### NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION

# ENERGYNORTH NATURAL GAS, INC. D/B/A NATIONAL GRID NH

# **ENERGY EFFICIENCY PLAN**

May 1, 2009 through December 31, 2010

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nationalgrid

# TABLE OF CONTENTS

I. FORWA	RD	1	
II. OVERV	TIEW OF ENERGY EFFICIENCY PROGRAMS	3 <u>4</u>	
III. RESID	ENTIAL PROGRAMS	<b>6</b> 7	
A. Resi	dential High-Efficiency Heating, Water Heating and Controls Program		67
	Home Construction with ENERGY STAR®		910
	ential Low Income Program		16
	Energy Audit and Home Perfor	mance <mark>19</mark> 1	4
<u>1.</u> Q	ne to Four Unit Homes		14
2. Fi	ve or More Unit Homes - Individually Metered Units		15
	dential Weatherization Program		18
1. R	esidential Weatherization		18
2. E	NERGY STAR® Replacement Windows		21
	nergy Analysis: Internet Audit		22
E. Resi	dential Building Practices and Demonstration Program	2	124
	tential Low Income Program		26
IV. COMN	IERCIAL AND INDUSTRIAL PROGRAMS	<del>23</del> 29	
	Commercial Energy Efficiency Program	2	<del>3</del> 29
<u>1.</u> C	ommercial Energy Efficiency		29
Aud	t services	*********************	29
$E_{I}$	nergy Assessment	************************	29
$\underline{C}$	<u>istom Assessment</u>		30
$T\epsilon$	<u>chnical assistance</u>		30
New	Construction Services		31
Ince	ntives		32
<u>P1</u>	escriptive Incentives		32
$C_1$	istom Incentives		33
St	eam Savings Initiative		34
Se	lar Incentives		34
2. M	ultifamily Housing	nation was significant and the same and the	35
	onomic Redevelopment		
B. Com	mercial High-Efficiency Heating Program	3	340
	ling Practices and Demonstration Program		
	ness Energy Analyzer Program		8 <u>45</u>
	ACH AND COMMUNICATION		
A. Ener	gy Efficiency Communication and Education	4	<del>048</del>
	e Ally Training and Codes & Standards Program		1 <u>48</u>
	ling Operators Certification Program		<del>2</del> 49
	UATION AND REPORTING		
1. Ev	raluation		50

2. Reporting	<u>52</u>
Quarterly Reports:	<u>53</u>
Updated Program Plans for 2010:	53
Shareholder Incentive Report:	<u>53</u>
Next Multi-Year Energy Efficiency Plan:	53
VII. SHAREHOLDER INCENTIVE	4453

# LIST OF TABLES

**Table I:** May 1, 2009 - December 31, 2010 Budget

Table II: Energy Efficiency Programs

Table III: Residential High-Efficiency Heating, Water Heating and Controls Program

Table IV: New Home Construction with ENERGY STAR®

Table V: Energy Audit and Home Performance

Table VI: Residential Weatherization

Table VII: ENERGY STAR® Replacement Windows

Table VIII: Energy Analysis - Internet Audit Program

Table IX: Building Practices and Demonstration Program

Table X: Residential Low Income Program

Table XI: Prescriptive Incentives for Installed Measures

Table XII: Commercial Energy Efficiency

Table XIII: Multifamily Housing

Table XIV: Economic Redevelopment

Table XV: Commercial High-Efficiency Heating Program

Table XVI: Commercial High-Efficiency Heating Program Incentive Qualifications

Table XVII: Building Practices and Technology Demonstration

Table XVIII: Business Energy Analyzer Program

Table XIX: Building Operator Certification

# **LIST OF APPENDICIES AND EXHIBITS**

Appendix A: Explanation of Budget Categories

Exhibit A: Projected Program Expenses: presents detailed budgets by program and year.

**Exhibit B:** Benefit Cost Analysis: summarizes the two-year benefit cost (BC) ratios for the programs as well as each year's BC ratio by sector with and without shareholder incentive.

**Exhibit C:** Program Input Assumptions: shows the per participant savings, costs, and rebates for each program measure.

**Exhibit D:** Shareholder Incentive Calculation: estimates the Company's projected shareholder incentive for successful implementation of its energy efficiency programs.

#### I. FORWARD

This document presents to the New Hampshire Public Utilities Commission (NHPUC or the Commission) EnergyNorth Natural Gas, Inc. d/b/a National Grid NH's (the Company) proposed Energy Efficiency (EE) plan for the twenty-month period May 1. 2009<sup>2</sup> through December 31, 2010. The Company's current programs, which were approved by Commission Order 24,636, were set to expire on April 30, 2009. By Secretarial Letter dated April 21, 2009, the Commission authorized the continuation of those programs until a new energy efficiency plan is approved. This proposed EE Plan provides updated program descriptions, benefit/cost analyses, program budgets and program goals for this twenty-month time period and is premised on the existing program structure. The Company is proposing a few additions to its current program offerings. On the residential side, the Company is including rebates for residential energy efficient storage water heaters and a Net Zero Energy home competitionadding a program element to address individually metered gas multifamily facilities (five or more units) in both the Residential Weatherization program and Energy Audit and Home Performance program. The Residential Weatherization program provides insulation to customers in conjunction with air sealing. Energy Audit and Home Performance provides education to participants either through phone support or an in-home audit. The Low Income Program will also be expanded and will serve individually metered gas multifamily facilities within the Low Income Program, Low Income program budgets have been increased to account for these individually metered low income multifamily facilities and to accommodate the expiration of other funding sources. The increased budget will allow the Company to serve a similar volume of participants as in the past two years. New commercial and industrial initiatives include the steam savings initiative and enhanced commercial kitchens.

National Grid's Energy Efficiency Plan covers a twenty-month period rather than the traditional three-year plan in anticipation of a joint electric and gas Energy Efficiency multi-year plan beginning on January 1, 2011. The proposed budget for the Company's

<sup>2</sup> The Company initially proposed that the Plan take effect on May 1, 2009. The Company will implement the proposed Plan upon approval by the Commission.

<sup>&</sup>lt;sup>1</sup> EnergyNorth Natural Gas, Inc. is one of four local distribution companies that do business as National Grid Energy Delivery New England. The other companies provide service in Massachusetts as Boston Gas Company, Colonial Gas Company and Essex Gas Company.

EE efforts for the eight months in 2009 is \$2,994,0562,815,786 and is \$4,164,2994,986,415 in calendar year 2010. Detailed budgets are set forth in Table I.

This energy efficiency plan incorporates several changes and enhancements compared to prior plans submitted by the Company. One change to this plan, as compared to previous gas energy efficiency filings, is the adoption of the cost categories currently in use in the electric energy efficiency plan filings when presenting the energy efficiency budget (Exhibit A). In addition, the current Plan covers a shorter time period than the three-year plans that have been submitted by the Company in prior years. After a CORE Electric meeting on February 9, 2009, National Grid discussed with PUC staff and OCA the potential of moving toward common planning elements between the gas and electric utilities. The discussion concluded with an agreement that the gas energy efficiency plan would consist of the twenty-month period May 2009 through December 2010 in anticipation of a joint electric and gas EE plan beginning January 1, 2011. At that meeting. National Grid also noted its intent to transition the previously used traditional gas cost categories to the electric cost categories so that efforts to better coordinate gas and electric energy efficiency efforts will be simplified. Appendix A defines the traditional gas and electric cost categories. The 2008 energy efficiency plan costs are mapped to both the prior gas cost categories and the electric costs categories that the Company proposes to adopt moving forward. In Exhibit A: Projected Program Expenses, costs are also presented in gas cost categories as well as electric cost categories for 2009 and 2010.

Exhibit B, the Benefit Cost Analysis, uses the same benefit cost model as the CORE electric utilities. Avoided energy costs are from the regional "Avoided Energy Supply Costs in New England: 2007 Final Report." Both the costs and benefits are presented in 2009 dollars for the twenty-month period. Information for a specific program year is presented in that year's dollars. Finally, Exhibit D, the Shareholder Incentive Calculation is presented in a similar manner as the electric Shareholder Incentive calculations. The target Benefit/Cost ratio is net of shareholder incentive. Target Incentive levels are 8% of utility costs or total resource costs minus participant costs and shareholder incentives.

Table-I: May 1, 2009 - December 31, 2010 Budget					
Item Electric Cost					
Categories	2009 Budget	2010 Budget	Gas Cost Categories		
192	\$300,213	\$ <del>361,503</del>			
Internal Administration	272,602	437,475	Company Administration		
	\$ <del>334,588</del> 22	\$412,337			
External Administration	5.702	381.323	Vendor Admin/Support		
	\$1,725,845	\$ <del>2,623,379</del> 3			
Rebates/Services	1,862,548	483,770	Services		
Internal Implementation	\$ <del>24,255</del> 0	\$ <del>36,382</del> 0	<u>Other</u>		
Marketing (sum of	\$426,533	\$ <del>534,428</del> <u>51</u>			
communication and trade	363,486	<u>9.636</u>			
ally)					
	\$272,388	\$382,575	Communication		
	\$91.098	\$137,061	<u>Trade Ally</u>		
	\$ <del>182,622</del> 91	\$196,270			
Evaluation	448	164,211	Evaluation and Reporting		
	\$2,994,056	\$4,164,2994			
Total	2.815.786	986,415			

In an effort to begin to achieve some consistency between the gas and electric energy efficiency programs, the Company is presenting some aspects of this filing in a different format than its prior filings:

- The electric utilities provide program budgets in different cost categories than have been used by the Company in its gas energy efficiency filings. In this filing, the Company is providing its proposed EE budgets using the budget categories in the electric energy efficiency filings.
- 2. The presentation of the performance-based shareholder incentive mechanism has been different in the gas and electric EE plans. The Company is adopting the presentation that can be found in the electric EE plans here (see Exhibit D) but maintaining the current methodology for calculation of the incentive.

The remainder of this EE Plan provides an overview of proposed programs, a more detailed discussion of EE efforts for residential customers, a more detailed

discussion of EE efforts for commercial and industrial customers, proposed outreach and communication efforts, evaluation and reporting, and a discussion about proposed performance-based shareholder incentives and lost base revenues.

Four exhibits are provided in support of this EE Plan:

- 1. Exhibit A: Projected Program Expenses presents detailed budgets by program and year.
- 2. Exhibit B: Benefit Cost Analysis summarize the two-year benefit cost (BC) ratios for the programs as well as each year's BC ratio by sector with and without shareholder incentive.
- 3. Exhibit C: Program Input Assumptions shows the per participant savings, costs, and rebates for each program measure.
- 4. Exhibit D: Shareholder Incentive Calculation estimates the Company's projected shareholder incentive for successful implementation of its energy efficiency programs.

#### II. OVERVIEW OF ENERGY EFFICIENCY PROGRAMS

This document presents the Company's twenty-month (May 1, 2009 through December 31, 2010) EE plansplan (the Plan). Regional initiatives and collaborative groups also have influenced the Plan. Many of the programs described are a continuation of programs currently offered and approved by the Commission. Overall, the Company has developed programs that address a wide variety of energy efficiency opportunities for natural gas customers. These programs are summarized in Table II. The Company has included recent rebate changes and program updates agreed to by the regional GasNetworks<sup>™</sup> collaborative, to ensure the same rebate levels are offered by Northern Utilities and gas companies throughout the region and to support coordinated program delivery with NH Saves (Core electric programs).

Table-II: Proposed Energy Efficiency Plan Offerings (Programs) of the Company

Residential Market	
High-Efficiency Heating, Water Heating, and Controls Program	\$500 incentive for boilers (85% AFUE), \$1000 incentive (90% AFUE) \$200 incentive for steam boilers (with electronic ignition, 82% AFUE), \$400 incentive for high-efficiency furnaces (92% AFUE) with ECM Motor and \$100 incentive on furnaces (92% AFUE).  \$300 incentive for indirect water heating system connected to an ENERGY STAR® rates
	natural gas forced hot water boiler and \$300 for on demand water heaters (EF .82 with a electronic ignition). \$50 for ENERGY STAR® .62 EF storage water heaters.  \$25 incentive each for up to two ENERGY STAR® labeled programmable thermostats.
	\$100 for boiler reset controls.
New Home Construction with ENERGY STAR®	Free building plans review and certification for new ENERGY STAR® residential construction. Builder incentives totaling up to \$4,750. Zero Energy Homes contest and prizes for top three performing homes.
Residential Weatherization Program: Residential	\$10.00 each for qualifying ENERGY STAR® labeled windows (U-factor of .35 or less) \$500 maximum. Incentive available in 2009 and no longer available in 2010.
Weatherization ENERGY STAR® Replacement Windows and	Incentive of 75% of installed cost of qualifying insulation and weatherization measure installed by participating contractors up to \$4,000 for 1-4 unit homes, up to \$750 for 5+ unit dwellings where each dwelling is individually metered. Air sealing on average
Energy Analysis: Internet Audit	up to \$650.
Residential Low Income Program	Energy audit conducted and measures installed (up to \$4,500 per residence) at no cost to income eligible customers (up to 200% of poverty level or below 60% of median income)
Energy Audit and Home Performance	Tier One Educational, technical, and audit assistance by phone. Tier Two Hom Energy Assessment and low-cost energy saving measures. Proposed air sealing up t \$650.
	Free online energy analysis service that makes customized energy efficienc recommendations based on a customer's energy consumption profile.
Energy Audit and Home	Tier One - Educational, technical, and audit assistance by phone. Tier Two - Hom
Performance Residential Building Practices and Demonstration Program	Energy Assessment and low-cost energy saving measures.  Participate in funding for demonstration projects that apply to new or underutilized technologies.
Residential Low Income Program	Energy audit conducted and measures installed (up to \$4.500 per residence) at no cost t income eligible customers (up to 200% of Federal Poverty Level Guidelines).
Commercial & Industrial Mark	ets
Commercial Energy Efficiency Program	Co-funding for Energy Auditing or Engineering Services; Prescriptive and custor incentives for more sophisticated systems and controls up to \$100,000. New construction projects eligible for up to \$250,000.
	Incentive of up to 50% of projects installed costs for eligible measures, cap of \$100,00 per project. Multifamily projects include redesign of space heating or water heatin systems, steam system upgrades, building insulation, high-efficiency windows, and relate measures.
	Matching grants up to \$100,000 for energy saving measures in commercial properties is designated Economic Redevelopment areas.
Commercial and Industrial High-Efficiency Heating Equipment Program	Incentives up to \$6,000 for high-efficiency furnaces (90% AFUE), boilers (85% thermal efficiency) or steam boilers (82% thermal efficiency).
Building Practices & Demonstration Program	Participate in funding for demonstration projects that apply to new or underutilize technologies.
Business Energy Analyzer	Free online energy analysis service that makes customized energy efficienc recommendations based on a commercial customer's energy consumption profile.
Codes Training Outreach etc.	
Trade Ally Training and Codes & StandardsBuilding Operator Certification	Energy management training sessions targeted to individuals responsible for th maintenance and operation of equipment and systems in commercial buildings, industrial plants, and public facilities. Provide information and training on energy efficiency issue to plumbing & heating contractors, builders, architects, engineers, realtors, appraisers an

During the 2009 – 2010 program years, the Company will build upon the existing portfolio of programs by:

- Continuing to manage existing programs cost-effectively;
- Coordinating closely with the NH Saves Core Electric Energy Efficiency programs and Northern Utilities;
- Identifying and developing new, cost-effective programs; and,
- Integrating discrete initiatives to more comprehensively address all energy uses and markets and barriers to energy efficiency.

The energy efficiency programs provide incentives to customers to choose energy efficient products. These products may be purchased from and installed by any qualified contractor selected by the customer. The Company's programs are designed to encourage contractor participation. The Company generally does not perform direct product installations. Customers are afforded the opportunity to use the contractor of their choice for some programs. All contractors are permitted to compete for the customer's business on an equal basis, though weatherization contractors will need to be trained in proper air sealing techniques to participate in program rebates. Through its trade ally program, the Company provides training and encourages contractors to recommend and provide bids for qualifying energy efficient products.

In designing the proposed energy efficiency programs, wherever practical, the Company has established efficiency standards consistent with the ENERGY STAR® labeling program standards of the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE). ENERGY STAR® is a collaborative effort of the DOE and EPA to prevent pollution and encourage conservation by helping consumers buy products that use less energy. The ENERGY STAR® label and promotional activities raise awareness of the environmental and economic benefits of energy efficient products and help consumers easily identify them.

In other instances the Company has established program criteria consistent with the specifications adopted by Consortium for Energy Efficiency (CEE) on products including furnaces, boilers and windows.

# III. RESIDENTIAL PROGRAMS

#### A. Residential High-Efficiency Heating, Water Heating and Controls Program

The foundation for this program is incentives for customers to purchase high-efficiency gas heating equipment and controls. The program goals include:

- Making customers aware of high-efficiency gas heating equipment, controls, and the energy savings achievable;
- Increasing market sector awareness and demand for high-efficiency gas heating equipment and controls;
- Facilitating the purchase of high efficiency gas heating equipment and controls;
- Providing training to Trade Allies such as plumbing and heating contractors and increasing trade ally awareness of the benefits of high-efficiency gas heating equipment and controls.

The program is jointly operated with GasNetworks<sup>TM</sup> and will be promoted through a variety of marketing and educational awareness campaigns including, but not limited to: direct mail campaigns, bill inserts, trade ally events, sponsorships, and program brochures. The program will also be promoted via the Company's website, <a href="www.nationalgrid.com">www.nationalgrid.com</a> and the GasNetworks<sup>TM</sup> website, <a href="www.gasnetworks.com">www.gasnetworks.com</a>, where consumers and contractors will have the opportunity to download program incentive applications, as well as learn about program announcements and updates. The Company's products website, <a href="www.thinksmartthinkgreen.com">www.thinksmartthinkgreen.com</a>, will also be used to promote this program.

In addition, the Company will continue its retailer outreach program with national home improvement chains, local hardware stores, suppliers, and distributors. This outreach effort provides training for sales personnel regarding the rebate programs and coordinates the ongoing distribution of program brochures and rebate applications.

A strong emphasis will be placed on working with builders and contractors who install gas heating equipment and controls. Target markets for the program include both new construction and existing residences. Incentives are available to residential customers (builders and/or homeowners).

The Company encourages customers to choose high-efficiency by offsetting a portion of the high efficiency price premium. Information collected from the Company's field services contractors, suggests that installation contractors have a large impact on the choice of heating equipment to be installed. The Company will also offer an incentive to installation contractors to further stimulate the installation of high-efficiency heating equipment. The Company may make changes to incentive levels for eligible heating, water heating, and control equipment during the program year. Additional cost effective measures may also be added if there is reliable evidence of cost effectiveness. See Table II for a list of eligible measures and the associated incentive level.

The Advanced Residential Controls category includes programmable thermostats and boiler reset controls. The ENERGY STAR® Programmable Thermostat initiative has been a mainstay of National Grid's residential energy efficiency offerings. National Grid plans to continue to offer its customers incentives for high performance programmable thermostats, which the Company views as an excellent means of controlling and reducing energy use. The following describes National Grid's ongoing commitment to the highly-successful thermostat program and incentives for boiler reset controls.

National Grid's residential heating customers are eligible for a \$25 mail-in incentive for the installation of up to two ENERGY STAR® qualified programmable thermostats, for a maximum of \$50 per household. When applying for a thermostat incentive, customers are required to submit proof-of-purchase for the unit. Eligible thermostats may be installed by homeowners and HVAC contractors.

Earning the ENERGY STAR® label means products meet strict energy efficiency guidelines. ENERGY STAR® thermostats are more accurate than manual models and contain no mercury. When used properly, they can save a notable amount of energy, and are better for the environment. Because older model thermostats are a common source of mercury, these thermostats should be properly recycled. On the Company's website and incentive forms, National Grid directs its customers to recycle mercury thermostats through municipal hazardous waste collection programs.

The U.S. Environmental Protection Agency (EPA) modified its thermostat program from a performance specification to consumer education on May 1, 2007. The EPA's action is based partly on studies weighted toward regions of the country where

central cooling is the major energy load and, as a result, use of programmable thermostats result in minimal savings. However, in New England, where a major energy load is heating, there is ample evidence that ENERGY STAR® thermostats can significantly reduce energy consumption. A 2007 RLW Analytics study, commissioned by GasNetworks<sup>TM</sup>, estimated an average savings of 75 ccf of natural gas per heating season per thermostat installed. While there will be changes to this EPA designation, National Grid continues to see merit in promoting programmable thermostats and thus intends to continue offering incentives to customers.

National Grid is offering incentives for the installation of boiler reset controls. This technology works by monitoring the outdoor temperature and adjusting the frequency that the boiler responds to heat demand. For example, on a relatively mild winter day, a thermostat won't call for heat as often, so the boiler will not need to work as hard. The reset control adjusts the water supply temperature allowing it to drop to lower temperatures before firing.

Boiler reset controls have been available for residential heating systems for more than 30 years. However, due to relatively high installation costs, lack of promotion by manufacturers, and the lack of incentives in energy efficiency programs, there has been little market penetration. The Company offers an incentive of \$100 per reset control installed. This incentive is only available for newer boilers without built-in controls.

Table-III: Residential High-Effic	ciency Heating, Wa	ater Heating and Co	ntrols Program
Item Electric Cost Categories	2009 Budget	2010 Budget	Gas Cost Categories
Internal Administration	\$24,585	\$36,695	Company Administration
External Administration	\$8,825	\$13,170	Vendor Admin/Support
Rebates/Services	\$226,373	\$361,300	Services
Internal Implementation	\$0	\$0	Other
Marketing (sum of communication and trade ally)	\$ <mark>142,921</mark> 142,9 22	\$190,680	
	\$112,922	<u>\$160,680</u>	<u>Communication</u>
	<u>\$30,000</u>	\$30,000	Trade Ally
Evaluation	\$16,630	\$24,555	Evaluation and Reporting
Total	\$419,334419.3 35	\$626,400	
Goals	404		
High Efficiency Heating	participants	551 participants	
High Efficiency Water Heating	131 participants	257 participants	
Advanced Controls	212 participants	704 participants	
Total	747 participants	1,512 participants	

#### B. New Home Construction with ENERGY STAR®

National Grid will continue its support of energy efficient new home construction through the New Hampshire New Home Construction with ENERGY STAR® Program. This Program is designed to encourage builders to construct their homes to a higher level of energy efficiency beyond standard code requirements. The New Home Construction With ENERGY STAR® Program offers a combination of utility incentives geared specifically to home buyers and builders, incentives which promote the construction of homes that meet national ENERGY STAR® Home efficiency standards. The program's

objective is to transform the residential new construction market to build homes that are designed beyond code expectations and meet stricter guidelines for energy efficiency.

ENERGY STAR® Homes are recognized nationally for lower operating costs and energy consumption, increased durability, comfort, safety and greater resale value. ENERGY STAR® Homes feature the best in efficient building practices and technologies, including: increased insulation levels, high-efficiency heating and air conditioning equipment, superior duct systems, and high performance windows. Most segments of the housing market are eligible to participate in the New Homes with ENERGY STAR® Program, including new and existing residential single family and low-rise multifamily dwellings, townhouses and condominium developments.

All participants in the program receive design and technical support services, testing and inspection of energy efficiency measures, and an ENERGY STAR® certification following the passing of the ENERGY STAR® Homes rating test by qualified home raters. Each participating home receives a complete plan evaluation, computer energy model, and inspections during construction, and ongoing builder consultation, and on-site training as the home is being built. In order to earn an ENERGY STAR® Homes certificate, each house, or sampling of model units within a larger development, is performance tested to verify the quality of installed energy features. This involves conducting a blower-door test once the home is completed to measure the building's overall air leakage, and a ventilation test to verify airflow rates.

This program is jointly sponsored through a consortium of participating New Hampshire utilities that meet on a regular basis to plan and implement the program. The natural gas and electric utility provider in the specific territory of an ENERGY STAR® Home being developed will share the costs of providing technical support and certification testing services, from "sign-up" through certification testing for each qualifying home. This sharing of administrative and implementation fees between gas and electric sponsors are replicated with other gas utility sponsors of the New Hampshire ENERGY STAR® Homes program. In certain cases, the Company may pay the entire cost of an ENERGY STAR® Home's participation fee if the home is constructed in a community served by a municipal electric utility that does not participate in the Program.

Since the Company began its support of the New Hampshire ENERGY STAR® Homes program, Conservation Services Group, Inc. (CSG) has been the Company's sole rater for the ENERGY STAR® Homes program in New Hampshire. CSG is a third-party energy conservation consulting group responsible for the review and certification of each participating house in the Company's territory to ensure it meets strict ENERGY STAR® criteria. In the coming year, the Company may explore the opportunity to further align both gas and electric ENERGY STAR® Homes programs.

Marketing activities for the ENERGY STAR® Homes program consist primarily of direct outreach to builders by qualified home raters and home inspectors throughout the state's most active building regions. The ENERGY STAR® Homes toll-free phone number and website are essential resources for prospective builders that link home construction projects to participating home raters in the region. In addition to outreach, participating utilities may sponsor ENERGY STAR® training sessions specifically for builders and homebuyers throughout the year.

During the coming year, National Grid anticipates that participation in this program could be impacted by certain barriers, including athe downturn in the New Hampshire new construction market. In an effort to combat the downturn in the market, a contest may be implemented, offering a 'prize' for builders who build a Net Zero Energy home. The contest would be open to all builders in the gas territory who plan to complete a home by the end of the year. Additional marketing and modeling will also be offered to participating builders. Three builders who complete homes with a HERS score between 0-35 will be eligible to receive a prize with 1st prize going to the builder with the lowest HERS score. The budget allows up to five homes to participate. Ideally one of the three finalists would be a low-income offering this. National Grid will look to increase builder trainings as well as program marketing.

Table-IV: New Home Construction with ENERGY STAR®						
ItemElectric Cost Categories		9 Budget		0 Budget	Ga	s Cost Categories
Internal Administration		2,7531,260		5, <del>529</del> 1,680		mpany Administration
External Administration	\$ <del>2</del> (	0 <del>,040</del> 1,980	\$ <mark>2</mark> 4	<del>1,402</del> 2.640	Ve	ndor Admin/Support
Rebates/Services		9 <mark>,310</mark> 800	\$ <del>1</del> (0)	<b>63</b> , <b>103</b> <u>14</u> , <u>40</u>	Sei	rvices
Internal Implementation	\$0		\$0		Otl	her
Marketing (sum of communication and trade	\$32	2,472 <u>3,060</u>	\$30	5 <u>,2134,080</u>		
<u>ally)</u>		\$2,700		\$3,600		Communication
		<u>\$360</u>		<u>\$480</u>		Trade Ally
Evaluation		609 <u>1,415</u>		3,592 <u>2,044</u>	Ev	aluation and Reporting
Total	\$14 5	51,18418.51	\$ <del>2</del> 4	5 <del>2,839</del> 24.84		
Goals						
New Home Construction Goal	27	20 ticipants	35 par	30 ticipants		
Net Zero Energy		0 participa		3- participant	s	
Total		27 participant	S	38 participant	s	

#### C. Energy Audit and Home Performance

The Energy Audit and Home Performance program, formerly known as Residential Conservation Services, is designed to help customers who either live in 1 to 4 unit homes or in individually metered multifamily dwellings with 5 or more units to optimize their home's energy use. The program provides a free assessment of a customer's energy usage and recommends various ways customers can improve their home's energy efficiency. Customers are provided with a detailed report containing recommendations for action and how to utilize the Company's other energy efficiency programs.

National Grid has become an active participant in the New Hampshire Residential Energy Performance Association (REPA), a New Hampshire organization whose goals are to provide training and promote consistency in the delivery of energy efficiency services. The auditor who performs the majority of the Company's audits in New Hampshire, as well as the vendor's supervisory staff, participates in REPA. The Company has also established www.energyfederation.org/nationalgrid. This website assists customers in purchasing materials to make their homes more energy efficient. Selections include all non-major measures that are recommended during the audit. The Company plans to promote the Energy Audit and Home Performance program through advertising, including bill inserts, direct mail, the National Grid website www.thinksmartthinkgreen.com, and its product website www.energyfederation.org/nationalgrid, online Home Energy Analyzer and *e-fficiency news* electronic newsletters. Customers can also call the toll-free number to learn more about the Energy Audit and Home Performance program and all of the Company's residential energy efficiency programs.

#### 1. One to Four Unit Homes

For customers living in 1 to 4 unit homes, there are two levels of service provided by the program. Tier One screening offers referrals to educational web sites and information about energy efficiency programs, and captures requests for literature such as the DOE "Energy Savers" booklet. Technical assistance regarding installation of energy savings measures is also available by phone. The Company has adopted a customized version of the online audit tool to guide the customer through Tier One. The tool provides

the customer service representatives with discussion points that allow a dialogue to better understand the customer's needs. Ultimately, the information collected by Tier One staff may result in a referral to Tier Two services.

Tier Two services consist of two audits. The first, the walk through audit, provides a home energy assessment and includes the installation of low-cost energy efficiency. Instant Savings Measures (ISMs) that have an average total value of \$30. These measures are installed by the energy auditors at no charge to the customer as a way of educating the customer to the value of do-it-yourself measures. The customer is also provided a computer generated report describing the results of the home energy assessment which includes recommendations for energy saving measures. If the customer is willing to implement additional energy efficient measures, a combustion safety test will be performed at the walk through. The primary goal of the home energy assessment is to give customers an opportunity to understand the impact of energy efficiency measures and to motivate them to implement the recommendations.

The second audit National Grid is proposing is a two person energy audit team for customers who will proceed with energy efficiency upgrades. The two person team would provide a comprehensive home assessment in conjunction with whole house air sealing. This added value service averages \$650 and would be provided at no cost to the customer. To address health and safety concerns, pre-and post-blower door and CO testing is required. The procedures described in Tier 1 and Tier 2 above will be performed through a single implementation coordinator (IC) Selected by the Company. The cost, participation and benefits of customers who continue to this second audit will be accounted for in the Residential Weatherization program.

#### 2. Five or More Unit Homes - Individually Metered Units

For customers living in individually metered units in a facility with five or more dwelling units, this program provides a free, comprehensive assessment of energy use in the individual unit. Customers will be given a detailed report containing the recommendations of the audit including information about improving the efficiency of their home which may lead to participation in other energy efficiency programs. Incentives will be provided to encourage participation and overcome the split incentive that often exists

between landlords owning buildings but not paying utility bills and tenants paying utility bills but not owning the properties and therefore not having an incentive to invest in energy efficiency.

Tenants and landlords will benefit from improvements made by their utility in their facilities. Insulation, air sealing, and domestic hot water measures will improve tenant health and comfort and reduce tenant health sealing bills.

National Grid will administer the Energy Audit and Home Performance Program through a single implementation coordinator (IC). This IC will be responsible for the day to day administration of the Program. This IC will perform all site visits to determine which measures can be installed. Eligible building owners, and/or facility managers or associations will receive a comprehensive energy audit, energy education, and the installation of no-cost efficiency measures. The implementation coordinator will be responsible for all air sealing and DHW measures. All insulation measures for properties with greater than 20 units will be put out to competitive bid. Insulation contractors that have been previously approved by the Company will be eligible to bid on these jobs.

The Company plans to promote the Energy Audit and Home Performance Program through advertising, including bill inserts, direct mail, and the National Grid website. Customers interested in learning more about the program will be able to call a toll-free number where they will also be able to learn about all of the Company's residential energy efficiency programs. The program will be coordinated with the New Hampshire electric utilities' multifamily building programs.

Major measures will include attic insulation, wall insulation, basement/crawl space insulation, rim joist insulation, duct insulation, heating system pipe insulation, attic ventilation (in conjunction with attic insulation), ductwork leakage testing, ductwork leakage sealing, air infiltration testing, and air infiltration sealing. In addition, this Program will be coordinated with the New Hampshire electric utilities. Other measures may be added to the program menu, upon demonstration of cost-effectiveness and subject to available funding.

The Company will pay 50% of the cost of installed insulation measures, duct insulation and duct sealing up to a maximum of \$750 per dwelling unit. The Company will pay 100% of the cost of air sealing and installed domestic hot water measures such as

showerheads, aerators, pipe wrap and tank wraps installed by the IC. The customer will be responsible for paving 100% of the cost of installing attic ventilation.

Customers will apply for incentives for residential-sized heating and hot water heating equipment, thermostats and window rebates through the Residential High Efficiency Heating. Water Heating and Controls Program, and the ENERGY STAR® Replacement Windows Program. Facilities with central heating plants and domestic hot water systems that are interested in natural gas savings measures will be served through the Commercial High-Efficiency Heating and Commercial Energy Efficiency Programs

Table-V: Energy Audit and Home Performance					
Electric Cost Categories	2009 Budget	2010 Budget	Gas Cost Categories		
Internal Administration	\$2,009	\$3,789	Company Administration		
External Administration	\$3,158	\$5,955	Vendor Admin/Support		
Rebates/Services	\$30,333	\$57,020	Services		
Internal Implementation	\$0_	\$0	Other		
Marketing (sum of communication and trade	\$8,772	\$16,543			
ally)	\$8,198	\$15,460	Communication		
	<u>\$574</u>	\$1.083	Trade Ally		
Evaluation	\$3.028	\$5,893	Evaluation and Reporting		
Total	\$47,300	\$89.200			
Goal	450 participants	900 participants			

#### <u>D.</u> C. Residential Weatherization Program<sup>2</sup>

#### 1 Residential Weatherization

The Residential Weatherization program currently provides an incentive covering 75% of the cost of installing weatherization measures in residential heating customers' homes. The maximum incentive offered through this program currently is \$4,000. Measures eligible for an incentive through the program include4.000 in homes with 1-4 units and \$750 per dwelling unit in homes with five or more units where each unit is individually metered. In order to be eligible for the weatherization incentive, the residential customer must first have a site visit performed by the Energy Audit and Home Performance program as a pre-requisite to the following measures: attic insulation, attic stairs insulators, wall insulation, basement/crawl space insulation, rim joist insulation, duct insulation, heating system pipe insulation, attic ventilation (only in conjunction with attic insulation), ductwork leakage testing, ductwork leakage sealing, and air infiltration testing and air infiltration sealing. Air sealing is required to be performed prior to installing any insulation measures. Other measures may be added to the program menu upon demonstration of cost effectiveness.

To be eligible for an incentive, a National Grid pre-qualified contractor must install program measures. Do-it-yourself work is not permitted. Contractors wishing to become a pre-qualified contractor eligible to offer this program to the Company's heating customers must meet Company contractor requirements. This includes providing evidence of Building Performance Institute (BPI) certification and carrying insurance in amounts and coverage at the Company's contractor partner specified levels.

The Company will continue to reach out to the contractor community in order to increase the number of pre-qualified contractors participating in the program. For quality control purposes, at least twenty percent (20%) of completed jobs will be inspected. The inspection process will consist of a visual review of all work reported to be performed at the job site. Infrared scanning may be selectively employed to inspect wall insulation and air sealing work that cannot be observed with the naked eye. Infrared scanning not only provides a quality control tool, but also serves to raise insulation installation standards.

<sup>&</sup>lt;sup>3</sup> This program is available to residential customers living in homes with 1 − 4 units and to residential customers with individually metered dwelling units where the facility has 5 or more units.

Ongoing annual training will be conducted to familiarize contractors with industry building science best practices.

It is the responsibility of the installation contractor to complete and submit incentive applications with proper supporting documentation to verify that the work was performed. Work completed through the program must meet all applicable state and local code requirements. It is anticipated that all measures installed will meet ENERGY STAR® OR Building Performance Institute (BPI) guidelines, where applicable.

The program is promoted to residential heating customers through National Grid's contractor allies, home shows, direct mail promotions, and bill inserts. The program is also marketed through the Company's *e-fficiency news* electronic newsletter, the Home Energy Analyzer on-line audit, and the corporate website.

Potential participants are also made aware of the Residential Weatherization program through their participation in the Residential Conservation Service Energy Audit and Home Performance program. Residential Conservation Service Energy Audit and Home Performance program energy auditors receive supplemental training for the purpose of seamlessly integrating the Weatherization program and the RCS audit Energy Audit and Home Performance program.

An enhanced incentive is available to customers who undertake comprehensive weatherization such as whole house air sealing, and to customers who install insulation with a higher R-value per inch or with greater air infiltration reduction properties, such as dense pack cellulose and insulating foams. Utilizing a Building Performance Institute (BPI) certified installation contractor is required to be eligible for the maximum incentive. To address health and safety concerns, pre- and post-blower door and CO testing is required.

In conjunction with the enhanced incentive, National Grid will require BPI certification of installers. BPI is a recognized global leader in setting building science based standards. BPI certification ensures that knowledge and competency are demonstrated by means of written and field testing.

National Grid will require BPI certification and will provide contractors with a percentage of reimbursement incentives for training and the purchase of required

diagnostic tools. In this manner, National Grid will assist in building an infrastructure of trained and certified contractors to deliver the highest quality workmanship to customers, and the public at large.

The Company will continue to seek out opportunities to better serve National Grid customers by integrating the offerings of all of its energy efficiency programs, and by utilizing programs administered by other utilities.

Table-V-VI: Residential Wo	eatherization Prog	yram .	
ItemElectric Cost Categories	2009 Budget	2010 Budget	Gas Cost Categories
Internal Administration	\$4,94017,571	\$ <del>6,587</del> 34,464	Company Administration
External Administration	\$ <del>7,763</del> 27,307	\$ <del>10,351</del> 61.372	Vendor Admin/Support
Rebates/Services	\$ <mark>42,344</mark> 462.09 0	\$ <del>56,459</del> 901,48 4	Services
Internal Implementation	\$0	\$0	Other
Marketing (sum of communication and trade	\$ <mark>30,981</mark> 82,480	\$41,308 <u>131,36</u> 5	
ally)	<u>\$56,549</u>	<u>\$88,436</u>	<u>Communication</u>
j	<u>\$25,931</u>	\$42,929	Trade Ally
Evaluation	\$ <mark>3,529</mark> 5,408	\$ <mark>4,705</mark> 3,380	Evaluation and Reporting
	\$ <mark>89,557</mark> 594,85	\$ <del>119,410</del>	
Total	6	1,132,065	
	<b>45</b> 550	601,100	
Goal	participants	participants	

#### 2. ENERGY STAR® Replacement Windows

The Company will continue to promote the installation of ENERGY STAR® Replacement Windows in the Residential Weatherization program, and will provide a \$10 mail-in incentive for each high-efficiency window installed in existing residential customers' homes. Eligible participants must be residential heating customers who have installed ENERGY STAR® labeled replacement windows with a U-factor of .35 or less\*24 during the program year as specified on the incentive form. Windows installed in new construction or home additions will not qualify for the per window incentive. Each customer will be subject to a \$500 maximum incentive per account. National Grid will continue working with contractors for multi-family or other large residential renovation projects on a case- by-case basis.

When applying for this incentive, residential customers are required to submit proof-of-purchase, as well as proof of the windows' U-factor. Efficiency ratings can be confirmed by the customer using either a copy of the National Fenestration Rating Council (NFRC) label from the window, or by providing detailed specifications from the window manufacturer confirming the window's U-Factor. The Company recommends inspections of the first two installations per new participating installation contractor. In addition, random inspections of self-installations may be administered to verify that the windows noted on the incentive forms were, in fact, installed.

The Company will promote ENERGY STAR® Replacement Windows through The Residential GasNetworks<sup>TM</sup> program using various methods, including the Company website: <a href="www.thinksmartthinkgreen.com">www.thinksmartthinkgreen.com</a> and its product website: www.efi.org/nationalgrid/, the *e-fficiency news* electronic newsletter, as well as through bill inserts. In addition, the Company has established an outreach program with retailers Home Depot® and Lowe's®, and regional hardware stores. This outreach includes training of the retailer's sales personnel regarding the Company's replacement window incentive, and supplying those stores within the Company's territory with incentive applications.

National Grid recognizes that an efficient window is only as good as its installation. As such, the Company will expand its contractor training and outreach efforts,

The U-Factor is a measurement of thermal conductivity. A lower U-factor indicates a higher level of window insulation.

and promote best practices guidelines among "do-it-yourselfers" as well as professional window installers.

The Company and GasNetworks<sup>TM</sup> plan to discontinue this incentive in 2010.

Table-VIVII: ENERGY STAR® Replacement Windows					
ItemElectric Cost Categories	2009 Budget	2010 Budget	Gas Cost Categories		
Internal Administration	\$4,026	\$0	Company Administration		
External Administration	\$6,327	\$0	Vendor Admin/Support		
Rebates/Services	\$30,000	\$0	Services		
Internal Implementation	\$0	\$0	Other		
Marketing (sum of communication and trade	\$19,778	\$0			
ally)	\$18,628	<u>\$0</u>	Communication		
	\$1,150	<u>\$0</u>	Trade Ally		
Evaluation	\$ <del>2,876</del> <u>0</u>	\$0	Evaluation and Reporting		
Total	\$ <del>63,007</del> <u>60,132</u>	\$0			
Goal	300 participants	0 participants			

#### 3 Energy Analysis: Internet Audit

This self-service audit tool allows customers to complete an electronic survey about their home, including age, size, appliances and average use patterns. The process starts with twelve basic questions to produce a report that compares the participant's home with similar homes and generates their "Top Ways to Save," including estimated annual cost savings if recommended measures are taken.

Subsequent steps require more detailed information from the customer, resulting in more personalized tips to improve the home's efficiency. The analyzer is fuel blind and lists opportunities to save in heating/cooling, lighting, water use, etc. The customer also receives information about any relevant energy efficiency opportunities such as incentive programs.

There are several levels of service the customer can receive through the analyzer, all of which can be accessed through the Company's website. A continued analysis consists of more in-depth questions about the numbers and types of appliances, the current state of the home's weatherization and mechanical equipment, and offers additional advice on how to improve the energy efficiency and comfort of the home. Users are invited to sign up to receive the Company's seasonal electronic newsletter, which includes seasonal tips to save energy, information about new energy saving technologies and the Company's other energy efficiency programs, and a link to continue the analysis of their homes.

Table-VIII: Energy Analysis - Internet Audit					
Electric Cost Categories	2009 Budget	2010 Budget	Gas Cost Categories		
Internal Administration			Company Administration		
External Administration			Vendor Admin/Support		
Rebates/Services	\$8,404_	\$16,007	Services		
Internal Implementation			Other		
Marketing (sum of communication and trade					
ally)			<u>Communication</u>		
			Trade Ally		
Evaluation			Evaluation and Reporting		
Other	\$8,404	\$16,007			
Goal	660 participants	1,053 participants			

#### E. Residential Building Practices and Demonstration Program

The purpose of the Residential Building Practices and Demonstration Program is to explore and demonstrate new and/or underutilized energy efficiency practices and equipment that can enhance a home's overall energy saving potential. This unique program allows the Company to support new and/or advanced energy saving technologies installed by residential customers.

The Company plans to explore renewable energy for water heating, advanced home heating systems, insulation and building envelope techniques, and new home construction practices. Ideas will be drawn from experience in the Company's Commercial & Industrial Building Practices and Demonstration Program, as well as from other utilities, program vendors, and interested business partners. Eligible participants in this program will include home owners, landlords, and new home builders. Each participant may be asked to allow monitoring of the installation and publication of the results in case study format.

Marketing of the program will rely on networking with industry, developing or offering new or underutilized natural gas energy efficiency technologies, as well as other interested organizations, such as the Office of Energy and Planning Renewable Energy Program, Massachusetts Technology Collaborative (MTC), the Northeast Sustainable Energy Association (NESEA), and the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED).

C

	20 participants	25 participants	Goal		
	219.058	\$26.144	[stoT.		
Evaluation and Reporting	SILER	<b>768.28</b>	Evaluation		
VIIA short	0007\$	0058			
noinsinmmn)	005.78	057.58	গ্রাম)		
	005.88	84.250	Marketing (sum of communication and trade		
Other	0\$	0\$	Internal Implementation		
Services	000 08\$	66671\$	Rebates/Services		
Vendor Admin/Support	005.28	85.750	External Administration		
Company Administration	005.58	057.18	Internal Administration		
Gas Cost Categories	2010 Budget	2009 Budget	Electric Cost Categories		
Table-IX: Building Practices and Demonstration Program					

#### E. Residential Low Income Program

The Residential Low Income Program offers weatherization services to income eligible customers at up to 200% of the Federal poverty level or below, or customers eligible for fuel assistance benefits, whichever is higher Poverty Level Guidelines. The Residential Low-Income program currently allows eligible customers to receive up to \$4,500 in qualifying measures at no cost to the customer. Whenever possible, program funds are leveraged with Department of Energy (DOE) weatherization and participating electric utility funding. The Company continues to seek out opportunities to strengthen its relationships with the State administered weatherization program, and other utility administered programs, in order to leverage funds and better serve National Grid customers.

Eligible measures provided through the program include an energy audit, attic insulation, wall insulation, air sealing, heating system repair/replacement (on a qualifying basis) and safety inspections. Small energy-related repairs for eligible heating units can also be performed. The Company will continue to install water saving measures (low-flow showerheads and aerators) and to fund the installation of carbon monoxide detectors when DOE is unable to fund this measure.

New Hampshire Community Action Program (CAP) agencies are responsible for ensuring that customers meet the eligibility requirements for program participation, and for providing weatherization services to customers. CAP agencies work with installation contractors to ensure that program requirements are met.

The CAP agencies provide Action Energy, Inc. (Action), the Company's administrative vendor for the program, detailed documentation demonstrating the work that was performed. Action also conducts quality control oversight of the work performed through the program.

The Company holds quarterly meetings with Action, the CAP agencies, and the Office of Energy and Planning to improve program implementation, address questions or emerging concerns, and to ensure that program goals are being met.

The Low Income Weatherization internet website, <u>www.weatherize.net</u>, continues to be a valuable tool. This website serves as a central information source for all of the CAP agencies and for Company personnel associated with the program. Weatherize.net has the capability to search data and determine whether a particular applicant is eligible for assistance. The site can also be used to communicate with the CAP agencies and provide timely information and updates.

The Company solicits direct feedback from program participants through its post-installation comment cards. The card, mailed directly to those customers where weatherization work was performed, allows customers to share their input and impressions of the program directly with the Company. The Company then shares the customers' responses with the corresponding CAP agency. This direct link from customer to CAP allows the Company to monitor program performance and customer perception of the program. The Company markets the program via Company brochures, bill inserts, and the National Grid website.

The Company continues to work with the CAP agencies to identify and enlist additional contractors to participate in the program. The Company is committed to train its existing contractors and market to new, eligible contractors in order to expand the contractor base. Efforts may also include outreach to technical/trade schools, and providing assistance to potential contractors for technical training.

The primary focus of the program will continue to be servicing income eligible customers in the 1-4 unit housing stock, as well as income eligible customers living in individually metered multifamily dwellings with five or more units. The Company will continue to explore energy saving opportunities to assist income eligible customers living in housing authorities. In addition, on a case-by-case basis, the Company proposes to offerto provide weatherization services to organizations that provide critical services to the program's target audience, e.g. housing authorities, food banks, homeless shelters, and organizations whose mission is to work with low income citizens.

Table-VIIX: Residential Lov	v Income Program		
Item Electric Cost			NAME OF THE PARTIES OF
Categories	2009 Budget	2010 Budget	Gas Cost Categories
Internal Administration	\$ <del>72,659</del> 57,744	\$ <del>108,988</del> <u>90,84</u>	Company Administration
THE THE TANKS THE TOTAL THE TANKS TH	\$103,783 <u>79.06</u>	\$ <del>155,674</del>	
External Administration	0	124.376	Vendor Admin/Support
	\$ <del>371,464</del> 252.5	\$ <del>557,196</del> 397,9	
Rebates/Services	<u>36</u>	<u>77</u>	Services
Internal Implementation	\$ <del>24,255</del> 0	\$ <del>36,382</del> 0	Other
Marketing (sum of communication and trade	\$ <mark>12,096</mark> 8,223	\$ <del>18,144</del> <u>12,959</u>	
ally)	\$5,641	\$8,890	Communication
	\$2.583	\$4,070	Trade Ally
Evaluation	\$ <mark>6,229</mark> 6,976	\$ <mark>9,344</mark> 9.838	Evaluation and Reporting
	\$590,486404.5	\$885,728635,9	
Total	40	97	
Edition of College Plants			
	<del>214</del> 180	<del>274</del> 260	
Goal	participants	participants	

#### D. Residential Conservation Services

The Residential Conservation Services (RCS) program is designed to helpcustomers optimize their home's energy use. The program provides a free assessment of a
customer's energy usage and recommends various ways customers can improve their
home's energy efficiency. Customers are provided with a detailed report containing
recommendations for action and how to utilize the Company's other energy efficiency
programs.

There are two levels of service provided by the RCS program. Tier One screening offers referrals to educational web sites and information about energy efficiency programs, and captures requests for literature such as the DOE "Energy Savers" booklet. Technical assistance regarding installation of energy savings measures is also available by phone. The Company has adopted a customized version of the online audit tool to guide the customer through Tier One. The tool provides the customer service representatives with discussion points that allow a dialog to better understand the customer's needs. Ultimately, the information collected by Tier One staff may result in a referral to Tier Two services.

Tier Two services consist of two types of audits. The first, the walk through audit provides a home energy assessment and installs low cost energy efficiency Instant Savings Measures (ISMs) that have an average total value of \$30. These measures are installed by the energy auditors at no charge to the customer as a way of educating the customer to the value of do it yourself measures. The customer is also provided a computer generated report describing the results of the home energy assessment which includes recommendations for energy saving measures. If the customer is willing to implement additional energy efficient measures, a combustion safety test will be performed at the walk through. The primary goal of the home energy assessment is to give customers an opportunity to understand the impact of energy efficiency measures and to motivate them to implement the recommendations.

The second type of audit National Grid is proposing is a two person energy audit team for customers who will proceed with energy efficiency upgrades. The two person team would provide a comprehensive home assessment in conjunction with whole house

air sealing. This added value service of \$650 would be provided at no cost to the customer.

Energy Performance Association (REPA), a New Hampshire organization whose goals are to provide training and promote consistency in the delivery of energy efficiency services. The auditor, who performs the majority of the Company's audits in New Hampshire, as well as the vendor's supervisory staff, participates in REPA. The Company has also established www energyfederation org/nationalgrid. This website assists customers in purchasing materials to make their homes more energy efficient. Selections include all non-major measures that are recommended during the audit. The Company plans to promote the RCS program through advertising, including bill inserts, direct mail, the National Grid website www.thinksmartthinkgreen.com, and its product website www.energyfederation.org/nationalgrid, online Home Energy Analyzer and efficiency news electronic newsletters. Customers can also call the toll-free number to learn about more about the RCS program and all of the Company's residential energy efficiency programs.

Table-VIII: Residential Conservation Services			
Item	2009 Budget	2010 Budget	
Internal Administration	\$8,898	\$15,347	
External Administration	\$ <del>13,983</del>	<del>\$24,118</del>	
Rebates/Services	\$141,377	\$243,850	
Internal Implementation	\$0-	\$0-	
Marketing	\$38,845-	<del>\$67,002</del>	
Evaluation	\$6,355	\$10,962	
Total	\$209,458	\$361, <del>279</del>	
Goals			
Energy Audit & Home			
Performance	200 participants	400 participants	
Air Sealing	100 participants	200 participants	
Total	300 participants	600 participants	

# E. Residential Building Practices and Demonstration Program

The purpose of the Residential Building Practices and Demonstration Program is to explore and demonstrate new and/or underutilized energy efficiency practices and equipment that can enhance a home's overall energy saving potential. This unique program allows the Company to support new and/or advanced energy saving technologies installed by residential customers.

The Company plans to explore renewable energy for water heating, advanced home heating systems, insulation and building envelope techniques, and new home construction practices. Ideas will be drawn from the experience in the Company's Commercial & Industrial Building Practices and Demonstration Program, as well as from other utilities, program vendors, and interested business partners. Eligible participants in this program will include home owners, landlords, and new home builders. Each

participant may be asked to allow monitoring of the installation and publication of the results in case study format.

Marketing of the program will rely on networking with industry, developing or offering new or underutilized natural gas energy efficiency technologies, as well as other interested organizations, such as the Massachusetts Technology Collaborative (MTC), the Northeast Sustainable Energy Association (NESEA), and the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED).

Table-IX: Building Practices and Demonstration Program				
Item	2009 Budget	2010 Budget		
Internal Administration	\$3,35 <u>2</u>	\$4,357		
External Administration	<del>\$5,267</del>	<del>\$6,847</del>		
Rebates/Services	\$28,727	\$37,346		
Internal Implementation	\$0-	\$0-		
Marketing	\$ <del>8,140</del>	\$ <del>10,581</del>		
Evaluation	\$ <del>2,394</del>	\$ <del>3,112</del>		
<del>Total</del>	\$47,880	<del>\$62,243</del>		
Goal	15 participants	20 participants		

# IV. COMMERCIAL AND INDUSTRIAL PROGRAMS

#### A. The Commercial Energy Efficiency Program

# 1. Commercial Energy Efficiency

The Commercial Energy Efficiency Program "CEEP" is designed to provide support services and financial incentives that encourage the Company's Commercial, Industrial and Multifamily customers to install energy efficient natural gas related equipment. Energy efficient technologies or system designs that exceed the minimum requirements of the local energy code and are not covered by another utility company program offering may be eligible for an incentive under this program. This program is open to all firm gas rate customers on any of the Company's commercial tariffs. Incentives provided through this program must be pre-approved by the Company and/or the administrative vendor prior to delivery and installation of product(s) and/or service(s).

Customers may apply for program services or incentives via a variety of channels including contacting Company representatives, plumbing and heating contractors, engineering firms, energy service companies, or equipment vendors. Customers will be able to take advantage of audit services that range in scope from a prescriptive level to custom review to technical assistance and new construction design assistance. After reviewing the customer's energy efficiency needs, the customer will be offered the appropriate program services. Customers will then be able to take advantage of either prescriptive or custom incentives. Services and incentives structures are described in the following sections.

#### **Audit services**

#### Energy Assessment

Regardless of market segment, all qualifying customers contacting the Company will be provided with an opportunity for an energy efficiency assessment. This assessment will educate small to medium sized customers on basic gas energy efficiency measures and practices. This assessment will determine which prescriptive incentives a customer may be eligible to receive. Where applicable, the assessment will provide industry-specific

recommendations. As part of the assessment process, customers will receive a report that includes all of the information associated with service delivery, including costs and estimated savings and identifies next steps for implementing energy efficiency measures and information and instruction for receiving energy efficiency incentives. This energy efficiency assessment is currently delivered to the customer as a walk through audit. The Company works with the vendors to determine the most cost-effective way to deliver this assessment, which may include remote delivery mechanisms.

#### Custom Assessment

National Grid recognizes the diverse needs of its customers when identifying energy efficiency opportunities. In that regard, the custom assessment will be made available to customers who require more energy analysis than is provided through the energy efficiency assessment. The custom assessment will also be made available for specific applications such as combustion controls, solar DHW, and heat recovery from combined heat and power (CHP). As part of a custom assessment, a site visit will be conducted at multifamily, commercial and industrial facilities in the Company's service area to identify gas energy efficiency opportunities for National Grid customers.

The assessment may also take place as a review of energy efficiency proposals presented by customers or third party vendors for inclusion in the program. Based on the assessment, a customer will receive recommendations on energy efficiency measures eligible for custom gas energy efficiency incentives. Customers will receive a report that includes all of the information associated with service delivery, identifies next steps for implementing energy efficiency measures, and information and instruction on next steps for receiving energy efficiency incentives.

#### Technical assistance

Customers requiring energy efficiency assistance beyond the scope of a custom audit will be provided with technical assistance. This may include, but is not limited to, thermal oxidizers in manufacturing, infrared process heat applications, central plant system redesigns, and other complex energy efficiency technologies. Technical assistance studies must be completed by either a Professional Engineer or Certified Energy Manager.

Customers who receive this service will receive a detailed report, including recommended measures, estimated costs, energy saving potential, custom incentives and simple paybacks. Technical assistance will be provided at the discretion of National Grid program management staff. The Company may provide these services at no cost to the customer up to an amount equal to the cost of a custom audit. If the project exceeds the cost of a custom audit, the Company will provide up to 50 percent of the cost of assessment but not more than \$10,000. The Company has under retainer engineering firms that have been selected through a competitive solicitation and qualified to offer customers technical services. Additionally, when appropriate, these firms will identify electric savings as well as gas savings opportunities particularly when working in conjunction with electric energy efficiency programs.

#### **New Construction Services**

National Grid proposes to provide New Construction Services, a service in which customers will be guided through a review of the design or design process to increase the energy efficiency of a new building by identifying appropriate energy saving measures for new construction. The intent of these services is to better address the special considerations needed to address energy efficiency at the time of new construction. This process will involve working on the project design with the customer and members of their construction team including, but not limited to, building committees, architects, engineers, and contractors. This service goes beyond engaging customers at the front end of the new construction process. It continues through project completion. New construction resources will be provided through a variety of means including, but not limited to, design team assistance, matched funds for study costs and potential assistance for system commissioning at project completion. Customers will be eligible for up to \$25,000 in total design assistance funding. Customers taking advantage of design assistance must be willing to move forward with the installation of energy efficiency measures with acceptable payback periods. Customers will receive a report about energy efficiency recommendations that include recommended measures, estimated costs, energy savings potential, custom incentives and simple paybacks.

#### **Incentives**

Energy efficiency incentives will be made available to customers through the individual programs. Currently both prescriptive and custom incentives are available to National Grid customers. Prescriptive measures include but are not limited to high efficiency heating and water heating, windows, insulation, thermostats, boiler reset control and steam traps. Custom incentives will be developed through the analysis conducted in the Custom Assessment, Technical Assistance and New Construction services. Information regarding incentive structure by program service follows.

#### Prescriptive Incentives

Prescriptive incentives will be available for common energy efficiency measures including programmable thermostats, boiler reset controls, steam trap replacements, pipe and duct insulation, building shell (wall, roof, floor, and crawlspace) insulation, and highefficiency windows. Other prescriptive measures include high efficiency commercial kitchen equipment, such as high efficiency fryers, steamers, and combination ovens. The company proposes to incorporate high efficiency dishwashers, broilers, woks, combination ovens, and griddles into the commercial kitchen equipment program after evaluation. Prescriptive incentives will be targeted primarily toward the small and medium sized Commercial & Industrial customers. The Company will rely primarily upon contractors and engineers to locate qualified facilities and to install the eligible prescriptive measures. This effort will be supported by the extensive outreach and education effort to contractors and engineers, as well as promotions directed to customers themselves. Energy audits will not be required for participation and no pre-approval will be required for applications at a single customer site. As outlined in the program terms and conditions, the Company reserves the right to negotiate incentives for multiple installations at a single site and/or multiple installations with inwithin a portfolio of properties. The Company also reserves the right to inspect the property for the installation of the measures prior to issuing the rebate. The Company plans to evaluate the prescriptive rebate incentives during the 2009 program year. Results of the evaluation will be used in the next available planning cycle.

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Table-XXI: Prescriptive Incentives for Installed Measures

Measure	Available Incentive	
Programmable Thermostat	\$25.00 each, up to 5 units	
Digital Boiler Reset Control	\$150.00 single stage; \$250.00 multi-stage	
Steam Trap Replacements	\$25.00/replaced trap	
Pipe or Duct Insulation; duct sealing	\$1.50/lf up to 500lf	
Building shell insulation (roof, wall, or	or Up to 20% of project cost with a maximum	
floor)	of \$10,000.00	
Premium efficiency windows	\$1.00/ft <sup>2</sup> of rough window opening with	
	maximum of \$2,500.00	
High Efficiency Gas Fryers	\$1,000.00/each	
ENERGY STAR® Gas Steamers	\$1,000.00/each	
ENERGY STAR® Gas Convection Oven	\$1,000.00/each	

#### Custom Incentives

Custom incentives will be available for projects that demonstrate the use of natural gas more efficiently than typical industry practices, or more efficiently than the minimum building code requirements. Incentives will be limited to no more than 50 percent of the eligible installed project costs, and the Company's contribution will be capped at \$100,000 per site and/or project for existing buildings and \$250,000 for buildings under the new construction program.

Custom incentives will be based upon \$2.25 per first year of estimated therm savings for cost-effective projects. Examples example of custom projects are redesigned HVAC systems, energy recovery applications, combustion controls, building automation/energy management systems, and advanced technology burners and/or burner controls. Incentives may not be applied toward normal maintenance costs, or for disabling or abandoning equipment without an energy efficiency replacement.

# Steam Savings Initiative

The Company plans to implement a new Initiative initiative designed to help customers with steam systems to save natural gas. The Steam Savings Initiative includes steam trap surveys, steam system surveys, and focuses on identifying gas savings measures which qualify for prescriptive and custom incentives. Examples of such measures are steam traps, economizers, combustion controls, blow down recovery, water treatment, and condensate control. New construction projects are not eligible.

The Company will pay 25 percent of a steam trap survey, up to \$2,500. Once the survey is completed, and at least 50 percent of the recommended repairs have been installed and paid for, the Company will pay an additional 25 percent of the survey cost, up to \$2,500. In return for funding from the Company, the customer agrees to start a comprehensive steam trap management plan, following the Department of Energy's recommended steam trap management procedures. The customer pays for the other 50 percent of the survey.

#### Solar Incentives

The Company will continue to offer solar thermal incentives to encourage the installation of highly efficient solar thermal technologies by customers. Examples of these technologies include solar domestic hot water (DHW) heating, solar pool heating, and solar space heating. Solar thermal incentives will be provided at a special incentive of \$5.00 per therm.

Table-XII: Commercial Energy Efficiency Program				
Electric Cost Categories	2009 Budget	2010 Budget	Gas Cost Categories	
Internal Administration	\$45,000	\$98,000	Company Administration	
External Administration	\$28,095	<u>\$71,415</u>	Vendor Admin/Support	
Rebates/Services	\$481,640	\$930,061	Services	
Internal Implementation	\$0_	\$0	Other	
Marketing (sum of communication and trade	\$35,000	\$60,000		
ally)	\$25,000	\$35,000	<u>Communication</u>	
	\$10,000	\$25,000	Trade Ally	
Evaluation	\$28,549	\$46,169	Evaluation and Reporting	
Total	\$618.284	\$1,205,645		
Goal	109 participants	227 participants		

# Multifamily Housing

The Multifamily Housing Program offersoffering provides energy audits and financial incentives for energy saving measures to multifamily facilities that receive gas service on a qualifying commercial rate. The program includes existing retrofit situations as well as new construction. Examples of measures that qualify for funding through this program include the redesign of space heating or water heating systems, steam system upgrades, building insulation and premium efficiency windows and doors. Programmable thermostats, heat recovery ventilation systems, digital energy management systems, and sophisticated burners and/or controls for boilers are also energy saving measures the Company may recommend or support through this program. The program serves both privately owned properties as well as public housing authorities.

Through the new service delivery model being developed collaboratively with other gas and electric providers, customers can participate in the multifamily program by accessing incentives, Energy Efficiency Assessment, a custom audit, New Construction

Assistance, or Technical Assistance. An increased need for affordable housing in the Company's service territory has brought several new construction projects through the program. The enhanced level of support for new construction ensures that energy efficiency becomes a focus of the project during the design phase, to avoid lost opportunities or the burden of incorporating them later in costly redesigns. Through a customer intake process, the Company will determine the level of energy efficiency advice and oversight needed by the customer. Gas consumption history, building type and size, plans for renovation or expansion and known energy efficiency measures already in place should determine the level of audit necessary for the site. Delivery of energy efficiency services and incentives will also be coordinated with electric services and programs.

Multifamily customers will be eligible for prescriptive and custom incentives. Prescriptive incentives will include high efficiency heating and water equipment, controls, envelope, and restaurant equipment. In addition, custom incentives will be made available to customers who enter the program through the custom audit, new construction assistance or technical assistance services. Savings for this program have been low in recent years so the Company plans to focus on custom projects with controls and steam system enhancements to support higher energy savings for the multifamily segment. The Company also plans to work with customers on benchmarking properties to determine the buildings with the greatest need for energy efficiency upgrades. Custom audits will identify measures for energy efficient installations. These installed measures are eligible to receive an incentive of \$2.25 per first year estimated therm savings for cost-effective energy efficiency installations. Customers will be eligible for up to 50 percent of the eligible installed project costs with a cap of \$100,000 for existing buildings. Customers participating through the new construction program will be eligible for up to 50 percent of the installed project costs with a cap of \$250,000 for new buildings.

The program is promoted through the Company's internal departments such as Sales and Marketing, as well as Customer Service. The Company also promotes the program through industry partners such as the National Association of Housing and Redevelopment Officials, local housing authorities, local chambers of commerce events and through conference attendance and contractor outreach. The Company will seek out partnerships to leverage the use of energy efficiency funding.

National Grid is beginning coordination efforts between its electric and gas multifamily programs. Gas incentives and services may be adjusted if it is determined that a specific customer may receive a more comprehensive service through coordinated delivery of the two programs.

Table-XIXIII: Multifamily H	ousing		
ItemElectric Cost Categories	2009 Budget	2010 Budget	Gas Cost Categories
Internal Administration	\$ <mark>32,000</mark> 17,000	\$ <mark>32,000</mark> 30,000	Company Administration
External Administration	\$ <mark>30,000</mark> 14.960	\$ <mark>33,000</mark> 23,895	Vendor Admin/Support
Rebates/Services	\$ <mark>49,500</mark> 26,490	\$ <mark>84,375</mark> 83,342	Services
Internal Implementation	\$0	\$0	Other
Marketing (sum of communication and trade	\$ <del>20,000</del> 13,000	\$ <del>30,000</del> 25,000	
ally)	\$8,000	<u>\$15,000</u>	<u>Communication</u>
	\$5,000	\$10,000	<u>Trade Ally</u>
Evaluation	\$ <del>14,000</del> 2,210	\$ <del>10,000</del> 5,018	Evaluation and Reporting
Total	\$145,500 <u>73.66</u> 0	\$189,375 <u>167,2</u> 55	
	entre entre en particular de la company	<b>1520</b>	
Goal	10 participants	participants	

# 3. Economic Redevelopment

The Economic Redevelopment Program leverages energy efficiency funds to revitalize buildings in targeted areasour service territory with the aim of rejuvenating the local area. The Company has found that energy saving measures can be the first project design features cut due to the higher incremental costs of installation, and lack of education and technical expertise. This can be particularly true in blighted communities where money is tight and community development corporations (CDC's) and other non-profits are responsible for much of the development.

Funding through the Economic Redevelopment Program ensures energy efficiency measures become part of a viable project. Beyond additional incentive dollars, National Grid works to partner, whenever possible, with other government entities and other energy efficiency programs, serving as a link between various funding sources and providing technical expertise. National Grid's long term commitment to its Economic Redevelopment Program creates opportunities for energy efficient technologies, increases the standard for efficiency in economically-disadvantaged communities, and works to revitalize neighborhoods.

The Economic Redevelopment Program is available to all multifamily, commercial and industrial customers. Maximum funding per project is 50 percent of the project cost up to \$100,000 with a minimum of 50 percent matching funds required from the customer. Qualifying customers entering the program through new construction assistance will be eligible for up to \$250,000 in incentives with a minimum of 50 percent of matching funds required from the customer. Applications for funding must include a description of the redevelopment project, information on the sponsoring organization, identification of additional funding sources, types of energy conserving measures to be installed, project schedule and the community and local economic impacts. Each application for funding is evaluated on these criteria.

An analysis is performed to identify cost-effective opportunities for reducing a customer's energy usage. The analysis performed leads to a report that summarizes recommendations and provides a detailed description of the alternatives evaluated, including: total installation costs, annual energy costs, annual savings and simple payback periods. The analysis establishes projected first year therm savings and the associated incentives available to the customer through the standard Multi-family, Commercial and Industrial Programs based on the therm savings.

The total award amount through the Economic Redevelopment Program uses the standard incentive amount as a baseline, but takes into consideration community and economic impacts in determining a total award amount. All award amounts are paid out as an incentive after the project is completed and all recommended gas saving measures that formed the basis for the award have must be installed in order to receive total funding. Community impacts include, but are not limited to, the overall environmental impact of a development beyond the gas savings, the creation of low income or affordable housing,

aesthetic impact of the development on the surrounding community, recreational and educational services and job creation.

With the new program delivery model for Commercial & Industrial and Multifamily customers, the Company can identify potential participants as candidates for the Economic Redevelopment program through their involvement in custom assessment, technical assistance or new construction assistance. The Company will simultaneously work to increase program awareness and identify candidates through partnerships with other development organizations, business organizations, government agencies, and other energy efficiency groups. This year the Company plans to work with cities and towns to identify projects, which include schools, low-income housing, and public libraries, that are good candidates for this program.

Table-XHXIV: Economic Redevelopment				
ItemElectric Cost Categories	2009 Budget	2010 Budget	Gas Cost Categories	
Internal Administration	\$30,000	\$30,00045,000	Company Administration	
External Administration	\$ <del>7,100</del> 12,620	\$8,00017,000	Vendor Admin/Support	
Rebates/Services	\$ <mark>303,750</mark> 124,2 96	\$ <del>270,000</del> 261.33 4	Services	
Internal Implementation	\$0	\$0	Other	
Marketing (sum of communication and trade	\$ <del>15,000</del> 13,000	\$ <del>20,000</del> 17,510		
ally)	\$8,000	\$10,010	<u>Communication</u>	
	\$5,000	\$7,500	Trade Ally	
Evaluation	\$ <del>14,000</del> 5,564	\$10,000 <u>20,851</u>	Evaluation and Reporting	
Total	\$369,850 <u>185,4</u> <u>80</u>	\$ <mark>338,000</mark> 361,69 5		
Goal	4 participants	810 participants		

Table-XIII: Commercial Energy Efficiency Program					
Item 2009 Budget 2010 Budget					
Internal Administration	\$57,000	\$ <del>62,000</del>			
External Administration	\$85,000	\$ <del>85,000</del>			
Rebates/Services	\$328, <del>00</del> 0-	\$566,000-			
Internal Implementation	<del>\$0</del>	<del>\$0</del> -			
Marketing	<del>\$52,500</del>	<del>\$62,500</del>			
Evaluation	\$ <del>50,000</del>	\$ <del>50,000</del> -			
Total	\$ <del>572,500</del>	\$ <del>825,500</del>			
Goal	120 participants	200 participants			

# B. Commercial High-Efficiency Heating Program

The Commercial High-Efficiency Heating Program is designed to overcome supply side and demand side market barriers to the purchase and installation of high-efficiency heating equipment and water heating equipment. The program is available to National Grid's commercial, industrial, governmental, institutional, non-profit and multifamily facilities. The equipment under the high-efficiency heating program includes a range of innovative technologies in heating systems that are applicable across National Grid's diverse commercial customer base. The incentive schedule is set to reduce the incremental cost between the standard options and high-efficiency equipment in each product category and size range. The Commercial High-Efficiency Heating program will continue to be promoted primarily to engineers, equipment vendors, contractors and other trade allies.

In the small commercial business segment and the smaller multifamily segment, the application of heating and water heating technology is analogous, as is the size range of equipment. Efficiency ratings for smaller furnace and boiler equipment (up to 300,000 Bbtu input) are measured using AFUE ratings. Efficiency ratings for larger boiler

equipment, which exceeds the size ranges for AFUE, are measured using thermal efficiency which has been confirmed by a third party.

Since many of the trade allies serving the residential market also serve the smaller multifamily and commercial markets, the program will often be promoted together with the Residential High-Efficiency Heating, Water Heating and Controls Program and the GasNetworks<sup>TM</sup> program activities. Trade ally training activities will also be leveraged with the residential activities and GasNetworks<sup>TM</sup> trade ally programs. Trade ally training in the larger equipment markets will continue through product training workshops, participation in industry working groups and trade associations, outreach to engineering firms, advertisements in trade publications, trade shows/seminars, and field calls and site visits.

The program's incentive schedule applies to a variety of product types and a broad range of equipment sizes that are appropriate for the commercial market segments. This range provides equal opportunity for participation among National Grid's small and large commercial customers. There are also incentives for natural gas fired, low intensity infrared heaters, high-efficiency condensing unit heaters and direct fired make-up air systems that are appropriate for the larger commercial and industrial segments. Boiler incentives are available in a two-tiered matrix: Tier One for high-efficiency non-condensing boilers and Tier Two for high-efficiency fully condensing boilers.

As outlined in the program's terms and conditions, National Grid reserves the right to negotiate a lower incentive amount per-unit for multiple installations at a single site. In large multifamily complexes and facilities, customers and/or contractors making bulk equipment purchases have a lower incremental cost per unit. Negotiating incentives helps to keep the program within budget and maintains the cost effectiveness of installed measures. The incentives are also set to help participants reduce the true incremental costs, considering the bulk purchase cost of installing multiple pieces of high-efficiency heating equipment.

Table-XIVXV: Commercial High-Efficiency Heating Program					
ItemElectric Cost					
Categories	2009 Budget	2010 Budget	Gas Cost Categories		
Internal Administration	\$20.000	\$ <del>20,000</del> 30,000	Company Administration		
·	\$25,00015,62	<u> </u>			
External Administration	0	\$30,000 <u>20,000</u>	Vendor Admin/Support		
	\$50,000124.2	\$ <del>100,000</del> 260,8			
Rebates/Services	<u>96</u>	44	Services		
Internal Implementation	\$0	\$0	Other		
Marketing (sum of	\$40,80020,00				
communication and trade	<u>0</u>	\$45,00030,000			
ally)	\$10,000	\$15,000	<u>Communication</u>		
	\$10,000	\$15,000	Trade Ally		
Evaluation	\$40,0005,564	\$ <mark>35,000</mark> 20,851	Evaluation and Reporting		
	\$ <del>175,800</del> 185.	\$ <del>230,000</del> 361,6			
Total	480	95			
Market Market State of the Stat					
	<del>50</del> <u>90</u>	<del>100</del> 160			
Goal	Incentives	Incentives			

Table-XVXVI: Commercial High-Efficiency Heating Program Incentive Qualifications

Product	Rating	Incentive
Furnaces (up to 150 MBtuh)	> 92% AFUE or	\$100
	greater	
Furnaces with ECM	> 92% AFUE or	\$400
	greater	
Condensing unit heaters (151 to 400 MBtuh)	> 90% Thermal	\$500
	Efficiency	
Direct fired heaters / direct fired makeup air (up to 1500 MBtuh)		\$1,000
Direct fired heaters / direct fired makeup air (1501 to 3000		\$1,500
Mbtuh)		
Direct fired heaters / direct fired makeup air (3001 and		\$2,000
above)		
Infrared heaters (all sizes)	low intensity	\$500
Steam Boilers (up to 300 MBtuh)	> 82% AFUE	\$200
Hydronic Boilers (under 300 MBtuh)	> 85% AFUE	\$500
Hydronic Boilers (301 to 499 MBtuh)	> 85% Thermal	\$1,000
	Efficiency	
Hydronic Boilers (500 to 999 MBtuh)	> 85% Thermal	\$2,000
	Efficiency	
Hydronic Boilers (1000 to 1700 MBtuh)	> 85% Thermal	\$3,000
	Efficiency	
Hydronic Boilers (1701 MBtuh and larger)	> 85% Thermal	\$4,000
	Efficiency	
Condensing Boilers (under 300 Mbtuh)	> 90% AFUE	\$1,000
Condensing Boilers (301 to 499 Mbtuh)	> 90% Thermal	\$1,500
	Efficiency	
Condensing Boilers (500 to 999 Mbtuh)	> 90% Thermal	\$3,000
	Efficiency	
Condensing Boilers (1000 to 1700 Mbtuh)	> 90% Thermal	\$4,500
	Efficiency	
Condensing Boilers (1701 Mbtuh and larger)>	90% Thermal	\$6,000
	Efficiency	
Indirect fired water heaters (up to 50 gallon storage)		\$100
Indirect fired water heaters (over 50 gallon storage)		\$300
On-Demand Tankless Water Heaters with and Energy Factor		\$300
of 0.82 or higher and electronic ignition		

# C. Building Practices and Demonstration Program

The purpose of the Building Practices and Technology Demonstration Program is to establish successful applications of new or underutilized energy efficient procedures, processes, or technologies. Participants in the program may be identified through the Company's other program offerings. Customers interested in presenting a project for consideration may request financial and technical assistance from the Company. Applicants must include a description of the scope of work and an estimate of the savings and benefits to be realized. Participants are required to allow monitoring of the installation and/or results, tours on the installation by potential users or other interested stakeholders, and publication of the results in case study form. To market the program, the Company will rely on the industry vendors and industry organizations such as Gas Technology Institute, Energy Solutions Center, and Consortium for Energy Efficiency developing and/or offering new or underutilized natural gas energy efficiency technologies. The program will also be promoted through the Company's sales force.

Throughout the program's history, National Grid has encountered resistance from customers to install new technologies that often require significant investment on their behalf. In order to overcome market barriers associated with the installation new technologies, National Grid is proposing to develop technologies in two program phases. The first phase would be a direct install by National Grid at one or two customer sites. These initial test sites would allow for increased monitoring and evaluation. The second program phase would be for multiple installations at National Grid customer facilities. This second phase would provide installations with cost-sharing between National Grid and the customer at fifty percent each and again allow for significant monitoring. The increased focus on monitoring and evaluation will require additional resources and funding. As a result, the Company is proposing to limit participation in the Building Practices and Demonstration Program to no more than three participants each year.

National Grid is currently working to identify a superboiler project, commercial kitchen equipment, and a high efficiency HVAC rooftop unit that the Company could include in the Building Practices and Demonstration Program.

Table-XVIXVII: Building Pr	ractices and Tech	unalagy Demanst	ration
ItemElectric Cost	actices and Teer	lifology Demonse	
Categories	2009 Budget	2010 Budget	Gas Cost Categories
	\$ <del>25,000</del> 31,65	\$ <del>25,000</del> 40,00	
Internal Administration	6	Ω	Company Administration
	\$ <del>20,000</del> 15.00	\$ <del>20,000</del> 22,50	
External Administration	<u>0</u>	0	Vendor Admin/Support
	\$ <del>60,000</del> 58,29	\$ <del>168,750</del> <u>150.</u>	
Rebates/Services	<u>0</u>	000	Services
Internal Implementation	\$0	\$0	Other
Marketing (sum of		\$ <del>10,000</del> 15.00	
communication and trade	\$10,0005,000	0	
ally)	\$5,000	\$15,000	Communication
	<u>\$0</u>	<u>\$0</u>	Trade Ally
	\$ <del>20,000</del> 13.71	\$ <del>25,000</del> 22.50	
Evaluation	<u>0</u>	0	Evaluation and Reporting
	\$ <del>135,000</del> 123.	\$ <del>248,750</del> 250.	
Total	<u>656</u>	000	
Goal	2 participants	3 participants	

# D. Business Energy Analyzer Program

The Business Energy Analyzer is a convenient online self-directed audit tool that provides customers with customized and practical recommendations for saving energy. This user-friendly tool, developed by Aclara Software, provides business customers: (1) an opportunity to learn about energy savings as it relates both to their facility and their industry; (2) the flexibility of addressing energy concerns at their leisure; and (3) the ability to return to the site and review the recommendations. The tool also allows customers to identify the energy-saving incentives for which they may be eligible.

Customers complete a Level I profile that includes their location, business type, size of facility and hours of operation. Based on this information, the system generates energy saving recommendations or "Ways to Save". At this point, the customer can opt to move on to Level II and enter in more specific information about their facility. This

information includes actual energy use from utility bills or they can choose to have the system estimate usage. Based on the additional information, the system generates an analysis of the business's energy usage that provides more accurate energy saving suggestions and targeted "Ways to Save". The customer can view these tips either showing those with the greatest savings or the shortest payback. The recommended measures have been customized to reflect information on incentives for which the customer may be eligible. Customers can also create a plan for energy efficiency from these measures that can be retrieved any time they log on. Additionally, the tool offers the customer the ability to compare their energy usage to similar businesses and view industry-specific case studies.

In the past program year, the Company had great success marketing the tool through direct calling campaigns. The Company found that using direct calling to contact customers and then assisting each customer in using the energy analyzer was the best way to increase awareness and utilization of this online program. Once a customer completes the online audit with the help of a call center representative, a comprehensive report is emailed to the customer highlighting the results and the best ways to save. A profile is set up so that the customer can return to the site at any time to review their results, work on an energy plan, and learn more about the Company's other energy efficiency offerings. The Company will continue to market the energy analyzer in this way. Additionally, the energy analyzer is being marketed through the Company's sales force, energy efficiency staff, trade organizations and outreach events.

The Company will continue to provide energy efficiency information to businesses though the business version of the *e-fficiency news*. *E-fficiency news* is an e-mail based, quarterly newsletter that customers can opt to receive while at the Business Energy Analyzer website. The first issue of the *e-fficiency news* was e-mailed to customers in September of 2005 and continues to be sent on a quarterly basis.

With the goal of continuing to improve the products and services provided to our customers, the Company may evaluate other online energy analyzers. Evaluation of other online energy analyzer will include, but not be limited to, quality of energy efficiency information, ease of use and cost. If it is determined that another energy analyzer provides more value for our customers, appropriate changes will be made.

Table-XVIIXVIII: Business Energy Analyzer Program				
Item Electric Cost Categories	2009 Budget	2010 Budget	Gas Cost Categories	
Internal Administration	\$ <mark>5,000</mark> 10,000	\$ <mark>5,000</mark> 12.500	Company Administration	
External Administration	\$ <del>1,500</del> <u>5,000</u>	\$ <mark>1,775</mark> 7,500	Vendor Admin/Support	
Rebates/Services	\$ <del>15,000</del> 0	\$15,000 <u>0</u>	<u>Services</u>	
Internal Implementation	\$0	\$0	Other	
Marketing (sum of communication and trade	\$3, <u>0005,000</u>	\$ <mark>3,000</mark> 5,000		
ally)	<u>\$5,000</u>	<u>\$5,000</u>	Communication	
	\$0_	<u>\$0</u>	Trade Ally	
Evaluation	\$0	\$0	Evaluation and Reporting	
Total	\$ <del>24,500</del> 20,000	\$ <mark>24,775</mark> 25,000		
	<b>5040</b> level 1	<b>50</b> 60 level 1		
Goal	users	users		

# v. OUTREACH AND COMMUNICATION

# A. Energy Efficiency Communication and Education

Communication to and education of customers and trade allies is critical to the success of the Company's energy efficiency efforts. One of the most common barriers to the increased use of energy efficient equipment or practices is a lack of awareness by customers of the potential energy and financial savings. Another common barrier is the lack of customer awareness as to how their utility can help reduce their energy costs. To overcome these barriers and help customers make informed energy decisions, the Company plans to maintain a consistent and high level of program outreach to its customers and trade allies.

One component of program outreach will be the ongoing development and refinement of brochures, direct mail pieces, bill inserts, and educational literature for the Company's initiatives.

The Energy Efficiency staff will continue to take advantage of every opportunity to disseminate energy efficiency information through personal contact at home shows, trade shows, community events, landlord events, new homeowner workshops, energy information fairs, and energy awareness events at major employers. The Company also will continue to use its website as a tool to promote energy efficiency. National Grid also offers regular training to its call center representatives about the Company's energy efficiency programs and how to direct customers to participate in energy efficiency programs.

In addition, the Company plans to partner with technical schools, community colleges, contractors, and trade organizations to promote energy efficiency and opportunities in the energy efficiency industry.

# B. Trade Ally Training and Codes & Standards Program

Energy efficiency awareness by the Company's trade allies and customers is crucial to reducing market barriers to energy efficiency and increasing acceptance of new

technologies. Educational activities will be a critical piece of the Company's promotion efforts.

The Company will support and undertake a wide range of training events in collaboration with GasNetworks<sup>TM</sup> and the manufacturing representatives and other trade allies. GasNetworks<sup>TM</sup> was recently authorized to award continuing education credits for the Plumbing, Heating and Cooling Contractors (PHCC) of New Hampshire. The PHCC requires training and education credits as a part of membership.

Additional outreach will extend to engineers, architects, builders, landlords, facility managers, housing authorities and other customers. The objective of all training activities will be to increase trade ally awareness of the benefits of energy efficiency and the technology options in high-efficiency equipment. Trade ally training also works to provide trade allies with the technical tools to properly size, install and maintain energy efficient products and provide customers with the knowledge to select energy efficient products. Training activities will be promoted via site visits, direct mail and newsletters. The Company works with the PHCC local chapters and attends the regional shows.

The GasNetworks<sup>™</sup> website (<u>www.gasnetworks.com</u>) will also be used as a vehicle for promotion, offering trade allies a central source of information on special event training efforts, in addition to joint energy efficiency programs.

The budget for the Trade ally training program is included within each program's budget.

# C. Building Operators Certification Program

The Company plans to offer the Building Operator Certification (BOC) program. The BOC program provides curriculum selection, instructors, testing, certifications, as well as administrative functions. The target audience for the BOC program is individuals responsible for the maintenance and operation of equipment and systems in commercial buildings, industrial plants and public facilities. A BOC certificate is awarded to students who complete eight full days of classroom instruction, homework projects and testing.

In 2009, the BOC program will offer two to four sessions throughout the New England region. Each session will enroll approximately 2540 students. The gas program will coordinate with the electric programs to reach out to a greater number of building

operator population. Each student is scheduled for two days of classroom instruction per month over a four month training cycle.

Table-XIX: Building Operator Certification				
Electric Cost Categories	2009 Budget	2010 Budget	Gas Cost Categories	
Internal Administration	\$10,000	\$11,000	Company Administration	
External Administration	\$5,000	\$6,000	Vendor Admin/Support	
Rebates/Services	\$12,000	\$20,000	Services	
Internal Implementation	<u>so</u>	<u>\$0</u>	Other	
Marketing	\$3,000	\$3,000		
	\$3,000	\$3.000	<u>Communication</u>	
	\$0	<u>so</u>	Trade Ally	
Evaluation	\$0	\$0_	Evaluation and Reporting	
Total	\$30,000	\$40,000		
Goal	20 participants	60 participants		

# VI. EVALUATION AND REPORTING

# 1. Evaluation

National Grid anticipates expanding its focus on evaluation during 2009. The Company is conducting a review of how initial savings are calculated in support of the development of a new program tracking system.

Planned evaluation studies include the following:

• Completing an impact evaluation of the Low Income Program.

- With GasNetworks<sup>TM</sup>, completing an impact evaluation of advanced heating and water heating equipment promoted through the Residential High-Efficiency Heating and Water Heating Program<sup>25</sup>.
- Process evaluations to determine customer satisfaction with program services and to identify potential program implementation improvements.
- Ongoing review of measure and program cost-effectiveness, informed by evaluation findings.

National Grid and Northern Utilities plan to go out to bid for a qualified contractor to conduct an impact evaluation of their 2007-2008 Low Income Weatherization Programs. The impact evaluation's primary objective is to re-examine and update impacts across the range of measures offered through the programs. The methodology for the evaluation will most likely be an econometric/statistical billing analysis that will result in savings estimates by measure category and/or a realization rate.

In January of 2009 the Company sent out a Request for Qualifications (RFQ) to 40 consultants to determine what methodologies are currently used in the evaluation of Residential High-Efficiency Heating and Water Heating Programs. The Company is using the responses to that RFO to develop an RFP for a process and impact evaluation of the program and hopes to work jointly on the study with members of GasNetworks<sup>TM</sup> including Northern Utilities. The methodology will likely focus on billing analysis, either to determine hours of use which will be used in conjunction with equipment capacity and the difference in rated efficiencies to calculate savings or to do a direct comparison of the usage of customers with standard efficiency units versus high efficiency units. Other methodologies suggested included using various time of use meters to determine equipment runtimes.

The Company recently conducted an assessment of the gas savings associated with the equipment promoted through the Commercial High-Efficiency Heating program. This assessment suggests that savings for eligible equipment will be lower than previously assumed. In spite of reduced savings per installed piece of equipment, the Company projects that this program will continue to be cost-effective. The per unit decrease in energy savings affects the overall Commercial & Industrial portfolio savings. As noted above, the Company plans to initiate an advanced heating and water heating equipment impact evaluation this next year in collaboration with GasNetworks<sup>TM</sup>.

As part of that RFP, the Company also plans to conduct a process evaluation to evaluate overall program performance and suggest areas for improvement. Key components of that evaluation include an assessment of:

- Level of customer satisfaction
- Trade ally satisfaction
- Company staff and trade ally training
- Effectiveness of the program delivery mechanism
- Effectiveness of program promotion
- Remaining barriers to program participation including an assessment of why some
   customers choose to not participate in the program
- Review of measures offered through the program, i.e., are they acceptable,
   appealing, and valued by the customers
- Identification of lessons learned and specific actionable recommendations for program improvement
- A review of program tracking databases to ensure that data that will likely be required to support future program evaluation efforts, including impact evaluations, are being collected

As with the impact evaluation, the Company anticipates conducting this evaluation with members of GasNetworks<sup>TM</sup> including Northern Utilities.

The Company continually updates its estimates of measure and program savings in its analysis of program cost effectiveness. Results of these evaluations will be used to screen programs for future filings.

Additional impact evaluations may be conducted during this 20-month period.

The budget for evaluation is included within each program's budget. Wherever possible, the Company will explore opportunities to decrease the cost of planned evaluation efforts by performing research in collaboration with industry partners GasNetworks<sup>TM</sup>, GTI, NEEP, AESP, JMC, CEE and other utilities.

#### 2. Reporting

National Grid NH proposes to provide the Commission with the following reports:

#### Quarterly Reports:

The Company, consistent with the practice adopted by the electric utilities in the state, will provide the Commission with quarterly reports about ongoing program efforts. These reports will provide information about program costs and savings compared to annual budgets and savings goals by month. These reports will be filed with the Commission no later than 45 days following the end of each quarter in the year.

# Updated Program Plans for 2010:

By October 15, August 31, 2009, the Company will file an update to its calendar year 2010 energy efficiency plans. The update will include updated program descriptions, benefit/cost analyses, program budgets, and program goals.

#### Shareholder Incentive Report:

4

By April 15, 2010, the Company will file a report with the Commission to document its performance for the May 1, 2009 – December 31, 20102009 time period under the proposed shareholder incentive mechanism. The Company will also file a report with the Commission to document its performance for 2010 by April 15, 2011.

#### Next Multi-Year Energy Efficiency Plan:

National Grid anticipates filing its next multi-year gas energy efficiency plan by October 15, 2010. The Plan will likely be filed jointly with the other gas and electric utilities in the state.

# VII. SHAREHOLDER INCENTIVE

For the current EE Plan, the Company's Shareholder Incentive has been designed in accordance with Commission Orders 24,109, 24,636 and the guidelines set forth for

electric utilities in NH PUC 23,850. In Order 23,850, the Commission approved a Utility Performance Incentive designed to encourage utilities to achieve superior program cost-effectiveness while maximizing program savings. It is a sliding scale incentive with a design level equal to 8% of the Company's program budgets (before incentives) and a maximum of 12% of the budgets. There are also threshold performance criteria, explained below, which the Company must achieve before any incentive is earned The Company's proposed Performance Incentive has two components.

The Company's proposed Performance Incentive has two components. The cost-effectiveness component is based on the relationship between the projected TRC Test and the actual program-year-end TRC Test, and the energy savings component is based on the relationship between the projected lifetime installed MMBTU savings and actual lifetime\_installed MMBTU savings. Each of these ratios are calculated at the sector level, one for the combined residential programs and one for the combined C&I programs, and then applied to each sector's program budgets.

The Company's proposed Performance Incentive has two components. The cost-effectiveness component is based on the relationship between the projected TRC Test and the actual program year end TRC Test, and the energy savings component is based on the relationship between the projected lifetime installed MMBTU savings and actual lifetime installed MMBTU savings. Each of these ratios are calculated at the sector Level, one for the combined residential programs and one for the combined C&I programs, and then applied to each sector's program budgets.

The Company must achieve minimum "threshold" performance before being eligible to earn an incentive. For the cost-effectiveness component, the Company must achieve sector level actual year-end TRC of 1.0 before any incentive can be earned on this component. Likewise, for the energy savings component, the Company must achieve a minimum of 65% of projected lifetime MMBTU savings before being eligible to earn an incentive on this component. Once the threshold is achieved, the earned incentive will be on a sliding scale from 0% to 12%, with a design target incentive of 8%.

# Appendix A

# Explanation of Budget Categories – Traditional Gas Cost Categories

# Services

Costs associated with rebates paid to customers for implementing energy efficiency. Additionally, this includes services provided to customers such as energy audits, technical assessments, engineering studies, plans reviews, blower door tests and infrared scans.

# **Vendor Administration and Support**

Costs associated with vendors and contractors administering programs on the Company's behalf. Tasks associated with this budget category include but are not limited to: lead intake, customer service, rebate application processing, rebate application problem resolution, equipment installation inspections, rebate processing and individual program reporting.

#### **Company Administration**

Costs to administer energy efficiency programs that include but are not limited to; staff salaries (management personnel, program managers, accounting personnel, evaluation staff, regulatory staff, and administrative support staff), and company overhead (i.e., office space, supplies, computer and communication equipment, staff training, industry related sponsorships and memberships).

#### Communication

Promotion of energy efficiency programs which includes but is not limited to; production of all energy efficiency program literature, advertising, promotion, displays, events, promotional items, bill inserts, internal and external communications. Advertising encompasses all forms of media such as direct mail, print, radio, television, and internet.

Appendix A

Page 1 of 6

#### **Trade Ally Training**

Trade Ally Training includes all activity associated with energy efficiency training/education of the trade ally community which includes but is not limited to: heating contractors, weatherization contractors, efficiency equipment/products installers, residential and C&I auditors, residential and C&I builders and developers.

# **Evaluation and Reporting**

All activities associated with the evaluation of current and potential energy efficiency programs. These activities include but are not be limited to; benefit cost ratio analysis, program logic models, cost per therm analysis, efficiency product saturation analysis, customer research and all ad hoc analyses that are necessary for program evaluation. In addition any activities that pertain to regulatory compliance or reporting conducted by energy efficiency group personnel or contractors would fall under this category. Expenses associated with evaluation include all internal and external costs (i.e., consultant contracts including legal services).

#### Other

Database administration costs associated with the Low Income program. When mapped to the Electric Cost Categories, this expense is divided 50% between internal administration and 50% between external administration.

Appendix A Page 2 of 6

# Explanation of Budget Categories – Traditional Electric Cost Categories

# Internal Administration = Company Administration from gas categories

Internal utility costs associated with program design, development, regulatory support, and quality assurance of energy efficiency programs. Costs include but are not limited to: staff salaries (management personnel, program managers, accounting personnel, evaluation staff, regulatory staff, and administrative support staff), and company overhead (i.e., office space, supplies, computer and communication equipment, staff training, industry related sponsorships and memberships).

# External Administration = Vendor Administration from gas categories

Costs associated with vendors and contractors administering programs on the Company's behalf. Tasks associated with this budget category include but are not limited to; lead intake, customer service, rebate application processing, rebate application problem resolution, equipment installation inspections, rebate processing and individual program reporting.

#### Rebates/Services = Services from above

Costs associated with rebates paid to customers for implementing energy efficiency. Additionally, this includes services provided to customers such as energy audits, technical assessments, engineering studies, plans reviews, blower door tests and infrared scans.

# Internal Implementation = Gas accounting does not differentiate this from internal administration

Internal utility costs associated with delivering program services to customers.

Costs to implement energy efficiency programs include but are not limited to; staff salaries (management personnel, program managers, accounting personnel,

Appendix A Page 3 of 6

evaluation staff, regulatory staff, and administrative support staff), and company overhead (i.e., office space, supplies, computer and communication equipment, staff training, industry related sponsorships and memberships). There are no gas internal implementation expenses tracked by the Company's accounting system.

# Marketing - Combines Communication and Trade Ally gas categories

Promotion of energy efficiency programs which includes but is not limited to; production of all energy efficiency program literature, advertising, promotion, displays, events, promotional items, bill inserts, internal and external communications. Advertising encompasses all forms of media such as direct mail, print, radio, television, and internet. The marketing category also includes trade ally training associated with energy efficiency training/education of the trade ally community which includes but is not limited to; heating contractors, weatherization contractors, efficiency equipment/products installers, residential and C&I auditors, residential and C&I builders and developers.

# **Evaluation = Evaluation and Reporting from gas categories**

All activities associated with the evaluation of current and potential energy efficiency programs. These activities include but are not be limited to; benefit cost ratio analysis, program logic models, cost per therm analysis, efficiency product saturation analysis, customer research and all ad hoc analyses that are necessary for program evaluation. In addition any activities that pertain to regulatory compliance or reporting conducted by energy efficiency group personnel or contractors would fall under this category. Expenses associated with evaluation include all internal and external costs (i.e., consultant contracts including legal services).

Appendix A Page 4 of 6

Document comparison by Workshare Professional on Friday, May 08, 2009 10:55:46

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