Terms and Conditions in effect from time to time, where not inconsistent with any specific provisions hereof, are a part of this rate.

Effective: ~~August 15, 2012~~ JANUARY 1, 2013

**THE NARRAGANSETT ELECTRIC COMPANY**  
**GENERAL C&I RATE (G-02)**  
**RETAIL DELIVERY SERVICE**

**AVAILABILITY**

Electric delivery service under this rate is available for all purposes to customers with a Demand of 10 kilowatts or more. If electricity is delivered through more than one meter, except at the Company's option, the Monthly Charge for service through each meter shall be computed separately under this rate. Notwithstanding the foregoing, the Company may require any customer with a 12-month average Demand greater than 200 kW to take service on the 200 kW Demand Rate G-32.

This rate will also apply to customers who receive incentive payments for the installation of non-emergency generation configured to provide Combined Heat and Power ("CHP") through the Company's approved Energy Efficiency Plan after the effective date of this tariff, and who would otherwise be eligible to receive service on C&I Back-up Service Rate B-32.

This rate is also available to customers who install on-site non-emergency generating units powered by Eligible Renewable Energy Resources, as defined in 2004 R.I. Pub. Laws 205 up to an aggregate nameplate capacity of 3 MW for all customers having installed such generation and are therefore exempt from the backup service rates. However, any customer exempted from the backup service rates under this provision shall nevertheless be required to install metering pursuant to the backup service tariff that shall provide information on the operation of the generation unit.

**MONTHLY CHARGE**

The Monthly Charge will be the sum of the Retail Delivery Service Charges set forth in the cover sheet of this tariff.

**RATE ADJUSTMENT PROVISIONS**Transmission Service Charge Adjustment

The prices under this rate as set forth under "Monthly Charge" may be adjusted from time to time in the manner described in the Company's Transmission Service Cost Adjustment Provision.

Transition Charge Adjustment

The prices under this rate as set forth under "Monthly Charge" may be adjusted from time to time in the manner described in the Company's Non-Bypassable Transition Charge Adjustment Provision.

Standard Offer Adjustment

All Customers served on this rate must pay any charges required pursuant to the terms of the Company's Standard Offer Adjustment Provision, whether or not the Customer is taking or has taken Standard Offer Service.

Energy Efficiency Programs

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Energy Efficiency Program Provision as from time to time effective in accordance with law.



THE NARRAGANSETT ELECTRIC COMPANY  
**GENERAL C&I RATE (G-02)**  
RETAIL DELIVERY SERVICE

Infrastructure, Safety and Reliability Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Infrastructure, Safety and Reliability Provision as from time to time effective in accordance with law.

Customer Credit Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Customer Credit Provision as from time to time effective in accordance with law.

LIHEAP Enhancement Plan Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's LIHEAP Enhancement Plan Provision as from time to time effective in accordance with law.

Revenue Decoupling Mechanism Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Revenue Decoupling Mechanism Provision as from time to time effective in accordance with law.

Net Metering Provision and Qualifying Facilities Power Purchase Rate

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Net Metering Provision and Qualifying Facilities Power Purchase Rate as from time to time effective in accordance with law.

**STANDARD OFFER SERVICE**

Any Customer served under this rate who is eligible for Standard Offer Service shall receive such service pursuant to the Standard Offer Service tariff.

**DEMAND**

The Demand for each month under ordinary load conditions shall be the greatest of the following:

- a) The greatest fifteen-minute peak occurring during such month as measured in kilowatts,
- b) 90% of the greatest fifteen-minute peak occurring during the month as measured in kilovolt-amperes, where the Customer's Demand exceeds 75 kilowatts,
- c) 75% of the greatest Demand as so determined above during the preceding eleven months,
- d) 10 kilowatts.

Any Demands established during the eleven months prior to the application of this rate shall be considered as having been established under this rate.

Any Demand established during the Scheduled Maintenance Period, as defined below, will not be considered during billing periods subsequent to the Scheduled Maintenance Period in the calculation of c) above.

THE NARRAGANSETT ELECTRIC COMPANY  
**GENERAL C&I RATE (G-02)**  
RETAIL DELIVERY SERVICE

**OPTIONAL DETERMINATION OF DEMAND**

A Customer who has been served hereunder for one year or more may upon written request have the Demand for each month, beginning with the next month after such request and running for a period of not less than two consecutive months, be based upon the greatest of items a), b) and d) above. In such case, the Distribution Charge per kW, the Distribution Charge per kWh, the Transmission Charge per kW and the Transmission per kWh will be increased by 20% during any such period.

**COMBINED HEAT AND POWER ("CHP") PROGRAM PROVISIONS**

Minimum Demand

Customers who receive an incentive payment for the installation of a CHP non-emergency generation unit through the Company's Energy Efficiency Program after the effective date of this tariff will be subject to a monthly Minimum Demand Charge. For Customers subject to this CHP Minimum Demand Provision, the monthly Demand will be the greater of:

- a) the Demand as determined above; or
- b) the Minimum Demand, which shall be 50% of the greatest fifteen-minute reading from the Customer's generation meter(s) as measured in kilowatts during the month;

The Customer Charge, Transmission Demand Charge, all per kWh charges and any other applicable charges and credits will be in addition to the Minimum Demand Charge.

Scheduled Maintenance

Customers may, at their option, request one annual Scheduled Maintenance Period which may occur during no more than five (5) consecutive week-days during the months of April, May, October and November. This request must be submitted to the Company in writing at least 30 days in advance, and must specify the exact dates and duration of the Scheduled Maintenance Period. The Company will notify the Customer in writing within five (5) business days of receiving the Customer's request whether the Scheduled Maintenance Period is acceptable. Meter readings during this Scheduled Maintenance Period will be used in determining the Customer's Demand for the current month, but will not be used during subsequent billing periods for purposes of determining Demand (See Demand above).

Metering Requirements

The Customer shall permit the Company to install meter(s) on the Generation Units providing electricity to the Customer, for purposes of billing under the terms of this rate. The meter shall be in accordance with the Company's reasonable specifications. The Customer will reimburse the Company for the installed cost of the meter and any associated equipment. The Customer shall provide reasonable access to the Company during normal business hours to read such meter in order to bill the Customer for service under this rate.

**CREDIT FOR HIGH VOLTAGE DELIVERY**

If the Customer takes delivery at the Company's supply line voltage, not less than 2,400 volts, and the Company is saved the cost of installing any transformer and associated equipment, a credit of 42 cents per kilowatt of billing demand for such month shall be allowed against the amount determined under the preceding provisions.

**THE NARRAGANSETT ELECTRIC COMPANY**  
**GENERAL C&I RATE (G-02)**  
**RETAIL DELIVERY SERVICE**

**HIGH-VOLTAGE METERING ADJUSTMENT**

The Company reserves the right to determine the metering installation. Where service is metered at the Company's supply line voltage, in no case less than 2400 volts, thereby saving the Company transformer losses, a discount of 1% will be allowed from the amount determined under the preceding provisions.

**GROSS EARNINGS TAX**

A Rhode Island Gross Earnings Tax adjustment will be applied to the charges determined above in accordance with Rhode Island General Laws.

**GROSS EARNINGS TAX CREDIT FOR MANUFACTURERS**

Consistent with the gross receipts tax exemption provided in Section 44-13-35 of Rhode Island General Laws, eligible manufacturing customers will be exempt from the Gross Earnings Tax to the extent allowed by the Division of Taxation.

Eligible manufacturing customers are those customers who have on file with the Company a valid certificate of exemption from the Rhode Island sales tax (under section 44-18-30(7) of Rhode Island General Laws) indicating the customer's status as a manufacturer. If the Division of Taxation (or other Rhode Island taxing authority with jurisdiction) disallows any part or all of the exemption as it applies to a customer, the customer will be required to reimburse the Company in the amount of the credits provided to such customer which were disallowed, including any interest required to be paid by the Company to such authority.

**TERMS AND CONDITIONS**

The Company's Terms and Conditions in effect from time to time, where not inconsistent with any specific provisions hereof, are a part of this rate.

Effective: ~~April 1, 2012~~ JANUARY 1, 2013

**THE NARRAGANSETT ELECTRIC COMPANY**  
**200 kW DEMAND RATE (G-32)**  
**RETAIL DELIVERY SERVICE**

## **AVAILABILITY**

Electric delivery service shall be taken under this rate for all purposes by any customer who is placed on the rate by the Company in accordance with this paragraph. The Company shall place on this rate any customer who has a 12-month average Demand of 200 kW or greater for 3 consecutive months as soon as practicable. Notwithstanding the foregoing, the Company may require any customer with a 12-month maximum demand of 3,000 kW or greater to take delivery service on the 3,000 kW Demand Rate G-62 (subject to the settlement provisions in Docket No. 2290).

If electricity is delivered through more than one meter, except at the Company's option, the Monthly Charge for delivery service through each meter shall be computed separately under this rate. If any electricity is delivered hereunder at a given location, then all electricity deliveries by the Company at such location shall be delivered hereunder.

New Customers: Service will initially be taken under this rate by any new customer who requests service capability of 225 kVA or greater.

Transfers From Rate G-32: Any customer whose 12-month average demand is less than 180 kW for twelve consecutive months may elect to transfer from the 200 kW Demand Rate G-32 to another available rate.

This rate will apply to customers who receive incentive payments for the installation of non-emergency generation configured to provide Combined Heat and Power ("CHP") through the Company's approved Energy Efficiency Plan after the effective date of this tariff, and who would otherwise be eligible to receive service on C&I Back-up Service Rate B-32.

This rate is also available to customers who install on-site non-emergency generating units powered by Eligible Renewable Energy Resources, as defined in 2004 R.I. Pub. Laws 205 up to an aggregate nameplate capacity of 3 MW for all customers having installed such generation and are therefore exempt from the backup service rates. However, any customer exempted from the backup service rates under this provision shall nevertheless be required to install metering pursuant to the backup service tariff that shall provide information on the operation of the generation unit.

## **MONTHLY CHARGE**

The Monthly Charge will be the sum of the Retail Delivery Service Charges set forth in the cover sheet of this tariff.

## **PEAK OFF-PEAK PERIODS**

PEAK HOURS:	June - September	-- 8 a.m. - 10 p.m. Weekdays,
	December - February	-- 7 a.m. - 10 p.m. Weekdays
	October - November and	
	March - May	-- 8 a.m. - 9 p.m. Weekdays

OFF-PEAK HOURS: All other hours

Weekdays shall mean Monday through Friday, excluding the following holidays: New Year's Day, President's Day, Memorial Day, Independence Day, Columbus Day (observed), Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day.

THE NARRAGANSETT ELECTRIC COMPANY  
**200 kW DEMAND RATE (G-32)**  
RETAIL DELIVERY SERVICE

## **RATE ADJUSTMENT PROVISIONS**

### Transmission Service Charge Adjustment

The prices under this rate as set forth under “Monthly Charge” may be adjusted from time to time in the manner described in the Company’s Transmission Service Cost Adjustment Provision.

### Transition Charge Adjustment

The prices under this rate as set forth under “Monthly Charge” may be adjusted from time to time in the manner described in the Company’s Non-Bypassable Transition Charge Adjustment Provision.

### Standard Offer Adjustment

All Customers served on this rate must pay any charges required pursuant to the terms of the Company’s Standard Offer Adjustment Provision, whether or not the Customer is taking or has taken Standard Offer Service.

### Energy Efficiency Programs

The amount determined under the preceding provisions shall be adjusted in accordance with the Company’s Energy Efficiency Program Provision as from time to time effective in accordance with law.

### Infrastructure, Safety and Reliability Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company’s Infrastructure, Safety and Reliability Provision as from time to time effective in accordance with law.

### Customer Credit Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company’s Customer Credit Provision as from time to time effective in accordance with law.

### LIHEAP Enhancement Plan Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company’s LIHEAP Enhancement Plan Provision as from time to time effective in accordance with law.

### Revenue Decoupling Mechanism Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company’s Revenue Decoupling Mechanism Provision as from time to time effective in accordance with law.

### Net Metering Provision and Qualifying Facilities Power Purchase Rate

The amount determined under the preceding provisions shall be adjusted in accordance with the Company’s Net Metering Provision and Qualifying Facilities Power Purchase Rate as from time to time effective in accordance with law.

THE NARRAGANSETT ELECTRIC COMPANY  
**200 kW DEMAND RATE (G-32)**  
RETAIL DELIVERY SERVICE

## STANDARD OFFER SERVICE

Any Customer served under this rate who is eligible for Standard Offer Service shall receive such service pursuant to the Standard Offer Service tariff.

## DEMAND

The Demand for each month under ordinary load conditions shall be the greatest of the following:

- a) The greatest fifteen-minute peak occurring in such month during Peak hours as measured in kilowatts,
- b) 90% of the greatest fifteen-minute peak occurring in such month during Peak hours as measured in kilovolt-amperes,
- c) 75% of the greatest Demand as so determined above during the preceding eleven months, and
- d) 10 kilowatts.

Any Demand established during the Scheduled Maintenance Period, as defined below, will not be considered during billing periods subsequent to the Scheduled Maintenance Period in the calculation of c) above.

## OPTIONAL DETERMINATION OF DEMAND

A Customer who has been served hereunder for one year or more may upon written request have the Demand for each month, beginning with the next month after such request and running for a period of not less than two consecutive months, be based upon the greatest of items (a), (b) and (d) above. In such case, the Distribution Charge per kW, the Distribution Charge per kWh, the Transmission Charge per kW and the Transmission per kWh will be increased by 20% during any such period.

## COMBINED HEAT AND POWER ("CHP") PROVISIONS

### Minimum Demand

Customers who receive an incentive payment for the installation of a CHP non-emergency generation unit through the Company's Energy Efficiency Program after the effective date of this tariff will be subject to a monthly Minimum Demand Charge. For Customer's subject to this CHP Minimum Demand Provision, the monthly Demand will be the greater of:

- a) the Demand as determined above; or
- b) the Minimum Demand, which shall be 50% of the greatest fifteen-minute reading from the Customer's generation meter(s) as measured in kilowatts during peak hours;

The Customer Charge, Transmission Demand Charge, all per kWh charges and any other applicable charges and credits will be in addition to the Minimum Demand Charge.

### Scheduled Maintenance

Customers may, at their option, request one annual Scheduled Maintenance Period which may occur during no more than five (5) consecutive week-days during the months of April, May, October and November. This request must be submitted to the Company in writing at least 30 days in advance, and must specify the exact dates and duration of the Scheduled Maintenance Period. The Company will notify the Customer in writing

THE NARRAGANSETT ELECTRIC COMPANY  
**200 kW DEMAND RATE (G-32)**  
RETAIL DELIVERY SERVICE

within five (5) business days of receiving the Customer's request whether the Scheduled Maintenance Period is acceptable. Meter readings during this Scheduled Maintenance Period will be used in determining the Customer's Demand for the current month, but will not be used during subsequent billing periods for purposes of determining Demand (See Demand above).

Metering Requirements

The Customer shall permit the Company to install meter(s) on the Generation Units providing electricity to the Customer, for purposes of billing under the terms of this rate. The meter shall be in accordance with the Company's reasonable specifications. The Customer will reimburse the Company for the installed cost of the meter and any associated equipment. The Customer shall provide reasonable access to the Company during normal business hours to read such meter in order to bill the Customer for service under this rate.

**CREDIT FOR HIGH VOLTAGE DELIVERY**

If the Customer takes delivery at the Company's supply line voltage, not less than 2,400 volts, and the Company is saved the cost of installing any transformer and associated equipment, a credit of 42 cents per kilowatt of billing demand for such month shall be allowed against the amount determined under the preceding provisions.

An additional credit of \$2.00 per kilowatt of the billing demand for such month shall also be allowed if said customer accepts delivery at not less than 115,000 volts, and the Company is saved the cost of installing any transformer and associated equipment.

The total amount of the credit allowed under this provision shall not exceed the sum of the Customer Charge, the Distribution Charge per kW and the Distribution Charge per kWh.

**HIGH-VOLTAGE METERING ADJUSTMENT**

The Company reserves the right to determine the metering installation. Where service is metered at the Company's supply line voltage, in no case less than 2400 volts, thereby saving the Company transformer losses, a discount of 1% will be allowed from the amount determined under the preceding provisions

**SECOND FEEDER SERVICE**

Except as provided below, Customers receiving second feeder service shall pay \$2.00 per 90% of KVA of reserved second feeder capability. The charge for second feeder capability shall apply only to Customers with second feeder capability installed on or after May 1, 1998. The charge for second feeder capability shall not apply to Customers taking service within the Capital Center of Providence or within the downtown Providence underground network system. The Company's Construction Advance Policy 3 shall apply to determine any advance contribution by the customer, using an estimate of revenues to be derived from this second feeder rate. The Company reserves the right to decline second feeder service for engineering reasons.

An additional \$0.42 per 90% of KVA of reserved second feeder capability shall be charged if an additional transformer is required at the Customer's facility.

THE NARRAGANSETT ELECTRIC COMPANY  
200 kW DEMAND RATE (G-32)  
RETAIL DELIVERY SERVICE

**GROSS EARNINGS TAX**

A Rhode Island Gross Earnings Tax adjustment will be applied to the charges determined above in accordance with Rhode Island General Laws.

**GROSS EARNINGS TAX CREDIT FOR MANUFACTURERS**

Consistent with the gross receipts tax exemption provided in Section 44-13-35 of Rhode Island General Laws, eligible manufacturing customers will be exempt from the Gross Earnings Tax to the extent allowed by the Division of Taxation.

Eligible manufacturing customers are those customers who have on file with the Company a valid certificate of exemption from the Rhode Island sales tax (under section 44-18-30(7) of Rhode Island General Laws) indicating the customer's status as a manufacturer. If the Division of Taxation (or other Rhode Island taxing authority with jurisdiction) disallows any part or all of the exemption as it applies to a customer, the customer will be required to reimburse the Company in the amount of the credits provided to such customer which were disallowed, including any interest required to be paid by the Company to such authority.

**TERMS AND CONDITIONS**

The Company's Terms and Conditions in effect from time to time, where not inconsistent with any specific provisions hereof, are a part of this rate.

Effective: ~~April 1, 2012~~ JANUARY 1, 2013



**THE NARRAGANSETT ELECTRIC COMPANY**  
**3000 kW DEMAND RATE (G-62)**  
**RETAIL DELIVERY SERVICE**

## **AVAILABILITY**

Electric delivery service shall be taken under this rate for all purposes by any customer who is placed on the rate by the Company in accordance with this paragraph. The Company shall place on this rate any customer who has a 12-month maximum Demand of 3,000 kW or greater. Delivery service can be taken under this rate by customers who do not meet the qualifications on a voluntary basis.

If electricity is delivered through more than one meter, except at the Company's option, the Monthly Charge for service through each meter shall be computed separately under this rate. If any electricity is delivered hereunder at a given location, then all electricity delivered by the Company at such location shall be delivered hereunder.

New Customers: Delivery service will initially be taken under this rate by any new customer who requests delivery service capability of 3,375 kVA or greater.

Transfers From Rate G-62: Any customer whose 12-month maximum demand is less than 2,700 kW for twelve consecutive months may elect to transfer from the 3,000 kW Demand Rate G-62 to another available rate.

Customers who can certify that their operations reflect a permanent reduction in demand to less than 2,700 kW may request a transfer from Rate G-62 effective the billing month following the Company's receipt of the Customer's written request. If, during the subsequent twelve (12) billing months, the Customer's demand exceeds 2,700 kW for any month, the Customer will be placed back on Rate G-62 on the next billing month and all bills issued to the Customer following its initial transfer from Rate G-62 will be recalculated as if the Customer had been billed on Rate G-62 and the Customer will be charged the difference.

This rate will apply to customers who receive incentive payments for the installation of non-emergency generation configured to provide Combined Heat and Power ("CHP") through the Company's approved Energy Efficiency Plan after the effective date of this tariff, and who would otherwise be eligible to receive service on 3,000 kW Demand Back-up Service Rate B-62.

This rate is also available to customers who install on-site non-emergency generating units powered by Eligible Renewable Energy Resources, as defined in 2004 R.I. Pub. Laws 205 up to an aggregate nameplate capacity of 3 MW for all customers having installed such generation and are therefore exempt from the backup service rates. However, any customer exempted from the backup service rates under this provision shall nevertheless be required to install metering pursuant to the backup service tariff that shall provide information on the operation of the generation unit.

## **MONTHLY CHARGE**

The Monthly Charge will be the sum of the Retail Delivery Service Charges set forth in the cover sheet of this tariff.

## **PEAK, SHOULDER AND OFF-PEAK PERIODS**

PEAK HOURS:	June - September	-- 8 a.m. - 10 p.m. Weekdays,
	December - February	-- 7 a.m. - 10 p.m. Weekdays
	October - November and	
	March - May	-- 8 a.m. - 9 p.m. Weekdays

THE NARRAGANSETT ELECTRIC COMPANY  
**3000 kW DEMAND RATE (G-62)**  
RETAIL DELIVERY SERVICE

OFF-PEAK HOURS: All other hours

Weekdays shall mean Monday through Friday, excluding the following holidays: New Year's Day, President's Day, Memorial Day, Independence Day, Columbus Day (observed), Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day.

**RATE ADJUSTMENT PROVISIONS**

Transmission Service Charge Adjustment

The prices under this rate as set forth under "Monthly Charge" may be adjusted from time to time in the manner described in the Company's Transmission Service Cost Adjustment Provision.

Transition Charge Adjustment

The prices under this rate as set forth under "Monthly Charge" may be adjusted from time to time in the manner described in the Company's Non-Bypassable Transition Charge Adjustment Provision.

Standard Offer Adjustment

All Customers served on this rate must pay any charges required pursuant to the terms of the Company's Standard Offer Adjustment Provision, whether or not the Customer is taking or has taken Standard Offer Service.

Energy Efficiency Programs

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Energy Efficiency Program Provision as from time to time effective in accordance with law.

Infrastructure, Safety and Reliability Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Infrastructure, Safety and Reliability Provision as from time to time effective in accordance with law.

Customer Credit Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Customer Credit Provision as from time to time effective in accordance with law.

LIHEAP Enhancement Plan Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's LIHEAP Enhancement Plan Provision as from time to time effective in accordance with law.

Revenue Decoupling Mechanism Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Revenue Decoupling Mechanism Provision as from time to time effective in accordance with law.

THE NARRAGANSETT ELECTRIC COMPANY  
**3000 kW DEMAND RATE (G-62)**  
RETAIL DELIVERY SERVICE

Net Metering Provision and Qualifying Facilities Power Purchase Rate

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Net Metering Provision and Qualifying Facilities Power Purchase Rate as from time to time effective in accordance with law.

**STANDARD OFFER SERVICE**

Any Customer served under this rate who is eligible for Standard Offer Service shall receive such service pursuant to the Standard Offer Service tariff.

**DEMAND**

The Demand for each month under ordinary load conditions shall be the greatest of the following:

- a) The greatest fifteen-minute peak occurring in such month during Peak hours as measured in kilowatts,
- b) 90% of the greatest fifteen-minute peak occurring in such month during Peak hours as measured in kilovolt-amperes,
- c) 75% of the greatest Demand as so determined above during the preceding eleven months, and
- d) 10 kilowatts.

Any Demand established during the Scheduled Maintenance Period, as defined below, will not be considered during billing periods subsequent to the Scheduled Maintenance Period in the calculation of c) above.

**OPTIONAL DETERMINATION OF DEMAND**

A Customer who has been served hereunder for one year or more may upon written request have the Demand for each month, beginning with the next month after such request and running for a period of not less than two consecutive months, be based upon the greatest of items (a), (b) and (d) above. In such case, the Distribution Charge per kW, the Transmission Charge per kW and the Transmission per kWh will be increased by 20% during any such period.

**COMBINED HEAT AND POWER ("CHP") PROVISIONS**

Minimum Demand

Customers who receive an incentive payment for the installation of a CHP non-emergency generation unit through the Company's Energy Efficiency Program after the effective date of this tariff will be subject to a monthly Minimum Demand Charge. For Customer's subject to this CHP Minimum Demand Provision, the monthly Demand will be the greater of:

- a) the Demand as determined above; or
- b) the Minimum Demand, which shall be 50% of the greatest fifteen-minute reading from the Customer's generation meter(s) as measured in kilowatts during peak hours;

The Customer Charge, Transmission Demand Charge, all per kWh charges and any other applicable charges and credits will be in addition to the Minimum Demand Charge.

THE NARRAGANSETT ELECTRIC COMPANY  
**3000 kW DEMAND RATE (G-62)**  
RETAIL DELIVERY SERVICE

Scheduled Maintenance

Customers may, at their option, request one annual Scheduled Maintenance Period which may occur during no more than five (5) consecutive week-days during the months of April, May, October and November. This request must be submitted to the Company in writing at least 30 days in advance, and must specify the exact dates and duration of the Scheduled Maintenance Period. The Company will notify the Customer in writing within five (5) business days of receiving the Customer's request whether the Scheduled Maintenance Period is acceptable. Meter readings during this Scheduled Maintenance Period will be used in determining the Customer's Demand for the current month, but will not be used during subsequent billing periods for purposes of determining Demand (See Demand above).

Metering Requirements

The Customer shall permit the Company to install meter(s) on the Generation Units providing electricity to the Customer, for purposes of billing under the terms of this rate. The meter shall be in accordance with the Company's reasonable specifications. The Customer will reimburse the Company for the installed cost of the meter and any associated equipment. The Customer shall provide reasonable access to the Company during normal business hours to read such meter in order to bill the Customer for service under this rate.

**CREDIT FOR HIGH VOLTAGE DELIVERY**

If the Customer takes delivery at the Company's supply line voltage, not less than 2,400 volts, and the Company is saved the cost of installing any transformer and associated equipment, a credit of 42 cents per kilowatt of billing demand for such month shall be allowed against the amount determined under the preceding provisions.

An additional credit of \$2.00 per kilowatt of the billing demand for such month shall also be allowed if said customer accepts delivery at not less than 115,000 volts, and the Company is saved the cost of installing any transformer and associated equipment.

The total amount of the credit allowed under this provision shall not exceed the sum of the Customer Charge, the Distribution Charge per kW and the Distribution Charge per kWh.

**HIGH-VOLTAGE METERING ADJUSTMENT**

The Company reserves the right to determine the metering installation. Where service is metered at the Company's supply line voltage, in no case less than 2400 volts, thereby saving the Company transformer losses, a discount of 1% will be allowed from the amount determined under the preceding provisions.

**SECOND FEEDER SERVICE**

Except as provided below, Customers receiving second feeder service shall pay \$2.00 per 90% of KVA of reserved second feeder capability. The charge for second feeder capability shall apply only to Customers with second feeder capability installed on or after May 1, 1998. The charge for second feeder capability shall not apply to Customers taking service within the Capital Center of Providence or within the downtown Providence underground network system. The Company's Construction Advance Policy 3 shall apply to determine any advance contribution by the customer, using an estimate of revenues to be derived from this second feeder rate. The Company reserves the right to decline second feeder service for engineering reasons.

**THE NARRAGANSETT ELECTRIC COMPANY**  
**3000 kW DEMAND RATE (G-62)**  
**RETAIL DELIVERY SERVICE**

An additional \$0.42 per 90% of KVA of reserved second feeder capability shall be charged if an additional transformer is required at the Customer's facility.

**GROSS EARNINGS TAX**

A Rhode Island Gross Earnings Tax adjustment will be applied to the charges determined above in accordance with Rhode Island General Laws.

**GROSS EARNINGS TAX CREDIT FOR MANUFACTURERS**

Consistent with the gross receipts tax exemption provided in Section 44-13-35 of Rhode Island General Laws, eligible manufacturing customers will be exempt from the Gross Earnings Tax to the extent allowed by the Division of Taxation.

Eligible manufacturing customers are those customers who have on file with the Company a valid certificate of exemption from the Rhode Island sales tax (under section 44-18-30(7) of Rhode Island General Laws) indicating the customer's status as a manufacturer. If the Division of Taxation (or other Rhode Island taxing authority with jurisdiction) disallows any part or all of the exemption as it applies to a customer, the customer will be required to reimburse the Company in the amount of the credits provided to such customer which were disallowed, including any interest required to be paid by the Company to such authority.

**TERMS AND CONDITIONS**

The Company's Terms and Conditions in effect from time to time, where not inconsistent with any specific provisions hereof, are a part of this rate.

Effective: ~~April 1, 2012~~ JANUARY 1, 2013

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## **ATTACHMENTS**

1. 2013 Residential Electric and Gas Energy Efficiency Programs
2. 2013 Commercial and Industrial Electric and Gas Energy Efficiency Programs
3. 2013 Measurement and Verification Plan
4. Final Report from Energy Efficiency Forum
5. 2013 Electric Energy Efficiency Program Tables
6. 2013 Gas Energy Efficiency Program Tables





## **I. Introduction and Summary**

The Narragansett Electric Company's d/b/a National Grid ("National Grid" or "Company") is pleased to submit this Energy Efficiency Program Plan ("EE Program Plan" or "Plan") for 2013 to the Rhode Island Public Utilities Commission. This Plan has been developed by National Grid in collaboration with the Collaborative Subcommittee of the Energy Efficiency and Resource Management Council ("EERMC").<sup>1</sup>

This EE Program Plan is submitted in accordance with the Least Cost Procurement law, R.I.G.L. §39-1-27.7, the basis for which is Comprehensive Energy Conservation, Efficiency, and Affordability Act of 2006 (as amended in May 2010), R.I.G.L. § 39-2-1.2,<sup>2</sup> and the Rhode Island Public Utilities Commission's ("Commission") "Standards for Energy Efficiency and Conservation Procurement," as revised by the EERMC and approved by the Commission in Order 20419 in Docket 4202 on July 25, 2011 (the "Standards"). This Plan is being jointly submitted as a Stipulation and Settlement ("Settlement"), entered into by the Division of Public Utilities and Carriers (the "Division"), the EERMC, The Energy Council of Rhode Island ("TEC-RI"), Environment Northeast ("ENE"), and National Grid (together, the "Parties"), and addresses all issues raised by members of the Collaborative Subcommittee concerning the Company's electric and natural gas Energy Efficiency ("EE") programs for calendar year 2013.

The 2013 Plan is consistent with the three-year Energy Efficiency Procurement Plan ("EE Procurement Plan") submitted by National Grid on September 9, 2011, in Docket 4284, with approval and support of the EERMC, the Division, ENE, and TEC-RI.

The primary goal of the 2013 EE Program Plan is to create energy and economic cost savings for Rhode Island consumers as required by R.I.G.L. §39-1-27.7. To that end, the 2013 Plan will create annual savings of 158,820 MWh and 287,775 MMBtu and lifetime savings of 1,582,496 MWh and 3,830,689 MMBtu. The Plan will generate economic benefits of more than \$231.9 million over the life of the measures (with \$185.4 million in benefits coming from electric efficiency and \$46.8 million in benefits from natural gas efficiency), which represents a large and urgently needed benefit for Rhode Island's

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<sup>1</sup> A collaborative group has been meeting regularly since 1991 to analyze and inform the Company's electric and gas energy efficiency programs. Members of the Subcommittee presently include the Company, the Division, TEC-RI, and ENE, along with participation from the Office of Energy Resources ("OER"), several EERMC members and representatives from the EERMC's Consulting Team. The Collaborative has functioned as a subcommittee of the EERMC since 2008. The constitution of the Collaborative Subcommittee has varied since 1991, as some organizations have withdrawn and others have joined.

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

residential, commercial, industrial, and low income energy customers. Table 1 summarizes the 2013 Plan metrics and goals.<sup>3</sup>

**Table 1: 2013 Energy Efficiency Program Plan Summary**

Electric Programs by Sector	Proposed Implementation Spending in 2013 (\$000)	Annual MWh Savings	Annual kW Savings	Lifetime MWh Savings	Total Benefits (\$000)	TRC B/C Ratio	TRC c/lifetime kWh	Participants
Non-Income Eligible Residential	\$22,158	55,538	6,412	321,843	\$41,100	1.58	7.7	466,834
Income Eligible Residential	\$7,918	6,188	893	62,349	\$12,828	1.52	12.9	5,601
Commercial and Industrial	\$34,869	97,093	15,879	1,198,304	\$131,211	2.87	3.7	3,910
<b>Subtotal</b>	<b>\$66,306</b>	<b>158,820</b>	<b>23,183</b>	<b>1,582,496</b>	<b>\$185,139</b>	<b>2.27</b>	<b>4.9</b>	<b>476,345</b>
Gas Programs by Sector	Proposed Implementation Spending in 2013 (\$000)	Annual MMBtu Savings		Lifetime MMBtu Savings	Total Benefits (\$000)	TRC B/C Ratio	TRC \$/lifetime MMBtu	Participants
Non-Income Eligible Residential	\$7,338	94,161		1,149,900	\$16,751	1.57	8.9	141,337
Income Eligible Residential	\$4,040	22,812		429,139	\$10,398	2.55	9.5	2,600
Commercial and Industrial	\$6,566	170,802		2,251,650	\$19,609	2.14	3.9	1,213
<b>Subtotal</b>	<b>\$18,320</b>	<b>287,775</b>		<b>3,830,689</b>	<b>\$46,758</b>	<b>1.91</b>	<b>6.2</b>	<b>145,150</b>
<b>Total for Plan</b>	<b>\$84,626</b>				<b>\$231,897</b>	<b>2.19</b>		<b>621,494</b>

Note:

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

The aggressive energy and cost savings for the 2013 program year are consistent with the objectives and requirements of Least Cost Procurement and the savings targets approved by the Commission in Order 20419 in Docket 4202. The electric savings target for 2013 is 2.1% of 2009 electric load and is consistent with the Commission's June 7, 2011 decision regarding efficiency targets in Docket 4202. The natural gas savings target is 0.8% of 2009 natural gas load, which while generally consistent with the target approved by the Commission in Docket 4202, is slightly lower.<sup>4</sup> The savings also meet the Standards' requirements for cost-effectiveness, which mandate that the Plan's Total Resource Cost Test ratio ("TRC Test") - the ratio of Total Benefits/Total Costs- be greater than 1.0.<sup>5</sup> The overall electric EE Program TRC Test ratio is 2.27 and the overall natural gas EE Program TRC Test ratio is 1.91.

The EERMC-proposed and Commission-approved energy efficiency savings goals for the Company will make Rhode Island a recognized national leader in energy efficiency to the benefit of the State's population through cost savings and additional significant

<sup>3</sup> Consistent with the planning process articulated in the Three Year EE Procurement plan in Docket 4284, National Grid has examined the planning assumptions, supply costs, program enhancements and corresponding budgets using the most robust data available for this Plan. Consequently, the TRC cent per kWh and TRC dollar per lifetime MMBtu are lower than projected in the Three Year Plan.

<sup>4</sup> The natural gas target for 2013 is the same as the target proposed for 2013 in the EE Procurement Plan. As noted in the EE Procurement Plan (page 6), several factors currently combine to make it not possible to plan to reach the Commission-approved natural gas savings goals cost-effectively as specified by R.I.G.L. § 39-1-27.7. Those factors are explained in detail in the "3-Year Objectives" section of the EE Procurement Plan.

<sup>5</sup> See *Standards for Energy Efficiency and Conservation Procurement*, Section 1.2.A.2.

economic benefits, such as increased gross state product (GSP) and job creation. In order to meet this challenge, National Grid is committed to establishing and maintaining the infrastructure and the customer relationships to deliver deeper, broader savings. National Grid, with the collaboration of the Parties, is continuing to integrate natural gas and electric energy efficiency programs so that customers have one point of contact, and can easily install and benefit from natural gas and electric energy saving measures at the same time.

The following table compares the 2013 Annual Plan components to the 2012-2014 Least Cost Procurement Plan.

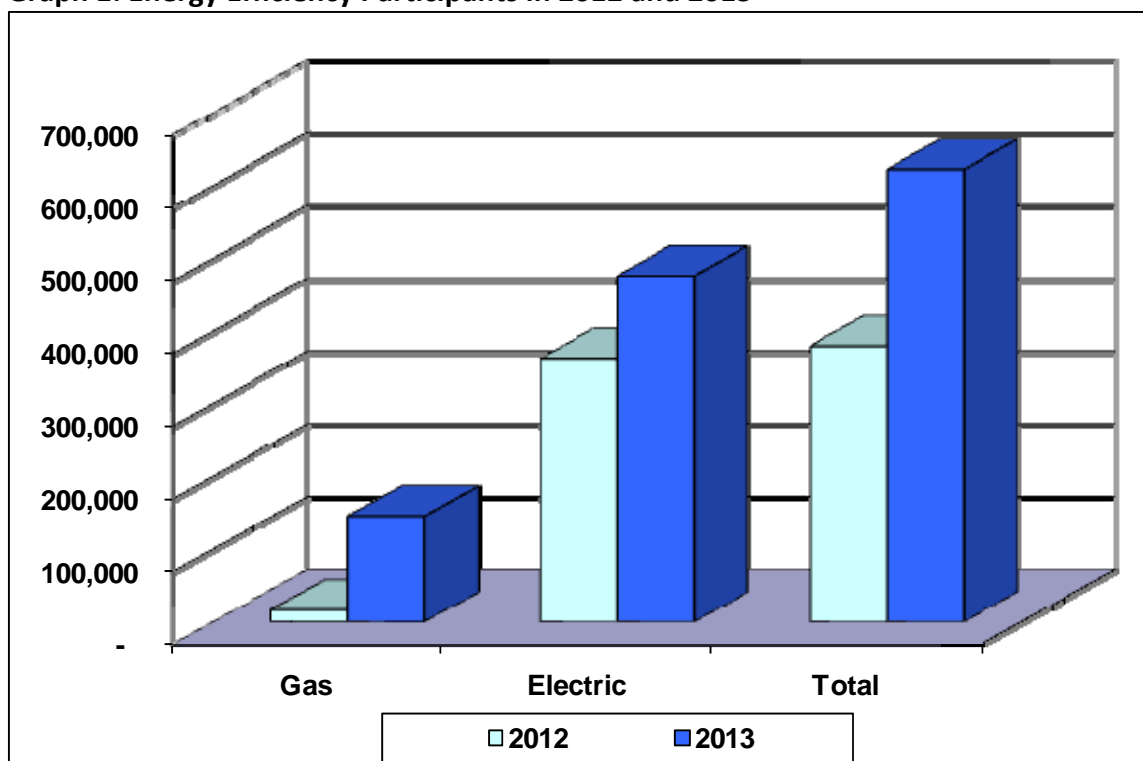
**Table 2: 2013 Annual Plan compared to 2013 in 2012-2014 Three Year Plan**

<b>2013 Plan vs Three Year Plan Metrics</b>		
	<b>Annual Plan</b>	<b>Three Year Plan</b>
<b>Electric</b>		
BC Ratio	2.27	2.20
Annual MWh	158,820	158,820
Lifetime MWh	1,582,496	1,609,419
TRC \$/Lifetime kWh	\$0.049	\$0.058
Utility \$/Lifetime kWh	\$0.043	\$0.045
Implementation + Evaluation Expenses	\$64,814,938	\$70,079,358
<b>Gas</b>		
BC Ratio	1.91	1.47
Annual MMBtu	287,775	284,734
Lifetime MMBtu	3,830,689	4,420,967
TRC \$/Lifetime MMBtu	\$6.16	\$6.72
Utility \$/Lifetime MMBtu	\$4.92	\$4.04
Implementation + Evaluation Expenses	\$ 17,965,703	\$ 17,095,149

The 2013 Plan will reach many more customers (going broader) and achieve greater savings for each customer (going deeper) than in prior years. Compared to approximately 379,000 electric and natural gas participants in the 2012 Plan, the 2013 Plan will reach over 621,000 participants,<sup>6</sup> as illustrated in Graph 1 below. Expanding the programs to reach this number of participants and higher goals will be done in a manner that ensures quality delivery and is cost-effective and cost-efficient.

<sup>6</sup> In 2012, the Company improved how participation is calculated by defining participants as unique billing accounts within each program, where possible. The exception is the Residential ENERGY STAR® lighting program where participants are counted based on findings from an impact evaluation. Efforts will continue in 2013 to determine unique billing accounts among programs, where possible. This is part of an effort to determine the total population that energy efficiency programs are touching.

**Graph 1: Energy Efficiency Participants in 2012 and 2013**



The electric and natural gas energy efficiency program budgets proposed for 2013 are consistent with the budget illustrations presented for 2013 in the EE Procurement Plan approved in Docket 4284. As highlighted in the 2012-2014 EE Procurement Plan, National Grid’s cost-of-saved energy is competitive with, or lower than, other utility-delivered programs in New England.

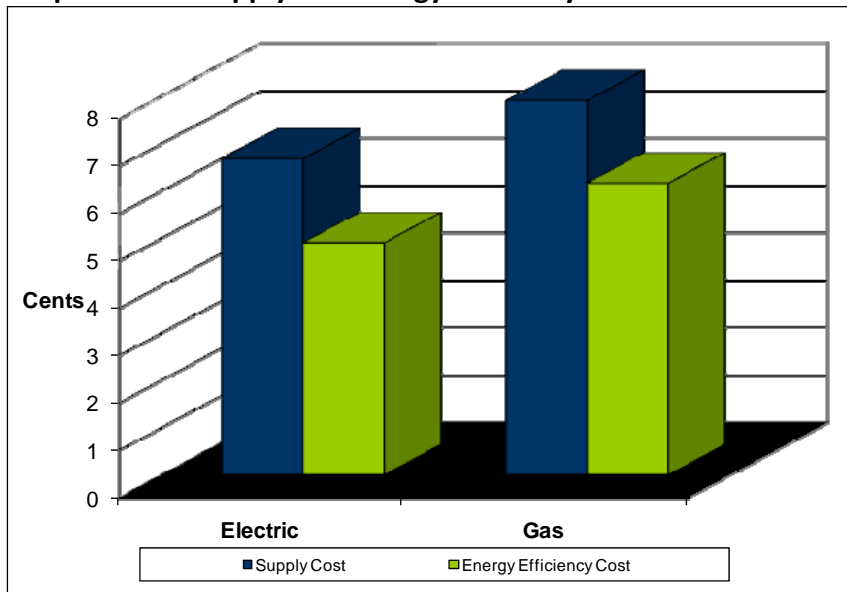
This cost-effective 2013 EE Program Plan includes an investment of \$66.3 million for electric energy efficiency implementation in 2013. If approved, this will be funded by the existing demand side management charge of \$0.00589 per kWh, as well as other funding sources including ISO-New England’s (“ISO-NE”) Forward Capacity Market (“FCM”) auction revenue, and Large C&I copayments. Pursuant to R.I.G.L. § 39-1-27.7(c)(5), a fully reconciling mechanism of \$0.00273 per kWh is needed to fully fund the cost-effective electric energy efficiency programs for 2013.<sup>7</sup> This funding will allow approximately 271,000 additional Rhode Island electric customers to participate in 2013 than in 2012, a 31 percent increase, to achieve deeper and broader savings and generate economic benefits of \$185.1 million.

<sup>7</sup> In May 2010, R.I.G.L. § 39-1-27.7 was revised to state that the Commission shall approve a fully reconciling funding mechanism to fund investments in all efficiency measures that are cost-effective as established by the TRC Test. A second revision to § 39-1-27.7 extended the provisions for Least Cost Procurement of energy efficiency and conservation measures to natural gas, requiring the Company to procure all natural gas efficiency resources that are cost-effective and less costly than supply just as has been the case for electric efficiency resources. For the legislative history, see P.L. 2010 Ch. 15 S2841 Sub A; P.L. 2011 Ch. 17 H8082 Sub A (Enacted May 27, 2010).

This Plan also includes a \$18.3 million investment in cost-effective natural gas energy efficiency implementation. If approved, this investment will be funded by the existing demand side management charge of \$0.384 per MMBTU. Pursuant to R.I.G.L. § 39-1-27.7(c)(5), a fully reconciling mechanism of \$0.030 will be needed to fully fund the cost-effective natural gas energy efficiency programs for 2013. This funding will allow 128,500 additional Rhode Island gas customers to participate in 2013 than from 2012, an 860% increase namely due to the creation of the Home Energy Reports program. The programs will generate economic benefits of \$46.7 million.

In addition to the primary statutory requirement of cost-effectiveness, which requires a value greater than 1.0 in the TRC Test (the TRC ratio for electric is 2.27 and the TRC ratio for natural gas is 1.91), the cost of electric energy efficiency programs is 4.9¢ per lifetime kWh saved, which is 1.8¢ less than the current cost of supply, 6.7¢ per kWh.<sup>8</sup> The cost of natural gas energy efficiency is \$6.1 per lifetime MMBTU saved, which is \$1.8 less than the projected cost of supply for residential heating customers, \$7.9 per MMBTU.<sup>9</sup>

**Graph 2: 2013 Supply and Energy Efficiency Costs**



The 2013 EE Program Plan is cost-effective and has a cost that is lower than the cost of acquisition of additional supply for both electricity and natural gas, pursuant to R.I.G.L. § 39-1-27.7 (a)(2). For each \$1 invested, electric programs will create \$2.27 of economic benefits over the lifetime of the investment, and natural gas efficiency investments will

<sup>8</sup> The electric supply cost is based on the Residential Standard Offer Charge through December 31, 2012; Commercial Customer Group fixed price option is 5.97¢ through December 31, 2012.

<sup>9</sup> The natural gas supply cost is based on the residential standard offer in effect since May 1, 2012; Large Customer Low Load cost is \$7.46.

create \$1.91 in economic benefits over the lifetime of the investments. Rhode Islanders will receive a total of \$231.9 million in benefits from the 2013 energy efficiency plan investments.

## **II. Strategies to Achieve Goals**

The primary goal of the 2013 EE Program Plan is to create economic value and cost savings for Rhode Islanders through energy efficiency. The Plan achieves this goal by implementing four key strategies, introduced in Docket 4284, that will be put into action in 2013 to deliver increased savings and participation:

- **Energy Efficiency is for Everyone** – The objective of these strategies is to overcome the traditional barriers that prevent homes and businesses from participating in the energy efficiency programs and provide every Rhode Islander with a fair and equitable opportunity to participate.
- **Reaching Customers Where they Live and Work** – This will employ customer segmentation, targeted marketing efforts, and various delivery channels to increase participation in energy efficiency.
- **Innovation** – This is the development and deployment of new energy efficient technologies to continue to move the market to higher levels of energy efficiency.
- **Economic Growth** – The 2013 Plan will create value for Rhode Island through job creation, lowering energy bills for both participants and non-participants, and will also look for ways to lower the cost of energy efficiency in future years.

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

### **Energy Efficiency is for Everyone**

The Company proposes to develop several initiatives to ensure that all customers have an opportunity to participate in energy efficiency programs. In the Fall of 2012, the Company and EERMC held an Energy Efficiency Forum to listen to customers, communities, and partners about ways in which they would like energy efficiency to be delivered. The Forum has inspired concepts and strategies throughout this Plan that will help deliver energy efficiency to every customer in Rhode Island. The final report from the Forum is included in Attachment 3.

In 2013, the Company will focus on making participation simple for both residential and commercial customers. The Company plans to implement strategies to increase participation in the commercial and industrial (“C&I”) natural gas programs, such as streamlining the application process. For residential customers, the Company will simplify participation by creating one phone number and web page, and by promoting

all energy efficiency opportunities when speaking with customers, no matter what program the opportunity comes from. The Company will also continue its comprehensive marketing campaign in order to educate customers about its cost-saving energy efficiency programs. The campaign will focus on driving participation in the entire portfolio of efficiency programs offered to residential, commercial, and industrial natural gas and electric customers.

The Company is also introducing a Home Energy Report program that will be available to every customer. Home Energy Reports are proven to save energy and all customers will be able to receive one. The Company will also focus on retrofitting multifamily buildings such as apartments, condominiums and affordable housing developments. This focused attention will make it easier for property managers and housing authorities to invest in energy efficiency.

The Company will also continue to offer finance for residential, commercial and industrial customers, helping overcome financial barriers that prevent customers from investing in energy efficiency.

#### **Reaching Customers Where they Live and Work**

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

To this end, in 2013 the Company plans to continue its efforts from 2012 to work with large customers on long term strategic energy efficiency plans. Large customers typically look at investments over several years and this effort will be designed to be consistent with a long range planning horizon. The Company has gained valuable experience from a first-in-Rhode Island memorandum of understanding it signed in 2012 with a large institutional customer to improve the customer's experience while encouraging it to pursue "deeper" energy efficiency over a multi-year horizon. The Company will begin to apply these lessons more broadly in 2013.

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

The Company will also expand its community initiatives that use partnerships with local organizations and businesses to promote energy efficiency. The Company will work with large businesses to develop a energy solution demonstration site that also helps the community surrounding the business see and feel the energy efficiency. This may include promoting residential energy efficiency offerings to large businesses'



employees. The Company will also develop an online community engagement portal for energy efficiency that will include energy saving competitions for teams from schools, churches, towns, dorms, etc.

### **Innovation**

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

The Company will continue to explore new technologies. Several pilots began in 2012 and will continue through 2013, including new types of thermostats and a pilot with in-home displays designed to prompt energy saving behaviors. The Company has expanded innovation efforts by defining a C&I Pilots program. The 2013 Plan includes new residential pilots such as variable speed ducted heat pump systems, aerosol duct sealing, residential and commercial building envelope measurement tools, and an energy saving rewards pilot.

At the same time, the Company is launching an energy code compliance and support initiative as well as a statewide Home Energy Report program in 2013. The EERMC's Phase II Opportunity Report, completed in 2010 and filed in Docket 4202, identified Home Energy Report programs as an opportunity with great energy savings potential. There are also several new technologies that will be promoted in 2013 that were identified in the Natural Gas Opportunities Report, prepared for the EERMC in July 2012.

### **Economic Growth**

The fourth implementation strategy of the 2013 EE Program Plan is to generate economic benefits and bill savings for Rhode Islanders, especially as the recession continues to affect them. Saving 1,585,455 lifetime MWh represents a bill savings of approximately \$103 million and saving 3,948,317 lifetime MMBtu represents a bill savings of approximately \$34.5 million.<sup>10</sup> Investing \$84.6 million in energy efficiency implementation leads to the annual creation or retention of 4,121 job-years,<sup>11</sup> and, since consumers are spending less on their energy bills and have more disposable income to spend in the local economy, GSP will get a boost of more than \$462 million.<sup>12</sup>

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<sup>10</sup> Electric bill savings based on total winter and summer energy benefits, Attachment 5, Table E-6; gas bill savings based on Natural Gas Benefits, Attachment 6, Table G-6.

<sup>11</sup> ENE (Environment Northeast), Energy Efficiency, Engine of Economic Growth, *A Macroeconomic Modeling Assessment*, October 2009

<sup>12</sup> ENE (Environment Northeast), *ibid.*

The Company proposes to continue and expand initiatives that include job training, increasing opportunities for independent energy efficiency and weatherization contractors to deliver services and installations in Rhode Island, and working with banking and economic development partners to offer energy efficiency financing options for small and large businesses, allowing Rhode Island businesses to be more cost-competitive and retain employees in the state. Specifically, the Company will expand financing opportunities for C&I projects, described in the C&I Programs description in Attachment 2, which maximize savings and reduce costs while offering customers a streamlined process. While financing programs do not directly deliver energy savings, they remove barriers to participation. The effort is part of the Company's commitment to "explore as part of its plan, new strategies to make available the capital needed to effectively overcome market barriers and implement projects that move beyond traditional financing strategies," as required in Section 1.3.A.8 of the Standards. The Company, along with the EERMC, will also sponsor a study that will help identify the business and employment impacts of ratepayer-funded energy efficiency investments in Rhode Island.

### **III. Delivering 2013 Goals**

National Grid will build on its more than twenty years of experience in order to deliver the energy and cost savings goals in this plan.<sup>13</sup>

#### **A. Residential Programs**

In 2013, the Parties agree to continue the residential programs offered in 2012, as well as to offer new programs and pilot the development of new technologies for potential inclusion in programs in future years. The programs are summarized in Table 3. Descriptions of these programs are provided in Attachment 1. Included in description of each program are proposed changes from 2011 that are intended to help meet the savings targets for 2013.

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<sup>13</sup> Throughout the program year, the Parties may consider additional enhancements beyond those identified herein as more information becomes available to support an informed review of those potential changes. As part of this process of identifying additional enhancements, in addition to continuing to meet with the Subcommittee, the Company will continue its work sessions with the EERMC's consultants.

<b>Table 3. Proposed Residential Energy Efficiency Programs</b>	
<b>Residential Buildings Efficiency Programs</b>	
<b>EnergyWise Program</b> (Funded by Gas and Electric)	EnergyWise offers single family customers home energy assessments and information on their actual energy usage. Participants in this program receive recommendations and technical assistance as well as financial incentives to replace inefficient lighting fixtures, appliances, thermostats, and insulation levels with models that are more energy efficient. The program addresses base load electric use and heating and cooling energy loads in all residential buildings. The program recommends efficient products that are delivered through National Grid's various programs. The program will continue to deliver the Heat Loan in 2013 offers a 0% interest loan for efficiency retrofits through local banks. The program will also continue to offer weatherization incentives to customers who heat with oil and propane.
<b>Multifamily Programs</b> Income Eligible, Residential and Commercial sectors (funded by Gas and Electric)	Comprehensive energy services for multifamily customers include energy assessments, incentives for heating and domestic hot water systems, cooling equipment, lighting and appliances. Coordinated services will be offered for all types of multifamily properties. An approach tailored for multifamily properties designates a primary point-of-contact to manage and coordinate services offered through our existing portfolio, including EnergyWise, C&I Retrofit, Residential New Construction, Income Eligible, and the ENERGY STAR® HVAC programs.
<b>Income Eligible</b> (Funded by Gas and Electric)	Income Eligible Services, also known as the Single Family Low Income Services, are delivered by local Community Action Program (CAP) agencies with oversight provided by a Lead Vendor. Three levels of home energy assessments will be offered: (1) lighting and appliance focus, (2) heating and weatherization focus, and (3) comprehensive focus. Customers qualifying for LIHEAP are eligible and receive all services and equipment upgrades at no cost.
<b>Residential New Construction</b> (Funded by Gas and Electric)	The program promotes the construction of high-performing energy efficient single family, multifamily, and low income homes, as well as the education of builders, tradesmen, designers, and code officials. In 2013, the program is moving to a performance-based tier structure with corresponding financial incentives. Furthermore, the program will capture savings from the Renovation/Rehabilitation and Deep Energy Retrofit offerings, both of which were pilots during 2012. The program will also promote energy savings through codes compliance.
<b>Education Programs</b> (Funded by Electric)	The Company promotes energy education to private and public schools and youth groups through the National Energy Education Development (N.E.E.D) Program. This program provides curriculum materials and training to students and teachers in grades K-12.
<b>Residential Home Energy Report Program</b> (Funded by Electric and Gas)	The Company will initiate a statewide Residential Home Energy Report Program in 2013. This program will feature home energy reports and other enhanced feedback tools to inspire customers to take actions that reduce their energy consumption and also increase their participation in the other energy efficiency programs.

<b>Community Based Initiatives</b> (C&I and Residential, Funded by Electric and Gas)	The initiative is designed to leverage trusted community partnerships and develop targeted marketing strategies in order to promote all energy efficiency programs, residential and commercial, in specific, targeted communities or businesses.
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<b>Residential Efficient Products Programs</b>	
<b>ENERGY STAR® Lighting</b> (Funded by Electric Only)	This is an initiative implemented jointly with other regional utilities. It provides discounts to customers for the purchase of ENERGY STAR® compact fluorescent lamps and fixtures and solid state lighting through instant rebates, special promotions at retail stores, or a mail order catalog.
<b>ENERGY STAR® Products</b> (Funded by Electric Only)	The program is run in collaboration with other regional utilities to promote the purchase of high efficiency household appliances including kitchen appliances and electronics. These appliances carry an ENERGY STAR® label. The program also offers refrigerator recycling which promotes more efficient refrigerators while removing non-efficient units from the market.
<b>ENERGY STAR® HVAC Program</b> (Funded by Electric and Gas)	This program promotes the installation of high efficiency central air conditioners for electric customers and new energy efficient natural gas related equipment including boilers, furnaces, water heating equipment, thermostats, boiler reset controls, and furnaces equipped with high efficiency fans. The program provides training of contractors in installation, testing of the high efficiency systems, tiered rebates for new ENERGY STAR® systems, and incentives for checking new and existing systems. The program also includes the oil and propane heating equipment rebates.
<b>Residential Products Pilots</b> (Funded by Electric and Gas)	The pilot tests innovative technologies for saving both gas and electricity.

## B. Residential Low-Income Programs

The Company and Subcommittee want customers who have a high energy burden and/or difficulty paying their electric bills to participate in, and benefit from, the Company's energy efficiency programs, especially in these difficult economic times. For that reason, this segment of the customer base is designated as a unique sector and funding for this sector will be subsidized by both non-low-income residential customers and commercial-and-industrial customers using 12% of total implementation funding for the electric programs, and 21% for natural gas programs.<sup>14</sup>

In 2013, the Company has consolidated energy efficiency offerings for income eligible multifamily properties into the Income Eligible Multifamily programs. The suite of programs offers comprehensive gas and electric opportunities which were previously offered as part of EnergyWise or C&I Retrofit. Additionally, the Residential New Construction Program works with housing authorities and developers to build energy

<sup>14</sup> The proportion of funding for low-income customers is equal to total funding from all programs serving low-income customers, illustrated in Attachment 1, Table 2; compared to total funding for all programs, illustrated on Attachment 5, Table E-2, and Attachment 6, Table G-2.

efficient multifamily properties. Additional detail about the services offered to economically disadvantaged customers is described among the residential programs in Attachment 1.

### **C. Commercial and Industrial Programs**

The Parties agree to continue in 2013 the commercial and industrial programs offered in 2012, and pilot the development of new technologies for potential inclusion in programs in future years. The programs are summarized in Table 4 below.

<b>Table 4. Proposed Commercial and Industrial Energy Efficiency Programs</b>	
<b>Small Business Direct Install</b> (Gas and Electric)	The Small Business Direct Install Program provides direct installation of energy efficient lighting, non-lighting retrofit measures, and gas efficiency measures. Electric customers with average monthly demand of less than 300 kW are eligible to participate. The program's lighting and non-refrigeration measures are delivered through one labor and one product vendor selected through a competitive bidding process. The customer pays 30% of the total cost of a retrofit. This amount is discounted 15% for a lump sum payment or the customer has the option of spreading the payments over a two-year period interest free.
<b>Large Commercial Retrofit</b> (Gas and Electric)	Large Commercial Retrofit is a comprehensive retrofit program designed to promote the installation of energy efficient electric equipment such as lighting, motors, and heating, ventilation and air conditioning (HVAC) systems, gas heating and water heating systems, thermal envelope measures and custom gas 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.

<b>Table 4. Proposed Commercial and Industrial Energy Efficiency Programs</b>	
<b>Large Commercial New Construction</b> (Gas and Electric)	<p>Promotes energy efficient design and construction practices in new and renovated commercial, industrial, and institutional buildings. The program also promotes the installation of high efficiency equipment in existing facilities during building remodeling and at the time of equipment failure and replacement. Large Commercial New Construction is known as a lost opportunities program because a customer who does not install energy efficient equipment at the time of new construction or equipment replacement will likely never make the investment for that equipment or will make the investment at a much greater cost at a later time.</p> <p>The program provides both technical and design assistance to help customers identify efficiency opportunities in their new building designs and to help them refine their designs to pursue these opportunities. The program also offers rebates to eliminate or significantly reduce the incremental cost of high efficiency equipment over standard efficiency equipment. Commissioning or quality assurance is also offered to ensure that the equipment and systems operate as intended.</p>
<b>Commercial and Industrial Products Pilots</b> (Funded by Electric and Gas)	The pilot tests innovative technologies for saving both gas and electricity.

Descriptions of these programs are provided in Attachment 2. Included in the description of each program are proposed changes from 2012 that are intended to help meet the savings targets for 2013. In particular, in 2013, the Company is proposing modifications to its programs to increase its support for combined heat and power (CHP) projects. Details on this proposal are included in Attachment 2.

In order to assist customers to overcome the financial barriers to investing in energy efficiency, the Company will concentrate on securing sources of funding to offer finance options to commercial and industrial customers. Through 2012, the Company had created a revolving loan fund of approximately \$7 million (\$4 million for small business, and \$3 million for large business customers). This loan fund was funded in part by RGGI auction proceeds and program funds.

In 2013, the Company is targeting to build upon the loan fund to make funds available to both electric and gas customers to finance energy efficiency projects. In addition, the Company has been developing an energy efficiency loan program with third party lenders. In this potential program, the Company would use Retrofit gas and electric program funds (budgeted to be \$1.3 million in 2013) to buy down interest rates to zero and provide a loan loss reserve. For more information, see the C&I Program Description, Attachment 2. The budget for lending related activities is included in the C&I budget and cost-effectiveness tests, found in Attachment 5, Tables E-2 and E-5 and

in Attachment 6, Tables G-2 and G-5. By the end of the first quarter of 2013, the Company will inform the Collaborative of the intended use of the budgeted funds for either the third party financing program or as additional funds in the revolving loan pool.

#### **D. System Reliability Procurement**

In a contemporaneous filing, the Company is submitting its System Reliability Procurement ("SRP") Annual Report for 2013 for the Commission's review and consideration. The SRP Annual Report describes the strategies, goals, and funding request for SRP in 2013 to defer an anticipated distribution upgrade in the towns of Tiverton and Little Compton. As detailed in that filing, some of the non-wires strategies proposed in 2013 are targeted energy efficiency programs, which will leverage existing programs. For example, a targeted energy efficiency program may include home energy assessments or small business direct installs that are already a part of the energy efficiency programs; they would simply be coordinated through an incremental effort to a specific town. Targeted energy efficiency was proven cost-effective and successful in the 2009-2010 Energy Action: Aquidneck & Jamestown pilot. The cost of the existing programs which may be leveraged is part of the energy efficiency budget illustrated in Attachment 5, Table E-2. However, the estimated incremental cost of targeting and implementing energy efficiency programs in a specific area for System Reliability is provided in Attachment 5, Table E-2 for informational purposes. However, the incremental cost of implementing energy efficiency for System Reliability is not included the total budget requested for energy efficiency in this Plan or the proposed Energy Efficiency Program Charge in this filing. The request for incremental funds for SRP is being made in the separate SRP filing.

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

Funding, budgets, goals, and cost-effectiveness information is provided in Attachment 5 for the proposed electric energy efficiency programs and in Attachment 6 for the proposed natural gas energy efficiency programs.

#### **A. 2013 EE Program Plan Funding Sources**

The sources of funding and the amounts of the funding needed for the cost-effective 2013 EE Programs proposed by the Company, with the support of the Parties, are shown in Table E-1 for electric programs and Table G-1 for natural gas programs.

In terms of a means of collecting these funding sources for the 2013 cost-effective programs, the Company proposes: (1) one line on the customers' bill labeled "Energy Efficiency Programs" at \$0.00862 per kWh, as calculated in

Attachment 5, Table E-1 (composed of the existing energy efficiency program charge of \$0.00589 per kWh plus a fully reconciling funding mechanism charge of \$0.00273 per kWh and in accordance with the requirements of R.I.G.L. § 39-1-27.7);<sup>15</sup> (2) projected Large C&I commitments from 2012;<sup>16</sup> (3) projected carryover of the year-end 2012 fund balance including interest earned and funds expected to be received from C&I program financing repayments and from large C&I technical assistance co-payments in 2012, if any; and (4) revenue generated by ISO-NE's FCM. The funding sources do not include revenue generated through RGGI permit auctions, additional detail is described below.

The sources of funding for the 2013 natural gas programs are shown in Attachment 6, Table G-1. The Company proposes that the 2013 budget should be funded from the following sources: (1) one line on the customers' bill labeled "Energy Efficiency Programs" at \$0.414 per dekatherm as calculated in Attachment 6, Table G-1 (composed of the existing energy efficiency program charge of \$0.384 per MMBTU plus a fully reconciling funding mechanism increase of \$0.030 per MMBTU in accordance with the requirements of R.I.G.L. § 39-1-27.7); and, (2) projected carryovers or under-recoveries of the year-end 2011 fund balance, including interest.

The 2013 budgets for cost-effective electric and natural gas efficiency investments are dependent on a number of projections that inform the amount of funding, including projections of kWh or therm sales of electricity and natural gas, year-end 2012 large C&I program commitments, capacity payments received from ISO-NE (electric only), and year-end 2012 spending. The Company estimates the electric projected fund balance at year end 2011 will be \$6.0 million, as shown in Attachment 5, Table E-1; the gas fund balance at year end 2011 is estimated to be \$5.2, as shown in Attachment 6, Table G-1.

Other considerations regarding funding sources include:

## **1. ISO-NE Capacity Market Revenue**

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

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<sup>15</sup> In 2013, an adjustment for uncollectible accounts expenses may be approved for the Energy Efficiency Charge, totaling 1.25%. If approved, the Company proposes to keep the Energy Efficiency Charge the same throughout 2013 and include the calculated uncollectible accounts expenses as an expense in the final fund balance.

<sup>16</sup> As directed by the Commission, the Company encumbered funds in 2012 and prior years to cover the expected cost of projects it has agreed to fund although those projects will be completed in 2013 or subsequent years.



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

In addition, as part of the FCM, all qualified auction participants are required to post Financial Assurance to provide security that the promised resource will deliver the promised MW at the promised time. If, as a result of circumstances beyond the control of the Company,<sup>17</sup> the Company is unable to provide all or a portion of the megawatts of capacity proposed in its qualification packages and capacity auction bids, some or all of the financial assurance monies would be forfeited.

## **2. Regional Greenhouse Gas Initiative, Inc. Funds**

In its 2012 EE Program Plan, the Company filed a funding plan based on expectations of receiving funding from RGGI auctions through the end of 2011. In early 2012, the Company received RGGI funds from auctions held from 2009-2010.<sup>18</sup> As of this filing, the Company has not received RGGI funds from auctions held in 2011. The OER is completing the process of developing the allocation plan for 2011 auction proceeds. Consistent with previous allocation plans, the Company assumed 60% of RGGI auction proceeds from 2011 will be allocated to the electric energy efficiency programs,<sup>19</sup> totaling \$1.44 million. If received, the Company will use the funds to support the Small and Large Business Revolving Loan funds, in particular to support energy efficiency projects in municipal facilities.

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<sup>17</sup> Such circumstances may include legislative action to alter the EE charge or discontinue the Company’s authority to implement the energy efficiency programs underlying the Qualifications Package or a Commission decision limiting the Company’s role in bidding the demand savings acquired through program efforts into the FCM.

<sup>18</sup> In accordance with “2011 Plan for the Allocation and Distribution of Regional Greenhouse Gas Initiative Auction Proceeds: Auctions Held December 2, 2009 – December 1, 2010,” RI Office of Energy Resources, [http://www.energy.ri.gov/documents/2011\\_RGGI\\_Allocation\\_Plan\\_1.pdf](http://www.energy.ri.gov/documents/2011_RGGI_Allocation_Plan_1.pdf)

<sup>19</sup> Since the RGGI auctions are related to allowing carbon dioxide emissions from electric generation, the auction proceeds are applied only to electric energy efficiency programs.

The RGGI funds have been instrumental in piloting new technologies and creating opportunities for small and large business customers through finance. The Company's 2011 Year-End Report, Docket 4295, includes the RGGI Annual report which further illustrates the achievements of RGGI funds.

The Company does not anticipate RGGI funds from auctions held from 2012 – 2013. Therefore, it is not included as a funding source in Attachment 5, Table E-1.

### **3. Exceptions to the Natural Gas Energy Efficiency Program Charge**

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

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

### **B. Budgets**

The Parties agree that the portfolio of energy efficiency programs and services for 2013 will have an overall budget of approximately \$66.3 million for electric programs and \$18.3 million for natural gas programs. The Parties agree to segment the budget into three sectors: residential low-income, residential non-low-income, and C&I. Proposed sector and program budgets are provided in Attachment 5, Table E-2 and Attachment 6, Table G-2. The derivations of the spending budget and implementation expenses are illustrated in Attachment 5, Table E-3 and Attachment 6, Table G-3. A comparison of these proposed budgets to the 2011 budget is provided in Attachment 5, Table E-4 and Attachment 6, Table G-4. The efficiency resource is 4.9¢/lifetime kWh versus

6.7¢/kWh for electric residential supply and \$5.9 per lifetime MMBtu versus \$7.9 per MMBtu for residential gas supply.

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

The Company proposes in 2013 to initiate a change in the practice of funding commitments. As directed by the Commission, the Company encumbers current funding to cover the expected cost of projects it has agreed to fund even though those projects will not be completed until after the current program year.<sup>20</sup> The Company proposes in 2013, for projects that qualify for incentives of \$2 million or more, and which are expected to be completed in the 2015 program year and after, that it be allowed to fund the commitment over 2013 and future years up to the year prior to expected completion of the project.<sup>21</sup> This would provide to the Company greater flexibility in managing its budget to meet the savings goals of 2013 and future years.

### **C. Transferring of Funds**

The Parties will regularly review the amount of funds needed and available for each program (as well as any changes to the overall fund balance, as discussed in Section III.A above) and will transfer monies as needed. The Parties propose to use the same methodology that was used in 2012 for the transfer of funds from one program to another, or from one sector to another, except that for 2013 the Company is proposing an additional methodology for the transfer of funds among certain retrofit programs. Transfers during the program year may occur as follows:

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<sup>20</sup> This practice dates back to the 1994 Program in Docket 1939, which was approved at a time when funding was unstable from year to year. The Least Cost Procurement law, R.I.G.L. § 39-1-27.7, provides stability for energy efficiency program funding through 2020 and may be cause to allow for flexibility in the funding of commitments.

<sup>21</sup> For example, if a commitment of \$4 million were being made in 2013 to a project expected to be completed in 2015, the Company would have the ability to set aside funds for the commitment in 2013 and 2014. The portion of the commitment set aside, or funded, in 2013 would be based on the Company's projected spending relative to budget in that year, with the balance of the commitment to be funded in 2014. If the project were expected to be completed in 2014, the entire commitment would be funded in 2013.

1. Transfers within a Sector:
  - A. For transfers of less than 10% of the originating program's budget, the Company can transfer funds from one program to another program within the same sector without prior approval of the Division. However, the Company shall provide a summary of such transfers to the Division and EERMC quarterly.
  - B. For transfers of 10% or more of the originating program's budget, the Company can transfer funds from one program to another program within the same sector with prior approval of the Division. Upon seeking such approval from the Division, the Company shall simultaneously notify the EERMC.
  - C. For transfers in the C&I Sector between large C&I programs and small business programs of more than 5%, Division approval is required. Upon seeking such approval from the Division the Company shall simultaneously notify the EERMC. In addition, if a transfer reduces the originating program's budget by more than 20% in aggregate over the course of the program year, the transfer will require Commission approval as well with weight given to the EERMC's recommendation to the Commission on the issue.
2. Transfers between Sectors. The Company can transfer funds from one sector to another sector with prior approval of the Division and the EERMC (or its appointed representatives). If a transfer reduces the originating sector's budget by more than 20% in aggregate over the course of the program year, the transfer will require Commission approval as well.
3. Transfers among residential retrofit programs. The Company can transfer among EnergyWise, EnergyWise Multifamily, Income Eligible Multifamily, and C&I Multifamily (which are in different sectors) programs in order to achieve the overall savings goals of all programs. Although these are listed as separate lines in the program tables, they are essentially one program from an implementation standpoint.
4. For transfers requiring Division and/or EERMC, but not Commission, approval, the Parties will inform the Commission of the transfers, both between sectors and within sectors, in a timely fashion. The Company will not be permitted to adjust its goals or

incentive target calculations for any transfers between sector budgets.

#### **D. Budget Management**

By November 1, 2013 the Company shall file an Energy Efficiency Program Plan for 2014. It is possible that there could be deviations from the planned budget for 2013 that could occur during the program year. Three scenarios are contemplated and it is agreed that they will be addressed as follows:

(1) The Company's expenditures and commitments for 2013 may exceed total budget by up to 10% so long as a written explanation is provided to the EERMC and the Commission for any deviation and the expenditures and commitments are reasonably consistent with the original 2013 plan.

(2) The Company agrees that, during 2013, if the Company anticipates that continued operation of its programs is likely to result in actual expenditures and commitments exceeding the total program budget by more than 10%, the Company will seek a vote of approval from the EERMC at its next meeting. Following EERMC action, the Company will be required to obtain approval from the Commission for expenditures in excess of 10% higher than the total program budget in next year's Energy Efficiency Program Charge.

(3) If the Company did not anticipate, during the program year, that its actual expenditures and commitments would exceed the total budget by more than 10%, but actual expenditures and commitments do exceed such threshold, the Company will bear the burden of demonstrating the reasonableness of its actions, including an explanation of why the over-spending occurred and how the expenditures and commitments are reasonably consistent with the original plan. Such demonstration would be required to be part of the 2013 Year End Report, if not sooner.

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

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

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

## **V. Cost-Effectiveness**

The Company has projected cost-effectiveness for the proposed 2013 programs using the TRC Test. The use of the TRC Test was required by the Commission's Standards, as established in 2008 and reaffirmed by the Commission in Order 20419 in Docket 4202 on July 25, 2011. The TRC Test requires that the total lifetime savings from the efficiency measures will exceed the total costs of the measures (i.e., program and customers' costs).

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

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

For the 2013 EE Program Plan, the Company developed the 2013 Rhode Island Technical Reference Manual (TRM) which documents the savings or savings algorithms for measures proposed to be offered through its programs in 2013. The TRM identifies the sources for the savings estimates: evaluation studies, engineering analyses, and/or other research. This TRM is a public document and was provided to the EERMC and its consultants to support and facilitate the determination of the Plan's cost-effectiveness. It will be available at [http://www.nationalgridus.com/non\\_html/eer/ri/2013%20RI%20Technical%20Reference%20Manual.pdf](http://www.nationalgridus.com/non_html/eer/ri/2013%20RI%20Technical%20Reference%20Manual.pdf). The TRM is reviewed and updated annually to reflect changes in technology, baselines, and evaluation results.

Attachment 5, Table E-5 and Attachment 6, Table G-5 provide the calculations of 2013 program year cost-effectiveness. Attachment 5, Table E-6 and Attachment 6, Table G-6 show the energy savings goals based on the proposed budgets. Attachment 5, Table E-7 and Attachment 6, Table G-7 show a comparison of the goals with the approved program goals from 2012. Attachment 5, Table E-5 shows that the proposed portfolio of electric programs is expected to have a benefit/cost ratio of 2.28, which means that approximately \$2.28 in benefits is expected to be created for each \$1 invested in the programs. Attachment 6, Table G-5 shows that the proposed portfolio of gas programs is expected to have a benefit/cost ratio of 1.96, which means that \$1.96 in benefits is expected to be created for each \$1 invested in the programs. This increase in efficiency investment moves closer to acquiring all energy efficiency resources that are cost-effective and lower cost than supply.

The cost-effectiveness analyses of the proposed programs use avoided energy supply costs that were developed by Synapse Energy Economics as part of an August 2011 study, "Avoided Energy Supply Costs in New England: 2011 Report," that was sponsored by all the electric efficiency program administrators in New England, as well as some gas program administrators. They reflect current and expected market conditions and are highly influenced by the cost of fossil fuels and expectations about ISO-NE's emerging forward capacity market. The latest study indicates that natural gas avoided costs are about 30% lower than 2011, due to the introduction of new supply sources into the market. Company-specific transmission and distribution capacity values are also included. The avoided costs used for 2013 are shown in Attachment 5, Table E-8 and Attachment 6, Table G-8.

The electric avoided costs include the demand reduction induced price effect ("DRIPE") benefits that are projected to result from the installation of energy efficiency measures in 2013. These benefits occur when the retail price of electricity is reduced as a result of the reduced long-term demand for electricity stemming from the installation of energy efficiency measures. Some amount of DRIPE benefits have been counted in Rhode Island since 2006.

## **VI. Measurement and Verification Plan**

In order to verify the impacts that programs are having on energy savings, the Company hires independent consulting firms to regularly conduct program evaluations as part of its measurement and verification process. These evaluations include engineering analysis, metering analysis, billing analysis, site visits, surveys, and market studies to realize the actual energy savings that particular measures are having. Every year, the results of the surveys are used to update the TRC test calculations during planning. Attachment 3 lists the evaluations that have occurred since 2007 and their influence on

TRC test inputs and program planning.<sup>22</sup> The executive summaries of the evaluations are available in Dockets 3779, 3892, 4000, 4116 and 4295, or upon request.

Additionally, the M&V Plan for 2013 is presented in Attachment 3, and includes brief descriptions of each of the proposed studies. The areas proposed for study in 2013 have been chosen based on a number of factors: the relative amount of savings in that program or end use, the vintage of the most recent evaluation study, the relative precision of the recent evaluation study, and the available evaluation budget. In addition, some new program areas are designated for both impact and process evaluations. This list may be added to as the year progresses and different evaluation priorities are identified. In particular, the parties will consider adding Rhode Island-specific impact or process evaluations, as appropriate, that will help inform the Company's efforts towards achieving the goals of least cost procurement.

## **VII. Reporting Obligations**

1. During 2013, the Company will provide quarterly reports to the EERMC, the Division, the Collaborative Subcommittee, and the Commission on the most currently available program performance for both natural gas and electric efficiency programs. These reports will include a comparison of budgets and goals by program to actual expenses and savings on a year-to-date basis. The reports will also include a brief summary of program progress and will highlight issues by sector for EERMC, Division, and Collaborative Subcommittee attention. Within the C&I sector, there will be separate highlighting of large and small customer program progress and issues.
2. During 2013, for months for which quarterly reports are not produced, the Company will provide to the EERMC, the Division, and the Collaborative Subcommittee monthly summaries of year-to-date spending and results by sector, as well as a forecast of expected results.
3. The Company will provide to the Parties and file with the Commission its 2013 Year-End Report no later than May 1, 2014. This report will include achieved natural gas and electric energy savings in 2013 and earned incentives for 2013.
4. The Company will provide to the Parties a summary of evaluation results obtained since October 1, 2012, together with an attachment summarizing the impact of those results in planning the Company's 2014 programs in the 2014 Plan to be filed by November 1, 2013.

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<sup>22</sup> The information in the Attachment is also intended to meet the specific requirement from the 2013 EE Program Plan to provide "a summary of evaluation results obtained since October 1, 2011, together with an attachment summarizing the impact of those results in planning the Company's 2013 programs."

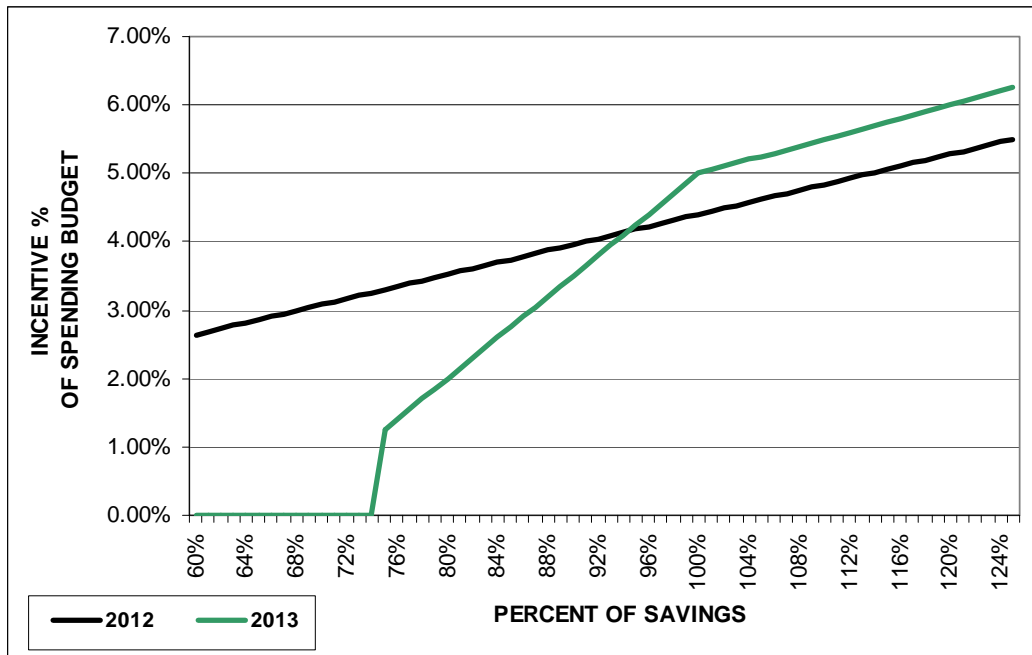


## VIII. Incentive

The proposed shareholder incentive mechanism applicable to energy efficiency efforts in 2013 will be based on the same metric applicable to the 2012 electric energy efficiency programs in Docket No. 4295: energy savings targets (kWh or MMBtu) by sector. Also, as in prior years, the shareholder incentive will feature the payment of an incentive equal to a percentage of the spending budget for achievement of a certain amount of energy savings. However, the Parties have agreed to a modification of the shareholder incentive mechanism structure for 2013 as described below.

The proposed incentive mechanism for 2013 establishes an incentive of 1.25% of the spending budget for achieving 75% of the savings target in a sector. This would increase linearly to 5% of the spending budget for achieving 100% and increase linearly from that point to 6.25% of the spending budget for achieving 125% of the savings target. This is shown graphically in the figure below (triangles), compared to the incentive structure in place for 2012 (squares).

**Graph 3: Shareholder Incentive Mechanism**



Expressed mathematically, the shareholder incentive for 2013 would be calculated as follows, where SB is the Spending Budget in the sector:

- From 75% of savings to 100% of savings:
  - Incentive =  $SB \times (0.15 \times \% \text{ of savings achieved} - 0.10)$
- From 100% of savings to 125% of savings:
  - Incentive =  $SB \times (0.05 \times \% \text{ of savings achieved})$

The Parties agree to that this modification will provide an incentive to the Company to achieve savings that approach or exceed 100% of the target savings more effectively than the incentive in place for 2012. It does so by increasing the threshold for savings required to earn an incentive to 75% of target savings from 60%, by creating a steeper slope to earn a greater incentive in the range of 75% of savings to 100% of savings, by increasing the target incentive from 4.4% of the spending budget to 5.0%, and by offering a higher incentive for exceeding 100% of target.

For electric energy efficiency programs, the proposed target base-incentive rate in 2013 is equal to 5.0% of the eligible spending budget for 2013. The projected electric eligible spending budget for 2013 is approximately \$64.8 million (see Attachment 5, Table E-3). The total electric target incentive for 2013 is 5.0% of the proposed spending budget, or approximately \$3.2 million (see Attachment 5, Table E-9).

For natural gas efficiency programs, the proposed target base incentive is equal to 5.0% of the eligible budget. The projected natural gas eligible spending budget for 2013 is approximately \$17.9 million (see Attachment 6, Table G-3). The total natural gas target incentive for 2013 is 5.0% of the proposed spending budget, or approximately \$898,300 (see Attachment 6, Table G-9).

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

The threshold performance level for energy savings by sector will be set at 75% of the annual energy-savings goal for the sector. The Company must attain at least this threshold level of savings in the sector before it can earn an incentive related to achieved energy savings in the sector. The Company will have the ability to earn an incentive for each kWh or MMBtu saved, once threshold savings for the sector are achieved. The incentive per kWh or MMBtu saved by sector is provided in Attachment 5, Table E-9 and Attachment 6, Table G-9, respectively. The cap for the target incentive amount of energy savings will remain at 125%.<sup>23</sup>

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

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<sup>23</sup> Assuming that savings are achieved proportional to spending, the Company would receive an incentive of 1.25% of the spending budget if it achieves the minimum savings threshold of 75% and a maximum incentive of 6.25% of the spending budget.

excess of the incremental incentive that may be earned by the Company. That is, the Company will have an incentive to increase customers' savings and customers will realize an overwhelming majority of the savings.

Attachment 5, Tables E-3 and Attachment 6, Table G-3 provide the derivations of the eligible electric spending budget that are used to determine the incentive amounts that the Company may earn if it is successful in achieving its goals for energy savings. Attachment 5, Table E-9 and Attachment 6, Table G-9 provide a summary of the incentives related to annual energy-savings goals by sector. These goals by sector reflect the expected cost of savings in each sector informed by evaluation studies, and these goals have been adjusted to take into account changing rebate policies and the changing market being served. These goals have been carefully reviewed by the Collaborative Subcommittee and EERMC representatives to ensure that they represent reasonable and challenging goals for the year.

If the actual spending of funds in a sector at year end from the sources listed in Attachment 5, Tables E-1 or Attachment 6, G-1 is less than the original spending budgets by more than five percent, and if achieved savings in the sector exceed 100% of the target savings goal, the savings goal for that sector will be adjusted by the ratio of actual spending to the spending budget. If the actual spending of funds in a sector at year end from the sources listed in Attachment 5, Tables E-1 or Attachment 6, G-1 is greater than the original spending budgets by more than five percent, the savings goal for that sector will be adjusted by the ratio of actual spending to the spending budget. This is intended to encourage efficiency in spending in the achievement of energy savings targets.

Additionally, for 2013, the Parties propose to eliminate the incentive offer to the Company for securing outside funding that had been put in place for 2012. This would have allowed the Company to receive as shareholder incentive 10% of any future outside funding. This provision is being eliminated because the Company is devoting resources toward the development of the energy efficiency loan program arrangement described above, rather than toward the pursuit of outside funding. The Company will continue to explore outside funding opportunities, but will do so without an incentive.

The Company will report final program results and earned incentive in its Year-End Report regarding 2013 Energy Efficiency Program efforts.

## **IX. Miscellaneous Provisions**

- A.** Other than as expressly stated herein, this Settlement establishes no principles and shall not be deemed to foreclose any party from making any contention in future proceeding or investigation.
- B.** This Settlement is the product of settlement negotiations. The content of those negotiations is privileged and all offers of settlement shall be without prejudice to the position of any party.

- C. Other than as expressly stated herein, the approval of this Settlement by the Commission shall not in any respect constitute a determination as to the merits of any issue in any other proceeding.
- D. The Parties agree that the Subcommittee shall meet no less than six times in 2013 to review the status and performance of the Company's 2013 energy efficiency programs and advise on potential energy efficiency programs for 2013.
- E. The Company's Combined Heat and Power ("CHP") proposal contained in Attachment 2, pages 32-40 is submitted on the condition that it be approved in full by the Commission, and on further condition that if the Commission does not approve the CHP proposal in its entirety, the CHP proposal shall be deemed withdrawn from the 2013 Plan, and shall not constitute a part of the record in any proceeding or used for any purpose; provided, however, that the remainder of the Plan shall remain in full force and effect consistent with the parties' agreement.

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

Respectfully submitted,  
THE NARRAGANSETT ELECTRIC COMPANY D/B/A NATIONAL GRID



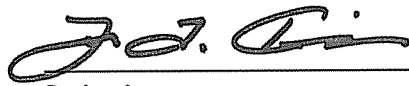

11/2/2012

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Jennifer Brooks Hutchinson, Esq.

Date

RHODE ISLAND DIVISION OF PUBLIC UTILITIES AND CARRIERS

By its Attorneys

Date

Jon Hagopian, Senior Legal Counsel

Karen Lyons, Special Assistant Attorney General

National Grid 2013 Energy Efficiency Program Plan  
THE ENERGY COUNCIL OF RHODE ISLAND

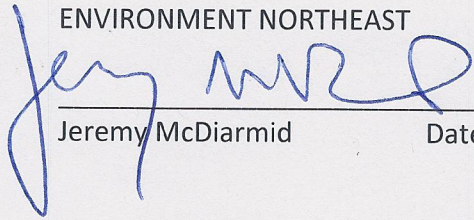
*William H. Ferguson*

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William Ferguson, Executive Director Date: Nov. 1, 2012

ENVIRONMENT NORTHEAST

 11/1/12

Jeremy McDiarmid

Date



THE RHODE ISLAND ENERGY EFFICIENCY AND RESOURCES  
MANAGEMENT COUNCIL



By its Attorney  
R. Daniel Prentiss

Nov. 1, 2013

Date





## **2013 Residential Energy Efficiency Programs and Initiatives**

In 2013, National Grid is excited to offer a holistic platform for energy efficiency where the emphasis is less focused on specific programs, but concentrated on the message of improving energy efficiency. Since energy efficiency is for everyone and everyone is a residential customer, the Company's objective is to reach customers where they live, work, and even shop in Rhode Island. Residential offerings are focused around two platforms - whole home assessments and energy efficient products - which provide a variety of opportunities and channels for reaching the customer. Residential programs will also cross over in partnership with businesses providing opportunities to engage customers where they work.

Another goal for 2013 is to provide a customer friendly experience. The Company will offer one phone number for program participation thereby simplifying the entry point for customers. National Grid will also investigate online rebate processing providing customers with another - and potentially simpler -- means to participate in the program. Customer segmentation will be conducted within some of the portfolio's largest programs so we can effectively present programs to receptive customers. Finally, whole home assessment programs will incorporate some of the efficient product and pilot offerings within the program reinforcing the holistic platform. By providing a positive customer experience, the Company anticipates customers pursuing additional efficiency savings opportunities.

Savings targets are increasing by over 50% for electric programs and 5% for gas programs over 2012 goals and the Company will achieve the new goals through broader outreach and deeper savings. With the launch of the Home Energy Reports behavior program, all residential customers will have an opportunity to learn and engage in energy efficiency in new, meaningful ways. Combined with the Comprehensive Statewide Marketing Campaign, Rhode Islanders will have numerous opportunities to hear about the residential offerings. National Grid is excited at the prospect of reaching every customer in Rhode Island and providing them easy ways to save energy.

A summary about The Company's 2013 residential portfolio can be found below with more detailed program information following.

<b>Table 1. Proposed Residential Energy Efficiency Offerings</b>	
<b>Whole Home Efficiency Services</b>	
EnergyWise (Gas and Electric)	EnergyWise offers single family customers free home energy assessments and information on their actual energy usage. Participants in this program receive recommendations and technical assistance as well as financial incentives to replace inefficient lighting fixtures, appliances, thermostats, and insulation levels with models that are more energy efficient. The program addresses base load electric use and heating and cooling energy loads in all residential buildings. The program recommends efficient products that are delivered through National Grid's various programs. The program will continue to deliver the Heat Loan in 2013 and will continue to offer weatherization incentives to customers who heat with oil and propane. These incentives were previously a part of the ARRA Deliverable Fuels program delivered through EnergyWise.
Multifamily (Gas and Electric)	Coordinated services will be offered for all multifamily properties. An approach tailored for multifamily properties designates a primary point-of-contact to manage and coordinate services offered through our existing portfolio, including EnergyWise, C&I Retrofit, Residential New Construction, Income Eligible, and the ENERGY STAR® HVAC programs. Services are comprehensive including incentives for heating and domestic hot water systems, cooling equipment, lighting and appliances. Low Income and market-rate multifamily goals and budgets will be reported separately in order to preserve the visibility of the Low Income sector budget.
Income Eligible (Gas and Electric)	Income Eligible Services, also known as the Single Family Low Income Services, are delivered by local Community Action Program (CAP) agencies with oversight provided by a Lead Vendor. Three levels of home energy assessments will be offered: (1) lighting and appliance focus, (2) heating and weatherization focus, and (3) comprehensive focus. Customers qualifying for LIHEAP are eligible and receive all services and equipment upgrades at no cost.
Residential New Construction (Gas and Electric)	The Rhode Island Residential New Construction Program promotes the construction of high-performing energy efficient single family, multifamily, and low income homes, as well as the education of builders, tradespeople, designers, and code officials. In 2013, the program is moving to a performance-based tier structure with corresponding financial incentives. Furthermore, the program will capture savings from the Renovation/Rehabilitation and the Deep Energy Retrofit offerings, both of which were pilots during 2012.

Community Initiative (Gas and Electric, cross-sector with C&I)	This program is designed to leverage community partnerships and develop targeted marketing strategies in order to promote select energy efficiency programs, residential and commercial, to a localized population.
Home Energy Reports (Gas and Electric)	A new program offered in 2013 provides customers with personalized energy reports as well as recommendations for saving energy and coupons for energy savings products. Home Energy Reports works in collaboration with the entire residential portfolio to maximize savings.
Information and Education Programs (electric only)	The Company promotes energy education to private and public schools and youth groups through the National Energy Education Development (N.E.E.D) Program. This program provides curriculum materials and training to students and teachers in grades K-12. There is also a school fundraising component for the schools to learn while they earn.

<b>Residential Efficient Products Programs</b>	
ENERGY STAR® Lighting (Electric Only)	The program is run in collaboration with other regional utilities to provide discounts to customers for the purchase of ENERGY STAR® compact fluorescent lamps, fixtures and solid state lighting through instant rebates, retail store promotions, or mail order.
ENERGY STAR® Appliances (Electric Only)	The program is run in collaboration with other regional utilities to promote the purchase of high efficiency household appliances including kitchen appliances and electronics. Many of these appliances carry an ENERGY STAR® label. The program also offers refrigerator recycling which promotes more efficient refrigerators while removing non-efficient units from the market.
ENERGY STAR® HVAC Program (Gas and Electric)	The HVAC Program is a combination of the Electric HVAC and the High-Efficiency Heating, Water, Heating and Controls programs. At its core, the Rhode Island HVAC Program exists to make customers and contractors aware of the benefits of high-efficiency heating, water heating, cooling, and system controls. In addition, it aims to facilitate the purchase of efficient equipment by offering rebates to offset the premium equipment's higher cost. All services are provided with the overall goal of providing a seamless customer experience that seeks direct energy efficiency improvements.
Residential Pilots (Gas and Electric)	Pilots include a Residential Products Pilot. The programs will test innovative technologies that achieve savings over existing technology. EmPower, a pilot continued from 2011, will observe behavior changes encouraged through a communicating thermostat.
Comprehensive Marketing -Residential (Gas and Electric)	This plan uses mass media to support and amplify the communications efforts in market for the individual Energy Efficiency programs. This will be accomplished by targeting all eligible customers in the state to increase awareness and inform them of the benefits of saving energy and how to do so via the programs offered by National Grid. The communications for this program as well as the individual programs we market in the state will have synergy making for a more robust campaign in the coming year. For more information, please see the Marketing Plan in Attachment 4.

# **Residential Building Efficiency Programs**

## **EnergyWise Program (Gas and Electric)**

### ***Overview***

EnergyWise is the flagship whole home assessment program that serves single-family (1-4 units) homes. EnergyWise helps Rhode Islanders improve how efficiently their homes use energy. With that idea in mind, the Company launched a campaign in 2012, with a fitness theme that is focused on energy efficiency called GetHouseFit. The main message the campaign conveys is the more fit your home is, the more you save. Best of all, any home can do it.

2013 will build upon this campaign as the home energy assessment goal increases from 6,500 assessments to 7,800 assessments. Upon completion of the assessment, the customer receives an EnergyWise Action Plan that recommends additional efficiency enhancements that will bring their home additional savings. The enhancements include air sealing, duct sealing, insulation, pipe wraps, and other weatherization recommendations. In 2012, a network of Independent Insulation Contractors provided all weatherization services in this area. There were nearly twenty independent contractors working in RI.

For single family households, customers are presented with an energy assessment, regardless of their heating fuel. The home energy assessment part of the program provides a free, comprehensive report of a customer's energy use and recommends various ways to improve their home's energy efficiency. It includes no cost installation of measures including compact fluorescent lamps (CFLs) and limited light emitting diode (LED) bulbs, low-flow showerheads and faucet aerators. Beginning with that assessment, the process is designed to continually reinforce the benefits and convenience of implementing recommended improvements by illustrating the additional incentives available for weatherization as well as the zero-interest loan. Ultimately, the aspiration is for participants to take advantage of weatherization recommendations presented in the EnergyWise Action Plan to achieve additional energy, cost, and comfort advantages.

This program offers financial incentives for cost effective energy improvements to replace inefficient lighting fixtures, lamps, appliances, thermostats, and insulation levels with versions that are more energy efficient. Where appropriate, customers are also encouraged to replace non-efficient heating and water heating equipment. Previously HVAC rebates required a separate rebate application, however in 2013 the most popular equipment offerings will be included within the EnergyWise program and the Company will gauge customer acceptance of this program change. In 2013, the program will continue to offer incentives to customers who heat with deliverable fuels. RI Heat Loan, which provides 0% interest financing to eligible single-family customers, will continue to be offered through the program to support customer

adoption of energy efficiency products and services that are recommended during the assessment.

## ***Experience***

National Grid has managed a home energy assessment program for more than 20 years. The program has continued to grow and innovate. In 2012 the largest number of gas heating customers in the program's history participated in the program as a result of increased gas funding. A seamless and successful launch of an Independent Insulation Contractor (IIC) network has been well received by contractors. The Lead Vendor has successfully coordinated and trained the IICs and contributed to program success as well as innovation in other programs.

## ***Delivery***

The program is delivered in three steps: home energy assessments, installation, and quality assurance/quality control. The Company currently uses a lead vendor energy assessment model. This model is one of many approved by the Environmental Protection Agency (EPA) and Department of Energy (DOE) for the Home Performance with ENERGY STAR® national initiative. This model minimizes administrative costs, and guarantees customer equity. The lead vendor will be responsible for conducting all energy assessments of single-family homes (1 – 4 units) and coordinating all work resulting in additional energy efficiency measures offered through the program and all the central administrative functions.

In 2013, EnergyWise will continue using independent, third party, Building Performance Institute (BPI)-qualified, weatherization contractors who are subcontractors to the lead vendor for all single family post-assessment work. This work will be distributed via a merit based process to the approved list of qualified contractors. Weatherization contractors who bring customers to the program can also "tag" a customer thereby designating themselves as the weatherization provider after the assessment. Major measures include lighting upgrades, programmable thermostats, replacement of inefficient refrigerators, heat pump testing and tune ups, duct sealing, air sealing, and insulation.

All homes are eligible to receive lighting fixture upgrades and refrigerator replacement measures as identified through the energy assessment. The Company does require a co-payment for lighting fixtures.

## ***Meeting 2013 Goals***

The aggressive goals for 2013 present considerable program targets that will be addressed by broadening the customer outreach and providing additional program offerings. Generally, the Company and lead vendor will seek innovative alternatives to achieve the objectives of higher savings at time of assessment including the introduction of advanced power strips and LEDs; more assessments resulting in post-assessment measure installations; deeper savings per residential unit; and emphasis on integrating products from the ENERGY STAR® HVAC and pilot

programs. There will continue to be an increased focus on customer follow up to determine if customers have taken the recommended energy saving actions, and if not, whether there are any barriers that can be removed.

The Company will also investigate the following program enhancements in 2013:

#### **Pre-weatherization Barriers**

There are some barriers within a house that prevent proceeding with weatherization due to safety and health and/or combustion safety issues. The Company will build upon experience in 2012 offering incentives of up to \$250 per household to remediate the pre-weatherization barrier (to cover such items as such items as inspection of knob and tube wiring, proper ventilation, and boiler combustion and safety testing) so that efficiency upgrades can proceed.

#### **Cross Program Integration**

To create an easier and more seamless customer experience, EnergyWise will incorporate efficient product offerings. In 2012, the program introduced advanced power strips and LEDs to residential customers to broaden savings for the household. These offerings will be supplemented with HVAC, pilot, and appliance installations when appropriate. From a customer perspective there will be no additional rebate forms to fill out beyond the ones associated with the EnergyWise program. Products incorporated within the program may include gas heating and water heating systems, wifi thermostats, boiler reset controls, and electric heat pump water heaters. The new home energy reports program will also promote whole home assessments in their recommendations.

#### **Customer Experience**

The Company is also committed to making it easier for customers to learn and participate in this program. In 2012, customers could sign up for a home energy assessment online and this channel was well received by customers as the percentage of online enrollment steadily increased. For 2013 The Company will consider the option of scheduling audits online.

#### **Home Performance Contractors (HPC) Pilot**

The Company began a Home Performance Contractor (HPCs) pilot at the end of 2012 and will assess the fit of an HPC model in Rhode Island as well as review the evaluation of HPCs in neighboring states. HPCs are contractors that provide both the assessment and weatherization services to a customer. The benefit of an HPC for the customer is that there is interaction with the same vendor through the first two phases of the program. HPCs must meet program requirements such as certifications, insurance, established performance metrics and background checks as well as comply with the designated terms and conditions for both themselves and any associated subcontractors. Additionally, HPCs will also need to cross promote the Company's other programs to build upon the 2013 holistic, customer focused objectives. HPCs will be required to subcontract with the lead vendor.

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

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

The Company believes working with local banks ensures customer satisfaction and stimulates local economic growth. There are currently two lenders participating in this program, Navigant Credit Union and Bay Coast Bank. The Company will continue to accept new local lenders into the program and at the end of 2012 brought the Capital Good Fund online to service hard-to-reach (HTR) customers.

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

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

The program may expand to include additional measures.

### **Moderate Income Offerings**

In support of customers with a household income greater than 60% and up to 100% of the area median income (AMI), the Company will offer a Heat Loan to this market sector through a partnership with the Capital Good Fund. There will also be additional research to determine the best way to encourage participation in weatherization. Ideas tested may include increasing the incentive cap and investigating tiered incentive levels.

### ***Marketing Strategy***

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



The program is marketed through direct contact with interested customers and owners, property owners' associations, bill inserts, customer newsletters, the National Grid website, as part of other efficiency programs offered by the company, and other methods. Additionally, there will be propensity modeling of recent participants which will help identify likely new participants. The Company will be actively marketing to the group of potential participants to identify strength of messaging as well as potential barriers to participation.

## **Multifamily (Gas and Electric)**

### ***Overview***

The Company is committed to significantly improving energy efficiency services for the multifamily sector. Major improvements are slated for 2013 with some efforts already underway in 2012. The main barrier to participation for the multifamily sector has been a fragmented experience – one in which properties may qualify for several programs and without a central source of information. In 2013, the Company aims to create a fresh program experience tailored for the multifamily sector.

The new multifamily program experience will be rooted by a primary point-of-contact, better coordination of services, easier access to information, and transparent reporting. The Company will be able to maintain the feel of a true multifamily program for customers while operating via the existing structure of programs that touch the multifamily sector. Programs in this suite include EnergyWise, C&I Retrofit, Residential New Construction's Renovation/Rehabilitation services, Income Eligible Services, and ENERGY STAR® HVAC.

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

	BCR	Annual Savings (MWh/MMBtu)	Program Budget (\$000)	Participants
<b>Electric</b>				
EnergyWise Multifamily	1.05	2,129	1,420	3,700
Income Eligible Multifamily	1.46	2,057	1,689	3,100
<b>Total Electric</b>	<b>1.26</b>	<b>4,185</b>	<b>3,109</b>	<b>6,800</b>
<b>Gas</b>				
EnergyWise Multifamily	3.34	5,605	464	700
Income Eligible Multifamily	4.82	16,562	1,629	2,200
Commercial & Industrial Multifamily	1.36	4,800	421	600
<b>Total Gas</b>	<b>2.31</b>	<b>26,967</b>	<b>2,515</b>	<b>3,500</b>
<b>Total Multifamily</b>	<b>1.87</b>		<b>5,624</b>	<b>10,300</b>

### ***Delivery***

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

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

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

Both market-rate and low income/affordable housing are subject to the above-outlined multifamily eligibility requirements for coordinated services. For the low income multifamily sector, up to 100% of co-payments for energy efficiency services and measures may be waived. The Low Income multifamily sector is defined by properties owned by Public Housing Authorities, and/or receiving Low Income funds from the state or federal government.

Energy efficiency in multifamily buildings is most effectively addressed through working with property owners/landlords/building management companies – the individuals or businesses that hold the authority to make decisions for the whole property. This new tailored approach for the multifamily sector focuses on working with these decision makers. However, it is important to note that all residential customers, including renters within sub-metered multifamily buildings, will be receiving home energy reports in 2013 (please see the Home Energy Report section of this document).

The Company will hire a new Multifamily Program Manager to act as a primary point-of-contact for customers, coordinate services, and facilitate better collaboration with internal and external stakeholders to streamline processes. Hiring and on-boarding will be completed by the first quarter of 2013, or sooner. In addition, each vendor within the multifamily program suite will have a designated representative to work directly with the Company's Multifamily Program Manager. This provides a single point person for multifamily customers to work with for understanding services and incentives, determining eligibility, scheduling meetings, etc. While the Multifamily Program Manager will be great source of information for customers, in addition, a new webpage and marketing materials will be developed for the multifamily sector. In conjunction, these will provide clarity on options available and who to contact.

Transparent reporting on multifamily goals will be implemented in 2013. Multifamily energy savings goals, budgets, and participation targets will be reported the same way as other programs in the portfolio.

The Company will seek ways to move toward a more holistic experience for the multifamily sector in the later half of 2013 and beyond. The Company is committed to continuously seeking feedback from stakeholders and will hold two focus groups per year with multifamily property owners/decision makers, and Rhode Island Housing. A plan to include benchmarking of multifamily properties will be developed in collaboration with a partner organization (to be determined)..

## **Income Eligible (Gas and Electric)**

### ***Overview***

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

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

### ***Delivery***

The core of the delivery model will remain the same, but several enhancements are planned for 2013, as described below. The program will continue to be managed by a selected Lead Vendor, which will oversee delivery of services by Rhode Island's territorial-based Community Action Program agencies (CAPs). The CAPs play an important role in their communities and National Grid supports their local presence. In 2012, the Company collaborated with Green & Healthy Homes Initiative and will continue to work with GHHI through Income Eligible Services in 2013.

### ***Meeting 2013 Goals***

Enhancements designed to make the delivery model more efficient include:

- Flexibility – If necessary or appropriate, CAPs may collaborate and work together in the same territory, and/or the Lead Vendor may provide additional resources to bolster support in designated areas.
- Ongoing Training & Development – The Lead Vendor will hold Sharing Best Practices meetings with the CAPs to provide regular opportunities to learn from their peers. Additionally, ongoing training will be available for CAPs, providing professional development opportunities.

Enhancements designed to improve services and offerings for customers include:

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<sup>1</sup> The federal government has set an income level, tied to the median income of each state, which defines the uppermost income boundary for LIHEAP participation. Individual states have some flexibility in defining income eligibility as long as it is not set above the federally defined maximum. Eligibility in this program will track the eligibility for LIHEAP set by the State of Rhode Island.

- Pre-screening – A process will be developed to use input from customers and basic information about their homes to determine which level of services is appropriate (Lighting & Appliance Focus, Heating & Weatherization Focus, or Comprehensive).
- Multifamily Coordination – The Lead Vendor will work with CAPs and the Company's Multifamily Program Manager to coordinate services for properties designated as multifamily that are eligible for the program. Please see the Multifamily section of this document.
- New measures and services – New measures and services incorporated in 2012 that will continue to be offered in 2013 include heat pump hot water heaters, LED lighting, and weatherization for mobile homes.

## **Residential New Construction (Electric & Gas)**

### ***Overview***

The Rhode Island Residential New Construction Program promotes the construction of high-performing energy efficient single and multi-family homes, as well as the education of builders, tradespeople, designers, and code officials. The Program continuously seeks to advance forward the needle of building performance throughout the state – envisioning a housing market saturated with high performing zero-energy homes. Furthermore, the Program is committed to reaching new builders and touching additional new construction projects across the state of Rhode Island.

The Program is fuel neutral and provides participating builders with technical and marketing assistance. The Program is tiered-structured – offering incentives that allow for increased energy efficiency and greater program participation.

Savings (total savings without photovoltaics) are calculated by means of REM/Rate modeling which determines the performance of the ‘as built’ home compared to that of a User Defined Reference Home (UDRH) – a baseline determined from studies conducted to identify the average energy performance of a new Rhode Island home. In order to continue preparing for upcoming code changes (Rhode Island is scheduled to adopt the 2012 IECC in October of 2013), the Company will maintain its commitment to the development of cost-effective implementation strategies so that the program can continue to deliver least cost energy savings for Rhode Islanders. Several of the strategies are noted in subsequent sections below.

The 2012 IECC is much more stringent than the 2009 IECC, highlighted by requirements for envelope and duct tightness testing and mechanical ventilation. In addition, 75% of permanently installed lighting fixtures/lamps must be high-efficacy (up from 50% under 2009 IECC). Although this requirement pertains to the IECC prescriptive path, it is appropriate for Rhode Island given that most homes are utilizing the prescriptive path in abiding with the applicable IECC version.

The Program is moving away from the utilization of the HERS Rating that was employed in past years and to the savings method described above, to both create a stronger link between incentives and savings, and to adhere to a Rhode Island appropriate baseline (UDRH). Although internal savings calculations and Program performance will not utilize the HERS Rating model, participating builders will continue to receive feedback from the Program’s Lead Vendor regarding the energy performance of the home in terms of a HERS Rating. Builders continue to benchmark and market their projects with the HERS Rating model, and thus the Program will continue to interact with participants through that conduit.

The Program will also in 2013 continue the Renovation/Rehabilitation (“Reno/Rehab”) offering, introduced as a pilot in 2012. Due to its current success and relevance to the existing Rhode Island housing market, Reno/Rehab will be an important aspect of the 2013 Program. It is the Company’s intention to begin claiming savings from Reno/Rehab in 2013.

In addition, the Program welcomes the incorporation of the Deep Energy Retrofit (DER) that also was a pilot during the 2012 Program Year. DER incentivizes major renovation work (new roofs, exterior walls, and basements) and targets energy savings upwards of 50-60% (not counting photovoltaics). DER will yield both electric and gas savings, and thus the Program will reside within the Company’s Electric and Gas portfolios for 2013.

The Company, through the Program’s Lead Vendor, will continue its outreach and education of builders, contractors, architects, realtors, developers, trade allies and code officials regarding the energy saving benefits and value of participation in the Program. A Lead Vendor for DER is being finalized at this time. As stated previously, reaching more builders and more construction projects is a priority for 2013.

## ***Experience***

Despite Rhode Island’s recent high unemployment rates and sharp decline in issued building permits, the Company is committed to the Program. The Program is a proud supporter of the national ENERGY STAR® New Homes Program, and benefits from regional as well as national advertising efforts of the ENERGY STAR® brand. The Program is dedicated to achieving both a higher market penetration of energy efficient homes from 2012 to 2013, as well as moving builders toward deeper energy savings where possible.

The Program continues to enroll a significant number of newly constructed and Reno/Rehab Rhode Island homes. The Company will persist in working to increase that market penetration in 2013, striving for a future where all Rhode Island new construction is both meeting code and achieving significant energy efficiency and performance targets. Specifics of this campaign are noted in the *Meeting 2013 Program Goals* section.

## ***Delivery***

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

In 2013, the Company will continue to offer four tiers of high-performance energy efficient new construction incentives. All tiers are offered with the following no-cost services: third party blower door and duct blasting testing, installation of high-efficacy lighting (CFLs) in all appropriate fixtures and locations, offering of efficient showerheads, advanced energy code trainings, and ENERGY STAR® Version 3.0 Certification fee coverage. In regards to lighting, the



Company is and will continue to explore additional high-efficacy lighting options in 2013 – specifically LED bulbs, fixtures, and advanced lighting controls. Please see the *Lighting Design Initiative & 2013 Lighting Plans* below for additional information.

Overall, the extent of no-cost offerings is a strong incentive for builders who are hesitant to enroll in the Program, with the intention that once builders meet basic requirements of the initial tier, they will seek to increase the energy performance of future projects in order to gain financial incentives for their firm/company, energy savings for their clients (new homeowners), and a marketing advantage that can be used to distinguish themselves from competition.

Furthermore, projects enrolled in the Program can also be recognized through the following programs and standards:

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

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

As the Program provides attractive financial incentives for high-performance building, new construction also offers an opportunity for builders and/or homeowners to take advantage of other Company programs. Specific examples of relevant Company program offerings include ENERGY STAR® HVAC, ENERGY STAR® Appliances (including Top 10 Appliance incentive), and ENERGY STAR® Lighting. Capitalizing on these opportunities can deliver a sizable reduction in energy expenditures for a home, creating a minimal payback period for any incremental costs.

### **Code Plus**

Code Plus is the entry level tier offered to builders new to the Program, and also to builders that cannot meet the more stringent requirements of the higher tiers due to a lack of experience, budget, or other constraints. Experience with these types of builders has shown that once they participate in this tier, they focus on the improvement of their building practices and will aim for higher tiers in future projects. The tier also exists as a feasible entry point into the Program given the increased stringency of both the Program's 2013 baseline and the 2012 IECC. It is expected that the Code Plus tier will help to raise the level of new construction code compliance in Rhode Island.

This tier's performance requirement for 2013 is a minimum of 5% better than the baseline (UDRH). If a project (either single family or multi-family) does achieve this level, it will receive a \$200 financial incentive.

### **Tier 1**

This tier is designed for projects (either single family or multi-family) that meet a performance requirement of 15% better than the UDRH. In the past, a majority of Program projects achieve this tier. If attained, the Program pays a \$500 incentive.

### **Tier 2**

This tier is designed for projects that meet a performance requirement of 25% better than the UDRH. If achieved, the Program pays a \$750 incentive for multi-family units, and \$1,000 for a single family home.

### **Tier 3**

This category is aimed toward the next generation of homes. In addition to aggressive energy savings – 45% better than the UDRH – homes are expected to share strategies, project costs, and utility bills so that best practices can be featured in Program case studies.

## **Renovation/Rehabilitation**

Many builders, given the declining trend of issued permits for new construction in Rhode Island, are becoming highly engaged in renovation work. To expand the Company's reach and capture lost opportunities, the Company will continue to build upon and develop Reno/Rehab – working to keep builders engaged in energy efficient construction practices.

### *Reno/Rehab in 2012*

It is currently structured such that a project qualifies for Reno/Rehab if it is making significant renovations to the home, but is not opening up all existing walls. Once all walls are opened, the home becomes identified as a candidate for the new construction aspect of the Program, and must qualify for one of the tiers in order to receive the no-cost services and respective financial incentive. The large number of 2012 participants within Tier 1 of the Program is evidence that many builders who previously considered enrollment in the Reno/Rehab pilot were convinced by the Lead Vendor to expand the scope of their specific project, and to take advantage of both opportunities for improved long-term home performance and the attractive new construction incentives.

About 25-35 units have or will be completed through the Reno/Rehab pilot in 2012, providing the Company with many examples to draw on when promoting Reno/Rehab, as well as in fine-tuning it for 2013 implementation. Review of the pilot thus far in 2012 by both the Company and the Lead Vendor has led to the following conclusions:

- Flexibility in the calculation of savings and incentive payout is a must due to differing characteristics of homes – including age, condition, etc.
- Reno/Rehab must have a different baseline than new construction given the disparities noted above and the respective requirements of the building code

- Multiple iterations of improvement and evaluation typically considered in rehabilitation projects allow field staff excellent opportunities to present more energy savings strategies to the builders
- Minimum specifications regarding energy efficiency in renovation projects could be developed

### *2013 Plan*

After careful analysis, the Company has redesigned Reno/Rehab such that it will now include *all* forms of renovation and rehabilitation, including partial rehabs, gut rehabs, and home additions. This is due primarily to the increasing UDRH baseline for new construction, as it was found that a majority of Reno/Rehab projects would have a very difficult time meeting Tier 1 requirements through the new construction path with the updated baseline. Home additions, albeit not presently common in the Rhode Island construction market, are eligible for participation in Reno/Rehab. One caveat is that the project path will be determined on a case-by-case basis, as specific conditions (i.e. type of addition) may warrant the home appropriate for testing and enrollment through the new construction path, and not through Reno/Rehab.

Furthermore, the Company will begin counting toward the Program goal any savings that arise from Reno/Rehab projects, and will offer performance incentives along with the no-cost services seen in the new construction path. For these projects, financial incentives are only provided if the home, following all work, performs better than the pre-renovation home plus any improvements that are mandated by code (this combination establishes a project specific Reno/Rehab baseline). While this project specific baseline may create additional implementation costs, they are justified through the capturing of both additional energy savings and additional program participants. The specific incentive amount for both single family homes and multi-family units will mirror the performance tier structure seen in new construction projects – 5%, 15%, 25%, and 45%.

## **Deep Energy Retrofit**

DER will yield both electric and gas savings for the Program through intensive renovation work that includes roof replacement, siding replacement, and/or basement fit-out. As a pilot in 2012, DER produced several case studies that exhibited the energy savings that arise from homeowners and homebuilders taking additional steps above a basic renovation or rehabilitation project. The pilot's project were showcased heavily by the Company, and the Company is prepared to formally offer it within the Program, providing incentives that cover a majority of the incremental cost of engaging in these superefficient building envelope upgrades. The Company is estimating a total of 10 roof-related projects, 6 wall-related projects, and 6-basement related projects for 2013, though some projects may decide to retrofit in more than one of these areas.

DER incentives will be comprised of two parts. The *base incentive* will be awarded on the basis of \$ per square foot of treated area that meets the appropriate thermal requirement (R-60 Roof,

R-40 Exterior Wall, and R-20 Basement). A *performance incentive* will also be awarded on the basis of \$ per CFM50 reduction, based on pre and post-blower door tests. Both incentives will be capped at increasing values for single family homes, two- family homes, three-family homes, and four-family homes. Multi-family projects are eligible for participation in DER, and the Company and Rhode Island Housing have already collaborated on such projects in Rhode Island. Multi-family projects, due to increased complexity and different interactions between the building envelope and internal heating/cooling loads, are addressed as custom projects in DER.

The process for DER is built upon the interest of Rhode Island builders. Interested builders will be provided with detailed DER Builder's Guide manuals that offer clear construction details and installation instructions for DER measures. The DER Builder's Guide will be available as a downloadable PDF from the Company's website, as well as in hardcopy format. Projects will be inspected and energy performance tests will be conducted before, during, and after completion of the renovation, ensuring that savings measurements are accurate and that proper protocol is being followed (i.e. compliance with code). In addition, up to five hours of complementary technical assistance by a building science vendor will be provided to all participants (additional hours are paid for by the participant). Like Reno/Rehab, DER is fuel neutral and is available to any home in Rhode Island that is seeking to partake in a deep energy retrofit during 2013.

DER will require the services of its own vendor, and the selection of that vendor is currently in the process of being finalized. Major responsibilities of the vendor would include the following: management of customer intake and applications; 3-5 trainings that promote DER, highlight its benefits, and recruit participating builders; provision of materials for attendees (builder manuals); administrative duties throughout the project process such as scheduling of energy performance and code compliance inspections; coordination of technical assistance for individual projects; and overall project management.

Lastly, homeowner education on DER measures and DER brochures will be integrated into the EnergyWise home audit reports, both verbally and in writing. Given the volume of audits that EnergyWise conducts and the resulting customer base that it touches, a presence in this program will provide DER, as well as Reno/Rehab, a strong boost in advertisement and promotion.

## **Lighting Design Initiative & 2013 Lighting Plans**

Assistance in lighting design can serve as a major contributor to the performance for both the affordable and market-rate housing markets. Development of the Initiative in 2012, however, has proved to be extremely challenging, as the Company and Lead Vendor have found it difficult to identify suitable projects for the Initiative while also balancing the demands of the Program's implementation schedule. Experience with the Initiative has indicated that the most cost effective method in influencing lighting in residential new construction is through the offering of high-efficacy (CFL and LED) bulbs and advanced lighting fixtures and controls, an approach that is a point of focus for 2013. Many affordable housing projects have and are continuing to move toward hard wired fixtures (to limit tenant interaction with lighting), and this presents

significant opportunity for the uptake of high-efficacy CFL and LED fixtures. Lastly, given the increasing lighting standards under the 2012 IECC and EISA, improvement in the Program's lighting offering is a major priority.

The Company will explore potential strategies for the implementation of LED bulbs, fixtures, and occupancy/daylight controls in 2013. Examples include a no-cost offering (such as with CFLs currently), and a co-payment incentive system with a built-in cap. The Company and Lead Vendor would strongly promote these measures to Program participants, especially in affordable housing projects (hard wired fixtures) and multi-family projects (controls for corridors, stairwells, exterior, etc.). The Company would then seek to stimulate better adoption of high-efficacy lighting strategies in the affordable housing market, and utilize that momentum to help transform market-rate housing.

### **Income Eligible Participation**

In 2011 and 2012, affordable housing constituted a majority of the Program's enrolled projects. The Company has a strong relationship with both Rhode Island Housing and its affordable housing developers, and will continue to work successfully with these parties in 2013.

### ***Meeting 2013 Program Goals***

For new construction, the efforts to achieve both deeper savings and gain broader market penetration will continue through the offering of multiple tiers and building options – pushing homes closer to the ultimate goal of zero-energy. These goals continue to be challenging in a weak economy and anemic construction industry. However, the Program will have resources dedicated to promoting the program and to supporting participating builders and other key stakeholders in the residential construction market.

### **2013 Plan Priorities:**

- The enhancement of program offering and consumer awareness, including expansion of Reno/Rehab and DER. As stated previously, the movement toward more home renovation by many builders will continue as a priority for the Program – working to ensure all and any new construction is built to the highest standard feasible. The Company's Home Energy Report Program will assist in boosting consumer awareness for the Program by identifying potential opportunities for home energy performance, which in turn may lead to a home renovation or rehabilitation.
- The sustained growth of the base of participating builders. Specific strategies include a priority on builder follow-up to discuss new projects in their respective pipeline, as well as increased effort in attending and participating in statewide expos, tradeshows, trainings, workshops, and conferences. The more exposure to the Program's offerings that all stakeholders receive, the more successful the Program can be in not only generating the maximum savings possible, but also in moving the needle of high performance building further along.
- The continued development of existing and new market allies. A strong relationship with all participating parties, ranging from homebuilder associations to building officials,

- is a major priority and is absolutely critical to ensuring that the Company not only has a firm foot in all new construction-related activities in Rhode Island, but is also obtaining as much energy savings as possible in the most cost-effective manner.
- Extensive training for all appropriate individuals and bodies regarding both code compliance and advanced building practices to help meet and exceed code requirements in 2013. The Lead Vendor is a prominent distributor of advanced trainings and workshops regarding code compliance and ways to exceed it, and those sessions will continue with more frequency in 2013. Discussions of potential savings claimed through statewide code compliance are being conducted at this time between the Company and appropriate state parties, and all efforts on this matter will be coordinated with similar C&I code compliance efforts. *Please see the Codes & Standards section of the Plan (in Attachment 2) for more detail regarding specific residential 2013 code-related actions.*
  - Better promotion of case studies that exemplify high performance building (i.e. Tier 3 and DER participants). This promotion is crucial to demonstrating to builders, homeowners, trade allies, and all other interested groups that advanced home building is technically and financially feasible, and are desired products of the Company's Program. More advertising (see below) of these case studies will strongly encourage other builders to either explore and/or hopefully implement similar practices. Potential strategies of this front will include quarterly or bi-annually widespread promotion of the Program's achievements and success stories, drawing on the experiences of the best performing homes in the Program.

## ***Marketing Strategy***

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

In addition, the Company and Lead Vendor will continue educational support for high performance residential construction. Past actions have included the donation of diagnostic testing equipment, subsequent field training, and support and development for a building science curriculum in Rhode Island vocational tech schools. This type of training and support is ongoing, and in 2013 the Company will explore integration of Reno/Rehab with potential education projects.

The Company will combine marketing efforts for 2013 with the promotion of energy efficient HVAC equipment, lighting, and appliances for both the market-rate and affordable housing stock

– employing it as a means for achieving greater energy savings, containing costs, and increasing overall portfolio participation. Lastly, the Company will prioritize the promotion of homes that can serve as exemplary case studies, showcasing high performance buildings, their respective journeys, and insights into the technical and financial feasibility of building such homes.

## **Community Initiative (Gas and Electric)**

### ***Overview***

The Community Initiative is designed to work with local, grass roots organizations in Rhode Island to promote the energy efficiency programs. In the past, the Community Organizations promoted EnergyWise, Small Business Direct Install, ENERGY STAR® Lighting and ENERGY STAR® Appliances, Refrigerator Recycling and Whole Home Assessment Programs to drive deeper savings with wider participation at the community level. This initiative leverages existing community relationships such as local agencies, schools or church groups focused on saving energy to increase participation in energy efficiency programs. By using a grassroots approach, customers that have not been previously targeted will hear the energy efficiency message of National Grid.

In 2013 the Community Initiative will focus on targeting specific program elements that need greater one-on-one customer engagement. One example of this is educating eligible customers about early boiler replacements. The Company will also work with community organizations to promote demonstration projects where new technology is featured and community members as well as other networks throughout Rhode Island can visit to learn and see the new technologies.

The Company also plans to expand the Community Initiative to include a Social Challenge and a door-knocking campaign. The Social Challenge will help customers can create teams, set goals, and compete in an energy saving competition to earn an award. The community oriented awareness campaign will include door-knocking to targeted communities to promote energy saving actions.

### ***Experience***

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

In 2011, the Community Initiative selected two local community organizations to target four cities and towns. People's Power & Light targeted the cities of Cranston and East Providence while the University of Rhode Island (URI) focused on South Kingstown and Warwick. The 2011 efforts concluded in 2012 and towards the end of 2012 the same two organizations were engaged to offer Early Boiler Replacements to their community groups.



## ***Delivery***

The Community Initiative will support targeted outreach such as the Early Boiler Replacement effort where additional customer support may be needed to communicate customer benefits. Funds will also be set aside to support community demonstration projects where neighbors and other communities in Rhode Island can come and learn about new, emerging technologies.

The Company will work with a vendor to support the Social Challenge and Door-knocking campaign. The vendor will help recruit teams, such as schools, churches, towns, departments within a business, local businesses, or university dorms, to participate in an energy saving competition. The Social Challenge will be tracked on the new Social Energy online platform, described in the Home Energy Report section. The Company will work with teams to identify appropriate goals and rewards for the Challenge based on teams' input. The Company will also conduct a door-knocking campaign in targeted communities that will aim to increase participation in energy efficiency programs. The door-knocking campaign will aim to increase education and awareness of energy efficiency programs within a community. For example, the campaign may promote the Social Challenge if a town has created teams to save energy. The door-knocking campaign will be done in collaboration with local organizations.

## **Home Energy Reports (Gas and Electric)**

### ***Overview***

The Company is excited to introduce the Home Energy Reports program in 2013. The new program will deliver upon the three-year goal that “Energy Efficiency if for Everyone” by offering every National Grid customer in Rhode Island an opportunity to save energy through one of our programs. At the 2013 Energy Efficiency Forum, customers expressed an interest in receiving detailed, personalized information about energy savings. Additionally, the 2010 Rhode Island Opportunities Report identified the cost-effective potential for behavior programs, such as this.

The Home Energy Report program saves energy by sending reports with personalized energy insights, normative messages, efficiency tips and recommendations, promotional messages for efficiency programs, and coupons for energy saving products. The program uses experimental design to measure energy savings between a treatment and control group, using both pre- and post-treatment data.

The Home Energy Report program will be coordinated with all of the residential programs to promote cross-program participation while offering customers an engaging and simple experience. The program will also create an online platform that will be a foundation for launching new pilots and community initiatives, giving customers additional options for saving energy.

### ***Experience***

National Grid is experienced in offering Home Energy Reports programs in Massachusetts and New York. The Massachusetts Behavior/Feedback program is currently delivered to more than 750,000 customers. The Company is incorporating lessons learned from existing programs to enhance Rhode Island customers’ experience. The Company has also evaluated the programs and has experience delivering verified cost-effective savings.

### ***Delivery***

This program will be administered by a lead vendor that is experienced in providing utility behavioral programs such as this Home Energy Report program. The vendor is responsible for delivering reports, creating an online engagement platform, documenting savings, and working with existing Company systems. The program targets a spring 2013 launch, with additional enhancements being introduced throughout the year.

The program will use a multi-prong approach to deliver energy savings to targeted residential markets. The program will also help connect customers with additional energy saving opportunities, such as other programs, pilots and community initiatives.

First, the program will send regular home energy reports to a significant number of randomly selected residential customers. During the spring and summer months, the reports will focus on electric usage and savings opportunities. In the fall and winter, reports will focus on gas savings for customers who heat with natural gas. Reports will be available through email as well. If a customer does not wish to receive the reports any longer, they can call or email to easily remove themselves from further reports. The Company will also explore the potential for integrating energy saving features of Home Energy Reports on utility bills.

Second, the Company will develop a customer engagement online platform called Social Energy. Social Energy will offer participants an interactive experience where they can share their efficiency experiences, learn more energy saving tips, and be directed to additional energy saving programs. The platform will be integrated with social media sites in order to expand its participation. Studies have shown that customers who receive home energy reports save more energy when they engage in the online platform. The Company will work to integrate Social Energy on our existing website.

Third, all customers in Rhode Island will be invited to join Social Energy, where they can sign up for a home energy report (if they have not already received one in mail or email). The Company will recruit additional home energy report participants by advertising Social Energy.

Fourth, new movers will be specifically targeted to receive home energy reports because the Company believes that new homeowners are very interested in repairing and investing in new homes and should consider energy efficient options. These reports will specifically target the move-in experience and will emphasize structural and appliance efficiency opportunities.

Fifth, the home energy reports will promote all energy efficiency programs, such as connecting customers with a home energy assessment through EnergyWise or an efficient appliance through ENERGY STAR® Appliances. The reports will also include coupons for energy efficient products at local retail stores. Participation in other programs will be monitored through a channeling analysis, and savings from other program rebates will be deducted from the Home Energy Reports program to avoid potential double counting.

Sixth, the home energy reports and Social Energy will be integrated into other energy efficiency programs in order to offer a cohesive suite of programs to customers that are easy to use. Social Energy will be the online platform for the Community Initiative's Social Challenge, in which teams compete to save energy. Social Energy will also be the online platform for the rewards pilot being tested in the Residential Pilots program. The Company will also look for additional ways to integrate Home Energy Reports and Social Energy into all program offerings.

As it deploys the Home Energy Reports program, the Company will consider how the experience in Rhode Island may be applied to future forms of behavior programs in the state.

### ***Marketing Strategy***

The Home Energy Report program will invite customers to sign up for Social Energy and receive home energy reports (if they do not already receive the reports in mail or email). The Company will promote the opportunity through direct mail, online ads, and other similar channels. The program will also be a conduit for promoting other programs, using either energy saving tips or coupons. The program plans to promote measures from EnergyWise, ENERGY STAR® HVAC, ENERGY STAR® Lighting and ENERGY STAR® Appliances. The program will also coordinate marketing efforts with the Community Initiative and Residential Pilots.

## **Information and Education Programs (Electric Only)**

### ***Overview***

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

The Company plans to continue sponsoring the National Energy Education Development (NEED) project in 2013. NEED is a nonprofit education association that works with thousands of schools nationwide to promote energy-conscious education through its “kids teaching kids” model. Shannon Donovan, a NEED teacher at Scituate High School in Providence, was recently named a 2011 Rhode Island Teacher of the Year.

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

The Company is also considering partnering with Rhode Island College to support pilot science courses and interdisciplinary topics for elementary education majors and possibly graduate students. Proposed topics of study include “Energy Conservation” and “Energy Efficiency.” It is hoped that developing a curriculum that could be used by elementary science teachers will instill an early awareness of responsible energy usage in students that would carry through to when those students become decision-makers in their own households.

# Residential Products Efficiency Programs

## ENERGY STAR® Lighting (Electric Only)

### *Overview*

ENERGY STAR® Lighting is the leading products offering that touches the largest number of Rhode Island customers. By providing a simple and cost-effective product, the program is often the first experience customers have with energy efficiency. In 2013, one objective will be to encourage customers to make additional energy efficiency decisions by promoting other efficiency offerings with lighting purchases. ENERGY STAR® Lighting is also used to communicate energy efficiency and being green through special community and corporate promotions such as Earth Day events and mall kiosks, utilizing a mobile retailer.

Another important part of the ENERGY STAR® Lighting program in 2013 is educating customers about the range of lighting products available, clarifying new labeling metrics, and emphasizing the benefits of ENERGY STAR® qualified products. This program is run in collaboration with other regional program administrators to give all consumers the opportunity to participate in energy efficiency measures. Customers are able to purchase lower cost ENERGY STAR® bulbs and fixtures through instant and mail-in coupons, buydowns, markdowns and discounts. The program makes it affordable for customers to purchase the most cost effective, energy efficient products, including compact fluorescents and LEDs. The Company will continue to pursue new technology and cost-effective lighting products.

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

### *Experience*

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

In 2012, National Grid under the Northeast Energy Efficiency Partnerships collaboration was presented the ENERGY STAR® Award for Sustained Excellence for the Northeast Retail Products Initiative.

## ***Delivery***

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

A rebate fulfillment vendor is responsible for collecting and verifying sales data from retail partners, fulfilling customer rebates, and providing documentation for internal tracking systems. Online and catalog purchases are managed by a sales channel vendor. Special events may draw upon a vendor that provides retail sales expertise and a marketing vendor coordinates Rhode Island promotions with the broader National ENERGY STAR® efforts.

## ***Marketing Strategy***

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

Special focus will be made to help educate consumers about the changing landscape of lighting products while highlighting the benefits of ENERGY STAR® qualified products. 2013 heralds the second year that the Energy Independence and Security Act (EISA) of 2007 will be in effect. Some of the changes for consumers due to the legislation include:

- Understanding light output in terms of lumen rather than the traditional watts
- Interpreting a “Lighting Facts” label
- Considering light appearance or color in lighting purchases
- New technologies – halogen and LEDs

Retail stores have a wide range of lighting displays and products illustrating the variety of lighting colors and lumen output. The Company’s goal is to assist the consumer in finding an efficient lighting product that performs well in their home.

Additional attention will be paid to those considered hard-to-reach, such as non-English speaking customers and the lower income audience. We will continue to expand Spanish-speaking collateral, which may include in-store signage, a Spanish-language website, and Spanish-language social media and online outlets. Additionally, we plan to use market research tools to help identify other criteria to further characterize hard to reach customers as well as “stubborn” sockets. The Company will also study ongoing EISA market and cost dynamics for consideration in future years.

### ***Meeting 2013 Goals***

In 2013, the focus of the program will be to:

- Educate consumers on the changing lighting landscape (change decision making criteria from watts to lumens and color rendition). This is a larger effort undertaken by ENERGY STAR®, manufacturers, and retailers.
- Continue EISA education. In 2012 the Company produced an effective video explaining the legislation and the bulbs that would be phased out over time. Education will continue in 2013.
- Build off of a positive ENERGY STAR® Lighting experience and encourage customers to make additional efficiency investments. In collaboration with home energy reports, messaging may be used that encourages the customer to go deeper with their savings. Now that the customer has tested energy efficient lighting, it can be just as easy to try other energy efficiency improvements.
- Support LED products and investigate lighting controls and CFL and LED compatible dimmers. This effort will happen in collaboration with larger partners such as Northeast Energy Efficiency Partnerships and Consortium for Energy Efficiency.
- Continue hard-to-reach marketing. The Company has effectively reached out to customers where English is not their primary language through a wide range of venues. This innovation and outreach will continue throughout 2013.
- Test market lift model. With D&R International, as well as other utilities, Rhode Island will work with select retailers to test the market lift model where sales in 2013 will be compared to a baseline of 2012 sales. Sales above the baseline will receive an additional incentive.



## **ENERGY STAR® Appliances (Electric Only)**

### ***Overview***

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

### ***Experience***

A nationwide study of consumers' awareness of ENERGY STAR® labeling is conducted annually. The most recent study, "National Awareness of ENERGY STAR® for 2011 – Analysis of CEE Household Survey" indicates that the existence of utility sponsored programs increases the awareness of ENERGY STAR® products. National recognition of the ENERGY STAR® label (unaided) was 79% in high-publicity areas versus 70% in non-high-publicity areas. The Company will inform the Collaborative about future awareness study results.

In 2012, National Grid under the Northeast Energy Efficiency Partnerships collaboration was presented the ENERGY STAR® Award for Sustained Excellence for the Northeast Retail Products Initiative.

Pool pumps were a challenging in 2011 and continue to be so in 2012 due to a number of factors. The economic climate in Rhode Island is difficult and this product is often considered a luxury item. Additionally, contractors are hesitant to install a new type of equipment such as the variable speed unit at a customer's home. They want to prevent future, potential problems with their installation. The Company may discontinue this effort in 2013 due to the lack of interest by installers given the sustained support and outreach. A more effective approach may be to investigate incorporating pool pumps in the C&I portfolio where health clubs and hotels can be targeted.

In 2012 ENERGY STAR® Products had strong results with refrigerator and freezer recycling, refrigerator rebates, and upstream television sales. These will be core elements promoted in 2013 with tiers of rebates offered that focus on the Top Ten appliance most efficient appliances as defined by Top Ten USA.

The oldest refrigerator contest is still running and has been well received.

## ***Delivery***

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

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

## ***Marketing Strategy***

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

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

## ***Meeting 2013 Goals***

Objectives for 2013 include continuing to push marketing efforts for the refrigerator recycling program. A recent evaluation reduced net savings per unit associated with refrigerator recycling, but National Grid will continue to promote the cost-effective measure.

The Company will continue to provide consumer education, offer rebates on a variety of these major home appliances and screen higher tiers for products already promoted by the program. The Company will also consider promoting Top Ten USA and will incorporate a tiered incentive

level structure. Additionally, the Company will promote advanced power strips which currently do not have ENERGY STAR® specifications.

In 2013, the Company will continue promoting heat pump water heaters (HPHW) through big box retailers and supply houses in coordination with the HVAC program which plans to promote this product through contractors. A new effort will be work with online retailers particularly with electronic items. The Company will continue to pursue other cost-effective and promising product ideas, particularly on the electronics side, and may introduce them during the program year.

## **ENERGY STAR® HVAC Program (Gas and Electric)**

### ***Overview***

In 2013, the Company will continue to offer comprehensive heating and cooling programs for the state of Rhode Island. The HVAC Program (“Program”) is a combination of the Electric HVAC (“Cooling”) and the High-Efficiency Heating, Water, Heating and Controls (“Heating”) programs.

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

Of importance to the Program are the increasing regional standards for furnaces in 2013. Beginning in May of 2013, most non-weatherized gas furnaces in the Northeast will be required to have an AFUE (annual fuel utilization efficiency – a measure of how efficient the unit is) of 90%. These standards will apply to weatherized gas furnaces in January of 2015. In addition, oil furnaces in 2013 will be required to have an AFUE of 83%. Furthermore, as of September 1, 2012, all new residential boilers per the Energy Independence and Security Act of 2007 must meet the following efficiency standards: gas hot water – 82% AFUE; gas steam boilers – 80% AFUE; oil hot water boilers – 84% AFUE; oil steam boilers – 82% AFUE.

Also, in 2015 the standards regarding heat pumps and water heaters will become more stringent. Heat pumps will see cooling efficiency requirements increase to SEER 14. In terms of water heaters, standards will require heat pumps for electric water heaters and condensing technology for gas-fired water heaters. Particular effects on the Program regarding increasing standards are noted throughout the document – as well as the Company’s strategies for combating those effects (see *Meeting 2013 Program Goals* section).

### ***Delivery***

Contractors continue to serve as the Program’s primary delivery mechanism. Contractor engagement (i.e. trainings and outreach) will be prioritized for 2013 in order to provide accurate and efficient delivery of Program services to customers, while also improving contractors’ skills and capabilities. In addition, contractor outreach will help re-establish confidence in the Program, as well as its long-term stability and value for Rhode Island. Topics covered during contractor outreach events may include suggestions and guides for proper sizing and installation

of equipment, awareness of current code requirements, and best ways to assist customers with rebate submissions.

The Cooling program is overseen by a Lead Vendor whose primary responsibility is to provide the necessary link between the Company and the in-field contractors. The Lead Vendor coordinates all contractor engagement and ensures that program implementation is being conducted correctly and in the most cost-effective manner. The Lead Vendor is also responsible for providing quality control inspections on a percentage of installed measures.

The Heating program does not have a Lead Vendor model, and instead utilizes the services of a circuit rider vendor, responsible for visiting supply houses and manufacturers in order to promote high efficiency equipment, offer literature and rebate forms, and ensure reasonable supply is being made available for use in the program. The Company, however, is exploring the establishment of a Lead Vendor model with a projected launch in early 2013. A Lead Vendor, in addition to circuit rider roles, will boost contractor outreach and training and will coordinate often with the Program's rebate processing vendor (see below). Overall, the Lead Vendor will be the driving force that connects the Heating program to Rhode Islanders. Although the current circuit rider vendor has the capacity to serve as a lead vendor through a revision in their current scope of work, the option of submitting a Request for Proposal (RFP) will be investigated thoroughly in late 2012.

The Company is also internally considering the integration of the Heating and Cooling programs under the services of one Lead Vendor. While this would streamline administrative activities and could assist in cross-promoting seasonal products and services, the Company also recognizes that potential challenges exist in potentially reinventing training programs and procedures (specifically on the Cooling side), as well as the feasibility of having such an integrated program up and running by January 1<sup>st</sup> of 2013. Such an integrated vendor model may have more applicability in 2014 upon the Company evaluating the pros and cons of having Lead Vendors for both the Heating and Cooling programs during the 2013 Program Year.

The HVAC program continues to utilize an outside rebate processing vendor which spearheads the collection, processing, and issuance of customer rebate applications, all within a timely manner. A reservation system for this program no longer exists, and it is expected that this will continue in 2013. The removal of the reservation system has made the rebate process much simpler as customers can now have the proper equipment installed at any time by a certified contractor, and then may submit the rebate application within the allotted time period.

## ***Experience***

Since 2004, the Company has offered the HVAC Program to promote higher efficiency equipment and improve installation practices throughout Rhode Island. The Company has worked jointly with the regional CoolSmart and GasNetworks collaborative groups to better advertise and advocate for the Program.

Past evaluations and secondary regional research has indicated that there is a high level of free-ridership for gas heating and water heating measures. This trend, in addition to increasing equipment standards, will result in programmatic changes for offered measures in 2013 and beyond. The Company will continue to seek and advocate for superefficient heating and cooling systems, aiming to not only deliver adequate energy savings for the programs, but to also bring more efficient, reliable, and cost-effective products to Rhode Islanders.

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

### ***Meeting 2013 Program Goals***

The program will meet 2013 goals through a combination of the following priority measures: improving the customer experience by way of a host of integrated services; process and technological innovation; leverage of other programs and non-program touch points; improved program management that addresses Rhode Island's unique market; and partnership with National Grid's Rhode Island Gas Conversion Program.

The collaboration of the Heating and Cooling programs parallels that of others programs offered by the Company. Providing a unified customer experience through the HVAC Program will ensure that customers can view, understand, and discuss heating and cooling options simultaneously. If a customer chooses to participate in the Heating program, it would be prudent on the part of the contractor and the Company to make the customer aware of other potential rebates through the Cooling program. Specific integration actions include consistent marketing and seamless presentation of programs by means of the Company's website and telephone number, in addition to better cooperation amongst the program's Lead Vendors and participating contractors.

In regards to innovation, the Company is focused on restructuring the current vendor model for the Heating program. The aforementioned Lead Vendor model is a leading option that will be discussed with stakeholders and vetted internally at the Company before a final decision on an RFP is made. Implementation of a new and improved vendor model for the Heating program will be prioritized with a target launch of early 2013 in order to capture the latter half of Rhode Island's heating season. This new model will better support the Company as it aims to increase contractor engagement in 2013 and beyond.

Technological innovation will continue in 2013 with the Heat Pump Water Heater (HPWH) and the Wi-Fi Thermostat campaigns, both of which were introduced in 2012. The Wi-Fi thermostat is a programmable thermostat that can be accessed remotely via computer or smart phone and has advanced programming capabilities. This measure proved to be cost-effective in 2011 as part of the Residential Products Pilot program, and began to gain traction in Rhode Island in 2012. HPWHs are domestic water heaters that use heat pump technology to transfer heat from

the air, either inside or outside the home, into the water storage tank. HPWHs have much higher energy factors than standard electric resistance storage tank water heaters, resulting in higher overall efficiency and energy savings. HPHWs will be marketed and available through various channels (e.g. retail box stores) and as recommendations on appropriate home energy audit reports. Furthermore, other Company programs such as Home Energy Reports, Single Family Appliance Management, and EnergyWise will act as additional promotional tools for all new technologies.

As part of the larger contractor engagement strategy, the Program will provide contractor training sessions on the correct sizing and installation criteria needed to achieve maximum savings for HPHWs. The Company will also be pushing electrical commutated motor pumps (ECM pumps) in 2013. ECM pumps provide a more efficient method for distributing hot water through boilers, generating significant energy savings.

The HVAC Program in 2013 will leverage the strength of other Company programs, in addition to non-Program customer touch-points. Awareness of the HVAC Program can be advocated by vendors and contractors in other programs, such as Residential New Construction and EnergyWise. In addition, collaboration on the improvement of overlapping process steps, such as the online rebate process and customer targeting, will provide immediate benefits to the Program in terms of both energy savings and customer satisfaction.

Moreover, the Company will continue to explore delivery strategies, equipment, installation practices and marketing tactics that will increase savings in future years. Potential courses of action are noted below.

Through the use of upstream incentives, the Company will be formulating a more comprehensive upstream model with distributors and manufacturers, aimed at delivering both heating and cooling savings in new and innovative ways. This upstream model will be a valuable asset in the promotion of more expensive equipment, which through upstream incentives can be offered to the customer and contractor at reduced costs. As a result, the Company is better prepared to promote a more attractive offer to both new and existing gas customers.

An additional new strategy for 2013 is the championing of the Early Boiler Replacement program, which began in the fall of 2012. In offering attractive upgrade incentives to current Company gas customers whose boiler is both functional and is 30+ years old, there is potential for tremendous energy savings. Better information on customers' heating system garnered from both within and outside the HVAC Program will help the Early Boiler Replacement program better target potential participants.

Lastly, the Company is deeply engaged in an improved partnership with its Gas Conversion Program in Rhode Island. The Company currently has a backlog of several weeks for those Rhode Islanders seeking a conversion to natural gas – proof that there is an ample opportunity for a rise in high-efficiency equipment volume through the Heating program. This is an important strategy due to the aforementioned increasing standards (especially for furnaces).

The Company has already begun internal discussions with the Gas Conversion team to determine potential avenues for better integration, and deeper talks are planned for the remainder of 2012. While the Company must continue to offer a variety of gas equipment models in order to accommodate various customer “heating system set-ups”, an effort is being placed on leveraging the stronger promotion of the highest efficiency heating equipment for all conversion customers, who would in turn be able to utilize the Program’s rebates. Potential strategies include upstream incentives (i.e. buy-downs of the equipment through the manufacturer and distributor) and better promotion of financial incentives to Rhode Island contractors and plumbers. Finally, the Company is exploring the Gas Conversion Program as a highway for wide-scale implementation of ECM pumps, which when packaged with new gas heating equipment can offer tremendous savings for both the customer and the Program.

## ***Marketing Strategy***

Although the Program currently utilizes separate marketing campaigns for each aspect of the Program, the Company is working toward integrating these efforts. Specific actions include consistent marketing and seamless presentation of programs by means of the Company’s website and telephone number, as well as better cooperation amongst the program’s Lead Vendors and participating contractors. As previously discussed, better aligning the two programs, perhaps under one Lead Vendor, is one course of action that the Company is planning to pursue in 2013, with potential adoption in 2014. Current and envisioned 2013 marketing efforts are noted below.

### **Heating**

The Company has conducted extensive market research to identify about 30,000 Rhode Island customers who for a variety of reasons are not likely to participate in the Heating program. These customers are termed “Hard to Reach.” The Company has developed unique tactics for targeting this segment, including: e-mail blasts, telemarketing, direct mail, and door hangers. The Company will continue to market to Hard to Reach customers in 2013, and because telemarketing has proven especially effective, it will be a leading strategy.

Additionally, a variety of tactics will be used to market the program to a larger audience of over 200,000 residential gas heating customers.

Customers and contractors may use the website as a valuable information resource, where they can familiarize themselves with the program details and download a rebate application. Program details can be found at [www1.nationalgridus.com/EnergyEfficiencyServices](http://www1.nationalgridus.com/EnergyEfficiencyServices).

In 2012, marketing efforts often targeted contractors, as they can encourage or dissuade customers from participating in the program. Direct mail, e-mail, trade ally events, and contests helped to drive program awareness and adoption among contractors. The circuit rider visited



supply houses throughout the year to promote sales of electric and gas fueled equipment, distribute literature (including a new high-efficiency heating brochure), and inform installation contractors about our program. In line with its overarching goals for the Program, the Company will be seeking a Lead Vendor for 2013, aiming to build upon and enhance the current responsibilities of the circuit rider vendor.

In 2012, customer-facing communications included direct mail, e-mail blasts, online banner ads, paid search, radio ads, print newspaper ads, ads in grocery stores, and point of purchase signage in hardware stores. The Company will reintroduce high-performing customer-facing tactics in 2013, and will also research and potentially introduce new methods of promoting this program to customers. The Company will also leverage its Comprehensive Statewide Marketing Campaign to help promote the program.

#### Cooling

Marketing campaigns targeted to residential electric customers in Rhode Island were launched in 2012. Direct marketing tactics consisted of direct mail, bill insert, and email blasts followed by outbound follow-up calls (telemarketing) to customers that had indicated interest by requesting a central A/C or a HPWH rebate form through the website. The Company's Marketing Strategy group will evaluate the effectiveness of these channels through the remainder of 2012, and will continue to utilize these channels in 2013 as long as they are proving to be successful.

The Company will also continue to leverage the information about customer's equipment if they obtained a home energy assessment through the EnergyWise program. If they were recommended to update/replace their central A/C or water heater systems as part of the assessment, the Company will use this information to target more effectively or personalize/tailor the direct outreach tactics and messaging.

Marketing campaigns also included broad based awareness tactics to supplement the direct marketing, in efforts of developing an integrated approach for the program. Awareness tactics included social media (messages via Facebook and Twitter), and online banner ads on sites such as Projo.com. The Company will continue to leverage these channels in 2013, as long as they are proving to be effective. In addition, the Company will consider expanding awareness tactics in 2013 to include additional media selections such as print ads, billboards, paid search (Google key words) and radio.

Many customers learn about the program through a knowledgeable contractor who offers them a rebate form. In 2012, marketing efforts targeted HVAC technicians/contractors who install and service HVAC equipment, suppliers and distributors of HVAC equipment, and new home builders and remodeling contractors. The Lead Vendor provided training and outreach to technicians/contractors through training classes, refresher classes, e-mail blasts, and meetings for QIV (Quality Installation Verification)-listed contractors and distributors. They also communicate to contractors on an ongoing basis through a *Technical Bulletin*, which is widely distributed to contractors to inform them of key technical information to help enable their best

success within the program. A competitive awards initiative, which includes recognition of honorees and high achievers in various categories such as QIV Leader, Rebate Leader, ESQI (ENERGY STAR® Quality Installation) Leader, and Most Duct Sealing Services, and which holds a track record of significant success, continues to help engage and retain contractors. Furthermore, the Company and contractors partner with ACCA (Air Conditioning Contractors of America) New England to host an annual golf tournament, aimed at promoting the customer benefits of the Cooling program, as well as the recruitment of more contractors into the program.

Customers and contractors may use the website as a valuable information resource, where they can familiarize themselves with the program details and download a rebate application. Program details can be found at [www1.nationalgridus.com/EnergyEfficiencyServices](http://www1.nationalgridus.com/EnergyEfficiencyServices). The Company will also leverage its Comprehensive Statewide Marketing Campaign to help further promote the Cooling program.

## **Residential Pilots (Gas and Electric)**

### ***Overview***

The residential gas and electric pilots in Rhode Island will focus on new technologies that are deployable in future energy efficiency programs and proven to be safe, reliable and cost effective. Many of the pilot technologies from previous years have tested, implemented, evaluated, and incorporated into mainstream programs. These technologies may be independent or integrated into existing program designs. Another focus will be on technologies that promote behavior-changing practices. These innovations have the ability to minimize customer costs by limiting the need for increased infrastructure to satisfy peak usage while integrating technology that will provide customer benefits and energy savings.

The Company's pilots will focus on thermostats. Thermostat technologies include, but are not limited to, communicating thermostats with the ability to present electric meter reads and estimated monthly bill, thermostats that incorporate messaging to promote conservation, communicating thermostats that interface with 3rd party applications to provide automatic temperature control that enables load shifting technology. Additional pilots include heat pump dryers, technology to measure the thermal load of the building envelope, drain water heat recovery, aerosol duct sealing, variable speed ducted heat pump systems, electric and gas dryer technologies that would promote increased energy savings. The EmPower pilot that began in 2011 will continue with communicating thermostats, load control, online tools and electric vehicle controls. The EmPower pilot will also continue recruiting more participants. The Company will also pilot a rewards program where customers are invited to participate in an online community and energy saving actions can earn rewards. The pilot can be launched on the new Social Energy online platform described in the Home Energy Reports section. The Company will also investigate do-it-yourself weatherization and new technologies as they emerge throughout the year.

### ***Experience***

The Company has had tremendous success in with piloting technologies that had not yet been widely accepted. During 2012, we have deployed or evaluated Heat Pump Water Heaters, Wi-Fi Thermostats, Solar Thermal Heating and Hot Water, ECM Circulator Pumps and Boiler Thermal Load Controls. The Company works closely with NEEP, CEE, SEDI and other national organizations to discuss and gain regional/national knowledge on emerging technologies to understand barriers and challenges that face each technology.

The Company will use knowledge gained from analyzing existing programs and results to determine if technologies can be combined to enhance future results. For example, the 8% heating savings and 16% cooling saving achieved per thermostat in the Company's 2011 Wi-Fi pilot could be coupled with a technology that determines the condition of a home's thermal envelope. The technology could be used as a preliminary screening tool to determine the need

for a home energy audit to be performed. This combination would eliminate unnecessary audits while providing savings to the customer if successful.

We also strive to provide solutions that will not only achieve energy savings, but will also provide added benefits to the customer that are not measureable. An example of this is using technologies that allow the customer to access their heating or cooling systems remotely, and providing the ability to receive alerts via email if their systems are not working properly or have stopped working. The Company is adopting technologies that allow customers to stay connected using mobile devices that are becoming part of our everyday routines.

### ***Delivery***

The Company's program managers will manage all aspects of the pilots. They will work with internal experts and utilize external resources to determine what type of technologies customers will deploy and utilize in Rhode Island. The technologies will be installed and executed by a trained professional contractor for each respective technology. New technologies will be installed in homes that align with the Company's residential metering classification, and appear to be a good fit for the technology being assessed. The rewards pilot will be delivered through the Social Energy online platform. Where possible, pilots will be run jointly in Massachusetts and Rhode Island to achieve economies of scale.

### ***Marketing Strategy***

Customers will be recruited through a variety of methods which may include community group outreach and targeted communications to customers who will best represent the benefits of piloting a new technology. The Company may target specific towns to provide a baseline for projects in a System Reliability Procurement (SRP) Annual Plan. Please see the 2013 System Reliability Procurement Annual Plan for more information.

### ***Meeting 2013 Goals***

In 2011, the Company defined a process for internally developing a pilot technology. This process enables the Company to work more collaboratively both internally and externally with all of its stakeholders. As previously mentioned, pilots may be used as an integration tools for new technologies that will ultimately be introduced in an SRP project. They continue to act as a pipeline for new measures in the Company's existing residential and multifamily programs.

The Company will continue to evaluate the results of the Behavior Pilot begun in 2011 to glean best practices and lessons learned. Other strategies that can be integrated into the installed technology will also be considered. The Company will also monitor and evaluate the savings by performing a mid-year, partial evaluation to determine if this type of behavioral strategy is working, and to better understand if the chosen technology will provide cost effective benefits in future years. The completion of this mid-year evaluation will inform decisions and potential adjustments for future pilot strategies.

## **Comprehensive Statewide Marketing Plan -- Residential Programs**

### ***Overview***

This program supports all of the Energy Efficiency programs in the state of Rhode Island for both electric and gas to provide added support to the marketing efforts implemented by the Company and its supporting vendors who help to administer the programs. This program also serves to increase the awareness of our portfolio of Energy Efficiency program offerings and of the Company in the marketplace

### ***Delivery & Experience***

2013 marks the Company's third year with this plan. Last year awareness levels were measured both pre, mid, and post campaign which allows us to compare the results to a year ago. The data shows that our new media buying strategy enabled us to achieve a higher awareness level more quickly versus a year ago with radio being the primary driver. We were also able to maintain this awareness level when the campaign ended through program communications in the market. This gives defines benchmarks for awareness levels that will be used to manage goals for the 2013 campaign. The Company also intends to have a more integrated communications approach among the program communications and this campaign to increase market impact.

### ***Marketing Strategy***

The Company will continue to fine tune its customer targeting and creative executions while evaluating all appropriate media vehicles to create an integrated marketing campaign. Market Research copy tests were also implemented this year to gain more learnings relative to what messaging will get customer's attention and motivate them to act. Learnings from our first copy test this year will be retested through creative executions in September to help us to bring the best communications campaign to the market in 2013. This campaign includes mass and targeted media that generates awareness and creates a synergy among all communications to reach all Rhode Islanders who are eligible to participate in National Grid Energy Efficiency programs. Additional details on marketing strategy can be found in Attachment 4.

## 2013 Residential Electric Measures

Program	Measure		Units	Incentive
Residential New Construction	ESH Heating	ESH Heating	410	Average Incentive based on measure mix
	ESH Cooling	ESH Cooling	410	
	ESH DHW	ESH DHW	410	
	Refrigerators	Refrigerators	100	
	ESH Fixtures	ESH Fixtures	1,000	
	CFL	CFL	10,000	75% of Total Resource Cost
	DER Roofs - Elec	Deep Energy Retrofit Roofs - Electric Heat	10	
	DER Walls - Elec	Deep Energy Retrofit Walls - Electric Heat	6	
	DER Basements - Elec	Deep Energy Retrofit Basements - Electric Heat	6	
	DER Roofs - Propane	Deep Energy Retrofit Roofs - Propane Heat	10	
	DER Walls - Propane	Deep Energy Retrofit Walls - Propane Heat	6	
	DER Basements - Propane	Deep Energy Retrofit Basements - Propane Heat	6	
	DER Roofs - Oil	Deep Energy Retrofit Roofs - Oil Heat	10	
	DER Walls - Oil	Deep Energy Retrofit Walls - Oil Heat	6	
	DER Basements - Oil	Deep Energy Retrofit Basements - Oil Heat	6	
ENERGY STAR® HVAC	CoolSmart AC SEER 15	CoolSmart AC SEER 15.0 => (Equip) - EER>=12.5	50	300
	CoolSmart HP SEER 15	CoolSmart HP SEER 15.0 => (Equip)	25	300
	CoolSmart AC QIV ES	CoolSmart AC QIV ES	50	175
	CoolSmart HP QIV NES	CoolSmart HP QIV NES	3	175
	CoolSmart HP QIV ES	CoolSmart HP QIV ES	3	175
	CoolSmart AC Digital Check-up	CoolSmart AC Digital Check-up/Tune-up	80	175
	CoolSmart HP Digital Check-up	CoolSmart HP Digital Check-up/Tune-up	4	175
	Duct Sealing - 100 CFM	Duct Sealing - 100 CFM reduction in leaks 20% of flow to 10%	25	200
	Down Size 1/2 ton	Down Size 1/2 ton	5	250
	Rightsizing on ES Tier 2	Rightsizing on ES Tier 2 14.5 12	35	300
	Early Replacement 10-15	Early Replacement 10-15 yrs, existing SEER 9or10	5	850
	Energy Star QI with Duct Modifications	Energy Star QI with Duct Modifications	4	525
	CS AC SEER =>14.5, EER =>12, NEW Estar -regardless of sizing	CS AC SEER =>14.5, EER =>12, NEW Estar -regardless of sizing	12	150
	CS HP SEER =>14.5 EER =>12 Mini-Split Heat Pump	CS HP SEER =>14.5 EER =>12 Mini-Split Heat Pump	400	150
	Brushless Furnace Fan	Brushless Furnace Fan motor (BFM)	20	450
	MiniSplit HP SEER 19, EER 12.83, HSPF 10.0	MiniSplit HP SEER 19, EER 12.83, HSPF 10.0	45	300
	MiniSplit HP SEER 23, EER 13, HSPF 10.6	MiniSplit HP SEER 23, EER 13, HSPF 10.6	12	500
	CoolSmart AC SEER 16.0 => (Equip) - EER>=13.0	CoolSmart AC SEER 16.0 => (Equip) - EER>=13.0	350	500
	Oil Heat Replacement	Oil Heat Replacement	40	200
	ECM / Oil Replace Furnace	ECM / Oil Replace Furnace	8	400
	ECM Gas Rebate	ECM Gas Rebate	191	400
	ECM Pumps	ECM Pumps	433	100
	HPWH 50 gallon - Electric	HPWH 50 gallon - Electric	130	750
	HPWH 80 gallon - Electric	HPWH 80 gallon - Electric	20	750
	WiFi Enabled Thermostat	WiFi Enabled Thermostat with Cooling - Gas	25	100
	WiFi Enabled Thermostat	WiFi Enabled Thermostat with Cooling - Oil	25	100
EnergyWise	EW SF Audits	Audits	7,800	Average Incentive based on measure mix
	Weatherization, Electric	Weatherization, Electric	100	
	Weatherization, Oil	Weatherization, Oil	450	
	Weatherization, Gas (kWh only)	Weatherization, Gas (kWh only)	2,000	
	DHW, Electric	DHW, Electric	30	
	Thermostat, Electric	Thermostat, Electric	10	

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EnergyWise Multifamily	EnergyWise MF Participants	Participants	3,700	Average Incentive based on measure mix
	EW CFLs	EW CFLs	29,600	
	EW Fixtures	EW Fixtures	1,850	
	EW Outdoor Fixtures	EW Outdoor Fixtures	925	
	EW LED A Lamp	EW LED A Lamp	7,400	
	EW LED Fixtures	EW LED Fixtures	100	
	EW Showerhead (Elec Ht)	EW Showerhead (Elec Ht)	111	
	EW Aerator (Elec Ht)	EW Aerator (Elec Ht)	100	
	EW Air Sealing (Elec Ht)	EW Air Sealing (Elec Ht)	148	
	EW Insulation (Elec Ht)	EW Insulation (Elec Ht)	37	
	EW Thermostat (Elec Ht)	EW Thermostat (Elec Ht)	185	
	EW Wi-Fi Thermostats	EW Wi-Fi Thermostats (Elec Ht)	19	
	EW Refrigerator	EW Refrigerator	407	
	EW Smart Strips	EW Smart Strips	1,998	
	EW Demand Circulators	EW Demand Circulators (Elec Water Ht)	15	
ENERGY STAR® Products	Refrigerator	Refrigerator	7,650	50
	Pool Pumps- variable	Pool Pumps- variable	3	300
	Refrigerator Recycle secondary	Refrigerator Recycle secondary replaced	6,307	50
	Pool Pumps - 2 speed	Pool Pumps - 2 speed	10	250
	Electronics- Smart Strips	Electronics- Smart Strips	600	10
	Energy Star 5.3 TV >32"	Energy Star 5.3 TV >32" and <46"	4,500	15
	Energy Star 5.3 TV >=46"	Energy Star 5.3 TV >=46"	1,500	25
	Electronics- Monitors	Electronics- Monitors	200	20
	Room air cleaners	Room air cleaners	60	20
	Freezers	Freezers	200	50
	Freezer Recycling	Freezer Recycling	500	50
	Top 10 TV <=32"	Top 10 TV <=32"	500	10
	Top 10 TV >32" and <46"	Top 10 TV >32" and <46"	500	30
	Top 10 TV >=46"	Top 10 TV >=46"	500	50
	Top 10 Desktop Computer	Top 10 Desktop Computer	500	10
	Top 10 Refrigerator	Top 10 Refrigerator	820	50
	Top 10 Freezer	Top 10 Freezer	100	25
ENERGY STAR® Lighting	Screw-in Bulbs	Screw-in Bulbs	335,000	1
	Indoor Fixture	Indoor Fixture	15,000	15
	Outdoor Fixture	Outdoor Fixture	300	15
	Torchiere	Torchiere	500	15
	LED Bulbs (EISA Exempt)	LED Bulbs (EISA Exempt)	10,000	20
	LED Fixtures	LED Fixtures	12,000	15
	Specialty Bulbs	Specialty Bulbs	345,000	4
	Hard To Reach Bulbs	Hard To Reach Bulbs	125,000	2
	School Program Bulbs	School Program Bulbs	15,000	6
	Market Lift	Market Lift	50,000	1
Home Energy Reports	Opt-out Home Energy Report	Opt-out Home Energy Report Customers	175,000	6
	Opt-out On-bill Messaging	Opt-out On-bill Messaging	65,000	0
	New Movers	New Movers	4,000	0
	Opt-in Home Energy Report	Opt-in Home Energy Report Customers	2,500	0
	Rewards Pilot	Rewards Pilot	100	0
	Competition Pilot	Competition Pilot	100	0
Single Family - Income Eligible Services	Baseload	Baseload	2,501	Average Incentive based on measure mix
	Electric Wx	Electric Wx	28	
	Oil Wx	Oil Wx	400	
	Heat System Replacement	Heat System Replacement	113	
	CFLs	CFLs	50,020	
	LED Bulbs LI	LED Bulbs LI	2,500	
	Replacement Refrigerator	Replacement Refrigerator	1,166	
	Replacement Freezer	Replacement Freezer	131	
	Waterbed	Waterbed	5	
	DHWater Measure (elec)	DHWater Measure (elec)	93	
	DHWater Measure (OIL)	DHWater Measure (OIL)	208	
	DHWater Measure (gas&other)	DHWater Measure (gas&other)	143	
	Appliance Removal	Appliance Removal	25	
	AC or POOL Timer	AC or POOL Timer	186	
	Window AC Replacements	Window AC Replacements	9	
	HPWH 50 gallon - Electric Prod	HPWH 50 gallon - Electric Prod	10	
	Smart Strips	Smart Strips	1,501	

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EnergyWise Income Eligible Multifamily Retrofit	EW LI Multi	EW LI Multi	3,100	Average Incentive based on measure mix
	EW LI CFLs	EW LI CFLs	24,800	
	EW LI Fixtures	EW LI Fixtures	1,550	
	EW LI Outdoor Fixtures	EW LI Outdoor Fixtures	775	
	EW LI LED A Lamp	EW LI LED A Lamp	6,200	
	EW LI LED Fixture	EW LI LED Fixture	310	
	EW LI Showerheads (Elec Ht)	EW LI Showerheads (Elec Ht)	93	
	EW LI Aerator (Elec Ht)	EW LI Aerator (Elec Ht)	100	
	EW LI Air Sealing (Elec Ht)	EW LI Air Sealing (Elec Ht)	124	
	EW LI Insulation (Elec Ht)	EW LI Insulation (Elec Ht)	31	
	EW LI Thermostat (Elec Ht)	EW LI Thermostat (Elec Ht)	155	
	EW LI Refrigerator	EW LI Refrigerator	1,023	
	EW LI Smart Strips	EW LI Smart Strips	1,674	
	EW LI Demand Circulators	EW LI Demand Circulators (Elec Water Ht)	5	
	EW LI Window AC Replacement	EW LI Window AC Replacement	310	



## 2013 Residential Gas Measures

Program	Measure	Units	Incentive
EnergyStar® HVAC	Condensing Gas Water Heater (THERMAL EFFICIENCY 0.95)	150	750
	Furnace (forced hot air) 95% AFUE w/ECM	25	200
	Boiler (forced hot water) 90% AFUE	200	1,000
	Boiler Reset Controls	30	225
	Indirect Water Heater (attached to gas Energy Star FHW boiler)	200	400
	Tankless Water Heaters (EF 0.82)	125	500
	Tankless Water Heaters (EF 0.95)	125	800
	Energy Star Programmable Thermostats	2,000	19
	Furnace (forced hot air) >= 97% AFUE	150	350
	Boiler (forced hot water) >= 96% AFUE	100	1,500
	High Efficiency Stand Alone Water Heater (0.67 EF)	10	100
	Heat Recovery Ventilator	10	500
	Integrated water heater/condensing boiler	300	1,200
	WiFi Enabled Thermostat	110	100
	WiFi Enabled Thermostat with Cooling	10	100
	Early Retirement Boiler Forced Hot Water (Retire)	70	3,500
	Early Retirement Boiler Forced Hot Water (EE)	70	0
	Hard-to-Reach Early Retirement Boiler Forced Hot Water (Retire)	35	3,500
	Hard-to-Reach Early Retirement Boiler Forced Hot Water (EE)	35	0
	Hard-to-Reach Tankless Water Heaters (EF 0.82)	28	500
	Hard-to-Reach Indirect Water Heater (attached to gas Energy Star FHW boiler)	40	300
	Hard-to-Reach Furnace (forced hot air) 95% AFUE w/ECM	10	200
	Hard-to-Reach Boiler (forced hot water) 85% AFUE	25	375
	Hard-to-Reach Boiler (forced hot water) 90% AFUE	55	1,000
	Hard-to-Reach Heat Recovery Ventilator	2	500
	Hard-to-Reach Integrated water heater/condensing boiler	64	1,200
	Hard-to-Reach Condensing Gas Water Heater (THERMAL EFFICIENCY 0.95)	7	500
	Hard-to-Reach Energy Star Programmable Thermostats	68	19
	Hard-to-Reach Boiler Reset Controls	6	225
	Hard-to-Reach High Efficiency Stand Alone Water Heater (0.67 EF)	2	100
	Hard-to-Reach Tankless Water Heaters (EF 0.95)	28	800
	Hard-to-reach Furnace (forced hot air) >= 97% AFUE	40	350
	Hard-to-reach Boiler (forced hot water) >= 96% AFUE	25	1,500
EnergyWise	Single Family	2,000	2,100
EnergyWise Multifamily	Participants	700	450
	Air Sealing	600	0
	Insulation	600	0
	Showerheads	200	0
	Faucet Aerator	200	0
	Controls - Wifi Thermostats	25	0
	Controls - Programmable Thermostat	200	0
	Demand Circulator	10	0
Home Energy Reports	Opt-out Home Energy Report Customers	135,000	0
	Opt-out On-bill Messaging	0	0
	New Movers	25	0
	Opt-in Home Energy Report Customers	1,250	0
	Rewards Pilot	100	0
	Community Competition	100	0
Residential New Construcion	Codes - Residential New Construction	324	25
	DER Basements - Gas	6	3,220
	DER Roofs - Gas	10	5,440
	DER Walls - Gas	6	6,188
	Heating	250	515
	Hot Water Heating	250	0

Program	Measure	Units	Incentive
Single Family - Income Eligible Services	Weatherization	100	2,600
	Heating System Replacement	400	4,000
Income Eligible Multifamily	LI MF Air Sealing	1,900	0
	LI MF Insulation	1,900	0
	LI MF Showerheads	220	0
	LI MF Faucet Aerator	220	0
	LI MF Thermostat	220	0
	LI MF Heating System Replacement	0	0
	LI MF Water Heating System Replacement	0	0
	LI MF Demand Circulator	5	0



# **2013 Commercial and Industrial (C/I) Energy Efficiency Programs and Initiatives**

## **Introduction**

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

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

National Grid believes these four central principles are apparent in all aspects of the 2013 Plan. The Company conducted extensive planning and listening sessions with various groups prior to drafting this text, in which these principles were prominently posted. Ideas were gathered from various customers, consultants, reports, National Grid's Sales team and vendors serving all different customer types and sizes. This process resulting in 150 different ideas which were examined, sifted and categorized, resulting in four broad areas which the Company knows are essential to success in the 2013 Program Year. This is the matrix upon which this 2013 Plan is based.

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

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

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

## Central Themes for Efficiency Programs

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

### ***Better Customer Experience: Efficient Transactions***

Program Year 2013 and beyond, the Company is committed to providing our customers with a more efficient project enrollment and application (transactional) experience. In collaboration with Brown University, the Company spent two full days of a process improvement workshop to understand the needs of a large customer, and determine how National Grid can improve the internal energy efficiency project transaction processes to better serve the customers across a larger footprint. Through a survey conducted towards the end of 2011, the Company received feedback from other large customers about barriers that exist within the current transaction processes. In addition, during the 2013 Energy Efficiency Forum (Report summarized in Attachment 4 of this package) some customer highlighted specific issues with application process during their past participation in energy efficiency programs.

Some of the changes that the Company plans to implement in 2013 include: an improved system for conducting technical assessment studies, less transactional steps involved in the application process and improved paths for customers to pursue energy efficiency measure (EEM) upgrades.

### **Technical Assistance (TA) Services**

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

In 2013, the Company plans to revise the TA study protocols for our engineering service providers, and the customer's contracted TA vendor, so that the time taken to complete a TA study is considerably reduced without compromising on the quality of the TA study or the results. For the specific market sectors described below, the Company will ensure specialized TA vendors are assigned to serve these sectors. Additionally, the emphasis in Program Year 2012 to

encourage customers to integrate custom and/or prescriptive projects using a whole building savings approach, versus the standard measure-by-measure savings approach, reduces the time for cost-screening analysis that either the TA vendor or National Grid's Technical Support Consultant (TSC) performs. Other previous requirements for measure-by-measure calculations and supporting content in a TA Study document may be minimized or eliminated, reducing the associated cost with documenting the TA Study and review time.

Once the TA study protocols are revised in the first quarter of 2013, National Grid's Technical Support Consultants (TSCs) will provide outreach to the various engineering service providers to train them on the revised requirements. This outreach effort will provide an opportunity for learning and exchange about National Grid's current C&I programs, services and requirements. It is expected that this renewed focus on training of the engineering service providers will result in improved and targeted TA studies; better technology-based solutions that meet the Company's criteria and eligibility for approved gas and electric energy efficiency measures as well as address the customer's financial criteria.

### **Reduction in Number of Transactions**

Surfacing from National Grid's collaboration with Brown University to streamline the EE project transaction process was the need to significantly reduce the TA study review process, as well as the related accounting and administrative concerns associated with delivering and implementing the Company's energy efficiency services to the customer.

The Company will work towards reducing the number of transactions required to complete an application. One such example includes incorporating the customer's share of a TA study co-payment as part of the incentive payment, where the TA-study co-payment can be deducted from the customer's project upgrade incentives. Allowing for this simple change significantly reduces the duplicate accounting procedures that both National Grid and the customer share in processing invoices, payments and receivables to either the TA vendor or to each other. As an added benefit, this flexibility to deduct the customer's TA co-pay share from the incentive upon project completion and post-inspection, helps to dissolve the first cost barrier to participation. This will be available to customers towards the end of 2013 first quarter.

### **More Streamlined Measure Selection**

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

## **Virtual Audit Tools**

The Company is in the process of testing various tools available in the market for conducting virtual building energy assessments. These innovative tools integrate analytics with building energy reporting platforms. These tools enable remote energy performance insight into buildings, reducing the need for costly on-site assessments or questionnaires. The analytical tools will help the Company generate higher energy efficiency building opportunities through building energy use data comparisons from customer leads and enable the targeting of quick, no cost or low-cost energy efficiency solutions. The testing period for the tool ends near the end of 2012. During 2013, these tools will be used to reduce the time of on-site assessments, provide fast energy efficiency solutions to customers and increase the volume of transactions over a shorter period of time. Specifically, offices and schools that are 'stand alone' buildings will be considered for virtual audits, with about one hundred customers selected between Massachusetts (75%) and Rhode Island (25%).

## ***Market Sector Approach***

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

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

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

- Grocery
- Municipal (including schools)
- Data Centers
- Manufacturing/Industrial
- Multifamily Housing
- Hospitality (lodging and restaurants)
- Hard to Reach & Underserved

The Company realizes that hospitals in RI have huge potential for savings and will pursue one hospital customer through the Strategic Energy Management Planning (SEMP) initiative in 2013. In addition, the Company will investigate the most appropriate program offering and delivery mechanism suited for this vertical and plan for a dedicated hospital sector in the coming years.

Targeted marketing will be conducted for each of the above identified market sectors and other building types (including hospitals and large offices), broken up by Tier I and Tier II as described below:

- 1.) About 60% of the potential savings can be identified by Tier I targets. A majority of these efforts will focus on this small number of large customers where the opportunity to promote energy savings that result from participation in National Grid's energy efficiency programs and initiatives is significant at the individual customer level.
- 2.) An additional 30% of savings can be identified by Tier II targets. Most of these efforts will focus on a larger number of 'small/medium' customers within a particular industry and offer large savings at the industry level. For example, a large number of small business 'retail' customers could account for significant savings in aggregate at the 'retail' industry level. There will not be a focus on marketing to the remaining 10%, as these savings are more dispersed over a broader audience.

### **Grocery Sector**

Through the EnergySmart Grocer Initiative (ESG), an independent third party contractor will work with Grocers to identify measure retrofits, new construction and existing building commissioning activities that result in electric and or gas savings. A 3<sup>rd</sup> party contractor, who has had prior success managing the Company's "2011 grocery demonstration project" in Massachusetts was hired in the third quarter of 2012 to implement this initiative jointly for Massachusetts and Rhode Island. This 3<sup>rd</sup> party contractor will act as an extension of the Company's programs and field, technical and engineering staff in the execution of the ESG initiative. The contractor will work directly with customers, determining and approving eligibility for participation, computing and approving energy savings and incentives and managing internal applications.



The contractor will work with the Company's Inside and Outside Sales representative, and external vendors to provide integrated services to the customers. The customers under this initiative include facilities with commercial refrigeration engaged in retail food sales, consisting of local, regional and national retail facilities that include, but are not limited to smaller grocery stores, supermarkets, big-box stores, and pharmacies with a peak demand of 60kW and above. To motivate customers to complete larger, more comprehensive projects including custom bundles of measures, this initiative will establish tiered incentive rates based on project size criteria within cost effective limits. This initiative will also create ENERGY STAR Benchmarking customer profiles, meet with customers to review and monitor results and encourage application for ENERGY STAR certification, when eligible.

Participants of the 2013 Energy Efficiency Forum (Attachment 4 of this package) stressed that customers can make better-informed decisions regarding implementing energy efficiency when information regarding baseline energy performance is available. This observation is repeated across sectors and appears to apply in many settings. Through the Energy Star benchmarking services of this initiative, the Company plans to address this concern of the customers.

### **Municipal Buildings Including K-12 Schools**

Municipalities are major users of energy for waste water treatment plants, water plants, and street lighting. Although many waste water treatment plants participated in National Grid's Program last year, water plants and street lighting have not yet been targeted. There are more than 30 major public water supply districts in Rhode Island. Solid state street lighting will be addressed in the Commercial and Industrial New Construction Program section of this filing.

K-12 schools are often one of the greatest users of energy in a municipality. In July 2012, the Company launched a municipal initiative with five of the highest performing Project Expeditors who will serve both Rhode Island and Massachusetts. Project Expeditors are turn key vendors for the projects' facilities with greater than 200 kW average monthly demand in Rhode Island. This initiative was conceived during 2012, as well as a market vertical that holds vast amounts of potential for 2013. The initiative was designed to last until Q4 of 2013 in order to capture the summer and fall installation window that schools must meet.

The Municipal Initiative continues to be refined as the Company gains more information about what is most effective in motivating these customers, as well as vendors. Listed below are customer benefits that should remain constant for the duration of the Initiative. Two of the five vendors will be working exclusively in Rhode Island and will have access to the following tools or advantages that will allow them to better serve this market, garner significant savings and help cities and towns reduce their operating costs:

- Increased access to financing
- Increased incentives for municipalities if 50% or more of savings come from non-lighting measures

- Faster application processing by using dedicated TA or National Grid Technical Service Consultant (TSC)
- Exclusive territories across the National Grid footprint

**Support for Rhode Island DOE Grant:** As a member of the Rhode Island Public Energy Partnership (RI PEP), the Company will provide staff time and technical analysis support, and customer incentives in the context of its in-kind services and support role to achieve overall Project Objectives. The main objective of this three year long DOE supported project is to create a comprehensive inventory of public facilities and establish criteria for prioritization of energy efficiency and renewable energy improvements for specific sectors like water, schools, State offices etc. In collaboration with the Rhode Island Office of Energy Resources (OER), the Company will identify the State's largest energy users, assign key points of contact for each relevant facility, and coordinate its regular scope of work for those accounts with the Municipal Facilities Coordinator and the State Facilities Coordinator. National Grid will assist in providing energy efficiency savings estimates, assessing the potential for interconnection of renewable energy installations, and identify types and amounts of financing available for energy efficiency practices at participating facilities.

In 2013, the Company will assist the RI PEP team identify a showcase project with potential for deep energy measures to demonstrate the level of potential savings in water supply facilities. This showcase project will be used for enrolling other public water supply projects in future. The Company will also assist the RI PEP team in providing information on building attributes and energy performance of state and municipal facilities. This will also enable the Company to prioritize projects based on energy savings opportunities.

Through a dedicated single point of contact from the sales team, the Company will ensure that the recently launched municipal initiative (described in this section) is coordinated with the RI PEP effort. Projects enrolled through this initiative will be tracked and shared with the RI PEP team, and be rolled into the inventory of public facilities.

### **Data Centers /Computer Rooms**

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

Telecommunications facilities by Verizon and other similar providers are also part of this market segment.

The Company sees great promise in data center energy efficiency in 2013. Over the past two years, the Company has experienced a dramatic rate of growth in efficiency services delivered to

this segment, yet most of the market remains untouched. The Company intends to use several types of market research to better identify the data center/computer room segment.

The Company is currently running a dozen exploratory projects with a vendor in both RI and MA. The Company is also working with another third party vendor on select demonstration data center projects developing new assessment tools and new ways to capture the interest of key customer decision makers who invariably focus more on reliability, growth and addressing IT challenges than on efficiency. In order for the Company to capture this market segment, the messaging needs to address the concerns of the customer – reliability and redundancy first. If done correctly efficiency can be incorporated into that framework. Towards the end of 2012, the Company will review the success of the demo projects and will decide to go for a bid process with the existing vendor for a longer period of time.

Some of the largest projects in this sector have met with great success, including Citizens Bank's data center in East Providence, RI. The Company is a leader amongst its peers in the delivery of efficiency services in these critical environments and is in a unique position to help generate qualified leads for the vendor or vendors chosen to service the data center market in the 2013 program year and beyond. To this end, National Grid will be working closely with one of our Technical Assistance (TA) firms to install wireless data loggers and to set up dashboards with customers in Q4 with the intention of creating a robust pipeline of projects for the 2013 program year.

### **Manufacturing/Industrial**

In 2012, the Company launched an initiative targeted at the largest manufacturing customers in Rhode Island. At the time of this writing, six customers have participated in this initiative. To qualify for this initiative in 2012, the first ten customers that consume over 20,000 dekatherms, and/or over 750 kW demand a year and have a qualifying industrial SIC code can participate. There are two levels of studies that are provided to customers as part of this initiative. The first level consists of a comprehensive, no-cost scoping study whose value can go up to \$10,000. The scoping study provides the customer with a prequalification menu from which to choose for the next level of study.

Upon completion and presentation of the scoping study, National Grid and the customer will identify which areas to focus in on for the more detailed level 2 study. For example, the scoping study may identify the steam system as a good candidate for savings. Although it may be logical to examine the entire steam system process as a whole, in reality there are usually three separate individuals involved – none of which cross over into the other areas: 1.) boiler/combustion control contractor, 2.) steam trap surveyor, and 3.) specialized manufacturer's representative or a manufacturer that designed the process equipment for the particular industry.

The Company and the customer will develop a Memorandum of Understanding (MOU) in which the customer and the Company agree to have the more detailed level 2 study completed for

measures identified as having merit from the scoping study. After talking with customers as well as National Grid Technical and Sales and Operations group, it was decided customers will have up to two years to install the measures identified; the beginning of the two year period starts upon completion of the Level 1 scoping study.

This MOU will also include a commitment from the customer to implement those measures which meet both the customer's and the Company's cost-effectiveness criteria, as defined by the RI BCR. The Company will pay 100% of the level 2 study if the customer signs the MOU. If the customer opts out of signing the MOU, National Grid will pay a 50% cost share for the level 2 study. Fifty percent (50%) of the costs of the level 2 study will be paid to the customer upon satisfactory completion of the TA study. Once the Company has confirmation that suggested measures have been installed, the remaining 50% cost of the TA study will be provided to the customer as well as the incentives associated with the installations of the ee equipment.

In 2013, this initiative will also have a cap of ten participants. The intent of the initiative is to engage more customers from the manufacturing sector to participate in the National Grid Large Commercial Retrofit Program, as well as to engage them in participation over a longer period of time rather than limiting them to one program year. As in the past, TEC-RI will be involved with helping the Company identify potential prospects and possibly using past program participants to help market the initiative. Once some customers have completed the initiative, it should be an easier sell. Case studies can be developed and manufacturing tours might even be available for other interested customers.

By utilizing a third-party implementer with specialized TA expertise in industrial projects, the Company will help customers by assisting them in their energy planning, identification of incentives and financing as well as identification of steps that must be taken and a proposed timeline for implementation.

The Company recognizes that TA studies that focus on process equipment of manufacturing customers need to be written by very specialized engineers that are associated with the manufacturer of that equipment or are manufacturers' representatives. The 3<sup>rd</sup> party implementer will work closely with the manufacturers' engineers/ reps to meet the specific TA requirements of the Company.

A long term goal of the initiative is to be able to identify a candidate who has completed the Manufacturing Initiative to enter discussions to develop a multi-year Strategic Energy Management Plan (SEMP). More details about the SEMF Initiative are provided in the following section of this program plan.

In 2013, the Company's marketing collateral will be designed specifically for the manufacturing audience. This material will aid National Grid's Sales and Operations group when meeting with the customer and can serve as a tangible communication piece that is left behind for customer reference and follow-up to incorporating energy efficiency into their planned construction and equipment replacement practices. By focusing in on the needs of the market sector, materials can better speak to the customer in terms that they understand and for which they can easily

relate, provide clear means of accessibility to both technical and financial services and create the value of reducing operating costs in a sector that thrives on small margins of profitability.

By offering more in the way of financial assistance, manufacturing customers can leverage their operating budgets to enhance participation in available energy efficiency services even if they have other compelling demands on their capitalization budgets.

There are some new technologies now available in the market that can assist manufacturers in running their operations in ways that respond more effectively to their customers while, at the same time, reducing energy and water usage, as well as greenhouse gas emissions.

This technology is sometimes referred to as intelligent manufacturing or smart manufacturing. For example, one manufacturer has a closed data feedback loop between its data and boiler control system. Instead of relying on operators to make changes to the system a few times a day, the new system analyzes process variables and makes adjustments to the system on the spot, allowing it to update boiler control settings every 15 to 30 minutes. These technologies will be explored in more detail during 2013 as possible additions to the Large Commercial Retrofit Program.

### **Multifamily Sector**

In 2013, the Multifamily Initiative will be a stand alone initiative, integrating residential and commercial multifamily spaces, with consistent offering between residential and commercial spaces, incorporating electric and gas measures. Envelope insulation (roof, wall, floor), domestic hot water measures like controls and pipe insulation, shower heads, air and duct sealing, etc, are some examples of measures that will be considered under the C/I category. Benchmarking of multifamily properties will be explored along with potential partners for such an initiative in Rhode Island. For further details regarding the Multifamily Initiative, refer to the Residential Section (Attachment 1) of this Plan.

### **Hospitality**

The Hospitality market will be approached in two tiers: lodging and restaurants.

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

The many smaller hospitality customers, including many restaurants and some of the smaller lodging establishments, will be served by marketing campaigns designed specifically to address the needs of this audience. Electric measures that will be promoted include cooking equipment, refrigeration, lighting, HVAC, and EMS systems. Natural gas measures that will be promoted

include cooking equipment, kitchen hood controls, as well as heating, insulation, controls, and water heating.

Customers that meet the criteria to participate in the Small Business Direct Install Program (less than 200 kW average monthly demand) will be encouraged to participate in that program, if it appears to be in the customer's best interest.

Circuit riders will promote both natural gas and electric energy efficiency incentives to commercial kitchen equipment distributors. National Grid will continue to work with the Rhode Island Hospitality Association to promote energy efficiency programs to this market sector through breakfast meetings, newsletters, and attendance at Rhode Island Hospitality Association events and sponsorships. The Company will be a sponsor of the 2013 New England Food Show.

### **Hard to Reach /Underserved**

The Company classified small non-profits as hard to reach customers, and nursing homes and prisons as underserved customers that need dedicated marketing effort in 2013. Through this dedicated marketing effort, the Company will be able to channel these customers to the most appropriate C/I offering.

**Small Non-Profits:** Small non-profit organizations (currently approximately 1,800) have typically been grouped into the small C&I sector and were not studied for their specific energy efficiency savings potential. Given National Grid's commitment to our communities and the non-profit agencies that support the fabric of these communities, we plan to include specific marketing outreach to these non-profit organizations to heighten their awareness of energy efficiency services and initiatives. Existing small non-profits will be targeted by the Direct Install Program.

Our non-profit organization marketing plan will include direct outreach to non-profit organizations supported by the Rhode Island Foundation. Tactics include direct mail outreach, breakfast meeting seminars, support of Rhode Island Foundation functions and a specific campaign targeted at Architects and Engineers who may become involved with new construction and renovation for this market segment. The message will include contacting National Grid as soon as possible when planning to build a new facility or embark on a major renovation to an existing facility. This gives the customer the greatest chance at having a building that is energy efficient as well as giving them the ability to take advantage of the Company's programs. In addition, our internal staff will be trained in how to best address the needs of this audience.

**Nursing Homes:** There are a total of 96 nursing homes in Rhode Island. As was true with the Hospitality segment, the nursing homes will also be targeted in two tiers, based on the size of the facility. Some of the larger nursing homes will be approached by National Grid's Sales and Operations group. These may include some city owned facilities. Electric measures to consider include lighting, VSDs, HVAC, EMS systems, refrigeration, CHP, cooking equipment and motion

sensors. Natural gas measures include: space heating, insulation, controls, ozone laundry, kitchen hood controls, heat recovery from refrigeration, cooking equipment and water heating.

A majority of the nursing homes will fall into the Tier II category. Marketing campaigns will be designed to meet the needs of this audience. Electric measures that will be promoted include lighting, HVAC, refrigeration, cooking equipment and EMS systems. Natural gas measures that will be promoted include cooking equipment, kitchen hood controls, as well as heating, insulation, controls, ozone laundry and water heating.

Those customers who fit the criteria to be served by the Small Business Direct Install Program, with less than 200 kW in demand, will be made aware of that program, if it is in the customer's best interest.

Prisons: There are two prisons in Rhode Island: The prison in Cranston is run by the RI Department of Corrections, while the Donald W. Wyatt Detention Facility in Central Falls is a federal prison. These facilities will be approached by National Grid's Sales and Operations group and will collaborate with the RI PEP team (refer to Municipal section above) to coordinate energy efficiency upgrades for the state prisons. Electric measures to consider include lighting, VSDs, HVAC, CHP, refrigeration, cooking equipment, EMS systems, and motion sensors. Natural gas measures include: space heating, insulation, controls, ozone laundry, kitchen hood controls, heat recovery from refrigeration and water heating. The Company will collaborate with the RI PEP team (refer to Municipal section above) to coordinate energy efficiency upgrades for the state prisons.

## ***Education***

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

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

contractor/installer are able to express or share knowledge about an energy efficient technology, the associated costs and energy savings potential.

Several comments during the 2013 Energy Efficiency Forum (The EE Forum Final Report is included as Attachment 4) highlighted the continued need for education and training.

Training and education is a central component for many of National Grid's C&I Programs and service offerings such as Building Operator Certification Training, Strategic Energy Management Plan, Building Energy Codes & Appliance Standards, Whole Building Assessment and on-going outreach with the Technical Assistance (TA) vendors that provide engineering services for the Company. More detail for these product and service offerings are contained in each section of this document.

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

## ***Affordability and Financing***

One of the most difficult challenges customers face, beyond the assessment of the technical energy efficiency potential in their facilities, is access to capital. The Company recognizes that a critical enabler for customers to invest in deep energy savings in their buildings is access to capital with attractive commercial terms. The up-front cost of an energy efficient project can deter the building owner from making an investment because they are either reluctant to invest their own capital in energy efficient projects, do not have access to capital or they choose to make other high-priority investments with their available funds.

The Company attempts to mitigate this barrier through the use of both incentives and loan mechanisms, as well as through the use of an enhanced on-bill repayment (OBR) capability. This combined approach helps the Company to package integrated energy delivery solutions to the benefit of our customers.

Providing customers with an added incentive to borrow to complete projects by offering zero-interest loans repaid on the utility bill, while not burdening their assets with security interests, and with minimal transactional effort or cost, can convince many customers to move forward. The results of an OBR survey studying this increase in participation indicates that about 45% of C&I customers that did not move forward with projects after receiving an audit would have if this type of OBR financing had been available.

In a financing vehicle that is under development, the Company would potentially provide customers access to third-party funding to both small and large commercial and industrial customers. The Company's objective is to provide financing to C&I customers, at loan terms of 0% interest with on bill-repayment for up to 5 years to finance the non-incentive portion of energy efficiency projects. The intent is to close sales with financially sound C&I customers who



would not have moved forward with these projects otherwise. If terms and conditions of a third party financing program are finalized, the Company intends to review these terms with the Collaborative and stakeholders to explain the costs and customer value proposition of the program.

The Company will not be reducing its prescriptive incentives should it introduce the aforementioned financing program. However, there might be an opportunity to negotiate lower custom incentives if the lower incentive meets a customer's IRR and access to capital within a particular period of time is what the customer is looking for. At present, the Company does not believe that the provision of financing dollars as described above would dramatically lower the cost of the overall program in the short term.

The Company will also be using money flowing back into the Revolving Loan Fund, which includes the repayment of RGGI dollars loaned in the past, to finance electric projects in 2013. Should a third party lender program not be possible in 2013, the Company is also prepared to use money set aside for interest rate reductions in the aforementioned vehicle for financing both electric and gas projects.

## **C&I Energy Efficiency Programs**

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

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

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

### ***Large Commercial and Industrial New Construction Program***

The Large Commercial and Industrial New Construction (NC) Program serves the needs of new construction or major renovation for electric and gas markets including time dependent mechanical and electrical or thermal system replacement. Rhode Island continues to be significantly impacted by the economic recession. In spite of the current economic situation, there continues to be an interest in following “green” practices. Given the interest in “green” practices as well as “rebuilding” the economy, the Company will continue to find ways to market our new construction initiatives to complement these efforts. In 2012, the Company assessed the program’s incentive structure regarding its ability to drive the design community to design better energy performing buildings, as well as new marketing material and technical tools available for design teams. Many recommendations are currently being assessed to improve this offering both for owners and the design team. The Company will work towards implementing the recommendations from this assessment, especially in the areas of process improvements, revised incentive structures, marketing and technical tools for design teams to address the economic recession and promote greater penetration into this NC market.

### **Pathways to Meet Program Requirements**

There are three main pathways customers can use to access high performance equipment and systems to integrate into their building practices.

### **Downstream Prescriptive Path**

The prescriptive pathway is one performance track to follow when the scope and savings opportunities may be smaller in nature. Prescriptive incentives for these systems and equipment have been standardized in terms of incentive level and minimum efficiency criteria. They address specific equipment measures, such as lighting, DHW, compressed air, and HVAC. These incentives are offered to customers on a per unit basis. The Large Commercial and Industrial New Construction Program prescriptive measures and incentive offerings are as follows:

Prescriptive Gas Space and Water Heating: The Company will continue to promote high gas efficiency space and water heating equipment in the Large Commercial and Industrial New Construction Program. Please see the table at the end of this section for a complete list of 2013 eligible measures. Additional measures may be added to the prescriptive offering during the year.

For C&I customers that are converting from oil to gas heat, an instant rebate is available for a select group of high efficiency heating and hot water equipment. These customers do not need to fill out an incentive form to reap the financial benefits of the program.

Prescriptive Commercial Kitchen: The Company now offers a number of both gas and electric energy efficient commercial kitchen equipment incentives including combination ovens, rack ovens, conveyor ovens, fryers, convection ovens, steamers, griddles, dishwashers, hot food holding cabinets, and ice machines.

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

The Company will continue to keep current with changes in the marketplace to encourage customers to install more efficient lighting technologies, while saving energy and improving the visual environment in their buildings.

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

Prescriptive Small HVAC Incentive: The Company continues to participate in Cool Choice, a regional program that focuses on promoting the installation of energy efficient unitary HVAC equipment. As part of the Large Commercial and Industrial New Construction Program, efficiency incentives have been revised to follow CEE's Tier 2 specifications for >5.4 Ton to <63 Ton units. In addition, incentives are also offered for dual enthalpy economizer controls,

demand control ventilation and electronically commutated motors (ECM fan motors) in packaged air conditioners and gas furnaces.

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

### **Custom Express Path**

As part of an effort to keep the program as simple as possible, while providing benefits to customers in a more timely fashion, a hybrid between the prescriptive and custom incentives has been developed. The Custom Express incentive is used when there is reason to require more analysis than just taking an average savings as is done with prescriptive deemed savings measures. One example of that would be if the measure has not been common in the program to establish a prescriptive incentive, or if there is enough variability in installations where more information is needed to determine the savings. As an alternative to the standard custom incentive, the Custom Express is less time consuming. This results in the customer receiving an incentive on a timelier basis. Existing Custom Express measures include: ECM motors, steam traps, compressed air, low pressure filter drop for HVAC unit filters, kitchen hood controls, refrigerated case covers, ultrasonic humidification, and combustion controls for heating systems.

Most of the time the equipment that is included as part of the Custom Express offering, will fall under the Commercial Retrofit Program. However, if the building is new construction, it is possible that the Custom Express path could be used under the Commercial and Industrial New Construction Program.

### **Custom Path**

In addition to the Prescriptive pathway, the Company provides customers the opportunity to achieve deeper and broader savings with the Custom pathway - this is often accessed by customers that wish to investigate more complex HVAC equipment and systems with enhanced engineering investigations. Through this pathway, the use of a cost-effective screening tool determines the value of the EE savings and costs associated with these systems.

Custom incentives are offered to support these investigations and purchases for any qualifying cost-effective efficiency opportunity, based on the unique energy savings and cost criteria of a project. These incentives fall outside the scope of standard prescriptive measures. Custom incentives for Large Commercial and Industrial New Construction projects are designed to cover up to 75% of the incremental cost between standard and premium efficiency equipment, or to buy down the cost of the equipment to the customer to a one-year payback, whichever is less. Incentives may not be applied toward normal maintenance costs and must offset existing or potential energy usage. Project caps may be imposed based on budgetary constraints.

Enhanced Negotiation for Custom C&I Projects in 2013: In order for the Company to achieve goals set forward in this Program Plan, it will be necessary for National Grid to adopt a more flexible customer-focused negotiation process for custom projects, especially large projects with multiple measures. The Company has found that every customer has different requirements to commit to in order to carry out an energy efficiency project, but the Company might not have been as flexible as it needed to be with its offerings. Before 2013 program year, the Company aims to finalize a complete set of internal guidelines for negotiations with customers.

### **Building Operator Certification Training**

In 2013, the Company plans to support Building Operator Certification (BOC) training by holding at least three BOC classes in Rhode Island and Massachusetts. The course provides a core foundation across the various building systems and maintenance practices of a typical commercial building. In addition to the knowledge gained by listening to the instructors and completing both in classroom as well as out of classroom projects, the participants benefit from networking and learning from each others' experiences with building maintenance and energy efficiency. During one of the first classes of the Level I course, a portion of the class includes a presentation of the Company's energy efficiency programs for C&I customers.

In 2013, Levels I and II will be offered, as well as a four-part webinar held four times a year on energy efficient building operation practice. Students can earn continuing education hours by attending the webinars. Both electric and gas energy savings will be claimed by the Company for each Rhode Island National Grid customer that participates in the program. These savings are based on documented studies.

### **Solid State Street Lighting**

During 2012, the Company worked with our Stakeholders to investigate and identify barriers that could hamper implementation of solid state street lighting in National Grid's Rhode Island service area. There are currently approximately 123,000 National Grid owned street lights in Rhode Island. The Company's street light tariffs currently offer High Pressure Sodium discharge or Metal Halide luminaires for new installations under the S06 and S14. There may be other types of lamp sources that exist in the field and are billed under one of the closed offerings on the tariffs.

A benefit cost analysis needs to be calculated before it can be determined whether or not this initiative should be added to the energy efficiency plan.

Before tariff issues can be addressed, the Company needs to identify which solid state products will be specified, (after screening for cost-effectiveness and compatibility with our infrastructure) purchased and installed. The National Grid Outdoor Lighting group is involved with a Company-wide study at Clarkson University in New York to help identify power quality

issues with Solid State Lighting on the National Grid system. This study is scheduled for completion by early 2013. Once the results of that study are finalized, the Company can make recommendations on specific products to purchase. It is the Company's intention to combine the needs of other National Grid service areas as part of an RFP to take advantage of volume pricing for solid state street lighting.

Some inroads have been made in 2012 with municipal owned decorative street lights that are metered. In East Greenwich, as part of the Climate Showcase Community Project being done in conjunction with National Grid and URI, solid state street lighting is being installed on some downtown streets. These are metered lights and the new lights are on the Design Lights Consortium list and entitled to a National Grid incentive.

As of July, 2012, DOT was working on a proposal to replace 400-watt HPS metered lights on Route 95 between Exits 1 and 4 with 200-watt LEDs. DOT plans to obtain a grant to fund replacement of 100 metered lights. Any SSL lighting installations currently taking place are to be metered. Both of these examples are metered and are billed under the Small Commercial C06 tariff for metered usage. They are not billed on the Street lighting tariffs.

### **Products Through Upstream**

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

#### **Upstream Lighting ("Bright Opportunities Rhode Island")**

In the 2012 program year the Company has seen significant energy savings working with electrical supply houses selling energy efficient replacement lamps in Rhode Island. On February 1, 2012 the Company launched its Upstream Lighting Initiative officially titled "Bright Opportunities Rhode Island." At its start, the initiative offered four types of directional LED lamps. As of April 1, 2012 the initiative was expanded to offer nine types of LED replacement lamps and four types of reduced wattage linear fluorescent lamps. The Company has received feedback from many customers that they prefer this delivery channel to a more traditional application based process, as it is faster and requires less initial capital outlay.

The Company believes that up to 30% of the market in Rhode Island will be converted to LED by the end of 2013. The Company plans to build on this success in 2013 and believes that market will be substantially converted, 90+ percent by the end of 2014 Program Year.

### **Additional Product/Technology Types**

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

- 1) A third-party list which provides a benchmark for quality and durability such as Energy Star or another nationally recognized list; and
- 2) Situations where the distributor functions as a trusted advisor or the last party to “touch” the product before installation. It is critical that the representative have and maintain good relationship with the manufacturer in order to gain price concessions or faster shipping times.

### **Upstream HVAC**

In September 2012, the Company will issue a joint RFP with Massachusetts Program Administrators (under the “Mass Save” umbrella) for a company to run an initiative that will allow us to upstream Unitary HVAC and Heat Pumps up to 25 tons. Larger units would be processed through the traditional prescriptive method. The Company expects the selection could be made as early as November 1, 2012. We expect this initiative will be active early in Q1 2013.

The Company will also be working hand-in-hand with Massachusetts Program Administrators to speak to the largest five manufacturers to make sure that 1) they are aware and supportive of the initiative; and 2) they do what they can to “sharpen their pencils” and give their distributors serving Massachusetts and Rhode Island the best prices on this class of equipment in order to ensure that the initiative can serve as many customers possible.

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

### **Upstream Measures Unique to Rhode Island**

In addition, the Company plans to go upstream with the following products or measures independently of the Massachusetts Program Administrators. The Company intends to use the current Upstream/Bright Opportunities Rhode Island vendor Ecova Inc. to accomplish this.

- All commercial electric kitchen equipment that is currently listed on 2012 prescriptive forms.
- All commercial gas kitchen equipment that is currently listed on 2012 prescriptive forms.

The Company is also committed to investigating, in the 2013 Program Year, whether or not Upstream is the appropriate channel for private office LED under cabinet lighting, smart strips,

and vending misers. The Company will also evaluate refrigeration measures, such as compressors, and their potential role in the Upstream initiative.

If time and resources allow, the Company may also evaluate gas heating and water heating equipment as potential Upstream measures.

### **Compressed Air**

A recent study commissioned by National Grid and completed by Point380 has indicated that there are still significant savings to be found in compressed air.

The Company has been discussing the concept of a Compressed Air initiative with a vendor that has run, what we believe to be, a successful compressed air initiative for a major California utility. As of the writing of this plan, the Company is the process of verifying this success and the applicability of the program structure to the state of Rhode Island.

The Company will be working with two external compressed air experts as soon as all applicable requisite information has been gleaned from our California utility contact.

If all indicators are positive it is the Company's desire to issue an RFP in Q4 2012.

### **Building Energy Code and Appliance Standards**

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

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

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

The four potential paths are:

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



2. Appliance standards development and advocacy: This will entail the selection of three to four appliances to pursue as higher efficiency products, to develop technical specifications for, and to advocate at the state, regional, or the federal level.
3. Development of voluntary “stretch” code: The Stretch Code Initiative will save energy by assisting the state in developing the next generation of the stretch code, which will save approximately 15-20% more energy than buildings constructed according to the concurrent base IECC 2009 code. Additionally, the C&S program may conduct advocacy by encouraging communities to voluntarily choose higher energy saving code options (i.e. the stretch code).
4. Base (IECC) code advocacy: This includes targeted advocacy initiatives to improve building energy efficiency regulations specific to Rhode Island code amendments.

The “code compliance support,” a specific activity that the Company plans to pursue in 2013 is described in detail below. There will be associated energy savings attributable to the Company for improving Rhode Island buildings’ code compliance levels. Groundwork for the development of appliance standards and voluntary stretch code will also begin in 2013, though savings for these tasks will not be realized until 2014 or beyond.

Code Compliance Support: The extent of this task will support both residential and commercial buildings that are required to comply with the applicable code (mostly new construction, major renovations, and retrofits/additions).

Recently completed code compliance studies for both commercial<sup>1</sup> and residential<sup>2</sup> buildings, sponsored by the Company, and co-funded by the State of Rhode Island, have highlighted the importance of energy code compliance assistance needed in both the building inspection community and the design community. The commercial code study for example found that for vintage 2008-2011 buildings, commercial and industrial new construction was 70% compliant with the energy code. In other words, 30% of commercial energy savings were being lost. The theory behind code compliance support is that it will help capture efficiency opportunities that can be lost if projects are not 100% in compliance with the prevailing code. As codes become increasingly stringent, the construction community is struggling to interpret requirements and to comply with codes. Energy code compliance is an important and necessary first step of the C&S Initiative, as increasing compliance with the code is how energy savings will be first realized.

Implementation Proposal: Based on the findings of the code compliance studies, as well as the Company’s internal planning in collaboration with the Northeast Energy Efficiency Partnership (NEEP) and the RI Code Commission, the following tasks are proposed for 2013:

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<sup>1</sup> Rhode Island Energy Code Compliance Baseline Study by DNV KEMA, Energy & Resource Solutions and APPRISE

<sup>2</sup> Rhode Island 2011 Baseline Study of Single-family Residential New Construction Draft Report, Study by NMR Group, Inc. KEMA, Inc. , The Cadmus Group, Inc., Dorothy Conant

1. **Trainings:** The Company will identify third-party vendors to deliver combinations of classroom style trainings, location-based training that is geographically dispersed around the state, and accessible Web-based trainings. In addition, focus group training sessions will be conducted that are targeted towards the building envelope, HVAC, and electrical sections of the code, and also on the use of compliance software (possibly even energy modeling software). Training and outreach efforts will be developed and delivered separately for residential and commercial markets. The Company will also sponsor on-site demonstration type trainings, as these are an excellent bridge between the code requirements, classroom lessons and on-the-job-site realities.
2. **Technical Assistance Energy Code Circuit Riders:** The Company proposes Energy Code Circuit Riders (Circuit Riders) as the providers of technical assistance for all Rhode Islanders. The roles of Circuit Riders are: to act as consultants on energy codes and energy efficient building design and practice; to interpret and explain code administrative requirements; and to be a go-between between participating market actors and Rhode Island's code officials. The goal of Circuit Riders would be to clarify any confusion or misunderstanding that building design and construction professionals may have about energy codes, and to ultimately support their efforts to better understand and execute code compliant building designs. The Company proposes support for at least five Circuit Riders (either individuals or firms) who will serve all the five counties in Rhode Island. They will serve as an extension of the building department staff and provide technical assistance to project teams as need arises within building departments.
3. **Support for third-party inspections:** In 2012, and in collaboration with NEEP, the Company assisted the Rhode Island Code Commission in incorporating legislative provision for optional/voluntary third-party inspections of the building energy code, both for residential and commercial buildings. If the State establishes this provision in 2013, the Company will support the development and implementation of technical and administrative training for any professional who wishes to become a third party inspector. Note that these trainings are distinctly separate from the trainings described above. Other states have succeeded in training and utilizing Home Energy Rating System (HERS) raters for the residential sector for both residential energy code compliance assistance and the verification of incentive-based program measures. This initiative will investigate the opportunities available to provide support for similar activities in Rhode Island.
4. **Documentation Tools:** Much of the confusion regarding code compliance occurs in the lack of standardization of acceptable levels of documentation at the time of building permitting. A more consistent expectation of documentation and formatting requirements will allow designers and builders to more effectively communicate with plan reviewers and inspectors on how specific projects can comply with codes. The Company will develop and support consistent documentation tools such as builder manuals, software tools, checklists, and code check protocols for adoption by jurisdictions as a means of compliance enhancement.

**Projected Energy Savings:** The Company proposes that a deemed value of savings for the C&S Initiative be adopted for 2013. The Code Compliance Support initiative has two distinct energy savings estimates, one each for commercial and residential buildings. Those savings estimates are noted in Table 1 (commercial) and Table 2 (residential) that shows projected savings for the entire state in the next four years (a time range estimated to bring about compliance rate of 90% for RI building stock), with cumulative savings every year starting with 2013. The new code, IECC 2012, is planned for adoption in October 2013. The expectation is that project savings for this code cycle will be realized in the following 3 years (2014 to 2016), as projects seek building permits under the current code. The savings for 2013 reflect the following: small percentage of buildings that fall under the new code, development of infrastructure (tools etc) to get the community ready for the new code and training and education to the enforcement and building community. Savings numbers for 2014-2016 in Tables 1 and 2 below are provided to give a long-term perspective to the code compliance initiative. Actual savings for 2014-2016 will be finalized in subsequent years.

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

**Attribution to Utility Effort:** Upon the calculation of the gross savings, the next step is to determine how much of the savings achieved through the initiative can be attributed to the actions and efforts of the Company (i.e., excluding other factors such as normally occurring market transformation and efforts carried out by the state of Rhode Island independent of the Company's support). Agreeing to a reasonable pre-determined attribution factor provides the Company with an indication of how much value its code compliance efforts will yield. The Company proposes an attribution rate of 40% supported by a set of self-met conditions (see tables 1, 2 for savings, and Table 3 for list of conditions).

Towards the end of 2012 and beginning in 2013, the Company proposes to establish a "Codes/Standards working group". The working group, managed by a dedicated National Grid representative, may include representatives from the EERMC, Office of Energy Resources, Rhode Island code commission and Northeast Energy Efficiency Partnerships. The mission of this working group would be as follows:

- Provide oversight to the Codes/Standards Initiative at large
- Create a more accurate list of activities that need to be tracked in 2013, such as a certain number of trainings delivered etc
- Create a list of tracking and performance metrics for each of the activities above

- Re-Calibrate and adjust current savings and attribution rates if needed, supported by analysis and methodology
- Establish a methodology for attribution rate for subsequent years

Tables 1 and 2 also indicate the energy savings potential for the Company based on an attribution rate of 40%. Both tables show that a small percentage of savings are allotted for 2013 (733 MWh and 17,084 Therms for Commercial sector; 130 MWh and 2,971 Therms for residential sector), going up in subsequent years, leading to cumulative four years savings of 13,186 MWh & 307,518 Therms for C/I; 2,337 MWh & 53,305 Therms for Residential. Table 3 lists potential activities in 2013 that could contribute to the energy savings and may comprise the aforementioned set of self-met conditions. Each activity is weighted and if 100% of all activities are met, the 40% attribution rate is applicable. If less than 100% of activities are met in 2013, there will be an incremental reduction in the pre-determined 40% attribution rate.

**Table 1: Estimated Four Years Energy Savings Potential for Commercial Building Code Compliance Support**

<u><b>Code Compliance Savings With 90% Compliance (Total for Entire State)</b></u>						
	2013	2014	2015	2016	4-year Cumulative savings	2013 Savings as % of C/I Electric/Gas Goal
Electric Savings (MWh)	1,831	3,663	10,988	16,482	32,964	1.8%
Gas Savings (Therms)	42,711	85,422	256,265	384,398	768,795	2.5%
<u><b>Code Compliance Support (With 40% Attribution)</b></u>						
Electric Savings (MWh)	733	1,465	4,395	6,593	13,186	0.7%
Gas Savings (Therms)	17,084	34,169	102,506	153,759	307,518	1.0%

**Table 2: Estimated Four Years Energy Savings Potential for Residential Building Code Compliance Support**

<u><b>Code Compliance Savings With 90% Compliance (Total for Entire State)</b></u>						
	2013	2014	2015	2016	4-year Cumulative savings	2013 Savings as % of Residential Electric/Gas Goal
Electric Savings (MWh)	326	651	1,934	2,931	5,842	0.5%
Gas Savings (Therms)	7,428	14,856	44,123	66,854	133,261	0.6%
<u><b>Code Compliance Support (With 40% Attribution)</b></u>						
Electric Savings (MWh)	130	260	774	1,172	2,337	0.2%
Gas Savings (Therms)	2,971	5,942	17,649	26,741	53,305	0.3%

**Table 3: Potential activities in 2013 contributing to the energy savings for the Company**

TASKS	Number of Activities		Weightage
	Residential	Commercial	
<b>1. TRAININGS</b>			
Classroom Trainings	6	6	
Webinars	6	6	
Focus group trainings	6	6	
On-site Demonstrations	3	3	
Total			35%
<b>2. CIRCUIT RIDER TECH. ASSISTANCE (individuals/firms)</b>	2	3	30%
<b>3. 3rd PARTY INSPECTION SUPPORT</b>	5	4	20%
<b>4. DOCUMENTATION TOOLS</b>	N/a	N/a	15%
<b>TOTAL</b>			<b>100%</b>

**Future Evaluation:** Although the Company has developed the rough estimates of the potential savings from the C&S Initiative, qualitative as well as quantitative research will be planned in 2015 and 2016 to evaluate both the efforts and results of the Initiative. For energy code compliance, the compliance rate after the two years of the initiative will be measured using the same techniques that were used in the baseline compliance study, using the best available information and data. Future evaluations will also study the attribution factor.

### **Office of the Future (OTF)**

The Office of the Future (OTF) soft launch is designed as real-market, concept testing of the OTF initiative with a small select group of customers. The OTF is being designed to enable owners to utilize it to enhance their tenant improvement offering and will incorporate the latest, economically energy saving lighting technologies to gain competitive advantage for these customers over their peers. The OTF team will provide support during all phases to ensure that the incentives are maximized, the design meets OTF requirements and that the overall project is successful. In order to translate the outcome of the OTF soft launch into a viable utility program, the Company will determine characteristics of an OTF design, energy savings and incremental costs of advanced lighting elements for such Tenant Improvement space, and then accordingly design an incentive offering based on the analysis of this soft launch. The focus of this initiative initially will be on lighting and lighting controls, but will expand to HVAC and plug loads in future years.

The Company is currently in discussions with several commercial property owners to implement up to two to four projects which will guide efforts going forward. An external project manager and consultant team were hired in 4<sup>th</sup> quarter of 2011 and are continuing to develop the soft launch of this initiative. With buy-in from property owners, implementation will be targeted for 2013. Within 2013, based on measured data collected from the test sites, the Company will develop technical guidelines for lighting and lighting controls; and an incentive structure to support this high performance design. In subsequent years, a dedicated market sector approach

for tenant improvement spaces will be considered within the energy efficiency program offerings.

### **Commissioning**

To ensure that energy savings projects are installed and operated as designed, the Company will continue to provide commissioning service in 2013 as in previous Program Years. This service will continue to be served by independent third-party vendors for verification of complex building systems, such as HVAC projects involving energy management systems or other controls, are properly installed and operating as designed. National Grid requires all projects which receive an incentive over \$100,000 to be commissioned. Commissioning is also promoted for any projects where the savings are dependent on control measures or operational improvements. Typically National Grid provides these services at no cost.

### **Advanced Buildings ‘Core’ Performance**

Advanced Buildings-Core Performance is a comprehensive, prescriptive program for small commercial new construction built around delivering the New Building Institute’s national Advanced Buildings (AB) Program.

The Advanced Buildings-Core Performance Guide applies proven and available energy efficient technology and building science to the design of commercial and institutional buildings in the 10,000–100,000 square foot range. The Core Performance criteria address better performance characteristics in the building envelope, dedicated mechanical heating, cooling and lighting systems, multiple demand control ventilation practices, indoor air quality improvements, and domestic hot water system efficiency. In Rhode Island, application of all Core Performance criteria will result in buildings with energy savings that exceed the Rhode Island Energy Code by 20-30 percent. The Core Performance model is best applied in small office, retail, public assembly, and school/preschool applications. (The benefits diminish in lodging, large multi-family and assisted living circumstances.). Currently, the AB technical specifications are being revised at the national level through the leadership of New Building Institute. Once the package is ready, the Company will formulate supporting incentives and materials to launch the new AB guidelines to the owners and design community, supported by trainings.

The Company may provide: technical assistance consultants to assist customer design teams to incorporate all the Core Performance features in their buildings, incentives (presented to the customer in easy-to-comprehend \$ per square foot (sq ft) terms, and possibly to the design team), independent third party verification of Core Performance compliance, and recognition via certification of the building as an “Advanced Building” as well as ancillary publicity as jointly agreed to by the Company and the client.

## ***Large Commercial Retrofit Program***

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

### **Pathways to Meet Program Requirements**

As with the Large Commercial and Industrial New Construction Program, three paths are available to customers and are described below.

#### **Prescriptive Path**

Prescriptive incentives are available for the Large Commercial Retrofit Program for some of the more commonly installed applications. Standard incentive levels are offered.

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

**Gas Heating Controls:** In addition to offering single and multi-stage boiler outdoor temperature reset controls and 7 day programmable thermostats, the Company will research the possibility of offering Wi-Fi controlled thermostats as a prescriptive offering in 2013.

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

**Steam Traps:** Steam trap replacement incentives will be offered both as a prescriptive and custom measure in 2013. Prescriptive incentives will be available for up to 70 steam traps per customer. Customers interested in replacing up to 70 steam traps are welcome to participate in a cost shared steam trap survey. If the customer is planning to replace more than 70 steam traps, the steam trap survey will be required before participation in the custom incentive takes place. This survey identifies all traps and steam system improvements at the customer site. The customer is eligible to have 50% of the cost shared with the Company, initially. If the customer commits to replacing at least 50% of the identified measures from the survey, they will receive up to 100% of survey costs.

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

Energy Management System (EMS): In 2013, the Company will continue promoting the installation and expansion of Energy Management Systems (EMS) in the Large Commercial Retrofit Program. EMS systems enable energy conserving strategies for HVAC equipment including 7-day scheduling, optimal start/stop, night setback, DDC temperature control, chilled water reset, hotel room occupancy controls and enthalpy economizer.

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

#### **Custom Express Path**

As with the Large Commercial and Industrial New Construction Program, the Large Commercial Retrofit Program also has a Custom Express offering. This is provided as part of an effort to simplify the application process for customers for measures that were previously implemented under Custom. Some examples of Custom Express measures for the Large Commercial Retrofit Program include:

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

In addition, the following measures are currently under review as Custom Express:

- EMS Systems (also prescriptive)
- Multiple Chillers/Chilled Water Plant Systems



### **Custom Path**

Custom incentives to drive the purchase of high performance equipment and systems are available for this program for projects outside the scope of standard prescriptive equipment. These incentives are designed to cover up to 50% of the total project cost to move to premium efficiency projects including labor and equipment, or to buy down the cost of equipment to the customer to a one-year payback, which ever is less. Some custom measures which will receive specialized marketing attention in 2013 include combustion controls and ozone laundry.

The ability to negotiate custom incentive levels and TA costs for some of the largest customers will also be available for the Large Commercial Retrofit Program.

### **Strategic Energy Management Plan (SEMP)**

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

In 2012, the Company focused on establishing MOU agreements with two universities, and is pursuing the development of the SEMF initiative in collaboration with these customers. The Company will continue to sign MOU agreements with at least two more large customers, potentially one hospital and an industrial customer.

### **Whole Building Assessment**

The Whole Building Assessment (WBA) Initiative that targets cities and towns and other customer segments with enhanced energy savings strategies. The WBA Initiative provides benchmarking, scoping studies and incentives to support high performance practices in municipal facilities. The initiative is being enhanced to include a long-term plan, integrating both fuels and includes an education component of occupants, as well as serving as a point of entry for municipalities to secure incentives as a driver to better building practices. This has

been a great tool for municipals and other C&I customers in the past. However, this initiative needs continuous momentum to result in more customer participation and associated savings, and a better method to identify performance targets or defined savings goals.

As a result, going forward in 2013, the Company will roll the WBA services to each of the market sectors, as support service. Through market segmentation, the WBA services can be better targeted to serve the needs of that particular market sector. Customers that are currently enrolled in the 2012 WBA will continue to receive the WBA services until these services get rolled in to the individual market sectors.

### **Retro-commissioning**

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

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

### **Community Based Initiative - C&I**

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

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

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

One possible location for employee and/or community engagement is the Newport Naval Station. National Grid is in the process of exploring a potential partnership with the Navy at Newport, as part of National Grid's E-Zone Initiative, which seeks to develop innovative, customer-driven solutions that can be scaled for customers and communities beyond the boundaries of the E-Zone.

### **Combined Heat and Power**

A combined heat and power (CHP) facility is "equipment used to produce electric energy and forms of useful thermal energy (such as heat or steam), used for industrial, commercial, heating, or cooling purposes, through the sequential use of energy."<sup>3</sup>

On June 21, 2012, an amendment to the Least Cost Procurement Statute, R.I.G.L. §39-1-27.7, to support the installation and investment in clean and efficient CHP was signed into law.<sup>4</sup> The new CHP provision requires the Company to document this support annually in its energy efficiency program plan by including a plan for identifying and recruiting qualified CHP projects, incentive levels, contract terms and guidelines, and achievable megawatt targets.<sup>5</sup> In addition, the law requires that the following criteria be factored into the Company's CHP plan: (i) economic development benefits in Rhode Island; (ii) energy and cost savings for customers; (iii) energy supply costs; (iv) greenhouse gas emissions standards and air quality benefits; and (v) system reliability benefits.<sup>6</sup>

For 2013, the Company will continue to offer a Combined Heat and Power (CHP) incentive. In 2013, the Company's emphasis will be on increasing the support for qualifying efficient CHP projects through the energy efficiency programs, as intended by the legislation. The 2008 Combined Heat and Power Opportunities Report estimated that there is potential for 200 to 330 cost-effective MW of CHP in Rhode Island.<sup>7</sup> Because of the high capital cost and technical requirements of installing CHP, there is a very long lead time for a successful installation. With small numbers of projects and wide ranges of possible project sizes, the Company anticipates substantial variability in MW realized in any given year. The Company believes that a project target may be more appropriate than an annual kW target, as the capacity of the systems will depend on customer interest in any given year. For 2013, the Company has set a goal of two installations with a total target of 150 kW in Rhode Island and commitment to at least two additional projects for future years.

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

- Host customers must be in the franchise service area of the Company.

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<sup>3</sup> CFR Title 18, Part 292, Sub-Part A, 292.101 – Definitions

<sup>4</sup> See R.I.G.L. § 39-1-27.7(c)(6)(ii) through (iv); For the legislative history, see P.L. 2012, Ch. 363, S2792 Sub A (Enacted June 21, 2012).

<sup>5</sup> See R.I.G.L. § 39-1-27.7(c)(6)(iii).

<sup>6</sup> See *Id.*

<sup>7</sup> "Opportunity Report – Phase I," Rhode Island Energy Efficiency and Resources Management Council (EERMC), July 15, 2008

- Proposed systems must either be (i) thermal leading and sized so the recoverable heat can be used to offset other facility thermal loads and generate electricity as a by-product, or (ii) using waste energy or waste heat to generate electricity.
- The overall minimum total system efficiency of the proposed CHP units must be 55% or greater<sup>8</sup>. System efficiency is calculated as Annual Useful Energy/Annual Gas Input where
  - Annual useful energy = Annual kWh\*3,413/100,000 + utilized thermal output (therms)
  - Annual gas input CHP gas input in therms (HHV)
- The equipment to generate electricity may be an internal combustion engine, gas turbine engine, steam turbine, back pressure turbine, or fuel cell and the facility will capture waste heat for use in the facility; waste to energy systems will also qualify.

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

#### Identification and Recruitment of Qualified CHP Projects

The Company currently works with vendors and customers to identify CHP opportunities at customer locations. The Company intends to broaden its dissemination of information about CHP through a CHP information session for customers and vendors in 2013. This session will promote CHP systems and outline the process for qualification and implementation of CHP facilities through the Company's energy efficiency programs. This information session will build on the successful CHP Public Meeting conducted by the EERMC on September 20, 2012. The Company will also communicate criteria for CHP assessment and communicate it to vendors so that their presentations to customers will be more consistent with Company technical assistance requirements. The Company will consider pre-qualifying vendors that demonstrate consistent ability to meet the Company's study requirements.

#### Scoping Study/Qualification

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

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

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<sup>8</sup> The RI DEM's Air Quality Regulations ([http://www.dem.ri.gov/pubs/regs/regs/air/air43\\_12.pdf](http://www.dem.ri.gov/pubs/regs/regs/air/air43_12.pdf); Page 11) set a minimum system design efficiency of 55% for CHP to be eligible to apply for Emission Credits. As noted in the Incentive Levels section below, a higher energy efficiency incentive is available for systems with efficiencies of 60% or greater.

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

#### Technical Assistance Study

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

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

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

#### Benefit Cost Screening

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

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<sup>9</sup> With traditional energy efficiency projects, the installed measures permanently reduce load on the electric distribution system and, therefore, reduce the need to make distribution investments. CHP projects may not result in similar deferred distribution investment savings. A CHP unit may not be available at all peak times, and, absent any contractual or mechanical modification to ensure that the load does not reappear, the Company will still need to design and maintain the distribution system for when that unit goes off line during a peak hour on a peak day. This is particularly significant with larger CHP projects, in which a single host customer represents a significant percentage of the total load on a feeder. With multiple smaller units, some level of savings is possible, but these units are still not likely to produce distribution benefits in the same manner as traditional energy efficiency.

quantification of benefits for CHP projects within the TRC test in order to facilitate the development of these projects, and that takes into account the statutory criteria as follows<sup>10</sup>:

- For CHP systems of less than 1 MW net capacity, the distribution deferral benefit value estimated by the Company based on system wide averages will be multiplied by 0.75 to incorporate an estimate of the reliability experience of discrete deployment of CHP units compared with end-use reduction efficiency measures which are spread across the state;<sup>11</sup>
- For CHP systems equal to or greater than 1 MW net capacity, the distribution benefit will consider location-specific distribution benefits, as opposed to average system-wide benefits. The results of this analysis will replace the adjusted 0.75 of average system-wide distribution benefit described for CHP projects of less than 1 MW. This may entail a detailed engineering analysis performed by the Company, and additional cost. This consideration will have two parts: 1) identification of foreseeable investments that the CHP installation could potentially help defer, and their value; and 2) whether the unit will be sufficiently reliable, or firmed through the provision of physical assurance by the customer, to enable such savings to be realized;
- For all CHP projects, greenhouse gas mitigation and air quality benefits will be counted as benefits to the extent they are not already captured in the BCR screening values. The environmental/emissions related health costs and benefits will be estimated using methods that are accepted nationally, such as the Co-benefits Risk Assessment (COBRA) Screening Model presented by the U.S. EPA for such purposes. The following table illustrates the benefits on a per ton basis resulting from the mitigation of several pollutants by Rhode Island county;

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<sup>10</sup> The air quality benefit and economic development benefit proposed for CHP systems are supplements to the benefits described for the Total Resource Cost benefit-cost test approved by the Commission in Dockets 3931 and 4202.

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

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

County	Pollutant				
	Volatile Organic Compounds	NOX	SO2	CO2	Particulate Matter
Bristol	\$1,778	\$0	\$11,191	\$0	\$23,078
Kent	\$3,789	\$0	\$8,437	\$0	\$115,566
Newport	\$2,141	\$0	\$3,994	\$0	\$82,192
Providence	\$3,678	\$0	\$9,984	\$0	\$129,226
Washington	\$1,762	\$0	\$3,486	\$0	\$53,422

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

- For all CHP projects, net economic development benefits will be counted as benefits. The rate of economic development benefit will be \$2.79 of lifetime gross state product increase per dollar of program investment, based on updated outputs of the report, “Energy Efficiency in Rhode Island: Engine of Economic Growth,” prepared by Environment Northeast in October 2009, using recent energy and investment values<sup>12</sup> ; and
- For CHP projects greater of 1 net MW or greater, gas system benefits not paid out as incentives to the Customer via the AGT incentive or gas service contract terms will be counted as benefits.<sup>13</sup>

The Company believes that there are important policy considerations for screening all CHP projects in this manner. Making these modifications to the quantification of benefits for CHP projects will facilitate the development of CHP projects in Rhode Island that is consistent with the legislature’s intent to install and invest in clean and efficient CHP.

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

#### Incentive Levels

If a project has been shown to be cost effective, it will be eligible for an incentive. Incentives will be determined following cost effectiveness screening in consultation with National Grid personnel. The following rules will apply to all CHP projects (regardless of size) in the

<sup>12</sup> “Energy Efficiency in Rhode Island: Engine of Economic Growth,” prepared by Environment Northeast, October 2009. The multiplier cited is an approximation adapted from the energy efficiency multiplier presented in the report. The report does not differentiate between job creation and job retention benefits. The Company will attempt to assess whether these benefits can be disaggregated for the purposes of inclusion in the benefit cost test.

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

determination of the incentive. However, the amount of incentive the Company is willing to offer and commit to the customer could depend upon the amount of funds that are budgeted or remaining in the budget of the energy efficiency program.

- For cost effective CHP projects, the target energy efficiency installation incentive ("installation incentive") in 2013 is \$900 per net kW, where net is nameplate kW output minus CHP auxiliary kW. For CHP projects with efficiencies of 60% or greater, the target installation incentive in 2013 is \$1,000 per net kW.
- For cost effective CHP projects where the host customer also commits to implementing energy efficiency measures representing at least 5% of site energy use or the maximum load reduction identified by a TA Study, whichever is less,<sup>14</sup> the maximum installation incentive in 2013 is up to \$1,125 per net kW, and the CHP sizing must incorporate the load reduction. For CHP projects with efficiencies of 60% or greater and that have similar energy efficiency participation, the maximum installation incentive in 2013 is up to \$1,250 per net kW. A customer may be treated as having made this commitment to energy efficiency if it has made investments to achieve similar load reductions through energy efficiency within the previous five years.
- All CHP projects are also eligible to receive other incentives, such as the Advanced Gas Technology (AGT) incentive, subject to the incentive package cap described below.
- CHP facilities greater than 1 net MW may be offered an additional performance incentive, as further provided in the section entitled "Special Considerations for Large CHP Systems," below.
- The CHP incentive package cap from the Company will be 70% of the total project cost inclusive of the installation incentive, incentives related to gas service, present value of any performance incentive, system reliability procurement incentive, and any other incentives related to the transaction.
- Retainage of 20% of the energy efficiency incentive payment will be held until commissioning is completed.

#### Other Contract Terms and Guidelines

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

- Minimum requirements document. As part of the TA study, a minimum requirements document ("MRD") will be developed. This MRD will contain engineering hardware and operational specifications that directly affect the savings estimates developed in the TA study. Compliance with the MRD will be necessary to receive rebate payments.

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



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

#### Tariff Considerations for Distribution Charges Associated with CHP Installations

Customers receiving an incentive payment for installation of CHP will be billed for delivery service charges on the appropriate general service tariff. Accordingly, the Company will modify its existing general service tariffs, Rates G-02, G-32 and G-62, to address some of the consequences of CHP installations that receive an energy efficiency incentive pursuant to this Plan.<sup>15</sup> These tariffs will be modified so that host customers of CHP units will pay the greater of

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

The reduction in distribution payments made by the host customer is ultimately assumed by other customers in the same rate class following the next general rate case. In the case of a large CHP installation greater than 1 MW, this impact would be a material increase in rates for other customers. For example, consider a customer in the G-62 rate class that installs 3 MW of CHP generation. As a result, the customer reduces its annual distribution charges by approximately \$96,000 under the current back-up rate, or 1.5 percent of the revenue needed to serve the G-62 class. Since the total cost to serve the G-62 class does not change, the other 10 customers in that class would eventually see a 1.5% increase in their distribution rates to compensate for the lost revenue contribution of the CHP host customer. Each 3 MW unit would have a similar impact. Absent a tariff change to address this revenue shift, the result is an inequitable cross-subsidization by other customers in the same rate class, as the customer saving on distribution costs still requires services and infrastructure in order to serve their needs.

(i) the customer's distribution demand and energy charges under the provision of the applicable general service tariff; or (ii) a minimum charge. The minimum charge will be 50% of the distribution demand charges applied to the customer's maximum generation during peak hours plus delivered load charges and monthly customer charge. Note that the Company's general service tariffs contain a "demand ratchet" provision such that the customer's monthly demand charge billing is based upon the greater of the customer's demand in the current month or 75% of the customer's maximum demand in the preceding 11 months. Therefore, if the CHP unit were to go off line during peak hours in any billing period, the general rates would require the customer to pay the full demand charge for that month based on the metered level of service, and then 75% of that amount for the next 11 months. The Company is submitting revised tariffs with its Energy Efficiency Program Plan for 2013 for the Commission's approval to reflect these modifications.

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

This rate treatment will mitigate the cross-subsidies from other customers in the same rate class. The Company believes it is very important to assure that a customer who is receiving incentives through the energy efficiency program continues to pay a fair share of the costs of the distribution system upon which the customer will continue to rely when the CHP unit is off-line.

#### Special Considerations for Large CHP Projects

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

##### *Qualification:*

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

##### *Incentive and additional terms and conditions:*

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

An additional performance-based energy efficiency incentive, capped at \$20/kW-year (\$1.66/kW-month) for a period of up to ten years, will be offered as part of the incentive

package for any project greater than 1 net MW. No payments will be made until the unit is in operation and provides demonstrated load reduction, and will be made semi-annually based on actual metered load reduction. Load reduction performance will be based on a comparison of the customer's metered demand prior to CHP installation to monthly metered demand after the installation averaged for the year.

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

The customer will have to repay a portion of the incentive to the Company if the project is abandoned within 10 years from the date of final incentive payment authorization. The repayment will be the energy efficiency installation incentive times the number of years remaining until the required ten years of service divided by ten.

#### Options for CHP proposal that fails cost effectiveness testing

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

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

## ***Small Business Direct Install Program***

### **Overview**

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

There is no upper limit of gas consumption that disqualifies a customer from receiving the gas measures offered by the SMB/DI program. However, larger and more complicated measures not offered by the DI vendor may need to go through the New Construction or Retrofit Programs.

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

Customers are provided turnkey services consisting of:

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

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

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

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

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

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

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

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

- Identify twelve towns that have been under-served based on analysis of overall program participation rates.
- Conduct a marketing campaign promoting the "Main Street" approach in which auditors will spend several days conducting audits and promoting the Small Business Program.
- Seek support from local organizations such as the Chamber of Commerce and local town officials in promoting the Company's energy efficiency program in two of these towns and then analyze participation rates to determine the impact of these efforts.

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

## Program Changes

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

In 2013 the SMB/DI program will remove the requirement that small business customers consume less than 483,000 kWh per year. The only requirement is average monthly demand of less than 200 kW. This will allow the RPA access to a pool of customers it was never allowed access to before. The Company believes that this group of customers may have been underserved by the traditional large business program.

The Company has carved out two areas that have traditionally been served by the SMB/DI Program that we feel are better served by other parts of our organization. As of January 1, 2013 National Accounts under 200 kW demand will be served by our National Accounts staff, as decisions on lighting layout and products are frequently decided on a regional or national level and not by store management. In addition, municipal buildings (including K-12 schools) will be served by a select group of Project Expeditors with a mandate to deliver deeper savings in these buildings. More information can be found in the previous section of this document "Municipal Sector".

The Company will issue two RFPs in Q3 of 2012 related to the Small Business Direct Install program -

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

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

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

Selections will be made no later than early Q1 2013. The selected vendors will be expected to be up and running by March 31, 2013. The Company reserves the right to select one vendor for

both the turnkey and Customer Directed Option (with enhanced and dedicated resources) if this option yields the most savings, for both electric and gas, and is best for our customers.

The Company selected the time frame above to insure that the system and the current vendor delivers the greatest possible savings in 2013.

#### **Increased role for National Resource Management (NRM)**

The Company believes that NRM can play a greater role in generating savings in the 2013 program year. Currently, NRM works along side the current SMB/DI vendor to provide small businesses with refrigeration and lighting savings. An increased scope of work is being developed in Q4 2012 along with a commensurate amount of funding. This will allow NRM to ramp operations to contact and serve more small businesses in Rhode Island.

#### **Integration of 2012 Innovations into 2013 Plan**

In 2013, the Company will continue its support of the one innovation initiated in mid-2012 related to SMB/DI. The RPA will continue offering Energy Star listed LED lamps with installation at no cost in spaces and conditions that are appropriate. This concept is especially appropriate for small retail locations, but may apply to other customers as well.

## ***Comprehensive Statewide Marketing Program***

The 2012 Program Year was the second year in which the Company had an advertising campaign in the market to build awareness of, and amplify the individual program marketing efforts for, Rhode Island's Energy Efficiency Programs to aid in driving participation. One advertising campaign was used to market to both C&I, Small Business and Residential Customers.

The Company also implemented pre/mid/post campaign awareness market research studies in 2012 and compared them to 2011. Results have shown that our new media buying strategy enabled us to achieve a higher awareness level more quickly versus a year ago, with radio being the primary driver. We were also able to maintain this awareness level when the campaign ended through program communications in the market.

The Company also implemented advertising creative copy tests in 2012 to gain additional learning to fine tune our customer messages. The first copy test revealed the top two prime motivators for participation as: 1) saving money; and 2) doing something for the greater good/environment, regardless of sector. The second most important learning is that we need to tailor our advertising messages by sector, which will resonate more clearly with our customers. We are implementing our second advertising copy test in September to finalize these messages for both residential and business customers for use in 2013.

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



## 2013 C&I Electric Measures

2013			
Program	Subprogram	Annual kWh Goal	Incentive
Large Commercial New Construction	CAIR	2,512,376	75% of Incremental Cost
	Cool Choice	549,451	
	CUSTA	26,073,125	
	HVAC	167,185	
	Light	12,005,350	
	Upstream	0	
	VSD	194,553	
	Codes	770,000	
Large Commercial Retrofit	CAIR	0	50% of Project Cost
	CUSTA	20,625,124	
	HVAC	1,732,640	
	LIGHT	27,868,033	
	Motors	0	
	VSD	7,102,603	
	CHP	331,500	
Small Business Direct Install	SCI	20,293,158	70% of Project Cost 30% Financed

## 2013 C&I Gas Measures

Program	Measure	Quantity	Rebate Level
Large Commercial New Construction	Furnace 95+ AFUE (<150) w/ECM Motor	2	500
	Furnace 97+ AFUE (<150) w/ECM Motor	2	800
	Condensing boiler <= 300 mbh	40	1,000
	Infrared	17	750
	On demand, Tankless Water Heater >=.82,	0	500
	On demand, Tankless Water Heater >=.95,	0	800
	Indirect Water Heaters (Combined appliance efficiency rating >=85% (EF=.82)	7	400
	Condensing Stand Alone >95% TE, >75000 btu	15	500
	Integrated water heater/condensing boiler (0.9 EF, 0.9 AFUE)	1	1,500
	Condensing boiler 301-499 mbh	35	2,000
	Condensing boiler 500-999 mbh	10	4,000
	Condensing boiler 1000-1700 mbh	8	7,500
	Condensing boiler 1701+ mbh	8	10,000
	Condensing Unit Heaters	0	750
	Fryers	10	1,000
	High Efficiency Gas Steamer (Energy Star >=38% efficiency)	10	1,000
	High Efficiency Gas Convection Oven (>=40% efficiency)	10	1,000
	High Efficiency Gas Combination Oven (>=40% efficiency)	2	1,000
	High Efficiency Gas Conveyor Oven (>=40% efficiency)	10	1,000
	High Efficiency Gas Rack Oven (>=50% efficiency)	10	1,000
	High Efficiency Gas Griddle	10	500
	C&I Custom New Construction	86	11,416
	Codes - New Construction	1	30,000
Large Commercial Retrofit	LCI Thermostat	75	25
	Custom Retrofit	117	13,416
	BOILER RESET MULTI-STAGE	5	150
	LCI Pre Rinse Spray Valve	495	225
	BOC	45	1,250
Small Business Direct Install	Pre Rinse Spray Valve	79	150
	Thermostat	114	185
	Steam Traps	100	75
	Faucet Aerator	200	0
	Low Flow Shower Head	67	36
Commercial & Industrial Multifamily	MFAir Sealing	600	Average Incentive based on measure mix
	MF Insulation	600	
	MF Showerheads	90	
	MF Faucet Aerator	228	
	MF Heating System Replacement	5	
	MF Demand Circulator	5	



## **2013 Measurement and Verification Plan**

In 2013, National Grid's Measurement and Verification Plan (M&V) will focus on evaluating Rhode Island specific sites and markets while leveraging as many resources as possible from studies in additional National Grid territories in order to keep costs low. Evaluation budgets are included in Attachment 5, Table E-2 and Attachment 6, Table G-2. The planned studies briefly described below focus on areas of interest to the Rhode Island programs, and build on the deep history of evaluation studies performed by the Company over many years.

### ***A. New Studies Underway or Planned***

#### ***Commercial and Industrial Prescriptive and Custom – Lighting impact evaluation***

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

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

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

#### ***Commercial and Industrial – Upstream Lighting impact evaluation***

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

## ***Commercial and Industrial – Prescriptive Energy Management Systems***

Prescriptive EMS study systems have not been evaluated for several years. This planned study will involve on-site engineering and end-use metering, and potentially building simulation, of a statistically drawn random sample of participants. The Company will investigate joining with Massachusetts program administrators to conduct this study. Depending on the population of potential projects, this study may be deferred to 2014.

## ***Single Family Low Income Impact Evaluation***

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

## ***Residential HEHE Process and Impact Evaluation***

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

## ***Small Business Direct Install – Lighting impact evaluation***

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

## ***Small Business Direct Install – Refrigeration impact evaluation***

The Small Business Direct Install Refrigeration study will be a metered based study of the impacts from refrigeration measures, chiefly in convenience stores. It has been several years since these measures were analyzed.

## ***Job Impacts Analysis***

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

### ***2013 Avoided Energy Supply Component Study***

The regional avoided cost study is scheduled for its biennial update in 2013. For the past several studies, this study has been sponsored by all of the gas and electric program administrators in New England, as the markets for electricity and natural gas are regional markets. The Company intends to participate in this study for 2013 and apply the results in planning for its 2014 and 2015 energy efficiency programs.

### ***Energy Efficiency Messaging***

The study will analyze effective 'messages' that attract customers to residential energy efficiency programs. The study will focus on marketing materials and may include lab testing, focus groups, and other qualitative methods. It will be a joint study with a research university.

### ***Residential Pilots-Process and Impact Evaluations***

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

## ***B. Recently Completed Evaluation Studies***

Recently completed studies that have informed 2013 planning are identified below, along with a brief summary of the impact of those results in planning the Company's 2013 programs. The results of these studies were incorporated into the benefit-cost modeling of the 2013 plan. Some of these studies may be regional, or may have included other National Grid jurisdictions. The 2013 EEPP is adopting the results of these studies because the Rhode Island programs are judged to be similar, either in the measures offered, or in terms of structure or program delivery. In these instances, the impact evaluations have been judged by National Grid to be applicable to Rhode Island.

<b>2012</b>	
<b>Study</b>	<b>Impact Descriptions</b>
NMR Group, Inc., Rhode Island 2011 Baseline Study of Single-family Residential New Construction	Provides a baseline study of the characteristics of single-family homes recently completed in Rhode Island and permitted under the 2009 International Energy Conservation Code (IECC) that did not participate in the Rhode Island Residential New Construction Program (Program). These can be used to update User Defined Reference Home (UDRH) assumptions used in calculating Program savings.
DNV-KEMA, ERS, and APPRISE, Rhode Island Energy Code Compliance Baseline Study	Provides a baseline estimate of statewide energy code compliance for commercial buildings, provides feedback on patterns of compliance and non-compliance, and identifies opportunities for Rhode Island in the quest to achieve greater compliance with state energy codes.
KEMA, Inc., Impact Evaluation of the 2010 Custom –Industrial Process and Compressed Air impact evaluation, September, 2012	Study produced realization rates for energy, seasonal demand, and percent energy on peak for both programs. The RI results were combined with MA results from a parallel study in order to increase the statistic significance of the final results. The final energy realization rate is 92.7%.
ERS, Rhode Island Large Commercial and Industrial Retrofit and New Construction Program Custom Gas Evaluation, September 2012	The Custom Gas study updated study-based realization rates for the Large Commercial and Industrial Retrofit and New Construction programs. The final therms realization rate for the custom gas program was found to be 75.5%.
TetraTech, Final Report – Commercial and Industrial Non-Energy Impacts Study, (prepared for Massachusetts Program Administrators), June 29, 2012	This report provides a comprehensive set of statistically reliable Non-energy impact (NEI) estimates across the range of C&I prescriptive and custom retrofit programs offered by the Massachusetts electric and gas PAs. The analytical methods used allow this report’s findings to be applicable to RI.
TetraTech. 2011 Commercial and Industrial Programs Free-ridership and Spillover Study, September 7, 2012	Free ridership and spillover rates for the RI Energy Initiative, Design2000plus, and Small Business Services Programs.

Cadmus, EnergyWise Single Family Impact Evaluation, October 2012	The study provides impacts specific to the RI program for single family households. It includes electric, gas, and oil savings. The study uses billing analysis and engineering analysis.
DNV-KEMA, "Project 15 Prescriptive Gas – Final Program Evaluation Report," June 14, 2012	Evaluation results for 2010 Massachusetts Prescriptive Gas Measures Program. The evaluation consists of on-site monitoring and verification of the savings for a sample of participants for four of the top five measures installed, in terms of savings. Programs and measures are similar between National Grid affiliates in MA and RI, and results are applied to RI. The overall realization rate for the four measures was about 104% and the relative precision was about $\pm 15\%$ .

2011	
Study	Impact Descriptions
NMR Group, Inc., Massachusetts Program Administrators Massachusetts Special and Cross-Sector Studies Area, Residential and Low-Income Non-Energy Impacts (NEI) Evaluation, August, 15, 2011.	Identification and quantification of non-energy impacts for residential and low-income programs.
NMR Group, Inc., The Rhode Island Appliance Turn-In Program Process Evaluation, March 4, 2011.	Combined, these two studies assessed free-ridership rates and savings for the Rhode Island Refrigerator and Freezer Recycling program. In addition, the evaluation found that there were three distinct groups of refrigerators being recycled through the program – primary, secondary – replaced, and secondary – not replaced. The study produced updated free-ridership rates and savings for the three categories of refrigerators and freezers.
NMR Group, Inc., The Rhode Island Appliance Turn-In Program Impact Evaluation, October 2011.	
NMR Group, Inc., Results of the Multistate CFL Modeling Effort, April 15, 2011.	This study examined the 2010 Energy Star® Lighting program. The research effort included participation in a multistate modeling effort which resulted in a revised free-ridership estimate for screw-in CFLs.



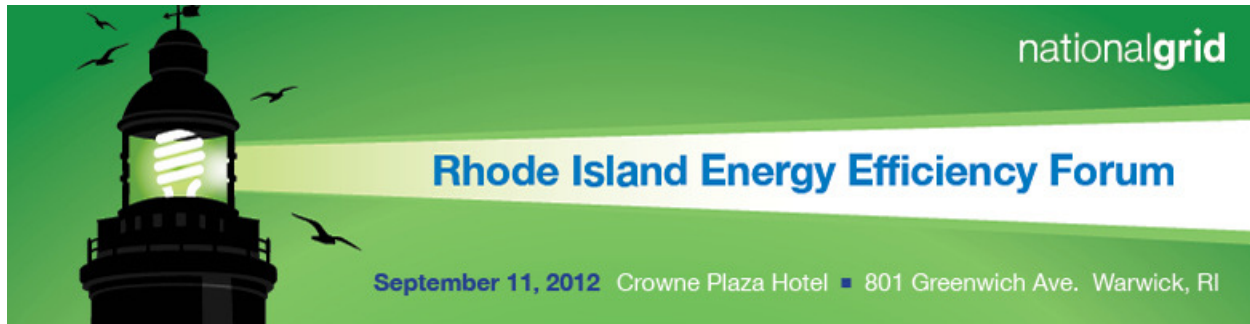
The Cadmus Group, Impact Evaluation for Rhode Island Multifamily Gas Program EnergyWise Program, July 12, 2011	A billing analysis was conducted for 2010 Multifamily gas participants. Results showed a realization rate of 121% indicating ex post verified savings as 21% greater than the engineering savings estimate.
Opinion Dynamics Corporation, Evaluation of National Grid's Community Pilot Program Energy Action: Aquidneck and Jamestown, September, 2011.	The evaluation examined participation in all energy efficiency programs through the 2009-2010 Community Initiative, known as Energy Action: Aquidneck and Jamestown. The evaluation found that the initiative was cost-effective with a benefit-cost ratio of 2.25. The evaluation also examined processes and made recommendations for increasing participation in future initiatives.
KEMA, Inc., Impact Evaluation of the 2009 Custom HVAC and 2008-2009 Custom CDA Installations, September 1, 2011	Study produced realization rates for energy, seasonal demand, and percent energy on peak for both programs. The RI results were combined with MA results from a parallel study in order to increase the statistic significance of the final results. The final energy realization rate for Custom HVAC is higher than the PY 2011 realization rate by about 10% (increased from 100.5% to 110.4%). The final energy realization rate for Custom CDA is higher than the PY 2011 realization rate by about 20% (increased from 97.2% to 119.6%).
KEMA, Inc., C&I Lighting Loadshape Project, Prepared for the Regional Evaluation, Measurement, and Verification Forum, June 2011.	A compilation of lighting loadshape data from the Northeast. The study provided updated coincidence factors for the Energy Initiative and Small Business Lighting programs. The Small Business program summer coincidence factor went from 0.80 to 0.79, while the Energy Initiative summer coincidence went from 0.88 to 0.89
KEMA, Inc., C&I Unitary HVAC Loadshape Project Final Report, Prepared for the Regional Evaluation, Measurement, and Verification Forum, June 2011.	From end use metering, the study produced updated diversity and equivalent full load hours for unitary HVAC measures
<b>2010</b>	
<b>Study</b>	<b>Impact Descriptions</b>
The Cadmus Group, Inc./Energy Services, EnergyWise 2008 Program Evaluation, May, 24, 2010	Program savings for the EnergyWise Program

ADM Associates, Inc., Residential Central AC Regional Evaluation, Final Report, October 2009	KWh and kW savings figures for the installation of efficient residential CAC systems
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2009	
Study	Impact Descriptions
Nexus Market Research, Residential Lighting Markdown Impact Evaluation, January 20, 2009	Energy and demand savings from the use of lighting markdown products
KEMA, Inc., Design 2000plus Lighting Hours of Use & Load shapes Measurement Study, July 2, 2009	Hours of use, hours of use realization rate, on-peak kWh percentage, load profile, connected demand adjustment factor, summer and winter peak combined coincidence and interactive factors for the prescriptive lighting measures installed by participants of the 2007 National Grid Design2000plus program
KEMA, Inc., National Grid USA 2008 Custom Lighting Impact Evaluation, June 22, 2009	Quantification of electric energy and demand savings for ten Custom lighting projects through site-specific inspection, monitoring, and analysis.
2008	
Study	Impact Descriptions
Quantec, LLC, Final Report, National Efficiency Benchmarking Study for Residential Air Conditioning, Prepared for National Grid, April 25, 2008	Market effects of National Grid's high efficiency air conditioner programs
Wirtshafter Associates, Inc., Evaluation of Residential Central Air Conditioning: Cooperative Promotions with Industry, April 25, 2008	Reports on National Grid's efforts to develop Residential Central Air Conditioning: Cooperative Promotions with Industry in 2007 in Massachusetts.
Wirtshafter Associates, Inc., Kreidler Research and Consulting, Performance Systems and Development, Inc., 2007 Massachusetts and Rhode Island CoolSmart Evaluation Report, June 6, 2008	Documentation of savings from the CoolSmart program.
Nexus Market Research, Inc., RLW Analytics, Inc., Residential Lighting Measure Life Study, June 4, 2008	Estimation of measure life for lighting products distributed throughout New England

RLW Analytics, Inc., Coincidence Factor Study Residential and Commercial Industrial Lighting Measures Prepared for: New England State Program Working Group (SPWG), Spring 2007	Coincidence factors for residential and commercial and industrial lighting measures.
RLW Analytics, Inc., Coincidence Factor Study Residential Room Air Conditioners Prepared for: Northeast Energy Efficiency Partnership's New England Evaluation and State Program Working Group, June 23, 2008	On peak and seasonal coincidence factors for residential room air conditioning measures.
Michael Ozog, Summit Blue, Energy Initiative Lighting Billing Analysis, 2007	Estimation of realization rate for prescription lighting measures from participants in the 2007 EI program.
Michael Ozog, Summit Blue, Joint Small Business Services Program Billing Analysis, 2007	Realization rates for lighting measures installed through the Small Business Services program
<b>2007</b>	
<b>Study</b>	<b>Impact Descriptions</b>
Nexus Market Research, Inc., Memorandum re: Results of the Survey of Past Clothes Washer Purchasers, July 12, 2007	Measure life, persistence and customer satisfaction for ENERGY STAR clothes washers
RLW Analytics, Inc., National Grid Lighting Controls Impact Evaluation, Final Report, 2005 Energy Initiative, Design2000plus and Small Business Services Programs, June 4, 2007	Summer diversity factor, Winter diversity factor, Connected kW realization rate, Hours-of-use reduction realization rate, and percent of energy savings on peak for prescriptive lighting control measures through the Energy Initiative, Design2000plus, and Small Business Services programs.
RLW Analytics, Small Business Services Custom Measure Impact Evaluation, March 23, 2007	Verification of energy savings from custom lighting projects in the Small Business Services program.
RLW Analytics, Impact Evaluation Analysis of the 2005 Custom SBS Program, May 29, 2007	Realization rates for the Small Business Services program





## **NATIONAL GRID**

### **RHODE ISLAND ENERGY EFFICIENCY FORUM**

September 11, 2012 – 9 a.m. to 3 p.m.  
Crowne Plaza Hotel, Warwick, RI



The following white paper summarizes the purpose and intent of the workshop, approach, and feedback from the participants. It captures major themes and re-occurring responses. The report is organized around the major headings and compiles answers to the questions developed during the design process.

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## Summary

On September 11, 2012, National Grid convened a “Rhode Island Energy Efficiency Forum” at the Crowne Plaza Hotel in Warwick, Rhode Island. The goal of the workshop was to gather feedback from customers, organizations, leaders, and businesses about their experiences with energy efficiency in Rhode Island as well as listen to their suggestions and ideas. More than 145 participants attended the workshop (a full list of attendees may be found in Appendix A). This included 33 participants attending for National Grid and the rest representing stakeholders and consumers. This workshop was produced in cooperation with Lighthouse Consulting Group ([www.lighthousecg.com](http://www.lighthousecg.com))

In order to focus the activities of the day, National Grid worked with Lighthouse Consulting Group prior to the workshop to identify discrete workshop objectives. The team settled on the following goals for the forum:

1. Inform and educate National Grid’s stakeholders and customers about energy efficiency in Rhode Island (current and planned for 2013) and inspire them to get involved.
2. Create a forum that allows for honest and open feedback.
3. Give consumers an opportunity to have a direct and immediate impact on energy efficiency in Rhode Island.
4. Put stakeholders and customers into direct contact with National Grid staff.

The workshop objectives were motivated by a desire to facilitate the exchange of ideas between National Grid and customers, participants, businesses/organizations, policymakers, and vendors/consultants for incorporation in 2013 energy efficiency program planning and implementation, as well as future years. The interactive workshop format reflected this effort to bring National Grid face-to-face with stakeholders to answer questions, listen to feedback, and generate dialogue.

The day’s activities were broken into three main sections. During the first part, “Welcome & Opening Remarks/ Kick Off,” speakers including National Grid representatives and members of the Rhode Island Energy Efficiency Resource Management Council (EERMC) provided welcoming remarks to frame the forum context. In the following session, “Kiosks: an interactive listening and feedback session,” workshop attendees interacted with National Grid representatives at stations (kiosks) to learn more about efficiency programs, ask and answer questions, and provide comments. In the third and final part of the day, “Reports from Kiosks: what did we hear, what did we miss?,” National Grid representatives discussed the feedback received at the kiosks through report-outs given in plenary.

From the comments received at the kiosks and during the subsequent report-outs, the following themes emerged. A complete discussion of these themes is presented later in this report:

- **Marketing, Communication, and Awareness:** *Many opportunities exist to increase awareness of efficiency offerings through novel marketing strategies, such as coordinating with a multitude of local community partners*

- **Energy Education:** *Energy education fosters a well-informed customer base that will be more likely to participate in efficiency programs*
- **Workforce development:** *Workforce development will help prospective employees build the skill sets necessary for working in a green economy*
- **Benchmarking Energy Usage:** *Customers rely on access to relevant energy performance data in order to make informed decisions about investing in energy efficiency*
- **Split Incentives:** *Although the landlord/tenant split incentive is a pervasive issue, opportunities exist to address the problem*
- **Holistic Approaches:** *Holistic approaches to energy efficiency that go beyond incentives and integrate other energy-related work may assist in achieving bottom-line efficiency savings*
- **Web & Online Resources:** *Customers want to see improved web and online features*
- **Improved Incentives:** *National Grid should consider expanding existing incentive programs or adding new ones to best match the needs of customers*
- **Opening the Auditor/Contractor Market:** *Additional measures to open up the auditing/contracting process can bring a variety of benefits*
- **Customer Engagement Opportunities and Eliminating Barriers to Participation:** *Seizing opportunities for customer engagement and streamlining customer service can help pull in and retain more potential customers*

## **Welcome and Opening Remarks/Program Kick Off**

Opening remarks and program kick off were provided by Tim Horan (National Grid), Dan Justynski (Citizen's Bank and EERMC), Michael McAteer (National Grid), and Christopher Powell (Brown University and EERMC). The speakers offered background on the broader policy framework for Rhode Island's energy efficiency work, shared their experience of how energy efficiency translates into tangible savings on the ground, and introduced National Grid's energy efficiency themes for the upcoming year.

The speakers emphasized National Grid's leadership in delivering energy efficiency services to Rhode Island customers for over 20 years and described legislative and programmatic developments over the last 6 years, which have vaulted Rhode Island to the national forefront of leadership in energy efficiency. In particular, a 2006 enactment by Rhode Island's General Assembly focused on two levers that drive the State's efficiency programs—"Least Cost Procurement" and "System Reliability." Least Cost Procurement states that investment in energy efficiency must precede the creation of more power, because demand resources are less costly than additional supply. The benefits of this philosophy include immediate reduction of customer costs, stimulation of the local economy by keeping energy dollars in state, and generating job creation through the activity of local contractors. System Reliability, the other cornerstone of Rhode Island's energy efficiency programs, refers to delaying capital investments in additional infrastructure to deliver power – thus avoiding charging customers for new transmission.



Rhode Island’s energy efficiency programs are ultimately funded by customer dollars, and National Grid is the steward of these funds, administering the programs that deliver benefits to them. Rhode Island established the EERMC to work with National Grid, creating a partnership that ensures customer dollars are channeled toward programs delivering tangible savings to the state. The successful implementation of these programs has vaulted Rhode Island from 11<sup>th</sup> in the nation in 2007 to 3<sup>rd</sup> in the nation in 2011 in energy efficiency by ACEEE standards.

The speakers also provided personal success stories of working with National Grid to implement large energy-saving measures. The speakers described how different features of the efficiency offerings, including cash incentives and financing programs, helped facility managers make a business case for executing significant energy efficiency projects. They also emphasized how their working relationship with National Grid, including direct in-person collaboration, was instrumental in helping their vision become reality.

Finally, the speakers introduced National Grid’s themes for the current Three Year Plan (2012-2014):

1. Innovation
2. Economic growth
3. Energy efficiency is for everyone
4. Reach customers where they live and work

These themes drive National Grid’s strategies and efforts to move beyond programs toward a comprehensive approach to providing energy efficiency services in Rhode Island.

### **Kiosks: an interactive listening and feedback session**

During the kiosk session, participants visited each of ten kiosks to meet National Grid representatives, learn about energy efficiency services in Rhode Island (current and planned), and provide feedback. The kiosks were divided into three themes, each representing a particular customer group: Homes, Businesses, and Communities. These themes were further subdivided into the following topics:

**Table 1. Themes & Kiosks**

Theme	Kiosk
<b>Homes</b>	Homeowners
	New Home Builders
	Renters
<b>Businesses</b>	Small Business
	Large Business
	Multifamily Property Owners & Developers
	Commercial Property Owners & Developers
<b>Communities</b>	Municipalities
	Community Engagement
	Economic Growth & Job Development

At each respective kiosk, National Grid set up a poster containing information about energy efficiency offerings (current and planned) for that particular customer group/topic, and a blank foam board where participants could post comment cards. At least two National Grid representatives conversant in the topic were stationed at each kiosk to field questions and interact with participants.

The kiosk posters contained a summary of particular services currently provided and services planned for the near future. Additionally, questions that the National Grid team wanted participants to consider were on the posters. Example questions included:

- What are your top priorities as you build a new commercial space?
- Do you prefer a home energy assessment leading to recommendations or more self-service options (e.g., online rebates), or both?
- What rewards would encourage an organization to save energy?

A sample kiosk poster is below; the full collection of posters can be found in Appendix B.

**Figure 1. Sample Kiosk Poster**

*Energy Efficiency for Rhode Island Homes*

## Homeowners

**Current**

- Incentives and rebates for insulation, air sealing, heating/cooling/hot water heating equipment, and Energy Star® lighting, appliances, and electronics
- Services – Free home energy assessments, refrigerator recycling
- Financing – 0% interest for qualifying customers
- Income eligible customers receive benefits at no cost

**Planned for 2013**

- Easier access to info – single phone number, better web presence
- Online rebate processing
- Home energy reports for all residential customers
- Window A/C recycling
- Rebates for LED lighting and controls, and lighting incentives for retailers

**Your Input**

- Do you prefer a home energy assessment leading to recommendations or more self-service options (e.g., online rebates), or both?
- How do you feel about home energy reports that compare your energy use to: (a) your own over time, and (b) neighbors with similar households?
- If you were given \$10,000 for your home, how would you spend it?

### Reports from Kiosks: what did we hear, what did we miss?

National Grid received almost 200 written comment cards during the kiosk session, as well as numerous oral comments via in-person conversations with the attendees. The number of comment cards submitted varied by kiosk; for example, the “Municipalities” kiosk received fewer than 10 comment

cards; the “Homeowners” kiosk received almost 40 comment cards. National Grid also received oral comments during the report-out session. A full inventory of the written and oral comments can be found in Appendix C, categorized by kiosk.

Participants submitted a wide variety of comments. Many comments addressed broad themes that cut across the different kiosks, such as marketing and outreach issues, or landlord/tenant split incentives. Other comments addressed highly specific incentives or programs, such as the commercial kitchen program, oil-to-gas conversions, or LED traffic lights. In many cases, comment cards submitted to a particular kiosk did not necessarily pertain to that specific kiosk; some of these unrelated comments addressed a different kiosk or none of the kiosks at all. A number of comments address issues that do not fall under the purview of National Grid. Therefore, it is important for National Grid to review the individual comments and evaluate which program the comment apply, and if the comment does not apply to National Grid at all, recommend what entity should address the issue. However, the vast majority of the comments offered real, concrete insight into how National Grid’s energy efficiency programs are perceived, used, and could be improved, according to the experiences of the company’s customers. The volume and quality of comments received indicate that the event achieved the objective of creating “a forum that allows for honest and open feedback about the energy efficiency in Rhode Island.”

During the afternoon session, National Grid representatives from each kiosk reported back to the participants of the forum. The goal was to ensure that the National Grid team heard the participants’ feedback correctly and to give an opportunity for workshop attendees to fill in any gaps, address areas that were missed, or offer additional ideas.

Each team of kiosk volunteers combined the comments submitted by cards and conversations into a three to five bullet-point PowerPoint slide. The slides summarized common, recurring themes for each Kiosk. These are presented in Appendix D. Below, broad themes that cut across the different kiosks are presented. **The parenthetical citations in this section refer to the number of the corresponding comments as listed in Appendix C.**

## **Marketing, Communication, and Awareness**

*Many opportunities exist to increase awareness of efficiency offerings through novel marketing strategies, such as coordinating with a multitude of local community partners*

The major recurring theme of the day was awareness and participation. According to multiple attendees, significant numbers of customers currently learn about programs via word-of-mouth communication (23, 76, 90). Participants agreed that National Grid could develop additional marketing efforts and engagement strategies better designed to raise the profile of their efficiency offerings (76, 119, 121). In general, participants reiterated the value of leveraging synergistic relationships between different partners—the utility, schools, local vendors, businesses and employers, and municipalities—to effectively message efficiency offerings and increase customer participation. Attendees also wondered

how market research could be used to understand the drivers of participation in programs and how better to appeal to customers, especially in renter or new home builder markets (23, 33, 36, 52).

Attendees brought up many different ways that National Grid could cast a wider net and reach a broader audience. Some suggested cross-marketing between both National Grid programs and external entities such as the Water Department (120, 189, 216). Others stressed the value of marketing programs through alternative, external channels, such as town councils, school boards, membership organizations, CAP agencies, or large employers (48, 54, 91, 146, 184, 194, 196, 198, 200, 219, 220). CAP representatives at the meeting signaled their willingness to reach out to their client base on behalf of National Grid (22). National Grid is already beginning to work with its largest business customers to offer employee engagement tools through its E-Zone initiative (220). Most importantly, however, attendees underscored the importance of relying on trusted, local messengers to deliver the pitch to participate in efficiency programs (194, 203, 209, 215). In the case of municipalities, one participant recommended that National Grid not merely advertise programs, but directly *ask* for participation in the programs (194).

“How can National Grid, through their community relations, work with a number of businesses in one place to get a lot of people to participate; how can NGRID work with large employers so that all the folks who work there can engage with energy efficiency in their homes?”

-Oral Comment, Community Engagement Kiosk

## **Energy Education**

*Energy education fosters a well-informed customer base that will be more likely to participate in efficiency programs*

Participants heavily emphasized the value and importance of energy education. Energy education is vital to cultivating a well-informed customer base that understands the significance and value of energy efficiency. Marketing efforts can increase awareness of programs, but customers well-versed in the purpose and benefits of efficiency are generally more apt to participate. Energy education efforts should therefore target potential energy efficiency program participants (61, 177). Many attendees emphasized, however, that this education process optimally starts at a lower level, involving a coordinated effort from K–12 to higher education (12, 34, 138, 180, 207, 208, 214, 217). Several attendees representing public schools expressed their interest in collaborating with National Grid to organize educational programs or events tailored to this demographic (18, 211). Representatives from community colleges suggested that they would be willing to provide training to their future K–12 teachers in energy efficiency so their students could bring home this thinking to parents and families (217).

“What I see lacking here today is an education and outreach program to:

- Inform the masses about NGrid programs
- Energy efficiency education in general
- Why energy efficiency is important
- What energy efficiency means to our country
- Environmental impacts
- Job market”

-Robert S. Cerio, Energy Manager, Multifamily Property Owners and Developers Kiosk

On an immediate, practical level, National Grid should confirm that customers currently receive sufficient training to properly implement and take advantage of recommended efficiency measures. On

a residential level, this may mean understanding how to use programmable thermostats (160). Large entities, such as cities and towns, often require more specialized technical assistance. Funding for staff support—the availability of dedicated “Energy Managers” with technical expertise—could greatly increase municipal participation in programs (124, 125, 166).

## **Workforce Development**

*Workforce development will help prospective employees build the skill sets necessary for working in the green economy*

Energy education also involves workforce training, leveraging high school and college partnerships to develop programs building the skill sets necessary for working in a green economy (176, 181). This might involve developing an energy engineering discipline or area of study at a local college integrating a focus on lighting, HVAC, and building envelope systems (165). It might also involve a high school or college internship program sponsored by National Grid to offer experiential learning opportunities for budding efficiency enthusiasts (169). It also means continuing to support certification and training opportunities for existing contractors who could benefit from additional job training (59, 60, 170, 193).

## **Benchmarking Energy Usage**

*Customers rely on access to relevant energy performance data in order to make informed decisions about investing in energy efficiency*

Workshop participants stressed that customers can make better-informed decisions regarding implementing energy efficiency when information regarding baseline energy performance is available. This observation is repeated across sectors and appears to apply in many settings. For the tenant looking to rent, it might mean access to previous utility bills to gauge expected utility bill expenses (4, 15, 19, 25, 27, 29). In the case of a property owner considering investing in efficiency improvements, it may mean understanding how the facility in question consumes energy relative to other similar buildings in the state (118, 142). Prospective home buyers might want to see efficiency ratings of different homes, allowing a comparison of energy performance when faced with multiple options (29, 86). For those who have already bought homes, the availability of Home Energy Reports would allow customers to measure and monitor energy usage, and make an educated choice about whether to make energy efficiency upgrades (68, 86).

Many participants responded to a question posed by National Grid on whether home energy reports would be useful. The overwhelming consensus was that such reports would be valuable; however, responses were mixed on whether the Home Energy reports would be best compared against one’s own usage or that of one’s neighbors (1, 5, 68, 75, 79, 86). A couple comments suggested that more detailed information on end-use consumption, such as data on energy usage for each home appliance or room would be ideal (71, 72). Many comments also addressed the need to make such information on home energy usage part of

“We have many low-income clients who move frequently. It would be extremely beneficial to have the ‘history’ of energy usage for each unit to help our clients plan for future expenses. I feel it would help our clients knowing ahead of time what to expect. Also, they could conserve to lower their costs. This would give them a baseline.”

-Jackie, Low Income Heating Assistance, Renters Kiosk

a larger marketing strategy for new home builders or property owners (33, 36, 52, 158). Finally, at least one participant posited that benchmarking information could also aid program administrators in allocating limited funds by prioritizing projects with the biggest bang for their buck (158).

### **Split Incentives**

*Although the landlord/tenant split incentive is a pervasive issue, opportunities exist to address the problem*

Participants identified the classic renter/tenant split incentive as an important issue to be addressed in multiple areas, from residential to commercial sectors (21, 29, 143, 156). The renter/tenant split incentive occurs in situations where a tenant, not the property owner, pays the utilities for a property in need of efficiency improvements. The landlord lacks an incentive to invest in energy efficiency upgrades, because the energy and monetary savings accrue to the tenant, not the landlord who put up the money. According to the comments, the split incentive crops up in a variety of settings, from the purchase of energy efficient appliances (2), to building weatherization (6), to gas line extension in areas dominated by multifamily and rental properties (147).

"I have an absentee landlord. How do I convince him to upgrade my apartment outside of essential upgrades, i.e., fixing immediate repairs? All I've known I could do is upgrade lighting and weatherize with stripping and plastic. Is there a way NGRID can be more proactive in helping renters outside of lighting and weatherization? Perhaps help build a business case for the landlord?"

-Mark Mikalski, Consultant, Renters Kiosk

Attendees contributed several suggestions for approaching this problem. One commented that the cost of improvements would have to be greatly incentivized for landlords to participate (143). Participants proposed working through landlord associations or creating a discrete landlord-focused program to help target this constituency and begin to address the issue (6, 10, 29, 31, 108, 110).

### **Holistic Approaches**

*Holistic approaches to energy efficiency that go beyond incentives and integrate other energy-related work may better assist in achieving bottom line efficiency savings*

In virtually all of the kiosks, participants noted different opportunities to integrate efficiency work with other areas, such as renewables or health and safety. Creative, holistic approaches can lead to synergistic benefits, both in energy efficiency proper, and at the intersection of efficiency work with other energy-related areas.

By far the most common observation concerned the marriage of efficiency and renewables. Multiple participants mentioned incorporating small-scale renewables, whether it be photovoltaics on the electric side, or solar hot water or radiant heat on the thermal side (51, 97, 128, 133). One

"I have run into this situation several times...an audit proposal is developed that includes measures that are eligible for incentives but does not address the holistic vision of the owner. For example, a lighting proposal for a high rise apt complex that suggests (one of multiple measures) changing lights on one floor only when owner wants all floors to look the same (the one floor had test lighting fixtures that were not adopted). Owner is not satisfied with lighting as is and is willing to cover cost of those retrofits."

-Anonymous, Commercial Property Owners & Developers Kiosk

attendee wondered whether National Grid is addressing efficiency within the health and safety context of lead and air quality issues often found in limited-income homes (17). Finally, some comments pointed out that auditors sometimes assemble piecemeal proposals with solutions based on available incentives rather than a holistic approach based on all spaces within a facility footprint (132, 134).

## **Web & Online Resources**

### *Customers want to see improved web and online features*

Several comments touched on the need for continued improvement of the website and online resources. Participants emphasized the need for a “one stop shop entry way to the Rhode Island offerings, including one phone number and one easy-to-find website” (56, 141).

Multiple participants expressed support for transitioning rebate processing and paperwork to the web (56, 69, 116, 117). Others pointed out that the online bill portal was slow and not user friendly and should be improved (112).

“There absolutely needs to be a one-stop shop entry way to the RI offerings, including one phone number and one easy-to-find web site. Also, online rebate fulfillment allows for an easier action for the consumer as well as a better way to track marketing effectiveness.”

-Anonymous, Homeowners Kiosk

## **Improved Incentives**

### *National Grid should continue to consider expanding existing incentive programs or adding new ones to best match the needs of customers*

At multiple kiosks, participants made suggestions for improving efficiency offerings to better suit the needs of customers. Attendees observed opportunities to develop new incentives for specific efficiency measures, such as window or door rebates or LED lights (89, 93, 192). Other participants noted ways that National Grid could expand existing incentives to more end-user sectors, such as opening up refrigerator recycling to the small and large business programs (123, 135). Simple changes can be made to increase the effectiveness of other existing incentives: For large businesses, the commercial kitchen incentive could benefit from a regional approach (102, 103, 105). For “programmable technologies” incentives, the definition can be expanded to include limited range technologies, such as thermostats where their application is optimal over programmable thermostats (161).

“I would like to see the same rebate amounts/sizes/percentages available to oil customers (heat and hot water) that are available to natural gas and electric customers.”

-Energy & Water Efficiency Consultant,  
Homeowners Kiosk

Many participants advocated opening up entirely new incentive programs to serve as-of-yet untargeted customer groups. Most commonly, attendees underscored that customers using oil heating, primarily in the homeowner or renter markets, could benefit significantly from more rebates and incentives (20, 32, 65, 66, 70, 80, 195). Other participants proposed programs specifically serving cities and towns (199), condos (7), medium businesses (99), or broader types of multifamily properties (144, 149). Still others mentioned addressing the challenges of recommending measures in multistory buildings where the

customer only occupies a limited number of floors (134, 145). Renovating and rehabilitating existing housing stock is a growing opportunity as well (50, 128).

### **Opening the Auditor/Contractor Market**

*Additional measures to open up the auditing/contracting process can bring a variety of benefits*

Several different auditors stated they would like to be able to service residential homes and offer incentives as RISE does (63, 87, 88). Some wanted National Grid to open up the auditing and contracting process to a larger variety of small businesses, corporations, or other private companies, which could increase competition, drive costs down, provide more alternatives for customers, and assure highest quality of service (81, 162). A couple respondents gave examples of opportunities to level the playing field between RISE and other contractors. One participant noted that RISE can give an upfront rebate, but other contractors must ask customers to mail in the rebate (58). Another felt that customers were not aware of alternative contractor options after their initial audit (81).

"I'm interested in growing my services as an energy auditor and feel restricted based on the current structure. I would love to see National Grid open up the auditing/assessment process to small businesses in Rhode Island. Myself and my peers are very qualified based on education and credentials but are underutilized."

-Ken Twitchell, Energy Auditor, Homeowners Kiosk

### **Customer Engagement Opportunities and Eliminating Barriers to Participation**

*Seizing opportunities for customer engagement and streamlining customer service can help recruit and retain more potential customers*

Brief, but critical, windows of opportunity exist to connect potential customers with energy efficiency. Several participants highlighted the importance of these key juncture points, and how National Grid can eliminate barriers to participation through improvements in areas such as client engagement, customer service, and simplified presentation of offerings.

Attendees contributed examples of opportune moments for engaging potential customers. This might mean informing customers about offerings when new service connections are requested by developers (139, 140). It may mean establishing building energy disclosure requirements for properties at the time of sale or launching a targeted effort to incentivize improvements when these properties change hands (26, 155). Alternatively, optimal engagement time could be when major equipment needs to be replaced (155).

"Is easy access to contractors provided after the assessment? That's often the biggest stumbling block—not knowing how to easily take the next step. If it were rolled into one process—audit, list of recommendations, select recommended measures, have them implemented—that coupled with an easy financing process would ensure more work was done."

-Anonymous, Homeowners Kiosk

In order to successfully enlist and maintain customers in programs and maximize ease of participation, many attendees emphasized streamlining the process. A recurring theme of the day was single point-of-access—whether it be a dedicated customer service contact to hand-hold customers through the process, or a straightforward, central presentation of National Grid's many offerings online or in-hand (45, 92, 154). Attendees cautioned that customers can fall through the cracks as they navigate the



process; for example, in the period between the audit and the follow-up contract work (80, 83). Additional attention to coordinating the process, or at least follow-ups with customers who have not moved forward, can help remedy this issue.

## **Major Conclusions and summary**

This report was compiled to summarize the outputs of a successful forum. These outputs will be used to influence National Grid's efforts to improve energy efficiency services in Rhode Island in 2013 and future years. This section summarizes the major conclusions and recommendations for each of the themes developed in this report. These are not inclusive of every suggestion made at the workshop, but provide an overview of those that were most common.

**Marketing, Communication, and Awareness:** *Many opportunities exist to increase awareness of efficiency offerings through novel marketing strategies, such as coordinating with a multitude of local community partners, specific recommendations include:*

- Develop additional marketing efforts and engagement strategies better designed to reach a broader audience and raise the profile of their efficiency offerings by partnering and/or working with the utility, schools, local vendors, businesses and employers, and municipalities.
- Seek alternative, external channels, such as town councils, school boards, membership organizations, CAP agencies, or large employers.

**Energy Education:** *Energy education fosters a well-informed customer base that will be more likely to participate in efficiency programs, specific recommendations include:*

- Begin at lower levels, involving a coordinated effort from K–12 to higher education.
- Do not assume that customers currently receive sufficient training to properly implement and take advantage of recommended efficiency measures.

**Workforce development:** *Workforce development will help prospective employees build the skill sets necessary for working in a green economy, specific recommendations include:*

- Pursue workforce training that leverages high school and college partnerships.
- Support certification and training opportunities.

**Benchmarking Energy Usage:** *Customers rely on access to relevant energy performance data in order to make informed decisions about investing in energy efficiency, specific recommendations include:*

- Consider providing tenant access to previous utility bills to gauge expected utility bill expenses.
- Help new building owners understand how the property in question consumes energy relative to other similar buildings in the state.
- Create a system wherein perspective buyers could see efficiency ratings of different homes.

**Split Incentives:** *Although the landlord/tenant split incentive is a pervasive issue, opportunities exist to address the problem, specific recommendations include:*

- Create a discrete landlord-focused program to help target this constituency and begin to address the issue.
- Recognize that the cost of improvements would have to be greatly incentivized for landlords to participate.

**Holistic Approaches:** *Holistic approaches to energy efficiency that go beyond incentives and integrate other energy-related work may assist in achieving bottom-line efficiency savings, specific recommendations include:*

- Incorporate small-scale renewables, whether it is photovoltaics on the electric side, or solar hot water or radiant heat on the thermal side in the energy efficiency program.

**Web & Online Resources:** *Customers want to see improved web and online features, specific recommendations include:*

- Create a “one stop shop” entry way to the Rhode Island offerings, including one phone number and one easy-to-find website”.
- Transition rebate processing and paperwork to the web.

**Improved Incentives:** *National Grid should consider expanding existing incentive programs or adding new ones to best match the needs of customers, specific recommendations include:*

- Develop new incentives for specific efficiency measures, such as window or door rebates or LED lights.
- Expand existing incentives to more end-user sectors, such as opening up refrigerator recycling to the small and large business programs.
- Open up entirely new incentive programs to serve as-of-yet untargeted customer groups.

**Opening the Auditor/Contractor Market:** *Additional measures to open up the auditing/contracting process can bring a variety of benefits, specific recommendations include:*

- Open up the auditing and contracting process to a larger variety of small businesses, corporations, or other private companies, which could increase competition, drive costs down, provide more alternatives for customers, and assure highest quality of service.

**Customer Engagement Opportunities and Eliminating Barriers to Participation:** *Seizing opportunities for customer engagement and streamlining customer service can help pull in and retain more potential customers, specific recommendations include:*

- Eliminate barriers to participation through improvements in areas such as client engagement, customer service, and simplified presentation of offerings.
- Inform customers about offerings when new service connections are requested by developers.

#### **Customer Engagement Opportunities and Eliminating Barriers to Participation**

- Establish building energy disclosure requirements for properties at the time of sale or launching a targeted effort to incentivize improvements when these properties change hands.

#### **Workshop Delivery**

This workshop was designed and delivered in partnership with Lighthouse Consulting Group. For more information about Lighthouse and its event and facilitation services, visit its website:

[www.lighthousecg.com](http://www.lighthousecg.com).

This report, in its entirety, is available at [www.rieermc.ri.gov](http://www.rieermc.ri.gov). If you have any comments, suggestions, or ideas after reviewing this report, please email: [efficiency@nationalgrid.com](mailto:efficiency@nationalgrid.com).

## **Appendices**

**Appendix A: Attendees**

**Appendix B: Kiosk Posters**

**Appendix C: Comments**

**Appendix D: Report-Out Presentations**

# Appendix A: Attendees

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## *Registration List*

as of 9/10/12

#	First Name	Last Name	Company
1	Laurie	Acone	National Grid
2	Thomas	Ahern	Division of Public Utility and Carriers
3	Mark	Amaral	
4	Francis	Andersson	Globex, Inc
5	Lisa	Andoscia	Rosewood Consulting Co.
6	Abigail	Anthony	EERMC / Environment Northeast
7	Rick	Arnold	R. Arnold and Sons
8	Gabe	Arnold	
9	Anthony	Aromando	National Grid
10	Lewis	Babbitt	RI HHS
11	Dick	Bacon	JACO Environmental
12	Matthew	Banoub	Aten Energy Conservation
13	Greg	Barker	Sustainable Energy Solutions
14	Richard	Battista	Beneficial Energy Products Co
15	Mike	Beamer	
16	Anne	Berman	RI Housing
17	Joseph	Blake	City of Warwick Superintendent of Bldg. Maintenance
18	Ronald	Bleecker	J. H. Lynch And Sons Inc
19	Garry	Bliss	City of Providence
20	Jeff	Broadhead	Washington County Regional Planning Council

21	Thomas	Browning	Quahog Ranch
22	Joe	Caffey	Omni Development Corp
23	Paul	Cantello	National Grid / Events
24	Jared	Carpenter	
25	Wendy	Carriero	National Grid
26	Chris	Caso	
27	David	Chamberlain	Raytheon
28	Mona	Chandra	National Grid
29	Dennis	Chicioine	New England Insulation
30	george	comstantinedes	
31	Ed	Connelly	New Ecology/ WEGO Wise
32	george	constantinedes	
33	al	contente	ri division of public utilities
34	Caitriona	Cooke	CSG
35	Nick	Corsetti	National Grid
36	Ryan	Cote	State of Rhode Island, Office of Energy Resources
37	Josh	Craft	NEEP
38	George	Cross	Cross Insulation
39	Julian	Dash	Clean Economy Development, LLC
40	Marty	Davey	New Ecology/ WegoWise
41	Priscilla	De La Cruz	People's Power & Light
42	Doris	De Los Santos	Governor's Office
43	Ken	DeCosta	Pare Corporation
44	Elise	DelBarone	National Grid
45	Frank	DiMauro	F.C. Dimauro & Associates
46	Mark	Dipetrillo	National Grid / C&I Sales
47	Shelby	Doherty	National Grid

48	Shannon	Donovan	Scituate High School
49	Jeff	Dunham	National Grid/ Sales
50	Nicholas	Durkin	Dimeo Construction Company
51	William	Ferguson	TEC-RI
52	Ron	Fortier	Blackstone Valley Community Action Program
53	Jackie	Garrepy	
54	Larry	Gemma	Gem Plumbing and Heating Inc
55	Elia	Germani	RI PUC
56	Mirabile	Gerry	National Grid/ Sales
57	Vin	Graziano	RISE Engineering
58	Joanne	Gregory	Comprehensive Community Action
59	Ralph	Groves	Groves Energy
60	Mike	Guerard	Optimal Energy
61	Michele	Guerin	Lockheed Martin
62	Agnes	Hagopian	
63	Anita	Hagspiel	RPM Power (NGrid Whole Building Assessment)
64	Seth	Handy	Handy Law, LLC
65	Mark	Hashway	Bailey Group
66	Rachel	Henschel	National Grid / RI Strategy
67	Tim	Horan	National Grid / RI Jurisdiction
68	Alice	Hourihan	Natioanl Grid
69	Chris	Hunter	Advocacy Solutions
70	John	Isberg	National Grid / RI Jurisdiction
71	Russell	Johnson	Rhode Island Housing
72	Cindy	Jolicoeur	Marketing Drive
73	Dan	Justynki	EERMC
74	Brian	Kearney	RISE

75	Chris	Kearns	RI OER
76	Tom	Kelly	Ecologic Spray Foam Insulation Inc.
77	Raquel	Kennedy	
78	Raquel	kennedy	
79	Mike	Kirkwood	Pascoag Utility District, General Manager
80	Mark	Kravatz	Green & Healthy Homes Initiative
81	Jamie	Lalos	
82	Dave	Lamb	University of RI Facilities Manager
83	George	Lawrence	
84	Doug	Leavens	Installed Measures
85	Ken	Lerner	Northeast Energy Reduction
86	Angela	Li	National Grid / RI Strategy
87	Kathleen	Livelli	National Grid / RI Strategy
88	Michael A.	Macari	RI Insulation
89	Jorge	Maldonado	Universal Insulation
90	Robert	Maloney	
91	Paul	Marandola	City of Providence, Housing
92	Donovan	Mark	National Grid/ Sales
93	Dean	Martineau	Amos House Builds
94	Ilene	Mason	RPM Power
95	Carl	Mattson	South County Community Action Agency
96	Michael	McAteer	National Grid / RI Strategy
97	Charlotte	McCormack	National Grid
98	Paula	McFarland	RICCA (RI Community Action Association)
99	Clifford	McGinnes	Block Island Power Company
100	Steve	Mecca	Ecowise Systems
101	Mark	Michalski	Cadmus Group



102	David	Moreira Jr	National Grid/Jurisdiction
103	May	Moy	National Grid/ Alliance Strategy
104	Jim	Murphy	RI College
105	Vin	Murray	Town of South Kingstown Planning Director
106	Dom	Musco	RISE
107	Bill	Natale	L&B Remodeling
108	Jeremy	Newberger	National Grid / RI Strategy
109	Joe	Newsome	
110	Carlos	Nouel	National Grid
111	Sam	Nutter	Conservation Services Group
112	Eean	Patterson	
113	Jenny	Pereira	The Rhode Island Foundation
114	Lily	Perkins-High	
115	Lindsay	Perry	National Grid
116	Wayne	Pimental	Town of E. Greenwich Building and Zoning Official
117	Chris	Powell	EERMC/Brown University
118	Kevin	Rennick	National Grid / Inside Sales
119	Ben	Rivers	National Grid
120	Mike	Roles	Sierra Club Rhode Island
121	Michael	Rossacci	National Grid
122	Maura	Sayre	
123	Philip	Scarbro	Energy Federation (EFI)
124	Dilip	Shah	RI PUC
125	Sean	Shanley	WegoWise
126	Rob	Sherwood	CSG
127	Rachel	Sholly	University of RI Outreach Center
128	Mark	Siegal	National Grid

129	Christina	Skursky	National Grid
130	Eugene	Sorkin	Narragansett bay Commission
131	Eddy	Soto	Eddy's Construction
132	Joane	Spaziano	Park View Middle School
133	David	Stearns	Division of Public Utility and Carriers
134	Seth	Steinman	
135	Suzanne	Tiso	National Grid
136	Ken	Twitchell	Ocean State Energy Audits
137	Amy	Vavak	
138	Karen	Verrengia	City of Cranston Schools Energy Manager
139	Puja	Vohra	National Grid
140	Stephanie	Westgate	Providence Community Action Program
141	Carol	White	National Grid
142	Ed	White	National Grid / Customer & Business Strategy
143	Diane	Williamson	Town of Bristol
144	Parris	Wise	Providence Community Action Program

# Appendix B: Kiosk Posters

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## *Energy Efficiency for Rhode Island Homes*

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### Homeowners

#### Current

- Incentives and rebates for insulation, air sealing, heating/cooling/hot water heating equipment, and Energy Star® lighting, appliances, and electronics
- Services – Free home energy assessments, refrigerator recycling
- Financing – 0% interest for qualifying customers
- Income eligible customers receive benefits at no cost

#### Planned for 2013

- Easier access to info – single phone number, better web presence
- Online rebate processing
- Home energy reports for all residential customers
- Window A/C recycling
- Rebates for LED lighting and controls, and lighting incentives for retailers

#### Your Input

- Do you prefer a home energy assessment leading to recommendations or more self-service options (e.g., online rebates), or both?
- How do you feel about home energy reports that compare your energy use to: (a) your own over time, and (b) neighbors with similar households?
- If you were given \$10,000 for your home, how would you spend it?

## *Energy Efficiency for Rhode Island Homes*

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### New Home Builders

#### Current

- Third party inspection and optional Energy Star® Home certification
- Incentives for homes built to exceed energy code and free inspection and testing for homes meeting energy code
- Incentives and rebates for insulation, air sealing, heating/cooling/hot water heating equipment, and Energy Star® lighting, appliances, and electronics

#### Planned for 2013

- Online rebate processing
- New home performance incentives to be scored as % above baseline rather than Home Energy Rating Scores (HERS)
- Wider promotion of instantly discounted heat pump water heaters and wifi thermostats

#### Your Input

- What features are most important to you as you build your new home?
- Are energy costs taken into consideration when building your new home?
- How much more would you be willing to spend for your new home to be energy efficient?

## *Energy Efficiency for Rhode Island Homes*

### **Renters**

#### **Current**

- Rebates for Energy Star® lighting, appliances, and electronics
- Free home energy assessment
- With property owner's permission – incentives for insulation, air sealing, refrigerators, and heating/cooling/hot water heating equipment
- Income eligible customers receive benefits at no cost

#### **Planned for 2013**

- Easier access to info – single phone number, better web presence
- Online rebate processing
- Home energy reports for all residential customers
- Window A/C recycling
- Rebates for LED lighting and controls, and lighting incentives for retailers

#### **Your Input**

- Does knowing utility costs impact your rental decisions?
- Would your rental decisions be influenced by an energy score/grade for buildings (e.g. a label similar to a car's miles per gallon)?
- Does an energy-saving kit (programmable thermostat, efficient CFL light bulbs, faucet aerators, and refrigerator brush) interest you?

## *Energy Efficiency for Rhode Island Communities*

### **Municipalities**

#### **Current**

- Pilot offering turn-key services with faster application processing and a designated Project Expeditor to handle coordination with utilities
- Potential to finance electric energy efficiency measures
- Total cost of technical study paid by National Grid (up to \$7,500) if 50% of the recommended measures are implemented

#### **Planned for 2013**

- Pilot to continue through the end of 2013 to capture the Summer and Fall installation window
- Potential to expand financing to include gas measures
- Enhanced incentives for municipalities

#### **Your Input**

- Do you feel citizens of your town/city care deeply about energy efficiency?
- Are you interested in attending the Enhanced Municipal Pilot meeting on Sept. 19<sup>th</sup>, 2012?

*Energy Efficiency for Rhode Island Communities*

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## Community Engagement

### Current

- Competitive grants for non-profit and advocacy organizations to promote energy efficiency in their communities
- "DemandLink" – offering bill credits and free wifi thermostats for demand reduction during peak summer hours for customers with central A/C in Little Compton and Tiverton

### Planned for 2013

- Community organization energy competitions with rewards for towns, churches, universities, businesses, etc.
- "DemandLink" – expanding to customers with window A/Cs
- Support for community engagement aspects of E-Zone partnership to be developed with large customer and surrounding community.

### Your Input

- What organizations would be interested in an energy competition?
- What rewards would encourage an organization to save energy?
- What would motivate you to reduce your electric demand during peak summer hours?

*Energy Efficiency for Rhode Island Communities*

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## Economic Growth, Jobs, & Development

### Current

- 2011 efforts will save over \$98 million in fuel costs over the next 11 years for Rhode Islanders, fostering economic growth & business reinvestment
- Jobs for many Rhode Islanders – for example, 35 local electricians and energy auditors employed through the small business program alone
- More opportunities for independent contractors to weatherize homes

### Planned for 2013

- Study being conducted to quantify jobs created through energy efficiency
- Heat Loan lender participation to include additional local banks
- Continued recruitment of independent insulation contractors
- Professional development – more energy code trainings for builders, and CAP agencies to have regular opportunities to share best practices

### Your Input

- What does your business need most in order to hire more people?
- Is there any interest in seasonal work/part-time labor?
- What kind of energy-related trainings are Rhode Islanders interested in?

## *Energy Efficiency for Rhode Island Communities*

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## *Energy Efficiency for Rhode Island Businesses*

# Small Businesses

### Current

- Incentives (70% of project cost) for lighting, controls, refrigeration, energy management systems, gas equipment, insulation, and more
- Financing options – 0% interest for 2 years, or 15% pre-payment bonus for projects with positive cash flow
- Eligibility requirement of monthly demand less than 200 kW

### Planned for 2013

- Expanded reach into small grocery and cool storage sectors with a focus on refrigeration
- Free Energy Star® LED replacements for incandescent & halogen lighting
- Options to work with your own electrician and/or materials suppliers
- Removal of 200 kW demand cap for eligibility

### Your Input

- Have you heard of National Grid's small business program?
  - If yes, and you've participated, would you refer a friend?
  - If yes, but you haven't participated, what were the barriers?
- For renters of commercial space – Do you think your landlord values energy efficiency?

*Energy Efficiency for Rhode Island Businesses*

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## Large Businesses

### Current

- Services include engineering assistance and energy audits
- Incentives for lighting, HVAC, chillers, gas heating and hot water
- Instant discounts at suppliers for select LED & fluorescent tube lighting
- Multiyear energy planning for large institutions (e.g. universities, hospitals)
- Limited offerings for on-bill, low interest financing

### Planned for 2013

- Faster and more efficient processing for project applications
- Expansion of on-bill, low interest financing
- Tailored offerings by business type (e.g., data centers, grocery stores)
- Instant discounts at suppliers for HVAC & commercial kitchen equipment
- More prescriptive incentives including insulation and ventilation measures

### Your Input

- How do energy costs and environmental impact rank among priorities for decision-making in your business?
- What payback period do you expect for energy efficiency?
- If you have participated in National Grid's programs before, how has your experience been?

*Energy Efficiency for Rhode Island Businesses*

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## Multifamily Property Owners & Developers

### Current

- Incentives & Rebates – insulation, air sealing, lighting, refrigerators, and heating/cooling and hot water heating equipment
- Services – site assessments, building plan analysis, third party energy rating (HERS)
- Enhanced incentives for affordable housing

### Planned for 2013

- Primary point-of-contact – New multifamily program manager
- Better coordination – initial meetings organized by National Grid
- Easier access to info – webpage, marketing materials, contact info
- Transparent reporting – multifamily goals and budgets filed in plan

### Your Input

- What types of multifamily properties are in your portfolio?
- What stage in planning/development is optimal for engagement and/or most convenient for you?
- What type of path do you prefer – prescriptive (faster, but more limited), custom (slower, but tailored), or both?

*Energy Efficiency for Rhode Island Businesses*

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## Commercial Property Owners & Developers

### Current

- Services include engineering assistance and energy audits
- Incentives for indoor/outdoor lighting, HVAC, gas heating and hot water, steam traps, energy management systems, programmable thermostats
- Instant discounts at suppliers for select LED & fluorescent tube lighting
- Instant rebates for efficient equipment when converting from oil to gas

### Planned for 2013

- Instant discounts at suppliers for HVAC equipment and vending misers
- Faster and more efficient processing for project applications
- Expansion of on-bill, low interest financing
- "Office of the Future" initiative to focus on improving tenant spaces
- Lighting and controls incentives to be offered as fixed \$ per square foot

### Your Input

- What are your top priorities as you build a new commercial space?
- Do you think there is value in being able to market property as "green?"
- How can National Grid make your energy efficiency experience better?
- Would you be interested in being a test case for National Grid's "Office of the Future" launch?



# Appendix C: Comments

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**HOMES ..... 2**

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**BUSINESSES ..... 8**

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## Homes

## Renters

1.		I would love to know my energy efficiency score – but would really like further information about how it is calculated and more rigor& accuracy with the benchmark (am I being compared to a new single family home or an actual building peer?).
2.		Work with landlords to provide for the purchase of EE appliances in build to provide their clients that save money and energy.
3.		Yes, energy savings kits would be great. And easy thing a landlord can do for their tenants even when the tenant pays the utilities.
4.		50% of my rental prospects ask about heating costs.
5.		An energy score card might work but would take many years to gain traction.
6.		Landlord focused program would be great (a way for landlords to “hear” the direct call to weatherize their buildings.
7.		A condo focused program would be great (condos fall through the cracks between homeowner and 2-4 or multi-unit building).
8.		Strong relationships/coordination between low-income agencies and NGRID are important in serving renters that might be on the cusp of one program or the other.
9.		When will LEDs be available for low income AMP audits?
10.		Work through landlord associations
11.		Work with neighborhood organizations that include the renter population.
12.		Work with public agencies that serve the population, e.g. schools, etc.
13.		Educational forums
14.		Knowing utility costs definitely impacts my rental decisions, particularly with heating/gas costs
15.		An energy score would also influence my rental decisions
16.		An energy kit interests me, but it would have to be convenient to buy – maybe online – and also need to motivate me to buy by stating actual savings
17.		Is NGRID facilitating the effort to address efficiency in the comprehensive context of healthy homes (lead, air quality, etc.), particularly for low-income housing?
18.	<i>Shannon Donovan, Teacher</i>	How about working with teachers to deliver an energy savings kit to energy students participating in an energy efficiency education project with a trained teacher? I facilitate NGRID-sponsored NEED workshops that could help to deliver such a program.
19.	<i>Jackie, Low Income Heating Assistance</i>	We have many low-income clients who move frequently. It would be extremely beneficial to have the “history” of energy usage for each unit to help our clients plan for future expenses. I feel it would help our clients knowing ahead of time to know what to expect. Also, they could conserve to lower their costs. This would give them a baseline.
20.		Helping to promote legislative change that would extend more rebates/incentives to oil customers is huge. Most do use electricity too!
21.	<i>Mark Michalski, Consultant</i>	I have an absentee landlord. How do I convince him to upgrade my apartment outside of essential upgrades, i.e. fixing immediate repairs? All I’ve known I could do is upgrade lighting & weatherize with stripping and plastic. Is there a way NGRID can be more proactive in helping renters outside of lighting and weatherization? Perhaps help build a business case for the landlord?
22.	<i>Joanne Gregory, Director, Social Services</i>	CAP agencies have access to many renters with our housing programs and fuel assistance programs. Provide us with info about online rebate programs & energy info. We will get your message out to our client base.
23.		When appealing to renters <ul style="list-style-type: none"> <li>• What factors will get them to participate and/or pass up</li> <li>• Lack awareness of programs (most of our customer base has been word of mouth)</li> </ul>

		<ul style="list-style-type: none"> <li>• Maybe look at market research (such as customer surveys) to gauge interest and info to better appeal to renters</li> <li>• Possibly push more long-term affect</li> </ul>
24.		<p>Three primary barriers to home weatherization:</p> <ul style="list-style-type: none"> <li>• Cost/\$</li> <li>• Cost/non-financial (time issues; fears about your home being destroyed during the weatherization process)</li> <li>• Customer service</li> <li>• Improving upon all 3 is necessary to move forward a customer to complete(?) work</li> </ul>
25.		Knowing utility costs definitely affects my renting decisions. Scores, similar to the EU labeling system, would be helpful. Having a report that showed my energy usage compared to other nearby, especially if it is normalized usage, would affect my energy consumption.
26.		What is the possibility of building energy disclosure requirements for rental properties or at time of sale?
27.		How can we help renters and/or buyers understand the energy use and bills in different homes and apartments?
28.		They would if I knew the actual energy costs, which is why AMP audits are so beneficial. The renters that we deal with first hand seem to be enthusiastic about energy/\$ savings. Many clients are unaware of the programs available and that there will be no cost to them.
29.	<i>Priscilla De la Cruz, People's Power &amp; Light Marketing Manager</i>	Yes, on all of your questions. Renters should be provided with utility cost history. An energy score for buildings is needed (it'll not only benefit renters, but future buyers letting them know where they stand and how they can improve). It's great that renters have access to free energy audits, but we need to find creative ways to solve the tenant/landlord split incentive challenges (more outreach directly to landlord).
30.		More training for employees – ongoing. Mostly, it would be fantastic if NGRID would reach out to the low income customers more. Many clients/customers face language and socioeconomic and cultural barriers.
31.	(oral comment)	You can service renters at a prescriptive level, but to get into deep measures, you need landlord approval.
32.	(oral comment)	Legislation addressing split incentive so you can address oil customers who are also electric customers, helping landlords who want to upgrade their space

## New Home Builders

33.	<i>Jamie Losos, Marketing consultant</i>	From my experience in marketing these programs, consumers do not see the value of EE in their new home. They would much rather spend \$ on other features in the home. EE has to be a package deal and not an add-on. This is where the builders come in. They need to see the value of non-energy benefits (less recalls, happier customers from increased comfort) to include this in their business model.
34.	<i>Shannon Donovan, Teacher</i>	How about creating a sim for students (grades 7-12) to construct a home that will help them realize the costs/benefits of different designs/features/appliances?
35.		Concepts like day lighting need to be incorporated when building a home. I think it is also important to be able to make the home renewable energy friendly.
36.		Suggestion: Help to build consumer demand for EE homes to support builders and demonstrate value of participation (EE home building – business building opportunity)
37.	<i>Cindy Volicoeur, Marketing</i>	Consider targeted outreach to consumers though home building contextual advertising (e.g. online and print)
38.	<i>Joanne Gregory, Director, Social Services CCAP</i>	CCAP operates affordable housing program. We purchase properties and do energy related renovations. Would love to hear more about your program to leverage funding.
39.		Contractor follow protocol with customers – provide receipt
40.	<i>Frank Dimauro, EE ???</i>	More programs for energy ???names (Energy Star) See solar all on Taunton Rd?
41.		Contractor ??? and officials – packaging offerings (one stop shopping); better awareness of our offerings; making the business case
42.		Education for builders (comparison of techniques, financial and non-energy benefits, and homeowners, students, families – website (how to, comparison) and savings; informational resources
43.		Are there seminars for contractors/builders as part of outreach so they can offer to potential customers/bidders, these options and savings as part of building for a job?
44.		How early in the planning/design phase should one contact NGRID to utilize the program to the fullest?
45.		Provide “one stop shopping” for builders with account manager or lead vendors for design, HVAC, appliances
46.		Can NGRID help in the marketing of low-income weatherization by singling out customers on the low-income rate and do bill inserts by zip code?
47.	<i>Wayne Pimental, Building Official</i>	Provide more savings data to homeowners and builders on comparisons of building types and their savings – if 2x4” construction vs. 2x6”. Foundation insulation benefits – implementation of comparison on different heating/cooling systems.
48.		Info resource: Use local building officials and planners to disseminate info on programs and offerings to builders/developers
49.		Any solar monitoring programs for existing installations
50.	(oral comment)	Renovation and rehab in existing homes is a growing share of the market. Can NGRID provide incentives here? It could be performance-based, once you meet code, then you take balance and make incentive?
51.	(oral comment)	Make renewables an option down the line: once building envelope is efficient and costs shrink, then you can incorporate renewables.
52.	(oral comment)	Continue to make the technical and business case for EE and make sure the case comes across for New Home Builders.

## Homeowners

53.	<i>Building Official</i>	Provide homeowners with more information on what are good energy savings projects with feedback or information from architects and engineers on what properties are most energy efficient such as a 2x4" all constructions versus a 2x6". Take into account overall cost of each savings. The same would be applied to insulation such as attics R-38 or R49. And also different heating systems comparisons.
54.		Utilize community action agencies for marketing and community education and awareness. We have access to many organizations/people/government, etc.
55.	<i>Joanne Gregory, Director of Social Services CCAP</i>	Rebates/Energy audits should continue.
56.		There absolutely needs to be a one stop shop entry way to the RI offerings, including one phone number and one easy to find web site. Also, online rebates fulfillment allows for an easier action for the consumer as well as a better way to track marketing effectiveness.
57.		If I had \$10,000, I'd upgrade all of my HVAC and insulation in my home. If there was more money remaining, I'd spent it on lighting.
58.		RISE can give upfront rebate, other contractors cannot. Customer has to mail it in.
59.		Any schooling scheduled for BPI training.
60.		Incentives for contractors to take BPI training
61.		Energy education and efficiency program has to get to the "masses"
62.	<i>Bob Cerio/Joanne Spaziano, Ocean State Energy Resources.</i>	½ cable education/Youtube videos/Podcasts. School wide energy fair, CFL giveaway.
63.		Open up the energy audits to other than RISE auditors.
64.		Education: <ul style="list-style-type: none"> <li>○ YouTube, Podcasts, 3 state universities, student present to communities</li> <li>○ Energy kits to have kits bring home one at a time to track energy, etc.</li> </ul>
65.		Want/need more incentives for oil customers
66.	<i>Energy &amp; Water Efficiency Consultant</i>	I would like to see the same rebate amounts/size/percentages/available to oil customers (heat and hot water) that are available to natural gas and electric customers.
67.	<i>Greg Barker (SES), Weatherization Contractor</i>	Are customers who received an audit in the last year eligible for the new incentives?
68.		Comparison to neighbors is motivation for many
69.	<i>Pricilla De La Cruz (People's Power &amp; Light (PPL))</i>	A home energy assessment leading to recommendations will be more effective and lead recipients of the service to be more willing and less confused about taking action and about what should be their next steps. It's great to make the information and online rebates accessible online, but the recommendations will lead to more and the behavior we're looking to set. I think these energy reports are really needed and essential to influencing behavior Invest in the heating system
70.		What efforts are being made to extend gas supply lines to open up markets/customers for oil to gas conversion?
71.		Provide ratepayers with info to enable them to determine estimated costs in kWhrs of their appliances, air conditioners, dehumidifiers and [illegible word]
72.		Smart electronics – measure through an outlet what a room is using for electricity. I.e. why is kitchen using so much?
73.		Too much paperwork for contractor to have to fill out paperwork for rebate. Should have customer have to fill out rebate form and not contractor. May be helpful to give incentive to contractor to fill out paperwork
74.	<i>HVAC Mech</i>	The amount of time to process the rebate is taking too long.
75.		More self service options: Home energy reports over time could provide actual visual (on

		the report, bill) proof for energy investments. 10,000 new heating systems
76.		What are the outlets, or ways customers are learning about the rebate program. <ul style="list-style-type: none"> <li>○ Through experience with customers they have learned about the program through word of mouth</li> <li>○ I would like to see more push in marketing in spreading awareness, about saving and rebates, through the media, and online channels</li> </ul>
77.		I liked the recommendations I received from a technician when I had air sealing performed on my house through MassSave
78.		Residential customers should have the option to finance efficiency work through on-bill financing – similar to what is offered to larger C&I customers. Heat loans are only useful for clients with excellent credit scores, but many residential clients do not qualify
79.	<i>Shannon Donovan (teacher)</i>	I <u>love</u> the idea of giving everyone an energy efficiency report. I am a teacher and would use these with my students. BUT → you need to instruct <u>me</u> on how to instruct my students to access these reports. I also teach other teachers through NG-sponsored NEED workshops, so I can teach teachers how to use these reports in the classroom. It will be important that <u>all</u> students be able to access a report, even if they live in a place where utilities are included in the rent. Please be in touch! <a href="mailto:sciencepup@hotmail.com">sciencepup@hotmail.com</a>
80.	<i>Seth Steinman (PPL)</i>	<ul style="list-style-type: none"> <li>○ Help oil consumers w/ more EE incentives: I know a lot of it is legislative, but there is so much potential, I think it makes sense to use even more electric EE \$.</li> <li>○ Look at the possibility of doing 100% incentive for gas vs 75%. It's a nominal increase that could make a huge difference by increasing participation. Plus think of the wasted \$ on audits that don't result in conversions/work.</li> <li>○ Improve customer service. This has been shown to be a very important part of the equation, yet I met people who are unsure if they've even gotten an assessment in the past 5 years.</li> <li>○ Perhaps follow up with prospects who've received an assessment in 2 years asking why they haven't moved forward w/work.</li> </ul>
81.		When I had my house audited, I also had a private company supplement the audit and their recommendations varied significantly from RISE's recommendations and their implementation was much more cost effective. Why not allow competition so those residents <u>get</u> the most effective/efficient level of services? I doubt many people know of the opportunity to use alternative vendors after RISE does their exclusive audit
82.		Home Energy Assessment preferred. National Grid installed a new oil heating system 2 years ago. Our oil costs were \$1000 less per year since installation
83.		Is easy access to contractors provided after the assessment? That's often the biggest stumbling block – not knowing how to easily take the next step. If it were rolled into one process – audit, list of recommendations, select recommended measures, have them implemented – that coupled with an easy financing process would ensure more work was done. An even better step would be to track savings to be able to provide realistic expectations of savings
84.	<i>Parris Wise (Field Manager/ProCAP – Building Analysis Energy Auditor)</i>	Prefer assessment to lead to recommendations with implementation options/guides so I could prioritize needs with available funds. Assess my own use but also compare to other similar households. I think it can be a reality check and may create incentive to 'be most efficient' in your category.
85.		Communication on the client level. Many of the homes that my organization services, the owners are Spanish. Will there be any type of communication to customers explaining what NGRID does, so that they have a better understanding of what the energy saving process is and what it can do for them. Everything from the audit process to rebates
86.	<i>Raquel Kennedy (Victory Energy Solutions)</i>	<ul style="list-style-type: none"> <li>○ Use Energy Report Card that are easy to understand</li> <li>○ Use them in the facilitation of purchase and sales of real estate</li> <li>○ Excellent idea to compare with neighbors</li> <li>○ Online rebates and access to reports – a plus</li> </ul>
87.	<i>R. Maloney (auditor)</i>	As a certified BPI auditor I would like to be able to offer my services to all residential homes and offer incentives as does RISE.
88.	<i>Ken Twitchell (energy auditor)</i>	I'm interested in growing my services as an energy auditor and feel restricted based on the current structure. I would love to see National Grid open up the auditing/assessment process to small businesses in Rhode Island. Myself and my peers are very qualified based

		on education and credentials but are underutilized.
89.		Should offer some consideration of window door replacement for incentives. Also should emphasize comfort and utility of making IMPs, not simply quantitative savings.
90.	(oral comment)	Most marketing goes through word of mouth, so you need to get a conversation started
91.	(oral comment)	Forge partnerships with CAP agencies and others and use these partnerships to touch other sectors
92.	(oral comment)	Difficult to wade through a myriad of offerings – need single point of access and simple presentation of the different programs

## Businesses

### Large Businesses

93.	<i>Deidra Tart, FM Crowne Plaza</i>	Window tinting rebates or incentives. Once TA study is complete, there is a bottleneck back a NGRID, VSDS.
94.	<i>R.L. Bluck?</i>	TA studies should be able to standardize elements for same equipment located at different sites for one customer. Why don't you share your benefit cost model with customers?
95.		Lighting change-outs are based on not wanting to have to replace burned out light. Big uptick in past 6 months.
96.		How has experience been? The City of Providence is beginning to see significant savings from NGRID- sponsored retro-fittings. Our office often identifies consumption problems in city & school buildings that could benefit from no-cost/low-cost service expertise as it relates to wiring, building envelope, etc.
97.	<i>Kim Ziegelmayer</i>	For large commercial, though it is currently out of the realm of NGRID per se, it may be worthwhile looking at how large projects can be financed. If there were financial vehicles that allowed the proposed projects to be treated as investment vehicles, similar to real estate investment trusts. Also, farther out into the future, if small-scale renewables could somehow be integrated into NGRID (and other) utilities portfolios, considered as micro-generating stations tied into the smart grid.
98.	<i>Evaluator/Marketing consultant</i>	Interestingly enough, feedback heard in many states is that large businesses require a payback of 18 months. I believe this is due to the recent economic conditions.
99.		Also, while it's great C&I programs have focused on large customers, it's time to widen the funnel and target more medium customers. NGRID needs to invest money in direct outreach to these customers to go past the low-hanging fruit.
100.		Recommend a card or postcard of some sort to go to strategic partners with direct contact info for various programs to improve the efficiency of communications.
101.		Payback is part of my decision making – depends on the project if its owner-built and managed I look for 10yr payback, if not then 5yr is the goal.
102.	<i>Program Implementation</i>	Instant discounts on commercial kitchen equipment may be difficult to implement. A lot of these products are sold and installed across state borders and dealers may be unwilling or unable to track and report on installations just within NGRID territory.
103.		More regional collaboration on the commercial food service equipment program would be beneficial. Consideration should be given to setting up a regional center (like the one in CA) that allows stakeholders to see, learn and try efficient equipment before purchasing.
104.		Incentives should be X per kwh- savings expressed over x yrs. Energy & technology neutral.
105.	<i>(oral comment)</i>	Newer incentive on commercial kitchen on the electric side – people want to see it more regionalized, a regional incentive might make it more attractive to participate in the program. If the folks who are making purchasing decisions—vendors or contractors—are across state lines, they might not want to share the information. Because there are different programs in different states, you can build a lot of benefit by regionalizing it. In California they have a center where they can test the equipment, if you had a large enough spread you could do that in the



		northeast, which would be beneficial.
106.	(oral comment)	Streamline and standardize – customer approach is a little more in depth than prescriptive projects – so when you participate there is a custom study, customers would like to see it a little more standardized, and customers get confused and want to see it simpler on their behalf

## Small Businesses

107.		Expand the current services to small businesses to help them implement a broader range of gas efficiency measures. Work together with trade allies (HVAC, weatherization) to make this possible.
108.		Landlord does not care about efficiency because costs on to renter. Is there outreach to teach them to advertise space as efficiency with lower costs to potential renters?
109.	<i>Kim Zielgelwayer</i>	If commercial space renters pay their own utilities, perhaps effort to outreach to all the tenants of the building simultaneously in efforts to reach the landlord. Making participating with the program, especially access to the incentives, as painless and least time consuming as possible. Perhaps branding campaign (stickers on window of business) as having participated in NGrid EE programs as add on to marketing for business customers.
110.		Target landlords more.
111.	<i>Small business (office)</i>	When commercial landlords don't care about EE, commercial renters should be eligible for some incentives (i.e. lighting).
112.		Please revise the on-line bill portal. It is very slow and not user friendly.
113.		Have my partners participated in small business- yes
114.		My partners stated difficulty in communicating to participate finding the right people to discuss with
115.		One project was less expensive for the partner to install the same EE products themselves proposed by the NGrid party
116.	<i>Helgeson</i>	HVAC- rebates taking much longer than before. More than 6 weeks. Call center – continue to tell customer to call back a week at a time-no info on rebate
117.		HVAC- field need to be training HVAC people not knowledgeable on the boilers HVAC rebates should be an online process HVAC installers hate dealing with the paperwork for rebates
118.		Before participating, it would be good to know just how much better or worse my building is than similar ones
119.		Small business- better outreach and marketing needed. Many of these programs are not well known. Better communication to the public leads to greater efficiencies.
120.	<i>Priscilla De La Cruz, PP&amp;L, Marketing Manager</i>	<ul style="list-style-type: none"> <li>• More cross-marketing of outreach from the Energy Wise to small business program</li> <li>• Promote the small business program on the Bill (customer check their bills prominently) promote the program on the electric bill, this might be more effective than a bill insert idea.</li> <li>• Provide incentives to businesses to recruit and sign up other businesses</li> <li>• Cold walk-ins from local groups in the businesses having prior history of past participants</li> </ul>
121.		Use success stories to market to similar businesses
122.		Seems that there are many for profit companies pushing their own agenda/products, confuses and diverts owners from participating in programs
123.		Target outreach in fridge recycling for small businesses, Offer incentive, Special Price, AC offer
124.		Please find a way to divert funds for creating “energy manager positions”. School departments and municipalities need staff to execute projects and find funding.
125.		Energy consultant—need one for each city. Grid should fill this role for the city that doesn't have one.

## Commercial Property Owners & Developers

126.	<i>Vin Murray, Town Planner, South Kingstown</i>	NGRID Programs should emphasize comfort and utility of improvements for users of facilities – not just quantitative efficiencies of programs and improvements (general comment for all kiosks).
127.		In response to marketing your property as “green”, I think this is a great idea! It would be really incredible to have a consistent, quantifiable way to understand the energy efficiency of these properties (and market). Could we score all of RI’s commercial buildings and create a competition? A true means of assessment?
128.		EE Programs should be integrated and/or cross-referenced with renewable energy programs for small businesses because during construction/rehabilitation, these are usually done at the same time.
129.		Provide coordination of building engineers, designers, architects in helping developers design more efficiency buildings, i.e. building envelope types pro’s and con’s – same for HVAC.
130.	<i>Nick Durkin, Construction manager</i>	Case studies detailing commercial property energy efficiency success stories would provide quantitative reference opportunities.
131.		Too many pieces of program – need collaboration – need outreach to end users (who use the equipment) of commercial food service (gas & elec) – when NGRID talks to end users – talk about all offerings – e.g. lighting onsite?? should cover measures
132.		One solution for property owner to address all spaces within a footprint – holistic solutions that go beyond incentives (which ones didn’t make it this happens mostly offices and multifamily programs.
133.		How about solar DHW and radiant heat program
134.		I have run into this situation several times...an audit proposal is developed that includes measure that are eligible for incentives but does not address holistic vision of the owner. For example, a lighting proposal for a high rise apt complex that suggests (one of multiple measures) changing lights on one floor only when owner wants all floors to look the same (the one floor had test lighting fixtures that were not adopted). Owner is not satisfied with lighting as is and is willing to cover cost of those retrofits.
135.		Refrigerator recycling component to be embedded within small/medium/large offering as well.
136.		How do I work with NGRID to make my lighting product as part of an approved list for lighting installs that customers can do.
137.		Decorative lighting (Town of Bristol) used for festivals – all lights are inefficient – leave them on for 3 months of year
138.		Energy education to those who use those spaces – online – kids teaching kids (if school upgrades happen) – curriculum K-12, networks & cable TV, podcasts, YouTube – mentors for senior (and junior) portfolio & projects
139.	<i>Kim Ziegelmayer</i>	I believe there is value in marketing a property as “green” and this grow in importance as time passes. I think the idea of developing a “portal” similar to what Chris Powell from Brown described B/T Brown Univ. and NGRID where the utility and project planners are communicating with NGRID at the beginning. Also, mechanisms within NGRID B/T departments when developer applies for electric or gas connection the contact info is passed on to appropriate EE staff @ NGRID to make them aware of new projects.
140.	<i>(oral comment)</i>	National Grid could create a mechanism to inform customers about energy efficiency offerings when new service connections are requested by developers

## Multifamily Property Owners and Developers

141.	Manager	Multiple types of multifamily from low rise to mid rise—separate and command meters. Optimal planning is as early as possible. I like prescriptive-for ease of designs of rebates but customer design and commissioning. Better web page a must
142.		I'm always amazed by how much energy usage can fluctuate from one similar building to another. It would be great to have a sense of where I could get my buildings to in terms of energy use prior to starting energy efficiency measures. What low cost first pass options are available for looking at the energy use for all the buildings in my portfolio?
143.	Landlord	A wide spread issue I see (as a landlord) is the lack of incentive for landlords to improve the efficiency of their rental properties if they do not pay the utilities. The landlord will not save any money (the tenant would). The rental market is so strong that it will not improve the occupancy. Still it is the right thing to do for efficiency and the right thing to do for renters, helping the economy, etc. Low income loans are not the answer. The cost of improvements needs to be greatly incentivized.
144.		Need to put timeframes to customer in prescriptive. Ensure accountability from the different divisions i.e. Energy Wise, CNI, etc interacting on one project. Expand multifamily definition to include multiple properties (1-4 units) owned by one entity-particularly if designated as long term affordable.
145.		High rise apartments - Ability to address retail shops on 1 <sup>st</sup> floor
146.	Joanne Gregory, Director Social Services	Use CAP agency contacts for client education and delivery of programs and information: Landlord, renters, and homeowner contacts
147.		Gas line extension—How do you determine where to extend. I know it is expensive. I've heard it takes one or more owners pushing and for putting up the money. But what about an area such as Salisbury Ave in North Kingstown? The gas line is at the end of the street. The short street is mostly multifamily and rentals (former housing for the Hamilton Mill—now condos which has gas). So the property owners on Salisbury won't benefit because most tenants pay utilities. But a short run could effect efficiency and savings for many tenants. Who advocates for this work?
148.	MJ Davey	Consider on bill financing for all /part of multifamily properties, especially low-income.
149.		Make the "normal" definition of multifamily (+1) consistent with NGrid's definition of multifamily (+5). Make it easier to take advantage of programs regardless of # of units
150.		My big concern is to find better ways for families to be aware about the program, easier access to info about the program. Also push savings incentives through website, and other media.
151.	Raquel Kennedy, Victory Energy Solutions	Use benchmarking/energy disclosure as a marketing tool. <ul style="list-style-type: none"> <li>○ Promote health safety and comfort in addition to lower energy costs.</li> <li>○ Promote access to home performance services over and above what is incentivized.</li> <li>○ Facilitate access to financing for non-incentivized measures as well.</li> </ul>
152.		Will you be working on off peak pricing available to the consumer e.g. do your washing/cleaning on off peak times to pay a lower KW cost
153.	Robert S. Cerio, Energy manager	What I see lacking here today is an education and outreach program to: <ul style="list-style-type: none"> <li>○ Inform the masses about NGrid programs</li> <li>○ Energy efficiency education in general</li> <li>○ Why energy efficiency is important</li> </ul>

		<ul style="list-style-type: none"> <li>○ What energy efficiency means to our country</li> <li>○ Environmental impacts</li> <li>○ Job market</li> </ul>
154.	<i>Nick Durkin, Construction Manager</i>	Have a dedicated resource (point-of-contact) who can assist and advice clients/customers is very important.
155.	<i>Owner of 2 3-family houses</i>	Optimal engagement time is when major equipment needs to be replaced. Prefer custom but open to prescriptive measures. Would suggest as multifamily properties change ownership that some type of rating, improvement, incentive program is developed that encourage EE improvements in the “in-between” time.
156.	<i>Kim Ziegelmayr</i>	Educating renters and owners about benefits of EE. Solving/addressing the disconnect between decision makers (owners) and those who benefit (tenants) (depending on situation—owner pays utilities vs tenant pays).
157.		Subsidized housing—beginning education and audits, slower but tailored.
158.		Working with limited funds, it’s helpful to prioritize buildings with the greatest potential for savings. Benchmarking (scoring) the buildings is an easy way to do this with minimal upfront cost. The Massachusetts LEAN program is a good example.
159.	Contractor (oral comment)	Work to make the system easier for your contractors; in particular, standardizing the process (e.g. a report that needs to be submitted, etc.)
160.	Rhode Island Housing representative (oral comment)	Don’t forget about the end user – successful implementation of some measures requires an understanding on the part of the end user. In the case of programmable thermostats, for instance, if the end user doesn’t understand how it functions or how to set it up, it defeats the purpose.
161.	(oral comment)	Limited range technologies like thermostats could be applied successfully in settings such as multifamily homes. Optimal opportunities include instances where the landlord does not want the tenant to be able to control the temperature over wide ranges (e.g. 60 to 90 degrees), but may be open to allowing control over a fixed limited range (e.g. 68 to 74 degrees). However, currently these technologies are not considered “programmable”, so there is no incentive available.

## Communities

### Economic Growth, Jobs, and Employment

162.		Can the auditing and energy savings implementation process be opened up to corporations to increase effectiveness of process and expand opportunity for new business growth?
163.	<i>OER</i>	Question is how to get more RI customers involved. It's simple, get people engaged. ARRA appliance management proposal is an example of getting people involved - got people excited. ARRA oil heater repair program.
164.		Simplified requirements for pom/incentive access. On going communication not just event or seminar. On poms ok. Savings lessen tax burden.
165.		Develop an energy engineering discipline or area of study at a local college or university to meet the needs of the energy efficiency future that is not just focused on lighting, or an HVAC, or an envelope, but all 3. The industry needs skilled services providers with knowledge of all systems.
166.	<i>Office of Sustainability</i>	As the City of Providence Energy management Department, we need more support for the fundamental technical issues (i.e. meter, service address, account information) to assist in our own consumption and cost monitoring.
167.	<i>Nick</i>	In today's PDA and IPAD world provide forum packet as e-packet. (General Feedback)
168.		Involving IICs (or even HPCs) in outreach could be good and motivating. If you bring the customer you get more work. This is job creation!
169.	<i>Shannon Donovan, Teacher</i>	Is there a way for high school students to intern with folks involved in efficiency programs? Would grid sponsor an annual cohort of summer interns? The students could spend x days per week in their placements, x days per week meeting together to share their experiences and preparing some work product to share with their home communities. You would need a teacher to facilitate the component.
170.	<i>Greg Banker (SES), Contractor</i>	There should be additional training for participating contractors on new products, technology, and financing options.
171.	<i>Nick Durkin, Construction Manager</i>	From construction company perspective: <ul style="list-style-type: none"> <li>Short response time for answers—need answers from NGrid on technical equipment specs</li> <li>Need commitment from NGrid to owner that incentive dollars are earmarked and guaranteed.</li> </ul>
172.	<i>Michael Roles, Community Organizer</i>	How do we leverage RI's leadership in energy efficiency to create more jobs? How do we leverage our "green economy" strength to become a place for further innovation and job development and a place for the rest of the country to look toward? (Just food for further thought)
173.		Build awareness of this relationship: Saving energy dollars saves jobs, such as teachers and bus drivers.
174.		Information found on energy efficiency programs and renewables is general/vague. Need information for electricians that helps at point of sale. Ex] information that includes 30% federal tax credit and 25% state income tax credit and NGrid incentives. But no materials that can be used by an electrician to sell a job.
175.	<i>Parris</i>	Can NGrid hold forum/conferences strictly on energy code regulations for the CAPS and distribute hand-out materials the CAPS can choose energy saving practices from.
176.	<i>Kim Ziegelmayer</i>	Tax credits/deductions for businesses associated with the energy efficiency industry in RI. Let's make RI a leader in creating jobs through the energy efficiency industry. Training readily available for technical and mechanical skills needed to employ in the industry.
177.		There is great future in energy programs. More opportunities for education in this area would be great. Even if it involves a push on the government side to provide incentives for education in these areas.
178.		Create a framework to measure the impact on the energy efficiency offerings to include things as job creation, environmental impact, etc.
179.		Collaborate with economic development organizations to create meaningful definitions of job

		creation and metrics to measure progress.
180.	Jim Murphy (RIC) (oral comment)	Do you have any specific design on getting college students engaged? Jeremy Newberger from National Grid responded and said that through the NEEP program they are working with high schools. Working with colleges is something Jeremy heard for the first time today.
181.	(oral comment)	Initially, few people we hired were certified or had the skills we needed. As the years progressed, the needs for skill sets changed (at the beginning, we needed people good with their hands, good at math and grammar, but now not only technical skills but also selling and evaluating performance measures). We connected with organization in CT who is doing job profiling – will identify the job skills needed and then work to come up with specific job training programs to get well trained staff
182.	Charlie Hawkins (OER) (oral comment)	Charlie Hawkins (OER): Towns need to take advantage of the programs because they are paying into them

## Municipalities

183.		Please talk about up and coming energy efficiency programs, opportunities for energy auditing and contracting.
184.		With the increase in the DSM, towns need to take alternative of NGrid incentives or pay larger energy bills
185.		Performance contracting program for municipalities/towns.
186.	<i>Michael Roles, Community Organizer</i>	Leveraging constituency-based (with membership) organizations is a great first step to reach out to the broader community.
187.	<i>Town of Barrington</i>	Programs for student participation - Community events including students/children.
188.		Provide municipalities with more information and tools that we can pass on to residents via the web (town website), media flyers to residents who come in.
189.		Encourage cross-marketing e.g. encourage/pay for the water dept to send a bill stuffer about residential home energy efficiency opportunities.
190.		Improved outreach/communications with cities/towns on programs needed. Clear, user friendly guidelines on incentives would be very helpful. Ongoing communication-needed! Side benefit—less energy \$\$ = less tax burden.
191.		Citizens care about energy efficiency only if it means money has been saved (basic replacement). Efficient/subsidized replacement.
192.	Gary (oral comment)	How will the incentive rate will be calculated for LEDs for municipalities looking to make the switch from high pressure sodium fixtures to LEDs for traffic lights? A National Grid representative responded that currently Clark University is doing an analysis to see what effect the two alternative options have on the distribution system in terms of comparing the decrease in energy usage.
193.	(oral comment)	National Grid is a sponsor of Building Operator Certification; this is an opportunity for building folks to get certified
194.	Amy (PPL) (oral comment)	National Grid can make a proactive ASK for participation in programs, rather than merely educating communities about energy efficiency to build awareness. Using this approach with municipalities is important because cities and towns have the ability to communicate directly with their citizens, making them a trusted messenger of energy efficiency messaging.
195.	(oral comment)	Oil/gas conversions: If a neighborhood or a development did not have gas nearby but was up the street from a line, rather than having it addressed on a neighborhood basis, could the city or town say we've identified 500 customers for NGRID and have it addressed on a TOWN basis? You would start with the Town administrator or other representative to do this.
196.	(oral comment)	School boards, town councils – NGRID should educate those groups to let them know what initiatives are out there



## Community Engagement

197.		Community engagement is about education, collaboration, and rewards
198.	<i>Seth Steinman, PP&amp;L</i>	Keep it local—work with trusted organizations within the community you are trying to reach. Link any rewards or incentives back to the challenge i.e. with an energy efficiency project or challenge, give a higher efficiency boiler, or solar panels, or more insulation. For an unsuccessful example, look to Providence recycling challenge with the unrelated award of a free BBQ and trees.
199.	<i>Seth Handy, attorney</i>	You're offering grants to non-profit and advocacy organizations. How about to municipalities?
200.		Develop a strategy to market the Energy Wise and other programs to employees of large corporations, banks, schools, etc
201.	<i>Shannon Donovan, teacher</i>	Can classroom teachers apply for the competitive grants for class projects?
202.		Help identify and educate community partners that can get communities to move beyond lighting rebates; tackle deeper and more costly savings projects
203.		Creating good relationships between "the community" and related vendors is key. They are the ones carrying out the on-the-ground work together. They need to talk, understand each others goals and operations. They have to share information and data.
204.	<i>Michael Roles, Community Organizer</i>	Rewards and incentives for a school community energy efficiency competition. Start with small grant awards that enable students to become excited about energy efficiency.
205.	<i>Business Analyst/Nonprofit Board Member</i>	Working with such small budgets, nonprofits would greatly benefit from energy efficiency programs. As a nonprofit board member, average savings of utility costs are very compelling because we can put those funds towards the kids we serve instead.
206.		How do we stay up to date with the community outreach opportunities?
207.	<i>Michael Roles, Community Organizer</i>	Engaging schools in an energy competition (public and private elementary, middle, high and college institutions) helps bring energy efficiency to the next level in many ways—it engages and excites the next generation about electricity sources, efficiency benefits, and jumpstarts discussion for students about a new clean energy economy. It also enables students to also spread knowledge to friends and families. Equally important, it helps high energy output facilities lower their carbon footprint.
208.		I love the school competition idea. It would be really cool to tie this in with the actual school curriculum—have students calculate square footage, window area, etc and track energy use then have them compare their school to others.
209.		The more local the messenger—the better for passing on information.
210.		We need better promotion of nonprofit grants to promote energy efficiency! Also need multimedia communication beyond today's event. Ongoing/continuous!
211.	<i>Shannon Donovan, teacher</i>	Energy competition-let's talk!! If all students can access their energy reports for their home, we can do this—competition between different classes, etc. Prizes could be something for the whole class plus a little something for each kid. Can use partnership with NEED to deliver info on these programs. Shannon Donovan, teacher Scituate High School <a href="mailto:sciencepup@hotmail.com">sciencepup@hotmail.com</a>
212.		Need more incentives for communities/municipalities to participate in a competition
213.		Tenreht—mesh network to control lights, HVAC, and cost. Upgrade your demand link program to include technology that can influence lights, plug

		load, and HVAC
214.	<i>Joanne Spaziano, Cranston Public Schools</i>	In order to reach people in a community you must reach the children. They are the future. Convince them that energy conservation and efficiency is important and they will share that information with their families. National Grid could conduct learning nights for schools who have teachers present learning activities to their students. Students would create their own “kiosks” about energy education and National Grid could give away CFLs etc. Joanne Spaziano, Cranston Public Schools, Teacher/NEED National Trainer, <a href="http://www.need.org">www.need.org</a>
215.	<i>Priscilla De La Cruz, PP&amp;L, Marketing Manager</i>	Stronger working relationship between National Grid (vendor) and the community group (easier to communicate and provide feedback; making the turnaround time faster and more efficient). Link the incentive for schools, church, community groups, etc back to the program and have the message come from as local as possible. Customers need to be able to access the program as easily as possible, get answers and feedback, and get the service promptly (avoid losing the prospect).
216.	<i>Michele Guerin, Jockheed Martin, Program Implementer</i>	Build synergies between programs. In particular, the School Fundraiser Program can be one component of the community competitions. This would create an avenue to not only share contacts and co-market, but also help extend the impact of the competitions into the homes of the people in the organizations and communities. This type of collaboration will broaden the impact of these programs in a cost effective way.
217.	<i>Jim Murphy, Sustainability Coordinator</i>	At RI College we believe that the education of our K-12 students in RI will lead to an energy efficient future. RIC would be willing to train our future teachers in energy efficiency so their students could bring home this thinking to parents and families. Showing students and families the cost savings is the key. Help train our teachers!
218.		Make some special incentives, community programs don't have the types of boundaries that create unnecessary limitations e.g. a school program in Warwick should still benefit if they can get someone in Providence to get a home energy assessment. Providence is where grandma lives.
219.	(oral comment)	How can National Grid, through their community relations, work with a number of businesses in one place to get a lot of people to participate; how can NGRID work with large employers so that all the folks who work there can engage with energy efficiency in their homes?
220.	Danny Musher (URI Outreach) (oral comment)	Can National Grid recruit a wider pool of customers through large employers, municipalities, trusted channels? National Grid responded that they want to continue and expand their engagement with organizations like URI and PPL to reach customers in new ways. E-Zone program works with their largest business customers to offer employee engagement tools to help large business employees participate in the programs. They are also working with large customers to get customers through large businesses. MOU with Brown University is an example pilot – setting up a system to inform employees of opportunities. They will start with one large customer, then replicate.

## Appendix D: Report-Out Presentations



### **Business: Interactive listening & feedback**



### **Small Business**

- Marketing and outreach – customers are not aware or participating in programs
- Energy manager/consultant role – lack of staffing and support for executing projects
- Renter/landlord split incentive – common to other themes as well
- Website & online transactions – streamline to make more intuitive
- Comprehensive approach – integrating more gas measures to help address a broader range of needs

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## Multifamily Property Owners & Developers

- Need focus on multifamily (additional resources, standard definition)
- Need to address split incentive (landlord/tenants)
- Need better access to information/more education
- Benchmarking can help inform decision-making
- Need to connect energy efficiency with other energy-related areas (gas conversions, renewables) and health and safety

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## Commercial Property Owners & Developers

- Holistic approach – not piecemeal solutions applicable for select spaces
- Outreach and education to end-users, including case studies to learn from
- Real estate – market as green, makes EE investment more attractive
- Benchmarking/scoring building energy usage in order to compare
- Mechanism to inform on EE offerings when new service connections are requested by developers

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## Large Business

- Technical assistance studies – streamline and standardize
  - Customers and vendors would like to be able to have access to benefit/cost models
- Commercial kitchen equipment incentives could be regionalized
- Access to energy efficiency contacts for program offerings via websites and literature

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# **Communities:**

## **Interactive listening & feedback**



## **Community Engagement**

- Energy savings start with education at a lower level
- Create synergistic relationships between utilities, schools, local vendors and businesses to deliver savings
- Keep the message as local as possible to encourage participation
- Offer programs specifically for non-profits, advocacy organizations, and create employee engagement

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## Municipalities

- Propose an LED streetlight rate for communities
- Create more EE incentives and financing opportunities for oil to gas conversions
- National Grid should communicate and educate the community about their EE initiatives to build awareness

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## Economic Growth, Jobs, & Employment

- Create a clear definition of job creation and a method to track
- What would we do differently if job creation is a primary VS secondary benefit?
- Standardize trainings for contractors in new products, technology, codes, and financing
- Start building a workforce early through high school and college partnerships

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# Homes:

## Interactive listening & feedback



## Renters

- Target landlords
- More communication about offerings & benefits
- Want to know energy score, previous utility bills, etc.
- Use CAPs as conduit for external marketing
- Legislation supporting landlord participation

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## New Home Builders

- Marketing & awareness – value of energy efficiency
- Education – technical & business case
- Renovation & rehab
- Driving efficient building envelopes & preparing for next step

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## Homeowners

- Education – energy efficiency & conservation, coordinated effort among K-12 & higher ed
- More incentives for oil customers
- Home energy reports – to promote awareness; compare to neighbors or themselves?
- More opportunities for independent auditors
- Better marketing & single point of access

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**Table E-1**  
**National Grid**  
**Electric DSM Funding Sources in 2013 by Sector**  
**\$(000)**

	<u>Projections by Sector</u>			<b>Total</b>
	<b>Income Eligible Residential</b>	<b>Non-Income Eligible Residential</b>	<b>Commercial &amp; Industrial</b>	
(1) <b>Projected Budget (from E-2):</b>	\$ 8,430.47	\$ 23,544.97	\$ 44,160.23	\$77,496.8
<b>Sources of Other Funding:</b>				
(2) Projected DSM Commitments at Year-End 2012:	\$0.0	\$0.0	\$1,392.3	\$1,392.3
(3) Projected Year-End 2012 Fund Balance and Interest:	-\$314.7	\$679.2	\$5,639.8	\$6,004.3
(4) Projected FCM Payments from ISO-NE:	\$75.9	\$738.2	\$1,215.2	\$2,029.2
(5) Projected RGGI Payments:	\$0.0	\$0.0	\$0.0	\$0.0
(6) Projected Copayments from LC&I Finance:	<u>\$0.0</u>	<u>\$0.0</u>	<u>\$379.1</u>	<u>\$379.1</u>
(7) <b>Total Other Funding:</b>	<b>-\$238.8</b>	<b>\$1,417.4</b>	<b>\$8,626.4</b>	<b>\$9,804.8</b>
(8) <b>Customer Funding Required:</b>	<b>\$8,669.3</b>	<b>\$22,127.6</b>	<b>\$35,533.8</b>	<b>\$67,692.0</b>
(9) <b>Forecasted kWh Sales:</b>	<b>293,673,545</b>	<b>2,857,025,515</b>	<b>4,703,201,534</b>	<b>7,853,900,593</b>
(10) <b>Energy Efficiency Program charge per kWh:</b>				\$ 0.00862
(11) Currently Effective EE Charge				\$ 0.00589
(12) Adjustment to Reflect Fully Reconciling Funding Mechanism				\$ 0.00273

Notes:

(1) The total projection of FCM revenue is allocated by kWh sales to each sector.

(2) Copayments from LC&I Finance are the anticipated amount to be repaid in 2013 by large customers who received finance.

(3) Projected street lighting and sales for resale kWh have been allocated to each sector based on the percentage of sales in each sector excluding expected street lighting sales.

Table E-2  
National Grid  
2013 Electric Energy Efficiency Program Budget (\$000)

	Program Planning & Administration	Marketing	Rebates and Other Customer Incentives	Sales, Technical Assistance & Training	Evaluation & Market Research	Shareholder Incentive	Grand Total
<b>Non-Income Eligible Residential</b>							
Residential New Construction	\$53.1	\$30.5	\$939.3	\$846.5	\$13.2		\$1,882.6
ENERGY STAR® HVAC	\$27.1	\$444.4	\$583.8	\$159.8	\$11.0		\$1,226.1
EnergyWise	\$103.2	\$242.2	\$4,648.8	\$1,756.7	\$13.9		\$6,764.8
EnergyWise Multifamily	\$60.3	\$127.7	\$847.5	\$370.1	\$13.9		\$1,419.6
ENERGY STAR® Lighting	\$113.6	\$640.6	\$3,073.5	\$495.4	\$66.9		\$4,390.0
ENERGY STAR® Appliances	\$80.7	\$504.6	\$946.0	\$908.3	\$15.2		\$2,454.8
Home Energy Reports	\$35.6	\$18.7	\$1,331.7	\$33.8	\$11.0		\$1,430.8
Energy Efficiency Educational Programs	\$0.0	\$0.0	\$0.0	\$55.3	\$0.0		\$55.3
Residential Products Pilot	\$15.2	\$60.8	\$255.0	\$259.2	\$110.4		\$700.7
Community Based Initiatives - Residential	\$18.4	\$103.3	\$15.0	\$361.9	\$10.0		\$508.6
Comprehensive Marketing - Residential <sup>2</sup>	\$0.0	\$1,590.4	\$0.0	\$0.0	\$0.0		\$1,590.4
Residential Shareholder Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,121.2	\$1,121.2
<b>Subtotal - Non-Income Eligible Residential</b>	<b>\$507.2</b>	<b>\$3,763.2</b>	<b>\$12,640.6</b>	<b>\$5,247.2</b>	<b>\$265.6</b>	<b>\$1,121.2</b>	<b>\$23,545.0</b>
<b>Income Eligible Residential</b>							
Single Family - Income Eligible Services	\$129.5	\$75.3	\$4,398.4	\$1,639.2	\$97.2		\$6,339.7
Income Eligible Multifamily	\$63.8	\$127.7	\$1,156.3	\$327.6	\$13.9		\$1,689.3
Income Eligible Shareholder Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$401.5	\$401.5
<b>Subtotal - Income Eligible Residential</b>	<b>\$193.3</b>	<b>\$203.0</b>	<b>\$5,554.8</b>	<b>\$1,966.8</b>	<b>\$111.1</b>	<b>\$401.5</b>	<b>\$8,430.5</b>
<b>Commercial &amp; Industrial</b>							
Large Commercial New Construction	\$266.2	\$286.0	\$6,512.5	\$2,330.1	\$183.2		\$9,578.0
Large Commercial Retrofit	\$443.0	\$227.6	\$15,344.5	\$2,770.5	\$197.4		\$18,983.0
Small Business Direct Install	\$195.3	\$234.7	\$10,435.8	\$719.9	\$165.4		\$11,751.1
Community Based Initiatives - C&I	\$30.2	\$12.0	\$0.0	\$105.8	\$10.3		\$158.4
Commercial Pilots	\$49.6	\$31.5	\$179.1	\$59.0	\$17.3		\$336.5
Comprehensive Marketing - C&I	\$0.0	\$555.1	\$0.0	\$0.0	\$0.0		\$555.1
Finance Costs	\$0.0	\$0.0	\$1,000.0	\$80.0	\$0.0		\$1,080.0
Commercial & Industrial Shareholder Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,718.1	\$1,718.1
<b>Subtotal - Commercial &amp; Industrial</b>	<b>\$984.4</b>	<b>\$1,346.9</b>	<b>\$33,472.0</b>	<b>\$6,065.3</b>	<b>\$573.6</b>	<b>\$1,718.1</b>	<b>\$44,160.2</b>
<b>Regulatory</b>							
OER	\$544.4	\$0.0	\$0.0	\$0.0	\$0.0		\$544.4
EERMC	\$816.7	\$0.0	\$0.0	\$0.0	\$0.0		\$816.7
<b>Subtotal - Regulatory</b>	<b>\$1,361.1</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$1,361.1</b>
<b>Grand Total</b>	<b>\$3,046.0</b>	<b>\$5,313.0</b>	<b>\$51,667.3</b>	<b>\$13,279.4</b>	<b>\$950.3</b>	<b>\$3,240.7</b>	<b>\$77,496.8</b>
Incremental System Reliability	\$50.0	\$77.0	\$101.6	\$14.9	\$100.0	\$0.0	\$343.5

**Notes:**

(1) Includes Total Commitments for 2013, expected to be \$7 million. The allocation between Large Commercial New Construction and Large Commercial Retrofit is:

Large Commercial New Const. Commitments (\$000): \$0.0

Large Commercial Retrofit Commitments (\$000): \$7,000.0

These commitments reflect agreements with customers to provide funding for approved energy efficiency projects that will be completed after year-end 2013.

(2) For more information on Finance Costs, please refer to the 2013 C&I Program Description, Attachment 2

(3) The Small Business Revolving loan fund supports the on-bill repayment of projects. The loan fund does not require additional funds for copays in 2013.

(4) Incremental System Reliability funds are included for illustrative purposes. They are part of the 2013 System Reliability Procurement Report, filed as a separate docket.

**Table E-3**  
**National Grid**  
**Derivation of the 2013 Spending and Implementation Budgets (\$000)**

	<b>Proposed 2013 Budget From E-2</b>	<b>Commitments, Copays and Finance Costs</b>	<b>Regulatory Costs</b>	<b>Shareholder Incentive</b>	<b>Evaluation Expenses</b>	<b>Eligible Sector Spending Budget for Shareholder Incentive on E-9</b>	<b>Implementation Expenses for Cost- Effectiveness on E-5</b>
<b>Non-Income Eligible Residential</b>							
Residential New Construction	\$1,882.6				\$13.2		\$1,869.4
ENERGY STAR® HVAC	\$1,226.1				\$11.0		\$1,215.2
EnergyWise	\$6,764.8				\$13.9		\$6,750.9
EnergyWise Multifamily	\$1,419.6				\$13.9		\$1,405.7
ENERGY STAR® Lighting	\$4,390.0				\$66.9		\$4,323.1
ENERGY STAR® Appliances	\$2,454.8				\$15.2		\$2,439.6
Home Energy Reports	\$1,430.8				\$11.0		\$1,419.8
Energy Efficiency Educational Programs	\$55.3						\$55.3
Residential Products Pilot	\$700.7				\$110.4		\$590.3
Community Based Initiatives - Residential	\$508.6				\$10.0		\$498.6
Comprehensive Marketing - Residential2	\$1,590.4						\$1,590.4
Residential Shareholder Incentive	\$1,121.2			\$1,121.2			\$0.0
<b>Subtotal - Non-Income Eligible Residential</b>	<b>\$23,545.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$1,121.2</b>	<b>\$265.6</b>	<b>\$22,423.8</b>	<b>\$22,158.2</b>
<b>Income Eligible Residential</b>							
Single Family - Income Eligible Services	\$6,339.7				\$97.2		\$6,242.5
Income Eligible Multifamily	\$1,689.3				\$13.9		\$1,675.4
Income Eligible Shareholder Incentive	\$401.5			\$401.5			\$0.0
<b>Subtotal - Income Eligible Residential</b>	<b>\$8,430.5</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$401.5</b>	<b>\$111.1</b>	<b>\$8,029.0</b>	<b>\$7,917.9</b>
<b>Commercial &amp; Industrial</b>							
Large Commercial New Construction	\$9,578.0	\$0.0			\$183.2		\$9,394.8
Large Commercial Retrofit	\$18,983.0	\$7,000.0			\$197.4		\$11,785.6
Small Business Direct Install	\$11,751.1	\$0.0			\$165.4		\$11,585.7
Community Based Initiatives - C&I	\$158.4				\$10.3		\$148.0
Commercial Pilots	\$336.5				\$17.3		\$319.2
Comprehensive Marketing - C&I	\$555.1						\$555.1
Finance Costs	\$1,080.0	\$1,080.0					\$1,080.0
Commercial & Industrial Shareholder Incentive	\$1,718.1			\$1,718.1			\$0.0
<b>Subtotal - Commercial &amp; Industrial</b>	<b>\$44,160.2</b>	<b>\$8,080.0</b>	<b>\$0.0</b>	<b>\$1,718.1</b>	<b>\$573.6</b>	<b>\$34,362.1</b>	<b>\$34,868.6</b>
<b>Regulatory</b>							
OER	\$544.4		\$544.4				\$544.4
EERMC	\$816.7		\$816.7				\$816.7
<b>Subtotal - Regulatory</b>	<b>\$1,361.1</b>	<b>\$0.0</b>	<b>\$1,361.1</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$1,361.1</b>
<b>Grand Total</b>	<b>\$77,496.8</b>	<b>\$8,080.0</b>	<b>\$1,361.1</b>	<b>\$3,240.7</b>	<b>\$950.3</b>	<b>\$64,814.9</b>	<b>\$66,305.8</b>

Notes:

- (1) Finance Costs are capital costs to secure outside financing funds. Like the historical treatment of copays, outside finance costs do not directly lead to savings, therefore they are excluded from the eligible spending budget and a shareholder incentive is not collected on these funds. They are counted as an implementation expense.
- (2) Spending budget = Total Budget from E-2 minus Commitments, Copays, Outside Finance Costs, EERMC costs, and shareholder incentive.
- (3) Implementation Expenses = Total Budget from E-2 minus Commitments, Copays, Evaluation expenses, and shareholder incentive.
- (4) OER Costs = 0.8% of implementation expenses, excluding evaluation expenses. These costs were not illustrated in the Three Year Plan.
- (5) EERMC Costs = 1.2% of implementation expenses, excluding evaluation expenses.

**Table E-4**  
**National Grid**  
**Proposed 2013 Budget Compared to Approved 2012 Budget (\$000)**

	<b>Proposed Implementation Budget 2013</b>	<b>Approved Implementation Budget 2012</b>	<b>Difference</b>
<b>Non-Income Eligible Residential</b>			
Residential New Construction	\$1,869.4	\$1,036.0	\$833.4
ENERGY STAR® HVAC	\$1,215.2	\$2,477.0	-\$1,261.8
EnergyWise	\$6,750.9	\$7,541.5	-\$790.6
EnergyWise Multifamily	\$1,405.7		\$1,405.7
ENERGY STAR® Lighting	\$4,323.1	\$4,507.4	-\$184.2
ENERGY STAR® Appliances	\$2,439.6	\$2,045.4	\$394.2
Home Energy Reports	\$1,419.8		\$1,419.8
Energy Efficiency Educational Programs	\$55.3	\$75.0	-\$19.7
Residential Products Pilot	\$590.3	\$314.7	\$275.6
Community Based Initiatives - Residential	\$498.6	\$156.6	\$342.0
Comprehensive Marketing - Residential <sup>2</sup>	\$1,590.4	\$920.0	\$670.4
<b>Subtotal - Non-Income Eligible Residential</b>	<b>\$22,158.2</b>	<b>\$19,369.8</b>	<b>\$2,788.4</b>
<b>Income Eligible Residential</b>			
Single Family - Income Eligible Services	\$6,242.5	\$5,615.4	\$627.1
Income Eligible Multifamily	\$1,675.4		\$1,675.4
<b>Subtotal - Income Eligible Residential</b>	<b>\$7,917.9</b>	<b>\$5,615.4</b>	<b>\$2,302.5</b>
<b>Commercial &amp; Industrial</b>			
Large Commercial New Construction	\$9,394.8	\$8,834.4	\$560.4
Large Commercial Retrofit	\$11,785.6	\$9,708.5	\$2,077.2
Small Business Direct Install	\$11,585.7	\$10,231.3	\$1,354.4
Community Based Initiatives - C&I	\$148.0	\$200.0	-\$52.0
Commercial Pilots	\$319.2		\$319.2
Comprehensive Marketing - C&I	\$555.1	\$330.0	\$225.1
Finance Costs	\$1,080.0	\$1,000.0	\$80.0
<b>Subtotal Commercial &amp; Industrial</b>	<b>\$34,868.6</b>	<b>\$30,658.6</b>	<b>\$4,210.0</b>
<b>TOTAL IMPLEMENTATION BUDGET</b>	<b>\$64,944.6</b>	<b>\$55,643.8</b>	<b>\$7,625.5</b>
<b>OTHER EXPENSE ITEMS</b>			
Commitments	\$7,000.0	\$2,000.0	\$5,000.0
Small Business Revolving Loan Fund	\$0.0	\$0.0	\$0.0
Company Incentive	\$3,240.7	\$2,420.8	\$819.9
Evaluation	\$950.3	\$1,026.0	-\$75.7
EERMC	\$816.7	\$653.5	\$163.2
OER	\$544.4	\$0.0	\$544.4
<b>Subtotal - Other Expense Items</b>	<b>\$12,552.1</b>	<b>\$5,446.8</b>	<b>\$7,105.3</b>
<b>TOTAL BUDGET</b>	<b>\$77,496.8</b>	<b>\$61,090.6</b>	<b>\$16,406.2</b>

**Notes:**

- (1) Implementation Budget excludes Commitments, Company Incentive and Evaluation; derived on Table E-3
- (2) Total Budget includes Implementation, Commitments, Evaluation; illustrated on Table E-3

Table E-5  
National Grid  
Calculation of 2013 Program Year Cost-Effectiveness  
All Dollar Values in (\$000)

	TRC Benefit/ Cost <sup>1</sup>	Total Benefit	Program Implementation Expenses <sup>2</sup>	Customer Contribution	Evaluation Cost	Shareholder Incentive	¢/Lifetime kWh
<b>Non-Income Eligible Residential</b>							
Residential New Construction	2.38	\$ 4,572.3	\$ 1,869.4	\$ 36.9	\$ 13.2	NA	19.0
ENERGY STAR® HVAC	2.22	\$ 3,606.2	\$ 1,215.2	\$ 399.1	\$ 11.0	NA	13.2
EnergyWise	1.52	\$ 11,026.4	\$ 6,750.9	\$ 478.4	\$ 13.9	NA	11.1
EnergyWise Multifamily	1.05	\$ 1,723.4	\$ 1,405.7	\$ 215.7	\$ 13.9	NA	9.2
Home Energy Reports	1.02	\$ 1,466.3	\$ 1,419.8	\$ -	\$ 11.0	NA	9.3
ENERGY STAR® Lighting	2.98	\$ 16,025.8	\$ 4,323.1	\$ 984.2	\$ 66.9	NA	3.3
ENERGY STAR® Products	1.42	\$ 4,062.3	\$ 2,439.6	\$ 398.1	\$ 15.2	NA	7.2
Energy Efficiency Education Programs		\$ -	\$ 55.3	\$ -	\$ -	NA	
Residential Products Pilot		\$ -	\$ 498.6	\$ -	\$ 10.0	NA	
Community Based Initiatives - Residential		\$ -	\$ 590.3	\$ -	\$ 110.4	NA	
Comprehensive Marketing - Residential		\$ -	\$ 1,590.4	\$ -	\$ -	NA	
<b>n-Income Eligible Residential SUBTOTAL</b>	<b>1.63</b>	<b>\$ 42,482.6</b>	<b>\$ 22,158.2</b>	<b>\$ 2,512.4</b>	<b>\$ 265.6</b>	<b>\$ 1,121.2</b>	<b>7.7</b>
<b>Income Eligible Residential</b>							
Single Family - Income Eligible Services	1.61	\$ 10,242.6	\$ 6,242.5	\$ 7.5	\$ 97.2	NA	14.2
Income Eligible Multifamily	1.46	\$ 2,471.2	\$ 1,675.4	\$ -	\$ 13.9	#N/A	9.9
<b>Income Eligible Residential SUBTOTAL</b>	<b>1.51</b>	<b>\$ 12,713.8</b>	<b>\$ 7,917.9</b>	<b>\$ 7.5</b>	<b>\$ 111.1</b>	<b>\$ 401.5</b>	<b>13.0</b>
<b>Commercial &amp; Industrial</b>							
Large Commercial New Construction	4.58	\$ 43,834.6	\$ 9,394.8	\$ -	\$ 183.2	NA	2.3
Large Commercial Retrofit	3.63	\$ 65,826.3	\$ 11,785.6	\$ 6,145.0	\$ 197.4	NA	3.2
Small Business Direct Install	1.52	\$ 21,549.8	\$ 11,585.7	\$ 2,393.1	\$ 165.4	NA	6.6
Community Based Initiatives - C&I		\$ -	\$ 148.0	\$ -	\$ 10.3	NA	
Commercial Pilots		\$ -	\$ 319.2	\$ -	\$ 17.3	NA	
Comprehensive Marketing - C&I		\$ -	\$ 555.1	\$ -	\$ -	NA	
Finance Costs		\$ -	\$ 1,080.0	\$ -	\$ -	NA	
<b>C&amp;I SUBTOTAL</b>	<b>2.87</b>	<b>\$ 131,210.7</b>	<b>\$ 34,868.6</b>	<b>\$ 8,538.1</b>	<b>\$ 573.6</b>	<b>\$ 1,718.1</b>	<b>3.7</b>
<b>Regulatory</b>							
OER			\$ 544.4				
EERMC			\$ 816.7				
<b>Regulatory SUBTOTAL</b>			<b>\$ 1,361.1</b>				
<b>TOTAL</b>	<b>2.29</b>	<b>\$ 186,407.1</b>	<b>\$ 66,305.8</b>	<b>\$ 11,058.0</b>	<b>\$ 950.3</b>	<b>\$ 3,240.7</b>	<b>4.9</b>

**Notes:**

(1) TRC B/C Test = (Energy + Capacity + Resource Benefits) / (Program Implementation + Evaluation Costs + Customer Contribution + Shareholder Incentive)

Also includes effects of free-ridership and spillover.

(2) For Implementation Expenses derivation, see Table E-3.

(3) System Reliability may leverage some of the energy efficiency savings and benefits. Energy efficiency savings and benefits are attributed to the program in which they occur.

The incremental costs of System Reliability appears below along with the resulting Total in order to illustrate that the existing Energy Efficiency programs are cost effective with the additional expenses. For more information please see the 2013 System Reliability Procurement Report.

System Reliability Procurement		\$ 974.0	\$ 243.5	\$ 3.8	\$ 100.0	\$ -	
Total with System Reliability	2.28	\$ 186,407.05	\$ 66,549.29	\$ 11,061.77	\$ 1,050.27	\$ 3,240.75	5.2

**Table E-6**  
**National Grid**  
**Summary of 2013 Benefits and Savings by Program**

	Benefits (000's)														Load Reduction in kW			MWh Saved	
	Total	Capacity					Energy					Non Electric		Summer	Winter	Lifetime	Maximum Annual	Lifetime	
		Generation		Trans	MDC	DRIPE	Winter		Summer		DRIPE	Resource	Non Resource						
		Summer	Winter				Peak	Off Peak	Peak	Off Peak									
Non-Income Eligible Residential																			
Residential New Construction	\$4,572	\$20	\$0	\$12	\$50	\$4	\$178	\$223	\$111	\$123	\$52	\$2,035	\$1,763	67	133	524	883	10,103	
ENERGY STAR® HVAC	\$3,606	\$728	\$0	\$256	\$1,075	\$108	\$186	\$92	\$399	\$140	\$59	\$169	\$395	775	767	11,644	807	12,312	
EnergyWise	\$11,026	\$15	\$0	\$11	\$45	\$4	\$1,396	\$1,547	\$582	\$562	\$431	\$5,147	\$1,288	57	176	464	6,959	65,124	
EnergyWise Multifamily	\$1,723	\$52	\$0	\$29	\$121	\$13	\$434	\$372	\$177	\$144	\$124	\$32	\$226	145	574	1,264	2,129	17,755	
Home Energy Reports	\$1,466	\$59	\$0	\$68	\$285	\$0	\$347	\$267	\$180	\$127	\$133	\$0	\$0	2,834	3,881	2,834	15,325	15,325	
ENERGY STAR® Lighting	\$16,026	\$528	\$0	\$410	\$1,721	\$146	\$3,087	\$3,738	\$1,811	\$1,824	\$1,266	\$0	\$1,495	2,657	5,313	17,771	24,684	165,127	
ENERGY STAR® Products	\$4,062	\$100	\$0	\$65	\$273	\$27	\$759	\$874	\$442	\$427	\$292	\$0	\$805	347	659	2,836	4,872	39,657	
Non-Income Eligible Residential SUBTOTAL	\$42,483	\$1,502	\$0	\$849	\$3,569	\$302	\$6,386	\$7,113	\$3,702	\$3,348	\$2,358	\$7,383	\$5,971	\$6,881	\$11,503	\$37,338	55,658	\$325,403	
Income Eligible Residential																			
Single Family - Income Eligible Services	\$10,243	\$297	\$0	\$116	\$486	\$43	\$817	\$999	\$468	\$496	\$241	\$3,431	\$2,851	449	918	5,225	4,011	44,600	
Income Eligible Multifamily	\$2,471	\$103	\$0	\$65	\$272	\$25	\$397	\$353	\$192	\$150	\$121	\$28	\$767	318	548	2,835	2,057	17,148	
Income Eligible Residential SUBTOTAL	\$12,714	\$400	\$0	\$180	\$757	\$68	\$1,214	\$1,351	\$660	\$646	\$361	\$3,459	\$3,618	768	1,466	8,060	6,068	61,749	
Commercial & Industrial																			
Large Commercial New Construction	\$43,835	\$4,240	\$0	\$1,578	\$6,629	\$747	\$11,813	\$5,822	\$6,951	\$2,902	\$2,258	\$895	\$0	4,985	3,445	71,206	29,302	421,072	
Large Commercial Retrofit	\$65,826	\$3,838	\$0	\$1,743	\$7,322	\$948	\$15,334	\$8,251	\$9,122	\$4,068	\$3,621	-\$4,342	\$15,922	6,451	5,618	77,579	47,600	564,007	
Small Business Direct Install	\$21,550	\$1,948	\$0	\$1,063	\$4,465	\$566	\$7,383	\$1,794	\$4,433	\$880	\$1,578	-\$2,560	\$0	4,443	2,519	46,917	20,192	213,224	
C&I SUBTOTAL	\$131,211	\$10,026	\$0	\$4,383	\$18,416	\$2,262	\$34,530	\$15,867	\$20,506	\$7,850	\$7,458	-\$6,008	\$15,922	15,879	11,582	195,702	97,093	1,198,304	
TOTAL	\$186,407	\$11,927	\$0	\$5,413	\$22,742	\$2,631	\$42,130	\$24,331	\$24,867	\$11,844	\$10,177	\$4,835	\$25,511	23,528	24,551	241,100	158,820	1,585,455	



**Table E-7**  
**National Grid**  
**Comparison of 2012 and 2013 Goals**

	Proposed 2013			Approved 2012			Difference	
	Annual Energy Savings (MWh)	Participants	Population Reached	Annual Energy Savings (MWh)	Participants	Population Reached	Annual Energy Savings (MWh)	Participants
<b>Non-Income Eligible Residential</b>								
Residential New Construction	883	734	0%	812	405	0%	71	329
ENERGY STAR® HVAC	807	2,234	1%	1,964	5,437	1%	(1,157)	(3,204)
EnergyWise	6,959	7,800	2%	8,432	13,017	3%	(1,473)	(5,217)
EnergyWise Multifamily	2,129	3,700	1%	0	0	0%	2,129	3,700
Home Energy Reports	15,325	246,500	63%	0	0	0%	15,325	246,500
ENERGY STAR® Lighting	24,684	181,560	47%	20,174	160,000	41%	4,510	21,560
ENERGY STAR® Products	4,872	24,450	6%	4,971	19,080	5%	(98)	5,370
<b>Non-Income Eligible SUBTOTAL</b>	<b>55,658</b>	<b>466,978</b>	<b>120%</b>	<b>36,352</b>	<b>197,939</b>	<b>51%</b>	<b>19,306</b>	<b>269,038</b>
<b>Income Eligible Residential</b>								
Single Family - Income Eligible Services	4,011	2,501	6%	3,960	2,501	6%	51	0
Income Eligible Multifamily	2,057	3,100	7%	0	0	0%	2,057	3,100
<b>Income Eligible SUBTOTAL</b>	<b>6,068</b>	<b>5,601</b>	<b>13%</b>	<b>3,960</b>	<b>2,501</b>	<b>6%</b>	<b>51</b>	<b>0</b>
<b>Commercial &amp; Industrial</b>								
Large Commercial New Construction	29,302	1,260	15%	30,346	2,387	28%	(1,044)	(1,127)
Large Commercial Retrofit	47,600	982	12%	39,928	503	6%	7,672	479
Small Business Direct Install	20,192	1,667	3%	17,984	2,043	4%	2,208	(375)
<b>C&amp;I SUBTOTAL</b>	<b>97,093</b>	<b>3,910</b>	<b>7%</b>	<b>88,258</b>	<b>4,932</b>	<b>9%</b>	<b>8,836</b>	<b>-1,023</b>
<b>TOTAL</b>	<b>158,820</b>	<b>476,488</b>	<b>97%</b>	<b>128,570</b>	<b>205,373</b>	<b>42%</b>	<b>30,250</b>	<b>271,115</b>

**Notes:**

- (1) There are additional Low Income participants in Residential New Construction.
- (2) Proposed 2013 Participants for Commercial & Industrial programs based on average savings per participant from 2012 actuals.
- (3) % Population reached for both C&I and Residential New Construction assumes an annual new home growth rate of 1.5%
- (4) A customer can participate in more than one program, for example, ENERGY STAR® Lighting and Home Energy Reports, therefore the population reached can be more than 100%.
- (5) In 2012, the Company modified how it counts participants to better identify unique participants in an effort better estimate penetration rates. Please see the Main Text for a description.

**Table E-8**  
**National Grid**  
**Avoided Costs Used in 2013 Benefit-Cost Model**

	Rhode Island					DRIPE for Installations in 2012				
	Winter Peak Energy	Winter Off-Peak Energy	Summer Peak Energy	Summer Off-Peak Energy	Annual Market Capacity Value	Winter Peak Energy	Winter Off-Peak Energy	Summer Peak Energy	Summer Off-Peak Energy	Annual Market Capacity Value
Units:	\$/kWh	\$/kWh	\$/kWh	\$/kWh	\$/kW-yr	\$/kWh	\$/kWh	\$/kWh	\$/kWh	\$/kW-yr
Period:										
2013	0.057	0.050	0.068	0.049	18.38	0.009	0.007	0.010	0.005	0.00
2014	0.059	0.052	0.071	0.051	18.38	0.009	0.007	0.010	0.005	0.00
2015	0.066	0.057	0.077	0.056	18.38	0.010	0.008	0.010	0.006	0.00
2016	0.066	0.058	0.084	0.057	16.55	0.009	0.007	0.011	0.005	13.79
2017	0.067	0.059	0.084	0.057	24.37	0.009	0.007	0.010	0.005	13.833
2018	0.066	0.058	0.085	0.056	34.05	0.009	0.007	0.010	0.005	13.893
2019	0.064	0.057	0.081	0.055	38.23	0.009	0.007	0.010	0.005	13.334
2020	0.065	0.054	0.074	0.055	53.52	0.004	0.003	0.005	0.003	4.435
2021	0.065	0.055	0.074	0.055	54.56	0.004	0.003	0.004	0.002	4.457
2022	0.066	0.055	0.074	0.055	81.94	0.003	0.003	0.004	0.002	44.788
2023	0.069	0.057	0.076	0.058	98.79	0.003	0.002	0.003	0.002	22.052
2024	0.071	0.057	0.078	0.059	108.15	0.003	0.002	0.003	0.002	10.526
2025	0.070	0.056	0.077	0.059	112.29					5.352
2026	0.071	0.056	0.079	0.059	114.81					2.335
2027	0.072	0.057	0.082	0.060	115.86					
2028	0.075	0.059	0.084	0.062	116.50					
2029	0.077	0.060	0.086	0.064	116.72					
2030	0.079	0.062	0.089	0.065	116.93					
2031	0.081	0.064	0.091	0.067	117.15					
2032	0.083	0.066	0.094	0.069	117.22					
2033	0.086	0.068	0.097	0.071	117.29					
2034	0.088	0.070	0.100	0.073	117.36					
2035	0.091	0.072	0.102	0.076	117.43					
2036	0.094	0.074	0.105	0.078	117.51					
2037	0.096	0.076	0.109	0.080	117.58					
2038	0.099	0.078	0.112	0.082	117.65					
2039	0.102	0.081	0.115	0.085	117.73					
2040	0.105	0.083	0.118	0.087	117.80					
2041	0.108	0.085	0.122	0.090	117.88					

From the 2011 Avoided Cost Study

**Table E-9**  
**National Grid**  
**2013 Targeted Shareholder Incentive**

Incentive Rate: 5.00%

	(1) Spending Budget \$(000)	(3) Target Incentive \$(000)	(3) Annual kWh Savings Goal	(4) Threshold kWh Savings	(5) Target Incentive Per kWh
Sector					
Income Eligible Residential	\$8,029	\$401	6,068,112	4,551,084	\$0.007
Non-Income Eligible Residential	\$22,424	\$1,121	55,658,403	41,743,802	\$0.002
Commercial & Industrial	\$34,362	\$1,718	97,093,494	72,820,120	\$0.002
Total	\$64,815	\$3,241	158,820,008	119,115,006	\$0.002

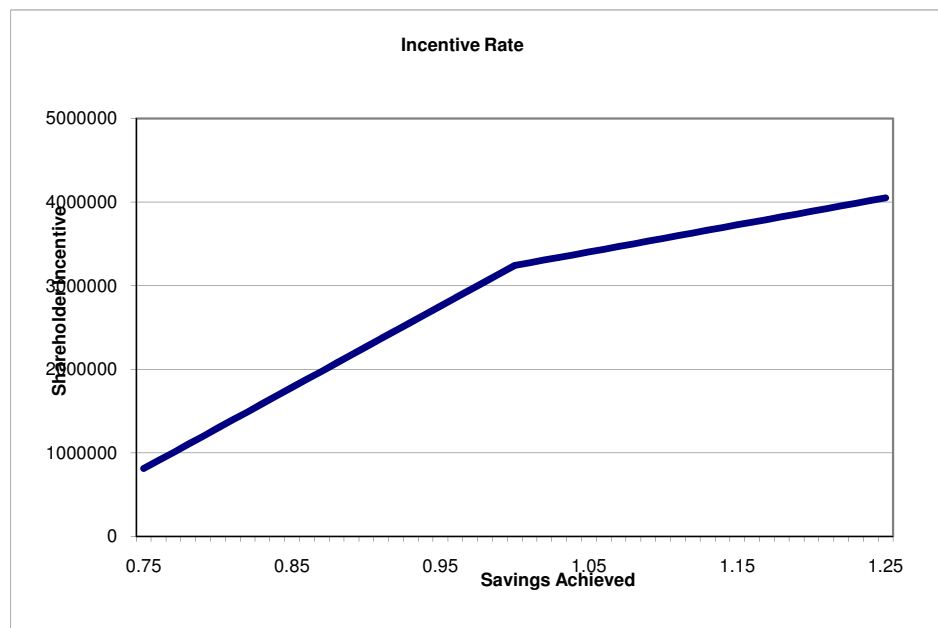
**Notes:**

- (1) Eligible Spending Budget excludes EERMC, OER, Finance Costs, and Shareholder Incentive. See Table E-3 for details.
- (2) Equal to the incentive rate (5.0%) x Column (1).
- (3) See Table E-7
- (4) 75% of Column (3). No incentive is earned on annual kWh savings in the sector unless the Company achieves at least this threshold level of performance.
- (5) Column (2)\*1000/Column (3). This illustration is for achieved savings equal to the savings target. The incentive earned per kWh will vary with the percent of the savings target achieved

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

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

The chart below illustrates the potential shareholder incentive





**Table G-1  
National Grid  
Gas DSM Funding Sources in 2013 by Sector  
\$(000)**

	<u>Projections by Sector</u>			
	Income Eligible Residential	Non-Income Eligible Residential	Commercial & Industrial	Total
(1) <b>Projected Budget (from G-2):</b>	<b>\$4,282.7</b>	<b>\$7,847.9</b>	<b>\$7,033.4</b>	<b>\$19,540.0</b>
<b>Sources of Other Funding:</b>				
(2) Estimated Year-End 2012 Fund Balance and Interest:	\$ (223.7)	\$ 1,459.8	\$ 4,032.1	\$ 5,268.3
(3) Low Income Weatherization in Base Rates:	<u>\$ 200.0</u>			<u>\$ 200.0</u>
(4) <b>Total Other Funding:</b>	<b>\$ (23.7)</b>	<b>\$ 1,459.8</b>	<b>\$ 4,032.1</b>	<b>\$ 5,468.3</b>
(5) <b>Customer Funding Required:</b>				<b>\$ 14,071.7</b>
<b>(6) Forecasted Dth Sales:</b>				
(7) Forecasted Dth Sales:	1,681,012	16,365,729	16,770,190	34,816,931
(8) Uncollectible Rate of 2.46%:	<u>41,353</u>	<u>402,597</u>	<u>412,547</u>	<u>856,497</u>
(9) <b>Forecasted Dth Sales:</b>	<b>1,639,659</b>	<b>15,963,132</b>	<b>16,357,644</b>	<b>33,960,435</b>
(10) <b>Energy Efficiency Program Charge per Dth:</b>				<b>\$ 0.414</b>
(11) Currently Effective EE Program Charge				\$ 0.384
(12) Adjustment to Reflect Fully Reconciling Funding Mechanism				\$ 0.030

Table G-2  
National Grid  
2013 Gas Energy Efficiency Program Budget (\$000)

	Program Planning and Administration	Marketing	Rebates and Other Customer Incentives	Sales, Technical Assistance and Training	Evaluation & Market Research	Shareholder Incentive	Grand Total
<b>Non-Income Eligible Residential:</b>							
ENERGY STAR® HVAC	\$82.8	\$189.0	\$1,823.5	\$239.3	\$107.2	\$0.0	\$2,441.9
EnergyWise	\$70.0	\$65.6	\$3,100.0	\$267.3	\$8.8	\$0.0	\$3,511.6
EnergyWise Multifamily	\$30.3	\$30.6	\$326.9	\$70.2	\$6.4	\$0.0	\$464.5
Home Energy Reports	\$12.3	\$7.6	\$243.9	\$34.3	\$6.4	\$0.0	\$304.6
Residential Products Pilot	\$8.9	\$35.2	\$72.1	\$50.3	\$6.4	\$0.0	\$172.9
Residential New Construction	\$12.5	\$0.6	\$254.3	\$75.7	\$1.1	\$0.0	\$344.2
Comprehensive Marketing - Residential	\$0.0	\$174.6	\$0.0	\$0.0	\$0.0	\$0.0	\$174.6
Community Based Initiatives - Residential	\$0.0	\$0.0	\$0.0	\$60.0	\$0.0	\$0.0	\$60.0
Residential Shareholder Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$373.7	\$373.7
<b>Subtotal - Non-Income Eligible Residential</b>	<b>\$216.8</b>	<b>\$503.3</b>	<b>\$5,820.7</b>	<b>\$797.1</b>	<b>\$136.3</b>	<b>\$373.7</b>	<b>\$7,847.9</b>
<b>Income Eligible Residential:</b>							
Single Family - Income Eligible Services	\$55.9	\$0.6	\$1,790.0	\$567.1	\$36.4	\$0.0	\$2,450.1
Income Eligible Multifamily	\$22.1	\$55.6	\$1,364.0	\$184.3	\$2.6	\$0.0	\$1,628.6
Income Eligible Shareholder Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$203.9	\$203.9
<b>Subtotal - Income Eligible Residential</b>	<b>\$78.0</b>	<b>\$56.3</b>	<b>\$3,154.0</b>	<b>\$751.4</b>	<b>\$39.0</b>	<b>\$203.9</b>	<b>\$4,282.7</b>
<b>Commercial &amp; Industrial</b>							
Large Commercial New Construction	\$177.5	\$86.6	\$1,481.5	\$395.2	\$61.3	\$0.0	\$2,202.1
Large Commercial Retrofit	\$324.0	\$140.7	\$1,917.7	\$710.2	\$70.7	\$0.0	\$3,163.2
Small Business Direct Install	\$14.0	\$31.7	\$40.3	\$66.5	\$6.7	\$0.0	\$159.2
Commercial & Industrial Multifamily	\$29.2	\$40.3	\$288.0	\$62.7	\$1.2	\$0.0	\$421.5
Commercial & Industrial Pilots	\$8.9	\$32.6	\$202.4	\$51.3	\$6.4	\$0.0	\$301.5
Finance Costs	\$0.0	\$0.0	\$250.0	\$50.0	\$0.0	\$0.0	\$300.0
Comprehensive Marketing - Commercial & Industrial	\$0.0	\$165.2	\$0.0	\$0.0	\$0.0	\$0.0	\$165.2
Commercial & Industrial Shareholder Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$320.6	\$320.6
<b>Subtotal - Commercial &amp; Industrial</b>	<b>\$553.6</b>	<b>\$497.2</b>	<b>\$4,179.8</b>	<b>\$1,335.8</b>	<b>\$146.4</b>	<b>\$320.6</b>	<b>\$7,033.4</b>
<b>Regulatory</b>							
EERMC	\$225.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$225.6
OER	\$150.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$150.4
<b>Subtotal - Regulatory</b>	<b>\$376.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$376.0</b>
<b>Grand Total</b>	<b>\$1,224.4</b>	<b>\$1,056.7</b>	<b>\$13,154.5</b>	<b>\$2,884.3</b>	<b>\$321.8</b>	<b>\$898.3</b>	<b>\$19,540.0</b>

**Table G-3**  
**National Grid**  
**Derivation of the 2013 Spending & Implementation Budgets (\$000)**

	Proposed 2013 Budget From G-2 (\$000)	Outside Finance and Stakeholder Oversight Costs (\$000)	Shareholder Incentive (\$000)	Evaluation Costs (\$000)	Eligible Sector Spending Budget for Shareholder Incentive on G-9 (\$000) <sup>1</sup>	Implementation Expenses for Cost-Effectiveness on G-5 (\$000) <sup>2</sup>
<b>Non-Income Eligible Residential</b>						
ENERGY STAR® HVAC	\$ 2,441.9		\$ -	\$ 107.2		\$ 2,334.6
EnergyWise	\$ 3,511.6		\$ -	\$ 8.8		\$ 3,502.9
EnergyWise Multifamily	\$ 464.5		\$ -	\$ 6.4		\$ 458.0
Home Energy Reports	\$ 304.6		\$ -	\$ 6.4		\$ 298.1
Residential Products Pilot	\$ 172.9		\$ -	\$ 6.4		\$ 166.5
Residential New Construction	\$ 344.2			\$ 1.1		
Comprehensive Marketing - Residential	\$ 174.6		\$ -	\$ -		\$ 174.6
Community Based Initiatives - Residential	\$ 60.0		\$ -	\$ -		\$ 60.0
Residential Shareholder Incentive	\$ 373.7		\$ 373.7	\$ -		\$ -
<b>Subtotal - Non-Income Eligible Residential</b>	<b>\$ 7,847.9</b>	<b>\$ -</b>	<b>\$ 373.7</b>	<b>\$ 136.3</b>	<b>\$ 7,474.2</b>	<b>\$ 7,337.9</b>
<b>Income Eligible Residential</b>						
Single Family - Income Eligible Services	\$ 2,450.1		\$ -	\$ 36.4		\$ 2,413.7
Income Eligible Multifamily	\$ 1,628.6		\$ -	\$ 2.6		\$ 1,626.0
Income Eligible Shareholder Incentive	\$ 203.9		\$ 203.9	\$ -		\$ -
<b>Subtotal - Income Eligible Residential</b>	<b>\$ 4,282.7</b>	<b>\$ -</b>	<b>\$ 203.9</b>	<b>\$ 39.0</b>	<b>\$ 4,078.7</b>	<b>\$ 4,039.7</b>
<b>Commercial &amp; Industrial</b>						
Large Commercial New Construction	\$ 2,202.1		\$ -	\$ 61.3		\$ 2,140.8
Large Commercial Retrofit	\$ 3,163.2		\$ -	\$ 70.7		\$ 3,092.6
Small Business Direct Install	\$ 159.2		\$ -	\$ 6.7		\$ 152.5
Commercial & Industrial Multifamily	\$ 421.5		\$ -	\$ 1.2		\$ 420.3
Commercial & Industrial Pilots	\$ 301.5		\$ -	\$ 6.4		\$ 295.2
Finance Costs	\$ 300.0	\$ 300.0	\$ -	\$ -		\$ 300.0
Comprehensive Marketing - Commercial & Industrial	\$ 165.2		\$ -	\$ -		\$ 165.2
Commercial & Industrial Shareholder Incentive	\$ 320.6		\$ 320.6	\$ -		\$ -
<b>Subtotal - Commercial &amp; Industrial</b>	<b>\$ 7,033.4</b>	<b>\$ 300.0</b>	<b>\$ 320.6</b>	<b>\$ 146.4</b>	<b>\$ 6,412.8</b>	<b>\$ 6,566.4</b>
<b>Regulatory</b>						
EERMC	\$ 225.6	\$ 225.6				\$ 225.6
OER	\$ 150.4	\$ 150.4				\$ 150.4
<b>Subtotal - Regulatory</b>	<b>\$ 376.0</b>	<b>\$ 376.0</b>	<b>\$ -</b>	<b>\$ -</b>		<b>\$ 376.0</b>
<b>Grand Total</b>	<b>\$ 19,540.0</b>	<b>\$ 376.0</b>	<b>\$ 898.3</b>	<b>\$ 321.8</b>	<b>\$ 17,965.7</b>	<b>\$ 18,320.0</b>

**Notes:**

- (1) Eligible Sector Spending Budget = Budget from G-2 minus EERMC Costs and Shareholder Incentive  
(2) Implementation Expenses = Budget from G-2 minus Evaluation Costs and Shareholder Incentive

**Table G-4**  
**National Grid**  
**Proposed 2013 Budget Compared to Approved 2012 Budget (\$000)**

	<b>Proposed Budget 2013 from G-2</b>	<b>2012 Approved Gas Budget</b>	<b>Difference</b>
<b>Non-Income Eligible Residential</b>			
ENERGY STAR® HVAC	\$ 2,441.9	\$ 2,976.0	\$ (534.1)
EnergyWise	\$ 3,511.6	\$ 2,701.2	\$ 810.4
EnergyWise Multifamily	\$ 464.5	NA	
Home Energy Reports	\$ 304.6	NA	
Residential Products Pilot	\$ 172.9	\$ 134.0	\$ 38.9
Residential New Construction	\$ 344.2	NA	
Comprehensive Marketing - Residential	\$ 174.6	\$ 130.0	\$ 44.6
Community Based Initiatives - Residential	\$ 60.0	NA	
Residential Shareholder Incentive	\$ 373.7	\$ 263.3	\$ 110.4
<b>Subtotal - Non-Income Eligible Residential</b>	<b>\$ 7,847.9</b>	<b>\$ 6,339.5</b>	<b>\$ 1,508.4</b>
			\$ -
<b>Income Eligible Residential</b>			\$ -
Single Family - Income Eligible Services	\$ 2,450.1	\$ 1,765.8	\$ 684.3
Income Eligible Multifamily	\$ 1,628.6	NA	
Income Eligible Shareholder Incentive	\$ 203.9	\$ 77.7	\$ 126.2
<b>Subtotal - Income Eligible Residential</b>	<b>\$ 4,282.7</b>	<b>\$ 1,843.5</b>	<b>\$ 2,439.2</b>
			\$ -
<b>Commercial &amp; Industrial</b>			\$ -
Large Commercial New Construction	\$ 2,202.1	\$ 2,135.0	\$ 67.1
Large Commercial Retrofit	\$ 3,163.2	\$ 2,847.0	\$ 316.2
Small Business Direct Install	\$ 159.2	\$ 110.6	\$ 48.6
Commercial & Industrial Multifamily	\$ 421.5	NA	
Commercial & Industrial Pilots	\$ 301.5	NA	
Finance Costs	\$ 300.0	NA	
Comprehensive Marketing - Commercial & Industrial	\$ 165.2	\$ 121.0	\$ 44.2
Commercial & Industrial Shareholder Incentive	\$ 320.6	\$ 229.4	\$ 91.2
<b>Subtotal Commercial &amp; Industrial</b>	<b>\$ 7,033.4</b>	<b>\$ 5,502.2</b>	<b>\$ 1,531.2</b>
			\$ -
<b>Regulatory</b>			\$ -
EERMC	\$ 225.6	\$ 151.8	\$ 73.8
OER	\$ 150.4	NA	
<b>Subtotal Regulatory</b>	<b>\$ 376.0</b>	<b>\$ 151.8</b>	<b>\$ 224.2</b>
<b>TOTAL BUDGET</b>	<b>\$ 19,540.0</b>	<b>\$ 13,685.2</b>	<b>\$ 7,040.2</b>



**Table G-5**  
**National Grid**  
**Calculation of 2013 Program Year Cost-Effectiveness**  
**All Dollar Values in (\$000)**

	Rhode Island Benefit/ Cost	Total Benefit	Program Implementation Expenses	Customer Contribution	Evaluation Cost	Shareholder Incentive	TRC \$/Lifetime MMBtu
<b>Non-Income Eligible Residential</b>							
Energy Star® HVAC	1.47	\$ 5,228.4	\$ 2,334.6	\$ 1,120.8	\$ 107.2		\$ 10.47
EnergyWise	1.75	\$ 8,592.9	\$ 3,502.9	\$ 1,400.2	\$ 8.8		\$ 8.10
EnergyWise MultiFamily	3.34	\$ 1,980.0	\$ 458.0	\$ 127.5	\$ 6.4		\$ 6.11
Home Energy Reports	1.02	\$ 309.3	\$ 298.1	\$ -	\$ 6.4		\$ 8.51
Residential New Construction	1.25	\$ 639.9	\$ 343.1	\$ 167.6	\$ 1.1		\$ 7.27
Comprehensive Marketing - Residential		\$ -	\$ 174.6	\$ -	\$ -		
Community Based Initiatives - Residential		\$ -	\$ 60.0	\$ -	\$ -		
Residential Products Pilot		\$ -	\$ 166.5	\$ -	\$ 6.4		
<b>Non-Income Eligible Residential Subtotal</b>	<b>1.57</b>	<b>\$ 16,750.6</b>	<b>\$ 7,337.9</b>	<b>\$ 2,816.1</b>	<b>\$ 136.3</b>	<b>\$ 373.7</b>	<b>\$ 8.95</b>
<b>Income Eligible Residential</b>							
Single Family - Income Eligible Services	1.04	\$ 2,547.1	\$ 2,413.7	\$ -	\$ 36.4		\$ 19.60
Income Eligible Multifamily	4.82	\$ 7,851.1	\$ 1,626.0	\$ -	\$ 2.6		\$ 5.35
<b>Income Eligible Residential Subtotal</b>	<b>2.55</b>	<b>\$ 10,398.1</b>	<b>\$ 4,039.7</b>	<b>\$ -</b>	<b>\$ 39.0</b>	<b>\$ 203.9</b>	<b>\$ 9.50</b>
<b>Large Commercial &amp; Industrial</b>							
Large Commercial New Construction	2.32	\$ 5,674.6	\$ 2,140.8	\$ 245.5	\$ 61.3		\$ 3.64
Large Commercial Retrofit	2.61	\$ 12,615.6	\$ 3,092.6	\$ 1,671.1	\$ 70.7		\$ 3.34
Small Business Direct Install	2.54	\$ 448.4	\$ 152.5	\$ 17.2	\$ 6.7		\$ 4.82
Commercial & Industrial Multifamily	1.36	\$ 870.2	\$ 420.3	\$ 216.6	\$ 1.2		\$ 6.69
Comprehensive Marketing - Commercial and Industrial		\$ -	\$ 165.2	\$ -	\$ -		
Commercial and Industrial Pilots		\$ -	\$ 295.2	\$ -	\$ 6.4		
Finance Costs		\$ -	\$ 300.0	\$ -	\$ -		
<b>Commercial &amp; Industrial Subtotal</b>	<b>2.14</b>	<b>\$ 19,608.8</b>	<b>\$ 6,566.4</b>	<b>\$ 2,150.4</b>	<b>\$ 146.4</b>	<b>\$ 320.6</b>	<b>\$ 3.94</b>
<b>Regulatory</b>							
EERMC			\$ 225.6				
OER			\$ 150.4				
<b>Regulatory Subtotal</b>			<b>\$ 376.0</b>				
<b>Grand Total</b>	<b>1.91</b>	<b>\$ 46,757.6</b>	<b>\$ 18,320.0</b>	<b>\$ 4,966.5</b>	<b>\$ 321.8</b>	<b>\$ 898.3</b>	<b>\$ 6.16</b>

**Table G-6**  
**National Grid**  
**Summary of 2013 Benefits and Savings by Program**

	Benefits (\$000)			MMBTU Gas Saved	
	Total(1)	Natural Gas(2)	Non-Gas Benefit (3)	Annual	Lifetime(4)
<b>Non-Income Eligible Residential</b>					
EnergyWise	\$8,592.9	\$5,539.2	\$3,053.8	30,333	606,650
Energy Star® HVAC	\$5,228.4	\$2,982.7	\$2,245.8	19,544	340,259
EnergyWise Multifamily	\$1,980.0	\$892.0	\$1,087.9	5,605	96,831
Home Energy Reports	\$309.3	\$309.3	\$0.0	35,781	35,781
Residential New Construction	\$639.9	\$639.9	\$0.0	2,900	70,380
<b>Non-Income Eligible Residential SUBTOTAL</b>	<b>\$16,750.6</b>	<b>\$10,363.1</b>	<b>\$6,387.5</b>	<b>94,161</b>	<b>1,149,900</b>
<b>Income Eligible Residential</b>					
Single Family - Income Eligible Services	\$2,547.1	\$1,141.3	\$1,405.7	6,250	125,000
Income Eligible Multifamily	\$7,851.1	\$2,814.8	\$5,036.3	16,562	304,139
<b>Income Eligible Residential SUBTOTAL</b>	<b>\$10,398.1</b>	<b>\$3,956.1</b>	<b>\$6,442.1</b>	<b>22,812</b>	<b>429,139</b>
<b>Commercial &amp; Industrial</b>					
Large Commercial New Construction	\$5,674.6	\$5,674.5	\$0.1	35,967	672,288
Large Commercial Retrofit	\$12,615.6	\$12,611.0	\$4.6	123,451	1,447,393
Small Business Direct Install	\$448.4	\$446.3	\$2.1	6,583	36,562
Commercial & Industrial Multifamily	\$870.2	\$869.5	\$0.6	4,800	95,407
<b>Commercial &amp; Industrial SUBTOTAL</b>	<b>\$19,608.8</b>	<b>\$19,601.3</b>	<b>\$7.5</b>	<b>170,802</b>	<b>2,251,650</b>
<b>TOTAL</b>	<b>\$46,757.6</b>	<b>\$33,920.5</b>	<b>\$12,837.1</b>	<b>287,775</b>	<b>3,830,689</b>

Table G-7  
National Grid  
Comparison of 2012 and 2013 Goals

	Proposed 2013			Approved 2012			Difference	
	Annual Energy Savings (MMBTU Natural Gas)	Participants	Population Reached	Annual Energy Savings (MMBTU Natural Gas)	Participants	Population Reached	Annual Energy Savings (MMBTU Natural Gas)	Participants
<b>Non-Income Eligible Residential</b>								
EnergyWise	30,333	2,000	1%	23,827	2,000	1%	6,506	0
Energy Star® HVAC	19,544	1,578	1%	79,712	12,211	6%	-60,168	-10,633
EnergyWise Multifamily	5,605	700	0%			0%	5,605	700
Home Energy Reports	35,781	136,475	66%			0%	35,781	136,475
Residential New Construction	2,900	584	19%			0%	2,900	584
<b>Non-Income Eligible Residential SUBTOTAL</b>	<b>94,161</b>	<b>141,337</b>	<b>67%</b>	<b>103,539</b>	<b>14,211</b>	<b>7%</b>	<b>-9,378</b>	<b>127,126</b>
<b>Income Eligible Residential</b>								
Single Family - Income Eligible Services	6,250	400	2%	7,697	430	2%	-1,447	-30
Income Eligible Multifamily	16,562	2,200	11%			0%	16,562	2,200
<b>Income Eligible Residential SUBTOTAL</b>	<b>22,812</b>	<b>2,600</b>	<b>13%</b>	<b>7,697</b>	<b>430</b>	<b>2%</b>	<b>15,115</b>	<b>2,170</b>
<b>Commercial &amp; Industrial</b>								
Large Commercial New Construction	35,967	170	4%	39,485	624	13%	-3,518	-454
Large Commercial Retrofit	123,451	235	5%	75,814	1,239	26%	47,637	-1,004
Small Business Direct Install	6,583	209	1%	5,013	103	1%	1,570	106
Commercial & Industrial Multifamily	4,800	600	TBD				4,800	600
<b>Commercial &amp; Industrial SUBTOTAL</b>	<b>170,802</b>	<b>1,213</b>	<b>5%</b>	<b>120,312</b>	<b>1,966</b>	<b>8%</b>	<b>50,490</b>	<b>-753</b>
<b>TOTAL</b>	<b>287,775</b>	<b>145,150</b>	<b>57%</b>	<b>231,548</b>	<b>16,607</b>	<b>7%</b>	<b>56,227</b>	<b>128,543</b>

**Note:**

- (1) There are additional Low Income participants in EnergyWise and Large Commercial Retrofit. For additional detail, please see Attachment 1.
- (2) Approved 2012 C&I and Residential HVAC participants were calculated as the total number of planned rebates. Planned participation for 2013 has been calculated to approximate planned unique account IDs

**Table G-8**  
**National Grid**  
**Avoided Costs Used in 2013 Benefit-Cost Model**

Year	RESIDENTIAL				COMMERCIAL & INDUSTRIAL			ALL
	Non Heating	Hot Water annual	Heating	All	Non Heating annual	Heating	All	RETAIL END USES
2013	6.70	6.70	8.42	8.15	6.64	7.86	7.49	7.80
2014	6.98	6.98	8.81	8.51	6.92	8.24	7.84	8.15
2015	7.56	7.56	9.28	9.01	7.50	8.71	8.34	8.65
2016	7.59	7.59	9.30	9.04	7.53	8.74	8.37	8.68
2017	7.57	7.57	9.29	9.02	7.51	8.72	8.35	8.66
2018	7.59	7.59	9.32	9.05	7.53	8.75	8.38	8.69
2019	7.64	7.64	9.37	9.10	7.58	8.80	8.43	8.74
2020	7.73	7.73	9.47	9.20	7.67	8.90	8.53	8.84
2021	7.83	7.83	9.58	9.30	7.77	9.01	8.63	8.94
2022	7.96	7.96	9.75	9.46	7.90	9.18	8.80	9.10
2023	8.25	8.25	10.03	9.74	8.19	9.46	9.07	9.38
2024	8.44	8.44	10.20	9.92	8.38	9.63	9.25	9.56
2025	8.51	8.51	10.29	10.00	8.45	9.72	9.33	9.64
2026	8.64	8.64	10.42	10.14	8.58	9.85	9.47	9.78
2027	8.77	8.77	10.56	10.27	8.71	9.99	9.60	9.91
2028	8.90	8.90	10.69	10.40	8.84	10.13	9.74	10.04
2029	9.03	9.03	10.83	10.54	8.97	10.26	9.87	10.18
2030	9.16	9.16	10.97	10.67	9.10	10.40	10.01	10.32
2031	9.30	9.30	11.11	10.81	9.24	10.55	10.15	10.46
2032	9.43	9.43	11.25	10.95	9.37	10.69	10.29	10.60
2033	9.57	9.57	11.40	11.10	9.51	10.84	10.44	10.74
2034	9.71	9.71	11.55	11.24	9.66	10.99	10.58	10.89
2035	9.86	9.86	11.69	11.39	9.80	11.14	10.73	11.03
2036	10.00	10.00	11.85	11.54	9.95	11.29	10.88	11.18
2037	10.15	10.15	12.00	11.69	10.09	11.44	11.03	11.34
2038	10.30	10.30	12.15	11.84	10.24	11.60	11.19	11.49
2039	10.45	10.45	12.31	11.99	10.40	11.76	11.35	11.64
2040	10.61	10.61	12.47	12.15	10.55	11.92	11.50	11.80
2041	10.77	10.77	12.63	12.31	10.71	12.08	11.67	11.96

**Table G-9**  
**National Grid**  
**2013 Targeted Shareholder Incentive**

Incentive Rate: 5.00%

	(1)	(2)	(3)	(4)	(5)
Sector	Eligible Spending Budget \$(000)	Target Incentive \$(000)	Target Savings Goal (MMBTU)	Threshold Savings (MMBTU)	Target Incentive Per Annual MMBTU
Income Eligible Residential	\$4,079	\$203.9	22,812	17,109	\$8.940
Non-Income Eligible Residential	\$7,474	\$373.7	94,161	70,621	\$3.969
Commercial & Industrial	\$6,413	\$320.6	170,802	128,101	\$1.877
Total	\$ 17,966	\$898.3	287,775	215,831	\$3.121

**Notes:**

- (1) Eligible Spending Budget excludes EERMC, OER, Finance Costs, and Shareholder Incentive. See Table G-3 for details.
- (2) Equal to the incentive rate (5.0%) x Column (1).
- (3) See Table G-7
- (4) 75% of Column (3). No incentive is earned on annual MMBTU savings in the sector unless the Company achieves at least this threshold level of performance.
- (5) Column (2)\*1000/Column (3). This illustration is for achieved savings equal to the savings target. The incentive earned per MMBtu will vary with the percent of the savings target achieved

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

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

The chart below illustrates the potential shareholder incentive

