NEW HAMPSHIRE ELECTRIC UTILITIES
BEFORE THE
NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION

2013-2014 CORE New Hampshire Energy Efficiency Programs

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New Hampshire Electric Cooperative, Inc.
Public Service Company of New Hampshire
Unitil Energy Systems, Inc.
EnergyNorth Natural Gas, Inc. d/b/a Liberty Utilities
Northern Utilities, Inc.

NHPUC Docket No.
DE 12-262

SEPTEMBER 17, 2012
REVISED DECEMBER 14, 2012
REVISED DECEMBER 17, 2012
REVISED DECEMBER 20, 2012

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I. INTRODUCTION

This filing for the 2013-2014 CORE Energy Efficiency Programs is being made jointly by Granite State Electric Company d/b/a Liberty Utilities, New Hampshire Electric Cooperative, Inc., Public Service Company of New Hampshire and Unitil Energy Systems, Inc. (referred to throughout the remainder of this document as the "NH Electric Utilities") and EnergyNorth Natural Gas, Inc. d/b/a Liberty Utilities and Northern Utilities, Inc. (referred to as the "NH Gas Utilities") or collectively as the "NH CORE Utilities". The Introduction section of this filing provides an overview of the programs and highlights the results achieved to date along with the overarching operational proposals for the coming year. The remainder of this filing includes descriptions of the programs, individual program budgets and goals and utility specific program offerings.

This is the second time the NH Electric Utilities are filing for a two-year period and the first time the NH Gas Utilities and NH Electric Utilities are submitting programs jointly for approval. The NH CORE Utilities recognize that a number of changes will occur over the next year, including changes resulting from an updated Avoided Energy Supply Cost Study planned for 2013, measurement and verification studies, program measure changes, a June 1 discount rate adjustment, budget changes resulting from differences in actual kilowatt-hour sales from the estimated kilowatt-hours sales used to estimate overall program funding, and carryover adjustments. These changes may require that the attachments containing 2014 information be revised in 2013 to accurately reflect program goals and results. If necessary, the NH CORE Utilities will file updates by September 30, 2013.

A. Overview of CORE Energy Efficiency Programs

The CORE Electric Energy Efficiency Programs were born out of the Energy Efficiency Working Group recommendations (Docket No. DR 96-150) that were developed between May 1998 and June 1999 and largely approved by the Commission in November 2000. Thereafter, the NH Electric Utilities, the Commission's Staff and other interested parties held numerous technical sessions and settlement discussions and made many filings before final approval was received from the Commission in May 2002 to launch the CORE Electric Programs. This represented the first time that a coordinated effort had been made by the electric utilities to offer the same programs statewide.

The NH Gas Utilities began offering energy efficiency programs in 1993. These programs were suspended in 1999 during the restructuring of the gas industry to allow for a comprehensive review of the energy efficiency programs. In January 2003, the NH Gas Utilities resumed offering energy efficiency programs which were designed to increase customer awareness of the benefits of energy efficient products and services.

This 2013-2014 filing is the result of additional coordinated planning efforts between the NH Electric Utilities and the NH Gas Utilities. Specifically, the customer programs (both gas and electric) have been brought together into one coordinated filing, as was contemplated by the Commission in Orders 24,636 and 24,968. These programs are collectively referred to throughout the remainder of this document as the "CORE Programs".

The CORE Programs provide products and services tailored for business, residential and income-eligible customers or members[1]. In addition, there are utility-specific programs that are typically utilized to test new technologies, to pilot new programs before offering the program statewide or to offer a program that may be pertinent to the customers of a particular utility. Each year the NH CORE Utilities work together to review the CORE Programs, make adjustments and improvements as needed or suggested by customers, interested parties, the Commission's Staff and program administrators.

The CORE Programs in place today have been thoughtfully developed and enhanced by many different parties. As shown in Table I.1, the results of the CORE Electric Programs since their inception in June 2002 have been exceptional. Key benchmarks highlighting these exceptional results include:

- The programs have saved 8.7 billion lifetime kilowatt-hours – enough energy to power the city of Concord for 22 years!

- Saving 8.7 billion kilowatt-hours is equivalent to saving $1.2 billion at today's average[2] cost of 13.171 ¢/kWh – benefiting both customers and the NH economy. Based on CORE Program expenditures, this represents a return for customers of $7 for every program dollar invested.

- We have provided customers with 795,000 efficiency products or services and reached customers in every city and town served by the NH Electric Utilities. In addition we have provided training and information through customer seminars, point-of-sale displays, brochures, and catalogs to tens of thousands more.

- Reducing customers' energy needs has the added benefit of reducing power plant emissions. Based on the regional dispatch of plants, we will reduce emissions of CO_2, SO_2, and NO_X by 4.9 million tons – equivalent to the annual emissions of more than 1 million cars.

- Overall, the programs have saved energy at an average cost of approximately 2.1 cents per lifetime kWh – as compared to the average retail price of 13.171 cents/kWh[3].

[1] Hereinafter the word "customer" will be understood to mean both customers and NHEC members.
[2] OEP's average fuel prices as of August 13, 2012. http://www.nh.gov/oep/programs/energy/fuelprice/details2.php?pid=264
[3] OEP's average fuel price as of August 13, 2012, http://www.nh.gov/oep/programs/energy/fuelprice/details2.php?pid=264

New Hampshire CORE Electric Energy Efficiency Programs Results Summary					
	Lifetime GWH Savings (Million)	Customers Served	Dollars Saved (Million)	Emissions Reductions (Tons)	Lifetime kWh Cost (Cents)
2003	1,368	59,467	$163.4	1,036,277	1.74
2004	925	54,323	$108.5	546,431	1.86
2005	1,022	81,581	$117.6	603,754	1.96
2006	973	86,555	$133.0	539,520	1.96
2007	986	86,113	$139.8	547,009	1.89
2008	812	109,155	$128.0	403,248	2.36
2009	806	90,664	$117.4	405,136	2.32
2010	793	109,104	$113.8	382,673	2.49
2010 RGGI	249	17,275	$35.8	120,278	2.23
2011	754	100,397	$149.6	355,615	2.67
Total	8,688	794,634	$1,206.9	4,939,941	

Table I.1 – CORE Electric Program Results Summary[4]

The results of the CORE Gas Programs since their inception were not readily available for this filing. The results from 2009 to 2011 are summarized on Table I.2. Key benchmarks highlighting the success of the CORE Gas Programs since 2009 include:

- The programs have saved 5.7 million lifetime MMBTU – enough energy to heat 3,850 homes for 20 years.

- Saving 5.7 million lifetime MMBTU is equivalent to saving $57.5 million at today's average cost of $1.0556 /therm[5] - benefiting both customers and the NH economy.

- We have provided customers with 11,809 efficiency products or services and reached customers in every city and town served by the NH Gas Utilities. The NH Gas Utilities have also conducted training for trade allies.

- Reducing customers' energy needs has the added benefit of reducing 6.3 tons of N_2O; 334,943 tons of CO_2; 6.6 tons of CH_4; with GHG Equivalent reduction of 337,021 tons, equivalent to the annual emissions of 2,925 cars for 20 years.

- Overall, the programs have saved energy at an average cost of approximately $0.3853 per lifetime therm - as compared to the average Tier 2 retail price of $1.0556/therm.[6]

[4] C&I Measure Life adjustments were made in 2008, decreasing the Lifetime kWh Savings and increasing the Lifetime kWh Costs (e.g., New Construction measure life went from 20 to 15 years).
[5] OEP's average Tier 2 natural gas prices as of September 3, 2012.
http://www.nh.gov/oep/programs/energy/fuelprice/details2.php?pid=265
[6] OEP's average Tier 2 natural gas prices as of September 3, 2012.
http://www.nh.gov/oep/programs/energy/fuelprice/details2.php?pid=265

New Hampshire CORE Gas Energy Efficiency Programs Results Summary					
	Lifetime MMBTU Savings	Customers Served	Dollars Saved (Million)	Emissions Reductions (Tons)	Lifetime MMBTU Cost (Cents)
2009/2010	4,115,049	9,351	$41.3	241,995	$3.73
2011	1,615,879	2,458	$16.2	95,026	$4.17
Total	**5,730,928**	**11,809**	**$57.5**	**337,021**	$3.85

Table I.2 – CORE Gas Program Results Summary

While the NH CORE Utilities are proud of the results achieved to-date, they are very much aware of the need to work with the Commission's Staff and other interested parties to continue to find opportunities to improve the quality and effectiveness of the CORE Programs.

B. Program Funding

Initially, the CORE Electric Programs were funded solely by a portion of the System Benefits Charge (SBC) on customers' bills. In recent years, the program budgets have been supplemented by funds obtained by the utilities from the ISO-NE's Forward Capacity Market, the Regional Greenhouse Gas Emissions Reductions Fund and the American Reinvestment and Recovery Act. In addition, any unspent funds from prior program years are carried forward to the following year's budget, including interest based on the prime rate.

The CORE Gas Programs are funded by the Local Distribution Adjustment Charge (LDAC) on customers' bills. Any unspent funds from prior program years are carried forward to the following year's budget, including interest based on the prime rate.

ISO-NE Forward Capacity Market[7] Overview

On June 16, 2006, the FERC approved a Settlement Agreement that addressed the future capacity needs of New England and laid the groundwork for the Forward Capacity Market. Effective December 1, 2006, under the Forward Capacity Market Transition Period rules, the ISO-NE was obligated to pay for qualified capacity reductions in accordance with a determined rate schedule from December 1, 2006 to May 31, 2010. All generation and demand resources installed after June 16, 2006, have been eligible to receive capacity payments in accordance with ISO-NE's Market Rules. June 1, 2010 marked the end of the Forward Capacity Market Transition Period and the beginning of ISO-NE Forward Capacity Market.

The first Commitment Period of the Forward Capacity Market was June 1, 2010 through May 31, 2011. New Hampshire CORE Energy Efficiency Program capacity reductions continue to receive capacity payments under the Forward Capacity Market. The NH Electric Utilities have capacity supply obligations for their CORE program capacity reductions through the sixth Forward Capacity Market which ends on May 31, 2016. The NH Electric Utilities recently submitted

[7] http://www.iso-ne.com/markets/othrmkts_data/fcm/index.html

Qualification Packages to participate in the upcoming seventh Forward Capacity Auction, scheduled to commence on February 4, 2013. The NH Electric Utilities intend to take all necessary steps to continue to qualify capacity supply obligations from the CORE program capacity reductions in future Forward Capacity Markets.

As the Forward Capacity Market matures, ISO-NE continues to identify additional reporting requirements, resulting in increased workload on the NH Electric Utilities to continue to qualify energy efficiency program obligations in the market. In addition to the annual submission of the qualification package and monthly reporting of the performance values of energy efficiency assets, the utilities are now required to submit an annual certification based on an audit performed by an external auditor, provide historical energy efficiency data to allow ISO-NE to develop more accurate forecasts, provide a detailed data base of all energy efficiency measures and their expiration dates and respond to an increasing number of data requests.

Estimated ISO-NE payments for 2013 and 2014 are included in the 2013-2014 CORE Energy Efficiency Program budgets. In each year, 15% of the total payment amount was allocated to the residential Home Energy Assistance program. Of the remaining amount, 70% was allocated to the C&I programs and 30% was allocated to the Residential programs.

As approved by the Commission in 2008, the NH Electric Utilities will continue the policy of reporting to ISO-NE the demand savings achieved via these energy efficiency programs in the Forward Capacity Market. Customers who participate in these energy efficiency programs must agree to forego any associated ISO-NE qualifying capacity payments and allow their electric utility to report demand savings and collect the capacity payments on behalf of all customers. All ISO-NE capacity payments received will be used to supplement the utilities' energy efficiency program budgets which will provide additional energy efficiency opportunities for NH electric customers.

House Bill 1490, Regional Greenhouse Gas Energy Efficiency Fund Overview

On June 23, 2012, Chapter 281 of the Laws of 2012 (House Bill 1490) became law. This law amended RSA Chapter 125-O (Multiple Pollutant Reduction Program) to require a portion of the Regional Greenhouse Gas Initiative (RGGI) auction proceeds to be used as an additional source of funding to electric distribution companies for CORE energy efficiency programs that are funded by the system benefits charge funds effective January 1, 2013. On July 13, 2012, the Commission issued a Supplemental Order of Notice Relative to Electric Utilities in Docket No. DE 10-188. In its Supplemental Order of Notice, the Commission indicated the level of RGGI funds expected to be available after January 1, 2013 would be in the range of $3 million to $6 million and directed the electric utilities to include proposed uses for these additional RGGI funds in their 2013-2014 CORE energy efficiency program filing. As shown in the following Table I.3 (CORE Electric Program Funding 2013-2014), the NH Electric Utilities have based the 2013-2014 CORE energy efficiency program plan on $6 million in RGGI program funding in both 2013 and 2014. The RGGI funds were distributed among low-income, residential, and commercial/industrial sectors as was done for the System Benefits Charge funds. These funds enabled the NH Electric Utilities to increase funding over prior years for programs with high demand, add new energy savings measures, and provide for additional financing of energy efficiency projects. Although the actual

annual RGGI allowance proceeds will be based on the number of allowances and the price of the allowances sold at auction, the $6 million annual estimate is reasonable given the current number of New Hampshire RGGI allowances available to be sold and the current price of New Hampshire RGGI allowances.

The following tables (Table I.3 and Table I.4) summarize the 2013 and 2014 program funding by source for the CORE Electric Programs and the CORE Gas Programs, respectively.

New Hampshire CORE Electric Energy Efficiency Programs 2013 Program Funding					
	LU-Electric	NHEC	PSNH	Until	Total
System Benefits Charge (SBC)	$1,703,215	$1,343,123	$13,830,881	$2,208,943	$19,086,162
Carryforward & Interest	-$90,690	$232,563	$18,386	-$96,737	$63,522
RGGI	$511,311	$417,157	$4,382,093	$689,721	$6,000,282
Estimated ISO-NE FCM Proceeds	$140,000	$60,000	$1,900,000	$165,937	$2,265,937
Total Energy Efficiency Funding	**$2,263,836**	**$2,052,843**	**$20,131,360**	**$2,967,864**	**$27,415,903**
New Hampshire CORE Energy Electric Efficiency Programs 2014 Program Funding					
	LU-Electric	NHEC	PSNH	Until	Total
System Benefits Charge (SBC)	$1,746,036	$1,358,316	$14,065,211	$2,227,477	$19,397,040
Carryforward & Interest	$0	$232,563	$0	-$1,262	$231,301
RGGI	$511,311	$417,157	$4,382,093	$689,658	$6,000,219
Estimated ISO-NE FCM Proceeds	$140,000	$60,000	$2,090,000	$174,234	$2,464,234
Total Energy Efficiency Funding	**$2,397,347**	**$2,068,036**	**$20,537,304**	**$3,090,107**	**$28,092,794**

Table I.3 – CORE Electric Program Funding 2013 – 2014

New Hampshire CORE Gas Energy Efficiency Programs 2013 Program Funding			
	LU-Gas	Northern Utilities	Total
Local Distribution Adjustment Charge (LDAC)	$2,326,799	$1,317,487	$3,644,286
Carryforward & Interest	$2,727,601	-$61,915	$2,665,686
Total Energy Efficiency Funding	**$5,054,400**	**$1,255,572**	**$6,309,972**
New Hampshire CORE Gas Energy Efficiency Programs 2014 Program Funding			
	LU-Gas	Northern Utilities	Total
Local Distribution Adjustment Charge (LDAC)	$5,307,120	$1,322,890	$6,630,010
Carryforward & Interest	$0	$6,048	$6,048
Total Energy Efficiency Funding	**$5,307,120**	**$1,328,938**	**$6,636,058**

Table I.4 – CORE Gas Program Funding 2013 – 2014

C. Additional Value of the CORE Programs

As summarized below, NH has an additional funding mechanism under the Electric Renewable Portfolio Standard that has somewhat different, yet similar, goals as the System Benefits Charge energy efficiency funding mechanism. The distribution of the funding under the Electric Renewable Portfolio Standard is managed by the NHPUC's Sustainable Energy Division. The NH Electric Utilities stand ready to assist the NHPUC as needed to help deliver additional services and bring additional value to NH's residents.

Electric Renewable Portfolio Standard[8]

The NH Electric Utilities believe they can play a significant role in the efficient use of the incentives that are available for renewable energy systems. The effectiveness and scope of the benefits produced by the renewable energy fund can be increased through the combination of renewable energy systems with end-use efficiency measures that are typically more cost-effective to implement. End-use efficiency improvements, when combined with renewable energy systems, have the potential to drive customers toward net zero energy consumption. A combined programmatic approach has the potential to raise customer awareness and participation in projects which include both energy efficiency measures and renewable energy systems. In addition, this combined approach offers the opportunity to expand the number of customers who can be served by the renewable energy fund. This is because the end-use efficiency improvements can reduce energy demand resulting in smaller renewable system capacity requirements.

In addition, the NH CORE Utilities seek collaboration opportunities to provide efficient and effective solutions for New Hampshire, as highlighted by the BetterBuildings Program / Home Performance with ENERGY STAR Program Collaboration and the State Energy Efficient Appliance Rebate Program / Home Performance with ENERGY STAR Program Collaboration as described below.

BetterBuildings Program / Home Performance with ENERGY STAR Program Collaboration

During 2012, Public Service Company of New Hampshire, Unitil Energy Systems, Inc. and the New Hampshire Electric Cooperative each entered into collaboration agreements with the New Hampshire Community Development Finance Authority (CDFA). The CDFA is responsible for operating the BetterBuildings Program. In that role, the CDFA received an $8.5 million grant through the New Hampshire Office of Energy and Planning from the Department of Energy. The primary goal of the BetterBuildings program is to promote weatherization services in residential buildings and to provide homeowner loans for that purpose. For residents enrolled in the utilities' HPwES program, an energy professional analyzes their home and provides a customized list of upgrades and improvements. Homeowners can receive a 50% rebate up to $4,000 to pay for the renovation costs. Half of the rebate is funded through the system benefits charge, while the other half of the rebate is funded through the BetterBuildings program. In addition, BetterBuildings provides funding for on-bill financing of HPwES projects. Through these collaborative efforts, the NH Electric Utilities made commitments to use their best efforts to deliver an additional $1.8 million in program services to residential customers throughout each utilities' service territory through April 30, 2013, which is the duration of the Department of Energy grant period. The NH Electric Utilities will continue to seek these collaboration opportunities so as to provide efficient

[8] http://www.gencourt.state.nh.us/legislation/2008/hb1628.html

and effective solutions for NH's citizens.

State Energy Efficient Appliance Rebate Program / Home Performance with ENERGY STAR Program Collaboration

In 2009, the NH Electric Utilities worked with the Office of Energy & Planning and the Commission's Staff to discuss opportunities for collaboration on American Recovery and Reinvestment Act (ARRA) funded projects. In February 2010, the NH Electric Utilities were awarded $731,000 in ARRA – State Energy Efficient Appliance Rebate Program (SEEARP) funds to provide rebates for the replacement of fossil heating systems with new energy efficient water heaters, furnaces and boiler systems. The goals of this ARRA program were to create and retain jobs, expand the market of available energy efficient heating systems, increase the sales and installation of energy efficient heating and hot water systems, reduce fossil-fuel use for home heating and reduce emissions from fossil fuels. The NH Electric Utilities expanded the Home Performance with ENERGY STAR Program (HPwES) to include ENERGY STAR heating and hot water appliance rebates. All ARRA program funds were committed by November 2010, significantly ahead of the February 2012 end of program date. The program successfully met its goals and objectives by providing 1,494 rebates and thus replacing 1,494 less energy efficient appliances. In addition, 1,130 fossil heating systems were recycled, jobs equivalent to five full time equivalents (FTEs) were created and the program saved 11,981 annual MMBTU and 25,700 annual kWh.

D. Evolving Nature of the CORE Programs

The CORE Programs continue to evolve in response to changing technology, market conditions, program evaluations and new standards, as well as input from customers and other interested parties as illustrated in the following examples.

- ❑ Independent Study of Energy Policy Issues. Pursuant to NH Chapter 335 of the Laws of 2010 ("SB 323") the New Hampshire Public Utilities Commission contracted with Vermont Energy Investment Corporation (VEIC) to conduct an Independent Study of Energy Policy Issues. VEIC issued its Final Report on September 30, 2011. The law also directed the state's Energy Efficiency and Sustainable Energy Board (EESE Board) to review the comprehensive study and to provide its recommendations as soon as practicable. As of this writing, the EESE Board expects to make its recommendations public in November 2012. Utility representatives have been fully engaged in the review process, and they have included program and process changes to the CORE Programs in response to recommendations in the Final Report. Examples of these changes include:

  - ✓ *Coordinate Planning and Delivery of Training Activities For HEA Program*
    The NH Office of Energy and Planning and the utilities are working together to plan and deliver training programs applicable to the home weatherization staff. Training includes BPI certification as well as programs to maintain competency and currency in home weatherization technology. [Status: Recommendation Implemented]

- ✓ *Develop Shared IT Resources and Common Reporting Standards For HEA Program*
  The NH Office of Energy and Planning (OEP) and the utilities are working to implement a common weatherization projects database and shared software for assessing energy savings potential, program administration, and reporting. OEP, the Community Action Agencies, and the utility program administrators will all have secured access to the system with functionality to support their specific needs. [Status: Scheduled Implementation January 1, 2013]

- ✓ *Set Higher Performance Goals*
  The VEIC Study recommended setting more aggressive program goals. A new energy-savings goal-setting process has been established by the NH Public Utilities Commission and is underway. The process was intended to more closely align goals with past results, and it was used for the first time in development of the 2012 CORE Program savings goals. The process uses historical kilowatt-hour savings trends as a baseline. This baseline is then adjusted for relevant factors including: available funding, changes in measure costs, measure life, measure mix, and energy codes. The baseline and all adjustments are documented, reviewed by the Commission's Staff and any interested parties, and then presented to the Commission for final review and approval. [Status: Recommendation Implemented]

- ✓ *Increase Maximum Length of an Energy Performance Contract*
  With the passage of Senate Bill 252[9], state agencies and municipalities can now enter into an energy performance contract (EPC) with a term lasting up to 20 years. Core program account executives should prepare to assist local governments in understanding and taking advantage of this legislative change to take on more and larger energy projects. [Status: Scheduled Implementation January 1, 2013]

- ✓ *Better Align and Coordinate Programs*
  With this filing the NH CORE Utilities are making progress towards better alignment and coordination. Differences between the programs offered by the gas utilities will be eliminated in 2013, and customers will receive services and incentives seamlessly from both the gas and electric programs. Also, all utility Account Executives will be trained on the full suite of electric and gas programs. Each utility's Account Executives provide a range of services in addition to energy efficiency and are the single point of contact between the utility and the customer within that utility's boundaries or franchise. Rather than assigning a single Account Executive to customers with facilities in multiple franchise areas, as was suggested in the VEIC report, the assigned Account Executives from the affected utilities will coordinate with each other when working with cross-franchise customers in order to serve their needs and eliminate duplication. [Status: Scheduled Implementation January 1, 2013]

[9] NH Senate Bill 252 (2012 Session), signed into law on June 7, 2012.

- ✓ *Provide Education and Training Programs*
  A full complement of education and training programs are proposed in this filing to complement the programs and to inform the public on energy efficiency topics. Some of these topics were specifically identified in the VEIC Study including: new home construction techniques supporting the new ENERGY STAR 3.0 standard and energy code training. [Status: Ongoing]

- ✓ *Include Consideration For Multi-family Dwellings and Fuel Neutral Products/Programs*
  The NH CORE Utilities are proposing the inclusion of multi-family dwellings in both the Home Performance with ENERGY STAR (HPwES) and ENERGY STAR Homes Programs. The HPwES Program will focus on electrically heated multi-family homes whereas the ENERGY STAR Homes Program is fuel neutral. In addition the NH CORE Utilities are also proposing to offer fuel neutral high efficiency heating, cooling, hot water, and control system measures to both residential and business customers. [Status: Scheduled Implementation January 1, 2013]

In addition to these programmatic proposals, this filing is responsive to a recommendation repeated throughout the VEIC Study to increase funding – particularly for low-income programs. As a result of the passage of HB 1490, beginning in January 2013, a portion of future RGGI auction proceeds will be allocated to the electric distribution utilities for the CORE Programs. Accordingly the NH Electric Utilities have increased their budgets by $6 million annually. Also, in response to the VEIC recommendation, the NH Electric Utilities are proposing that 15% of these funds be budgeted for the low-income Home Energy Assistance Program. This compares to a 10% low-income set-aside of RGGI funds in previous years.

☐ Climate Action Plan. In August 2006, Governor John Lynch announced the State of New Hampshire's 25 x '25 Renewable Energy Initiative, which set a goal for New Hampshire to obtain 25% of its energy from clean, renewable sources by the year 2025 and directed the Office of Energy and Planning to develop a plan to meet this goal. The Office of Energy and Planning noted that it will be easier to meet the overall goal for renewable energy if demand for energy is reduced by means of energy efficiency and conservation. The New Hampshire Climate Change Policy Task Force was assembled and the report entitled "The New Hampshire Climate Action Plan" was issued by the Department of Environmental Services in March 2009. The Task Force recommended 10 overarching strategies to comprehensively address the causes and impacts of climate change; the first of which is maximizing energy efficiency in buildings. Specifically, the Task Force noted that the state can realize substantial reductions in its energy consumption for heating buildings and power utilized by buildings by maximizing the thermal and electrical efficiency of all future buildings and extensively retrofitting existing residential, commercial, industrial and municipal buildings.

In the residential existing building sector, a goal was set to retrofit 30,000 homes annually in order to reduce their net energy consumption by 60%. To meet this goal, the Task Force recommended utilizing a program that includes the following elements: 1) building shell and window upgrades, including instrumented air sealing and thermographic inspections; 2) space conditioning equipment upgrades/replacements, including ductwork and duct

sealing; 3) domestic hot water system upgrades; 4) ENERGY STAR lighting; 5) water saving measures; 6) ENERGY STAR appliances; and 7) use of renewable energy systems. Program elements one through six are currently offered to residential customers who qualify for service under the Home Performance with ENERGY STAR Program or the Home Energy Assistance Program. Program element four and program element 6 are offered to all residential customers under the ENERGY STAR Lighting Program and the ENERGY STAR Appliance Program, respectively. In addition, the NH CORE Utilities are proposing to expand the ENERGY STAR Appliance Program to include fuel neutral incentives for ENERGY STAR heating, cooling and hot water heating appliances. Incentives will be offered to customers who purchase more efficient ENERGY STAR heating, cooling and water heating equipment over standard models. As a result, customers who may not qualify to receive services under the Home Performance with ENERGY STAR Program or the Home Energy Assistance Program will be eligible to receive services related to space and water heating systems and air conditioning systems under the ENERGY STAR Appliance Program. As evidenced by the success under a similar ARRA-funded program offered in 2010, the NH CORE Utilities are confident that a fuel-neutral heating, cooling and water heating program will meet an identified need for home energy efficiency and weatherization in the State of New Hampshire. Finally, the Commission's recent Order No. 25,402, approved the Home Performance with ENERGY STAR Program as a permanent CORE program, which will allow the electric utilities to continue to operate this program as a fuel neutral program.

In the residential and commercial and industrial new construction sector, the NH Climate Action Plan recommends new construction should incorporate state of the art energy efficiency and renewable energy systems into the design of the building envelope, operating systems (HVAC in particular), and energy consuming appliances and devices. The Residential ENERGY STAR Homes Program, as well as, the Residential Lighting and Appliance Programs meet these objectives. As described in Section II.A.1, the EPA recently introduced new standards for the federal ENERGY STAR Homes Program, which have been incorporated into the program offered by the NH Electric Utilities. In addition, the Large and Small Business Energy Solutions Programs help to meet the energy efficiency objectives by offering energy efficiency incentives to customers with new construction projects. The Large and Small Business Energy Solutions Programs' incentives are more fully described in Sections II.C.1 and II.C.2.

In the commercial and industrial existing building sector, a goal was set to reduce existing buildings net energy consumption by 50% by 2030. To meet this goal, the Task Force recommended utilizing a program that includes the following elements: 1) lighting; 2) heating, ventilating and air conditioning (HVAC) systems; 3) processes (e.g., air compressor equipment and variable frequency drives; 4) control equipment and technologies; 5) refrigeration equipment; 6) building shell and window upgrades; 7) hot water system upgrades; 8) reduced water usage; and 9) use of renewable energy systems. Program elements one through seven are currently offered to commercial and industrial customers under both the Large and Small Business Energy Solutions Programs. In addition, the NH CORE Utilities are proposing to expand the Large and Small Business Energy Solutions

Programs to include fuel neutral incentives for heating, cooling and hot water heating equipment, as described in Sections II.C.1 and II.C.2. Incentives will be offered to customers who purchase more efficient heating, cooling and water heating equipment over standard models.

The energy efficiency programs as proposed by the NH CORE Utilities are well positioned to assist the State of New Hampshire in meeting its energy policy goals and objectives.

- ☐ The State Building Code Review Board adopted the 2009 International Energy Conservation Code with amendments, effective April 1, 2010. The NH CORE Utilities have reviewed the energy conservation code revisions to identify provisions that may require more stringent measure qualification criteria or revisions to baseline efficiency assumptions governing energy savings calculations. For example, the ENERGY STAR Homes Program encourages better building techniques in accordance with ENERGY STAR guidelines by offering incentives to build homes that are at least 20% more efficient than homes built to the 2009 International Energy Conservation Code (IECC). The NH Electric Utilities will work to provide the necessary training for builders, HVAC contractors, and HERS raters as described in Section II.A.1.

- ☐ Light emitting diodes (LEDs) have been used to retrofit traffic lights and exit signs for over a decade. Today the number of LED lighting applications is growing rapidly and can be applied to almost all lighting applications. The NH Electric Utilities are using the U.S. Environmental Protection Agency's ENERGY STAR as a qualifier to receive program incentives. For commercial applications, the NH Electric Utilities use the Design Lights Consortium qualifying list of commercial lighting products to determine eligibility for program incentives. LED retrofits are being considered as custom measures in the commercial programs, and ENERGY STAR LED lamps and fixtures are included in the NHSaves lighting catalog.

- ☐ As a result of The Energy Independence and Security Act of 2007 the standards for residential lighting products in the United States will begin to change today's incandescent lamps. Phase 1 began on January 1, 2012 as shown in the table below. The lumen per watt (LPW) rating for incandescent bulbs will be raised so that these lights become 28% more efficient.

Standards Change Schedule

Current Bulb	New Bulb	Effective Date of Change
100 watt	72 watts or less	January 1, 2012
75 watt	53 watts or less	January 1, 2013
60 watt	43 watts or less	January 1, 2014
40 watt	29 watts or less	January 1, 2014

- ☐ In response to product improvements, the ENERGY STAR appliance standards continue to ratchet upwards. For example, the efficiency standard for clothes washers was increased 36% in January 2007, 5% in July 2009 and increased another 11% in 2011. A new efficiency standard is expected to be announced that will increase the Modified Energy Factor (MEF) to

>= 2.6 and decrease the Water Factor (WF) to <= 3.7. No announcement date has been determined as of this filing. The changing standards and the introduction of new models by manufacturers result in continual changes to the list of ENERGY STAR labeled washers. In response to these changes, the utilities are working with retailers to ensure accuracy in point of sale labeling and are monitoring program cost-effectiveness.

- Technical Potential Study: During 2008 and into 2009, the Commission employed an independent consultant to conduct a Technical Potential Study in order to determine remaining energy efficiency opportunities[10] in New Hampshire. The results of the study indicate that "*there is still significant savings potential in New Hampshire for cost effective electric and gas energy-efficiency measures and practices (and associated oil and propane savings)*". The study also determined that the current CORE Energy Efficiency Programs "*have been successful and have saved a substantial amount of energy*" and "*Many of the programs have and are continuing to perform quite well in terms of cost per unit of energy saved and customer participation.*" These comments suggest that the CORE Energy Efficiency Programs are well positioned to capture energy savings because they possess the breadth and depth to address the full range of potential opportunities to cost-effectively install energy efficiency measures. Indeed, it was found that "*nearly all of the most cost effective energy efficiency measures are included in current programs in some manner*".

  In addition to these positive comments about the CORE Energy Efficiency Programs, the report goes on to make the following recommendation: *"Expanding the number and types of products and services available through the existing residential energy efficiency programs, and promotion of those programs to include a larger number of potential participants may lead to increased overall energy savings."*

  The Technical Potential Study is an important resource that is used to assist the utilities in the identification of cost-effective energy saving measures with significant market potential that can be potentially realized through strategic program market interventions. Examples of such measures include LED lighting, second refrigerator recycling, and expanded weatherization services for non-electrically heated homes.

- The Home Performance with ENERGY STAR program, a pilot program offered by PSNH and Unitil from 2009 to 2012, will now be offered by all the NH CORE Utilities in 2013 and 2014. Based on Commission Order No. 25,402 issued on August 23, 2012, all four electric utilities will provide fuel neutral services through this weatherization program, and the gas utilities will continue to serve their gas customers in this program. Please refer to Section E, entitled "Proposed Resolutions for the Directives Contained in the Commission's Home Performance with ENERGY STAR Program Order No. 25,402" for additional information.

- CORE Home Energy Assistance and Federal Weatherization Assistance Program. In April 2009, the Office of Energy and Planning (OEP) was awarded approximately $23 million in ARRA funding through the Federal Weatherization Assistance Program (WAP). The OEP

[10] The study, Additional Opportunities for Energy Efficiency in New Hampshire, can be found at the NH PUC website at http://www.puc.state.nh.us/.

subcontracts with the New Hampshire's Community Action Agencies (CAAs) to operate and deliver weatherization services at the local level. Whenever possible, the OEP and CAAs collaborate with the electric and gas utilities' energy efficiency programs to provide weatherization services to low income households in New Hampshire. With the ARRA funded program closing in September 2012 and federal weatherization funding anticipated to be below pre-ARRA levels, weatherization funding will not be sufficient to provide the same, in-depth weatherization services to eligible households. In order to provide the same level of weatherization services to low-income households, the NH Electric Utilities have allocated 15% of the total program budget (which now includes RGGI funds) to the Home Energy Assistance (HEA) Program. Although collaboration of funds will continue, the NH Electric Utilities expect to pay a higher percentage of the project costs for Home Energy Assistance programs due to this reduction in Federal WAP funding.

- ❑ Federal Tax Credits. Federal tax credits are available at 30% of the cost, with no upper limit through 2016 (for existing homes & new construction) for: Geothermal Heat Pumps; Small Wind Turbines (Residential) and Solar Energy Systems. Customers in both the Weatherization Programs and the ENERGY STAR Homes New Construction Program are being made aware of the additional benefits of this tax credit. Customers are also being informed of the renewable energy incentives offered through the NHPUC's Sustainable Energy Division. The NH CORE Utilities always encourage customers to seek advice from a tax expert regarding tax credits.

E. Proposed Resolutions for the Directives Contained in the Commission's Home Performance with ENERGY STAR Program Order No. 25,402

On August 23, 2012, the Commission issued Order No. 25,402 (Order on Home Performance with ENERGY STAR Program). In its Order, the Commission provided conditional approval to continue the fuel neutral Home Performance with ENERGY STAR Program in 2012 and to include the program in the utilities 2013-2014 CORE program filing. The Commission's conditional approval is subject to eight directives, which are summarized below along with the NH Electric Utilities' proposed resolution for each directive.

1) Study the drivers of the increasing air conditioning load in both residential and C&I customer classes and to begin to develop cost-effective energy efficiency programs to reduce this load. Included in this analysis should be window unit air conditioners and their installation, as well as central air conditioning systems.

   Proposed Resolution

   Complete a market assessment study of air conditioning equipment in both the residential and C&I customer sectors that will focus on opportunities for program interventions to reduce the rate of increase of air conditioning energy and peak demand.

2) Further develop peak demand as a factor when calculating cost/benefit tests of proposed energy efficiency measures.

Proposed Resolution
The NH Electric Utilities interpret this directive to mean that attention should be focused on an accurate quantification of the benefit of summer peak demand savings in cost/benefit tests of air conditioning measures and programs. The NH Electric Utilities propose to include this as an additional requirement of the market assessment study noted in directive #1.

3) Include additional measures or programs that target peak demand in the 2013-2014 CORE program filing.

Proposed Resolution
This filing includes incentives for new central air conditioning and air source heat pumps in both the residential and C&I customer sectors.

4) Include ancillary electric savings data from non-electric energy efficiency measures, as well as, a description of the reliability and accuracy of the data in the form of a report in the 2013-2014 CORE program filing.

Proposed Resolution
The NH Electric Utilities filed a Request for Extension of Time with the Commission on September 11, 2012. As specified in the Request for Extension of Time, the NH Electric Utilities are in the process of hiring a consultant to conduct a thorough review of the data and to provide assurance that an independent third party has verified the information upon which future CORE program expenditures will be based. On September 14, 2012, the Commission granted the NH Electric Utilities' request for an extension of time and directed the NH Electric Utilities to file a report with the Commission no later than March 29, 2013.

5) Perform outreach to electric space heating customers and give such customers priority.

Proposed Resolution
The NH Electric Utilities will continue to identify and perform outreach on an ongoing basis to customers/landlords that are likely to utilize electricity to heat their homes/multi-family buildings. In addition, the NH Electric Utilities will conduct a targeted marketing campaign during the time period October 2012 – December 2014 and will give priority to electric heat customers via the Home Heating Index screening tool by allowing them to qualify for the program at a lower BTU/Square Foot threshold[11].

[11] Per page 25 of Residential Energy, Cost Savings and Comfort for Existing Buildings, 4th edition, by John Krigger and Chris Dorsi.

6) Develop cost/benefit tools to measure energy savings in multi-family buildings and to give priority to multi-unit buildings which utilize electricity for space heating.

Proposed Resolution
The NH CORE Utilities are in the process of implementing a common statewide energy modeling software program for residential programs that will have the capability to more easily calculate energy savings in multi-family buildings and are on track to implement this software beginning in 2013.

As described in #5 above, the NH Electric Utilities will also perform outreach and give priority to landlords whose multi-family buildings are likely to utilize electricity for space heating.

7) Include an alternative cost benefit analysis approach for electrically heated multi-family projects in the 2013-2014 CORE program filing.

Proposed Resolution
The NH Electric Utilities interpret this to mean that an alternative approach to the Home Heating Index is required for screening multi-family buildings. The NH Electric Utilities plan to conduct audits of electrically heated multi-family projects to determine the cost-effectiveness of these projects.

8) Convene a working group immediately, for the purpose of developing a performance incentive proposal for non-electric savings. The existing performance incentive will remain in place until a new methodology is approved by the Commission.

Proposed Resolution
A Performance Incentive Working Group meeting is currently scheduled for October 3, 2012 to begin addressing this issue.

F. Customer Comments

While aggregate measures of success such as kilowatt-hours saved, customers served, and emissions reduced provide a sense of the overall impact of the CORE programs, it is also important to recognize the tangible impact of the programs on individual residents and businesses. The following comments from customers who have participated in the energy efficiency programs illustrate the impact these programs have had on New Hampshire families and businesses. These are just a few examples of the comments that participants in the New Hampshire energy efficiency programs have shared.

EMD Millipore was recognized as the New Hampshire State and Business Leader for Energy Efficiency at the Northeast Energy Efficiency Summit held by the Northeast Energy Efficiency Partnership on June 14, 2012. Its Jaffrey, New Hampshire facility undertook 30 projects over the past 9 years with the help of incentives and technical assistance from the Large Business Energy Solutions Program. The projects will save the Company 1.5 million kWh per year, resulting in annual savings of over $161,000.

BAE Systems' Electronic Solutions Division was recognized as one of the Business Leaders for Energy Efficiency by the Northeast Energy Efficiency Partnership in 2011. Their New Hampshire facilities have completed 243 energy efficiency projects over the past 9 years in partnership with the Large Business Energy Solutions Program, resulting in over 9.3 million annual kWh savings and saving nearly $1.2 million in annual power costs.

St. Paul's School in Concord, NH was recognized as one of the Business Leaders for Energy Efficiency by the Northeast Energy Efficiency Partnership in 2011. Environmental responsibility is a core value of the school's strategic plan. Their energy efficiency partnership with the Large Business Energy Solutions Program has resulted in savings of 1.5 million kWh in energy since 2006, as well as reductions in greenhouse gas emissions and maintenance costs.

- ✓ *Recently we participated in [NH Saves] Energy Efficiency program which offers rebates to customers who replace equipment at their facility with more energy efficient equipment. [NH Saves] provided the financial incentives and technical assistance we needed to install a new HVAC system with the highest energy efficient equipment available. We have already noticed a decrease in our monthly electric bills and have greatly benefited by this program.* Wall Industries, Exeter, NH

- ✓ *The NH Saves program has provided the catalyst for several large energy saving improvement projects in NH. The technical and financial support has been invaluable for several of our clients that have wanted to do the right thing (improve their energy efficiency) but have struggled with longer paybacks or finding advice on where to start the process. With great partner utilities participation in the NH Saves program, NH businesses and residents have a wonderful resource for planning and implementing positive changes in their energy use.* Keith McBrien, GDS Associates.

- ✓ *If you were to look at the two BCTV lighting projects, you'll see that not only did BCTV receive over $35,000 in rebates for this $150k project, but the additional savings in kilowatt hours is significant and translates into real money. The town meeting room annual savings is $7,000 and the studio annual savings is $4,500; that's a total of $11,500 in annual energy savings per year. Over time that is going to add up to a huge savings. It definitely was a worthwhile investment for us."* Bill Jennings, Bedford Community TV (as quoted in the Bedford Patch)

- ✓ *I had a great experience with [NH Saves]. I was amazed with their rebate program. We worked very hard to keep our new facility's environmental impact to a minimum and feel that we have done a good job with it. I look forward to working with you again on an addition to our new facility as well as renovations to one of our older facilities.* M. Powers Properties Director - YMCA of Greater Nashua

- ✓ *I think it is a wonderful program that gives low income people like me something we could never afford to pay for on our own. It was the BEST Christmas present I ever received, for 10 years my house was really cold and that made the winter season longer, but now I come in from the cold and house is nice and warm. I hope other people like me have the same opportunity and want to thank all the people that make this program to be "One in a Million" so great, thank you so much.* Maria-Nashua, NH

Home Performance with ENERGY STAR survey responses:

- ✓ *This was a great opportunity and so glad I was able to qualify. Great work, great team, great program. Thank you. The program has made our house more comfortable. When children and grandchildren visited from Arizona in the past I couldn't keep my house warm enough. This past year I had to turn the heat down because it got too warm in the back bedrooms which had always been cold.*

- ✓ *This program enabled us to stop wasting oil. We are very grateful for the expertise and financial initiative. The entire team was great to work with. Thank you.*

- ✓ *All people we came into contact with from beginning to end were courteous, knowledgeable and helpful. They all went beyond what was necessary to be polite. It was a pleasure to have them in our home.*

- ✓ *Thank you - I hope you continue to offer this. Many people in our town have taken advantage of this because of the job and experience of their neighbors.*

- ✓ *It was a great experience that I recommend to anyone who will listen. Very satisfied with the results and noticed the changes right away.*

G. Statewide Consistency and Coordinated Program Management

The uniform planning, delivery, evaluation and access to energy efficiency programs will continue under the proposed 2013 - 2014 CORE NH Energy Efficiency Programs. To the extent practicable, the efficient delivery of services will not depend on the community in which the customer resides or does business. CORE Program offerings are designed to be consistent throughout the State with equal access

for any eligible customer subject to available budget. Each utility will continue to have flexibility in its implementation strategies and may deliver its programs in a particular way. However, from a customer's perspective, the programs will continue to look virtually the same in all service territories:

The first Settlement Agreement in Docket No. DE 01-057 provided:

> The Utilities will establish a CORE Program Management Team (the "Management Team") to oversee all CORE Program activities and to resolve problems as they arise. The Management Team will be comprised of representatives from each utility and will make decisions by consensus with one member specifically designated as the liaison with the Parties and Staff. The Management Team will meet at least quarterly to review program progress and to resolve problems. [October 3, 2001, Section 5, page 11]

The Management Team will continue to fulfill its responsibilities to coordinate and oversee statewide activities, recognize problems in program delivery early on, communicate those problems among the NH CORE Utilities, identify corrective actions, and provide quarterly status reports to the Commission's Staff and interested parties.

Steps continue to be taken to more closely align the CORE Programs with efficiency programs offered to New Hampshire's natural gas customers. Program administrators from both the gas and electric utilities work together throughout the year to collaborate on these efficiency programs. In addition, gas program representatives will continue to be included in Quarterly CORE Programs Review Meetings with interested Parties and the Commission's Staff throughout 2013-2014. Finally, from a customer's perspective, dual fuel customers are offered an opportunity to participate in both the gas and electric programs.

H. Administrative Costs

The NH CORE Utilities, the Commission's Staff, and other interested parties have spent considerable time and effort setting up uniform program administration and reporting protocols, as well as joint marketing and coordinated monitoring and evaluation for all of the CORE Programs. The NH CORE Utilities will continue to direct their limited time and resources to successful program implementation. The Commission's Staff and other interested parties will be able to judge each utility's performance relative to agreed-upon program performance goals that are clear and measurable.
Cost-control measures are in place in the performance incentive mechanism, in that an inefficiently managed and administered program will likely fail to meet its cost-effectiveness and energy savings goals. On the other hand, the level of administrative costs that are spent on successful programs will vary from program to program and utility to utility for valid reasons. For example, a small utility and a large utility will generate unequal amounts of System Benefits Charge revenue and have unequal program budgets. However, what matters is that each utility devotes sufficient resources to operate the CORE Programs effectively in their service territory, as demonstrated by the outcomes of the programs and measured through the performance criteria (i.e., cost-effectiveness and energy savings).

I. Performance Incentive

The NH CORE Utilities are proposing that all programs in this filing, other than the non-electric energy savings associated with the Home Performance with ENERGY STAR Program, be included in the determination of the performance incentive. The NH CORE Electric Utilities will not include the non-electric energy savings associated with the Home Performance with ENERGY STAR Program in compliance with the Commission's recent Order No. 25,402 issued August 23, 2012. The NH Electric CORE Utilities will continue to utilize the approved performance incentive mechanism based on actual spending instead of budget spending to avoid potential double counting of budgets in the calculation of the performance incentive as detailed in Commission Order No. 25,189. The current incentive mechanism fosters efficient program implementation efforts and the achievement of program goals while retaining most funding for program efforts. The performance incentive also serves as a motivating factor for the NH Electric and Gas Utilities and holds each utility accountable for meeting their individual program goals. If any individual utility does not meet its program goals, it will not earn its target incentive.

The Commission recently indicated in its Order No. 25,402, that the record is not sufficiently developed to make a determination on an incentive methodology for the non-electric energy savings related to the Home Performance with ENERGY STAR Program and directed the parties to collaborate in a working group for the purpose of developing a performance incentive proposal for non-electric savings. A working group meeting is currently scheduled for October 3, 2012 to begin addressing this issue.

Further information regarding the performance incentive methodology can be found in Section V and detailed calculations for each utility are included in the Attachment section of this filing.

J. Multi-year Project Approval

In 2003 the Commission authorized what was termed "multi-year approval" – a process whereby customers with multi-year projects could receive a commitment assuring program continuity and funding for long term projects. The NH CORE Utilities seek to continue multi-year approval and specifically request authorization to make customer commitments during 2013 and 2014 for projects to be completed in 2013-2016. All customer classes currently eligible to participate in the CORE Programs will be eligible. The remainder of this section provides background and support for continuing this policy.

Customers of the NH CORE Utilities often plan and budget for large capital projects with multi-year lead times. Construction projects, renovations and replacement of existing equipment for 2013 and 2014 will be developed in 2012, and the resources necessary to fund such projects need to be arranged when these customers' decisions are made. Large commercial and industrial customers sometimes have two-year planning horizons for large capital expenditures, which are essential to the growth of the NH economy. Home builders will plan construction starts for the following year based on many factors, including the availability of the ENERGY STAR Homes Program. With pre-approval of the number of households that can be served by the Home Energy Assistance Program, the Community Action Agencies or other contractors delivering these services can better plan for the number of crews that will be needed and can better coordinate with the Department of Energy home weatherization jobs.

The NH CORE Utilities will make commitments to customers who have presented definitive plans for projects to be completed in the subsequent two years. The energy efficiency measures will include those measures that are approved under the then existing CORE Programs and utility-specific programs. All 2013-2014 program guidelines and rules will apply to future year commitments. Customers receiving commitments in 2013-2014 will not be barred from participating in any new programs introduced in 2015-2016 which supplement or supplant the existing programs. The funds for future projects will be paid out of the budget for the year the project was implemented; however, the commitment to the customer will be made contingent upon the continuation of funding.

The total of all customer commitments, in any given program, in any given future year, will not exceed 40% of the amount budgeted for that program in 2013 or 2014 for Customer Rebates and Services without prior concurrence of the Parties and the Commission's Staff. Any such commitments will be monitored and reported in the NH CORE Utilities' quarterly reports. All customer commitments will be made contingent upon the continuation of the program funding.

K. Interim Changes in Program Budgets

The NH CORE Utilities recommend continuation of the budget adjustment guidelines currently in place. Specifically,

- Once the budgets are approved, there will be no movement of funds between the residential and commercial industrial sectors unless specifically approved by the Commission.

- Budget transfers to or from individual programs of 20% of the individual program's budget or less can be made without consultation and without Commission approval. Notice to the Commission's Staff and interested parties is required.

- Budget transfers to or from individual programs greater than 20% of the individual program's budget shall be filed with the Commission. The Commission's Staff and interested parties may file any comments with the Commission within two weeks of the filing. If no action has been taken by the Commission's Staff and interested parties, the budget transfer request shall be deemed approved unless the Commission notifies the company of the need for a more in-depth review within thirty (30) days of the filing.

- Notwithstanding the 2nd and 3rd bullets above, no funds shall be transferred out of the Home Energy Assistance Program without prior approval by the Commission.

II. CORE PROGRAM OFFERINGS

A. Residential Program Descriptions

Overcoming Market Barriers and Changing Market Conditions

Key market barriers in the residential sector are generally grouped on the demand side of the efficiency market, though there are barriers impacting the supply infrastructure as well. The central barrier addressed by the CORE residential programs is the general lack of customer awareness[1] regarding energy efficiency services and equipment. More specifically, customer's limited knowledge of energy efficiency measures, uncertainty regarding the energy and cost savings of premium efficiency equipment, as well as lack of awareness of available programs are important barriers to achieving the programs' participation and energy savings goals. Another key factor is the current economic climate and homeowner's competing needs for capital coupled with the high up-front cost of energy efficiency services and equipment installation presents an additional barrier, and often causes homeowner's to choose less expensive, and less efficient, weatherization measures, lighting, and appliances.

The market barriers to achieving the residential programs' goals are the lack of builder/contractor and retailer awareness of the benefits of energy efficiency, perceptions of lack of demand for premium efficiency equipment, and the availability of technical services. These barriers are also addressed by the suite of residential programs. The ENERGY STAR programs educate builders, contractors, and retailers on the benefits and profitability of marketing energy efficient products.

In order to address these barriers, the utilities offer a variety of programs targeting specific areas where the energy efficiency of the New Hampshire housing stock can be improved. The ENERGY STAR programs promote the benefits of energy efficient lighting, appliances and homes through a variety of marketing techniques. Aligned with national efforts developed by the U.S. Environmental Protection Agency, the CORE Programs provide educational materials to customers, and promote energy efficient equipment through trade ally organizations, retailers and the NHSaves catalog and website.

The suite of residential CORE programs offer a variety of incentives for premium efficiency equipment and homes, in order to reduce the high installation costs for customers, while increasing the demand for energy efficiency services, lighting, appliances and homes. This is particularly necessary for weatherization projects that tend to have high initial costs and long simple pay-backs while yielding potentially significant lifetime energy savings. To address these barriers, financial incentives are offered by programs specifically tailored to promote weatherization projects and efficient lighting and appliances.

[1] GDS, (2009), Additional Opportunities for Energy Efficiency in New Hampshire, p19, "About half of the households surveyed are aware of their utility offering energy efficiency programs, and 30% have participated in them in some way."

The incentives for customers, coupled with builder, contractor and retailer education and training, foster the development of strong relationships between the efficiency market and the energy consumers. This joint approach addresses a large portion of the efficiency market and will allow the programs to continue to assist both customers and retailers in understanding factors affecting home energy use. In addition, it will increase the supply of efficiency service providers and knowledgeable contractors, and ultimately will help to achieve the programs' energy savings and participation goals.

Efficiency Market	Market Barrier	Program Intervention	Program Objective
Customer Demand ↑	Lack of customer awareness of the benefits of energy efficient appliances/performance uncertainties	Promotion of energy efficient appliances at point of purchase, through product labeling and educational materials Education on the benefits of energy efficiency Joint promotion w/program allies Promotion through websites, bill inserts, catalogues, trade and home shows and retail advertising	Increase demand for energy efficient appliances.
	High cost of efficient homes and technology	Incentives via rebate Information about Federal tax credits	Decrease the cost barrier and increase market share of energy efficient rated lights, appliances and homes
	Retailer uncertainty about product performance and profit potential for providing energy efficiency services	Retailer training and recruitment	Increase visibility and availability of energy efficient appliances
	Lack of builder/contractor awareness, experience and availability	Builder/trade ally training and education Coordination between residential programs	Demonstrate the benefits and value of efficiency certifications Provide builders with the resources necessary to meet energy efficiency standards.
↓ Supply Infrastructure	Perceived lack of demand for premium efficiency homes, equipment and services	Increased customer demand through incentives, education and promotion	Increased supply of energy efficiency services, and premium efficiency equipment and homes

1. ENERGY STAR Homes Program

Overview:

The New Hampshire ENERGY STAR homes program is designed to be a market driving program, encouraging both builders and homeowners to build a new home with energy efficiency in mind. The program provides incentives in the form of rebates and services to help offset the cost of building to a more energy efficient standard using the Home Energy Rating System (HERS). The utilities will continue to offer financial incentives based on the HERS performance rating of a particular home and the energy efficient lighting, appliances and HVAC equipment installed. The HERS performance rating encourages builders and homebuyers to build an even higher performing home, all the way down to a HERS Rating of 0, which would represent a zero energy home. In addition to this home performance incentive, the cost of HERs rater services are covered by this program to help the builder/consumer ensure that the home meets the ENERGY STAR standards and to also assist in incorporating the best building practices in the design. All new, residential single family or multifamily construction projects are eligible to participate in this program, as are complete rehabs of existing structures if the amount of rehab work meets the ENERGY STAR guidelines.

This program encourages better building techniques in accordance with the ENERGY STAR guidelines by offering incentives to build homes that are at least 15% more efficient than homes built to the 2009 International Energy Conservation Code (IECC)[2]. The program is fuel neutral and aligned with a national effort developed by the U.S. Environmental Protection Agency (EPA). The New Hampshire ENERGY STAR Homes program provides builders with technical assistance, financial incentives and instruction needed to ensure that homes meet stringent ENERGY STAR technical standards. The program provides incentives for home certification, upgrades to ENERGY STAR products, and a sliding scale performance based incentive designed to encourage builders to improve efficiency levels above the minimum required by the national program. The program also addresses market transformation by providing a Home Energy Rating (HERS)[3] - a nationally recognized index for measuring a home's energy efficiency.

The utilities' staff coordinates program delivery to ensure that consistent services are provided to home builders and homebuyers across the state. In addition, the electric utilities continue to collaborate with the New Hampshire gas utilities to incorporate their rebates for high efficiency gas HVAC equipment. On July 1, 2012 the EPA made changes to the federal ENERGY STAR Homes Program standards and the NH utilities have incorporated these new standards into this program.

[2] The State Building Code Review Board has adopted the International Energy Conservation Code 2009 with amendments, effective April 1, 2010, and which the utilities have incorporated into this program.

[3] Since 2007, an ENERGY STAR home must meet the Home Energy Rating System (HERS) index in accordance with the *Mortgage Industry National Home Energy Rating Standards* administered by the Residential Energy Services Network (RESNET). This HERS index is recognized by the US Environmental Protection Agency as the qualification for ENERGY STAR home designation.

Beginning in mid-2012, the new standards resulted in the following changes to the program:

- ✓ Thermal Enclosure System Rater Checklist
- ✓ HVAC System Quality Installation Contractor Checklist
- ✓ HVAC System Quality Installation Rater Checklist
- ✓ Water Management System Builder Checklist (or Indoor airPLUS Verification Checklist)
- ✓ Increased Rater, builder, and HVAC contractor training

Continuing into 2013, the focus will be to continue educating builders on the national Version 3.0 program changes and assisting them as they work to meet these new requirements. Efforts will also include educating consumers on the benefits of building to the ENERGY STAR level and beyond. The NH electric utilities will continue to work with the Home Builders & Remodelers Association of NH, customers, and building trade allies (e.g., insulation and HVAC contractors) to encourage the construction of ENERGY STAR homes in the state.

Marketing & Education:

Marketing for the ENERGY STAR Homes Program focuses on direct builder contact by program administrators and Home Energy Raters. In addition, utilities plan to participate in trade shows such as the NH Home Builders & Remodelers Association Annual Home Show (March), will provide outreach to realtor groups and HVAC contractors, and will present at home builder and home buyer seminars, promoting energy code training, and directing customers/members and builders to NHSaves and utility web sites. If appropriate and funds are available, the utilities may also co-market ENERGY STAR developments with builders.

Budgets, Goals, Benefits:

2013 Plan	Budget	Participation	Lifetime Savings	
Electric	$1,312,375	443	22,532,774	kWhs
Gas	$ 170,000	53	39,065	MMBTUs

2014 Plan	Budget	Participation	Lifetime Savings	
Electric	$1,343,602	459	22,893,400	kWhs
Gas	$ 194,500	58	38,133	MMBTUs

The energy savings for this program are developed using lighting and appliance energy savings, historical savings, along with heating, cooling and ventilation energy savings adjusted to reflect changes in the Energy Code and the baseline home.

Measures of Success & Market Transition Strategy:

Success factors for this program include: the number of homes completed versus goal, the energy savings achieved, and the benefit/cost ratio. We expect that increased awareness of and demand for "ENERGY STAR Homes" may eventually decrease the need for incentives. New technologies may change the types of products that are eligible for rebates in the future. Evaluations will help determine program changes, if needed, over time to address market barriers.

2. Home Performance with ENERGY STAR Program

Overview:
Transitioning from a pilot program to a statewide CORE program in Commission Order No. 25,402 issued on August 23, 2012. The Home Performance with ENERGY STAR (HPwES) program will continue to improve the efficiency of the existing housing stock (single and multi-family[4]) in NH by assisting customers with improvements to the energy efficiency of their home. Basic services include air sealing, insulation, and cost effective appliance and lighting upgrades. Participating customers can receive approximately 50% of the cost of weatherization services up to a $4,000 cap in program services. In addition to these services, additional incentives are available for high efficiency heating and hot water system replacements if recommended by the energy auditor. New for 2013-2014 will be incentives for replacement of air conditioning equipment (central air conditioners, air source heat pumps, mini split systems). Energy auditors also refer customers to the ENERGY STAR Appliance program as appropriate. Co-payments are required by the customer and are determined based on the measures installed. The program also has a strong educational component designed to help customers better understand their home and the factors that affect energy use.

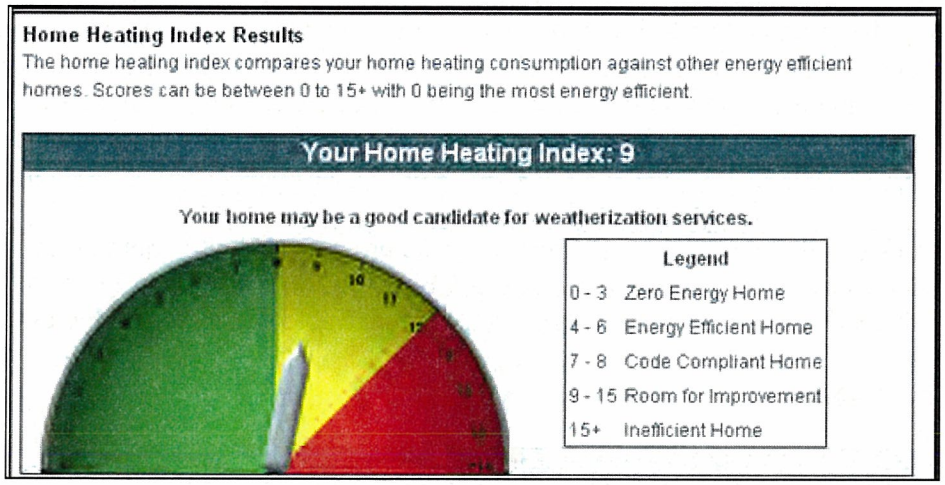
All four electric utilities offer this program to their electric heat customers and other customers looking to improve the energy efficiency of their homes. Both gas companies offer this program to their gas heat customers. The electric and gas utilities have been using the Home Heating Index (HHI) tool to identify single family homes that are good candidates for weatherization measures. In some cases, the program coordinator can waive the HHI if the project coordinator determines the project will have significant savings and will likely pass the benefit/cost test. With just three pieces of information (zip code, conditioned square footage of home and annual heating fuel usage) this tool creates a tailored Home Heating Index. The utilities are using this tool to screen for qualified weatherization candidates (i.e., the higher the score, the more energy used per square foot, and therefore the more opportunity for energy savings.). Qualified customers then complete a simple application form and provide two years of heating fuel data to enroll in the program.

Electrically heated multi-family buildings may bypass the standard HHI score qualification. The utilities will perform an assessment of multi-family buildings to determine energy efficiency opportunities. Improvements for these buildings will be modeled and evaluated for cost effectiveness using the standard program avoided cost B/C testing.

Customers may also be eligible to participate in the electric utilities' on-bill financing program (funded through the Regional Greenhouse Gas Initiative) to cover the cost of the customer co-pay. Utilizing this service, customers can finance a new heating system (if recommended for replacement by the home performance contractor), or additional weatherization measures at 0% interest and repay the loan through their monthly utility bill.

[4] Some Multi-family buildings have central heating and/or water heating systems that are on commercial rates. Any measures conducted on these systems will be charged to the appropriate C&I program.

Customers whose homes are already code compliant or better are given links to educational material and other energy-related web sites. As the higher use customers are served, the qualifications can be lowered over time. A customer completing the Home Heating Index on NHSaves.com would see the following screen:



In early 2011, the New Hampshire HPwES program was recognized with a national ENERGY STAR award from the program's national sponsor, the Environmental Protection Agency (EPA), which cited the New Hampshire program's effective screening tool, "exceptional" audit-to-implementation closure rate, trained and competent contracting work force, appropriate financial incentives, and simple on-bill financing option.

Based on Commission Order No 25,402, issued August 23, 2012, all 4 electric utilities will provide fuel neutral services through this weatherization program for 2013 and 2014. The gas utilities will continue to serve their gas customers in this program.

Gas customers participating in the HPwES program can receive an incentive of 50% up to $4,000 from their electric company in addition to the $4,000 incentive from their gas company. This would apply after they reach their $4,000 maximum from their gas company. The goal is to provide gas customers with an opportunity for deeper savings and to allow gas customers to take advantage of their paying into the electric SBC fund. This would also allow the gas and electric utilities to determine customer interest in doing "deep retrofits".

Marketing & Education:

Marketing for the HPwES program will focus on referrals from the utilities' customer service representatives, 211NH.org referrals, referrals from customer participants, and customers/members who have self-qualified via the NHSaves.com Home Heating Index screening tool. The NH Electric Utilities will continue to identify and perform outreach on an ongoing basis to customers/landlords that are likely to utilize electricity to heat their homes/multi-family buildings. In addition, the NH Electric Utilities will conduct a targeted

marketing campaign during the time period October 2012 – December 2014. The utilities also give priority to electric heat customers via the Home Heating Index screening tool by allowing them to qualify for the program at a lower BTU/Square Foot threshold[5]. Program information will also be handed out at special events (e.g., home shows) and mailed out upon request. Home Energy Auditors will also market the program as necessary to meet participation goals, and the utilities may include articles in their bill inserts. While piloting and then ramping this program up during 2009-2012, some new marketing approaches were tested that may also be used in the future, including Twitter and Facebook messages about the program, articles in trade ally newsletters, promotion in senior citizen seminars/newsletters, working directly with towns, interviews on radio shows, and working with realtor groups.

Delivery:
NH Electric and Gas Utility personnel will administer the program and will contract for the delivery of program services with qualified energy auditors. Additionally, customers will be educated and informed about opportunities for installing renewable energy technologies.

Budgets, Goals, Benefits:

2013 Plan	Budget	Participation	Lifetime Savings	
Electric	$2,500,808	1,292	5,709,958	kWhs
Gas	$ 865,000	593	404,077	MMBTUs

2014 Plan	Budget	Participation	Lifetime Savings	
Electric	$2,538,986	1,307	5,775,464	kWhs
Gas	$ 916,500	624	427,530	MMBTUs

Measures of Success & Market Transition Strategy:
Success factors for this program include attaining the planned participation and energy savings goals. New technologies may change the types of products that are eligible for rebates in the future. Evaluations will help determine program changes, if needed, over time to address the residential market barriers.

[5] Per page 25 of Residential Energy, Cost Savings and Comfort for Existing Buildings, 4th edition, by John Krigger and Chris Dorsi.

3. ENERGY STAR Lighting Program

Overview:
This program will continue to increase the use and availability of energy efficient lighting products in New Hampshire. The program is open to all residential customers and will (1) offer rebates for interior and exterior ENERGY STAR labeled bulbs and fixtures, (2) promote the efficiency and environmental benefits of the latest lighting technologies, and (3) leverage the ENERGY STAR branding across three programs - Lighting, Homes, and Appliances.

Program delivery will be through New Hampshire retailers, mail order catalogs, and utility web sites. Contractors will continue to provide retailer training and to work with the 130 retailers to ensure the availability and visibility of ENERGY STAR lighting products. Services will also include rebate processing and the development and placement of cooperative advertising with participating retailers. Instant rebate coupons for qualifying bulbs and fixtures will make these products more affordable at participating retailers.

The program catalog is designed to raise customers' awareness of the products, to inform them of the new technologies being developed (e.g., light emitting diodes), and to make it easy to purchase products. The NH Electric Utilities will continue promoting energy efficient lighting via special events with retailers and directly with customers via Energy Fairs, Trade Shows, etc.

Marketing & Education:
Marketing for the ENERGY STAR Lighting Program will include the NHSaves catalog, which will be handed out at events, available at utility offices, and mailed upon request or via targeted mailings. Additionally, marketing will be provided by the utilities' circuit rider who will train sales staff on selling features of ENERGY STAR lighting products, and will update point-of-purchase materials and rebate forms at stores. Utilities may also include articles in newsletters and bill inserts and/or co-market with retailers on special promotions.
The overall goal of the program is to raise the visibility and availability of ENERGY STAR lighting products in order to build customer demand and retailer supply.

Budgets, Goals, Benefits:

2013 Plan	Budget	Participation	Lifetime Savings
Electric	$1,280,081	300,882	31,498,890 kWhs

2014 Plan	Budget	Participation	Lifetime Savings
Electric	$1,316,613	313,275	32,848,269 kWhs

Measures of Success & Market Transition Strategy:
Program success factors will include attaining the planned participation and energy saving goals, increased market share, and customer awareness and acceptance of the ENERGY STAR brand. Evaluations will help determine program changes, as needed, over time to address market barriers.

4. ENERGY STAR Appliance Program

Overview:
This program will increase the use and availability of energy efficient appliances in New Hampshire. It will be tailored to the needs of New Hampshire customers, but coordinated with similar national or regional initiatives. A prime objective is to raise awareness and educate consumers on the benefits of ENERGY STAR rated appliances through joint marketing, promotional, and educational materials.

The program is open to all residential customers and will feature:

ENERGY STAR Appliance Incentives	**Mail-in Rebate**
Clothes Washers:	$30
Refrigerator:	$30
Room Air Conditioner:	$20
Smart Power Strips:	$10
Room Air Cleaner:	$15
2nd Refrigerator/Freezer pickup/recycling:	$30

Via this program, the Gas Utilities offer incentives on ENERGY STAR heating, hot water equipment and controls. With the addition of Regional Greenhouse Gas Initiative funding, the NH Electric Utilities have expanded this program to oil, liquid propane and electric equipment. This CORE program will encourage customers to choose the ENERGY STAR high efficiency options by providing incentives on the following equipment:

ENERGY STAR Hot Water & Heating System Incentives (Gas, LP, Oil)	
Tankless Water Heaters (EF >=0.82)	$ 500
Indirect Water Heaters (on ES boiler)	$ 400
Standalone Storage Water Heater (EF>=0.67)	$ 100
Furnace w/ECM (AFUE >=95%, Oil>=85%)	$ 300
Furnace w/ECM (AFUE >=97%)	$ 450
Combo Boiler w/water heater (AFUE>=90%)	$1,200
Boiler (AFUE >= 96%)	$1,500
Boiler (AFUE >= 90%)	$1,000
7-Day Programmable Thermostat	$ 25
Boiler Reset Controls	$ 225
Central Air Conditioner (SEER >= 14.5)	$ 200
Air Source Heat Pump Split Sys (SEER >= 14.5)	$ 900

The equipment and rebate levels above may be adjusted to meet current market conditions.

Contractors will continue to provide services including retailer retention and recruitment, training, point of purchase promotional materials, and product labeling for the more than 90 participating retailers. Services will also include rebate processing and the development and placement of cooperative advertising with participating retailers. For heating and cooling system rebates, contractors and installers will be the main distribution channel for product promotion and installations. In addition, the NH CORE Utilities will seek opportunities to collaborate with manufacturers on matching rebate programs.

Marketing & Education:
Marketing for the ENERGY STAR Appliances Program will be conducted by the utilities' circuit rider who will train sales staff on selling features of the ENERGY STAR models and will update point-of-purchase materials and rebate forms at stores. Utilities may also include articles in newsletters and bill inserts and/or co-market with retailers on special promotions.

The overall goal of the program is to raise the visibility and availability of ENERGY STAR appliances in order to build customer demand and retailer supply.

Budgets, Goals, Benefits:

2013 Plan	Budget	Participation	Lifetime Savings	
Electric	$2,790,500	21,797	40,121,509	kWhs
Gas	$1,005,000	2,866	253,857	MMBTUs

2014 Plan	Budget	Participation	Lifetime Savings	
Electric	$2,861,423	23,101	42,948,787	kWhs
Gas	$1,066,500	3,011	286,841	MMBTUs

Measures of Success & Market Transition Strategy:
Program success factors will include attaining the planned participation and energy saving goals, and increasing market share. Customers will be surveyed to determine the impact of ENERGY STAR labeling and promotion on their purchasing decisions. Evaluations will help determine program changes, if needed, over time to address market barriers.

5. Residential Building Practices and Demonstration Program – Gas Companies

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

The Companies plan to explore several ideas such as heating equipment programs, insulation and building envelope techniques, and new home construction practices. Ideas will be drawn from the Companies and other utilities' experiences, 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.

The Companies will consider the following:

- Early Retirement of Boilers Pilot - the Companies will investigate the viability of a boiler early retirement program. Although the usable life for a boiler is documented at 20 years, many of these boilers can last 40 years or more operating inefficiently. The concept of the pilot would be to have old inefficient operating equipment taken out of service and be replaced with high- efficient ENERGY STAR equipment. In contrast, the ENERGY STAR Appliance program provides incentives for failed equipment and new equipment (i.e., a new gas heat customer). The MA utilities will be concluding their pilot shortly on early retirement of gas boilers and the Companies will draw from this experience.

- WIFI Thermostats Pilot - The Companies will investigate a pilot program to evaluate the energy impact of programmable Wi-Fi thermostats installed in homes with existing programmable thermostats controlling their gas heating systems. The primary goal of the evaluation is to measure gas savings associated with these installations. We propose conducting a billing analysis for the 2013-2014 heating season to estimate the heating energy impacts attributable to the pilot program. In addition, we will conduct participant surveys to assess customer motivation, behavior, and satisfaction, and which will help inform potential ways to improve the program offering should it expand beyond the pilot phase. The pilot would be conducted in conjunction with the work of Liberty Utilities conducted in 2012.

The Companies will consider other ideas in addition to the list above.

B. Income Qualified Weatherization

1. Home Energy Assistance Program

Overview:
This program is designed to help income qualified customers manage their energy use and reduce their energy burden. Basic services include insulation, weatherization, cost effective appliance and lighting upgrades, and appropriate health and safety measures. Participating customers can receive up to $5,000 in program services. Additional efficiency measures may be available to income eligible gas customers. Customers served by Community Action Agencies may be eligible for additional DOE Weatherization Assistance (Wxn) funding. The program will also have a strong educational component specifically tailored for income eligible customers and designed to help them better understand their home and the factors that affect energy use.

The program will be coordinated closely with the Electric Assistance Program (EAP) in order to identify eligible customers. While all income eligible customers may participate in this program, working with EAP participants to reduce their energy burden has the further benefit of increasing the EAP funds available to other customers.

The utilities are committed to working with the Community Action Agencies (CAAs), the Office of Energy and Planning, The Way Home (TWH), and other interested parties to improve and expand the collaboration initiated during the first phase of this program (see Attachment A). Specific goals for this collaboration include expanding the number of participants served by the CAAs and increasing the number of jobs jointly funded by the CORE and Wxn programs.

Delivery:
The Community Action Agencies (CAAs) and other independent contractors will deliver the program in a way that maximizes participation and energy saving goals. The NH CORE Utilities and contractors will cooperatively market the program, address customer intake, schedule work, conduct the initial home visit, install energy efficient measures, and perform quality assurance. The program will be open to all customers who meet the eligibility criteria for participation in the Fuel Assistance Program, the NH Electric Assistance Program, the DOE Weatherization Program and anyone living in subsidized housing or municipal and non-profit shelters serving those in need.

Qualified CAAs will be offered right of first refusal to deliver services under the Income Qualified Home Energy Assistance Program provided: (1) The CAAs agree to participate in a bidding process with other energy service providers to establish qualifications and pricing for program services. (2) The CAAs agree to provide services at established statewide rates. Where the same services are provided in the NH Home Performance with ENERGY STAR Program, pricing would be the same for both programs. (3) CAAs would meet established statewide standards for customer response time, work quality, and delivery of program

services. These statewide standards will apply to both the Home Energy Assistance as well as the Home Performance with ENERGY STAR Programs.

The NH CORE Utilities will strive to market the program in such a fashion as to promote a reasonably level flow of work. In cases where the CAAs cannot provide income qualified energy efficiency services in accordance with the approved CORE weatherization production schedule, or they choose not to deliver the services, the work will be assigned to other qualified vendors who will be held to the same standards for pricing, customer responsiveness and work quality. In such cases, the utility will provide notice to the CAA, and thereafter to the Weatherization Directors Association (WDA), that the work is being assigned to other qualified vendors. The utility will offer to discuss the matter with the CAA and WDA; however, the utility shall be permitted to assign work to other qualified vendors once notice has been provided to the CAA. If the matter cannot be resolved, the CAA reserves the right to file an appropriate motion with the Commission for resolution of the matter.

Marketing & Education:
The program will be promoted in a number of ways, including direct mail, call center and website promotion, and/or distribution of brochures at CAA or other social service agencies. Direct mailing of the program brochure will be used if CAA direct referrals are not adequate to meet program goals. Other marketing mediums will be investigated as needed. Utilities will work with the EAP program and CAAs to market the programs as efficiently as possible. The Energy Savers Booklet will also be given to program participants. Lastly, the CAP Energy Conference may include sponsorships by some of the utilities.

Budgets, Goals, Benefits:

2013 Plan	Budget	Participation	Lifetime Savings	
Electric	$3,769,904	818	11,698,444	kWhs
Gas	$ 895,000	186	109,882	MMBTUs

2014 Plan	Budget	Participation	Lifetime Savings	
Electric	$3,892,496	833	12,026,330	kWhs
Gas	$ 957,500	199	117,824	MMBTUs

Measures of Success & Market Transition Strategy:
Success factors for this program include attaining the planned participation and energy savings goals, high customer satisfaction ratings, and successful delivery of all program services through the CAAs and independent contractors. No market transition strategy is recommended at this time based on the significant need for these services in the state, and the relatively small number who can be served in any given year due to budget constraints. This is consistent with the recommendation of the Energy Efficiency Working Group[6].

[6] See Final Report of the Energy Efficiency Working Group, July 6, 1999, Docket No. DR 96-150, page A34.

C. Commercial & Industrial Program Descriptions

The programs offered for Commercial and Industrial (C&I) customers by the CORE Utilities seek to address and overcome a number of market barriers. These barriers can include these three general categories:
1. barriers affecting uncertainty regarding realistic energy and cost savings estimates;
2. barriers associated with knowledgeable outside energy professionals and sufficient in-house staff to dedicate to energy matters; and
3. barriers affecting the cost and available funding for energy efficiency improvements.

Specifically, the major barriers on the demand side consist of uncertainly regarding energy and cost savings of energy efficiency measures, limited staff availability for implementation and management of new energy efficient equipment, high costs associated with efficiency measures, and limited staff knowledge regarding the identification and installation of energy efficient equipment.

To address and overcome these barriers, the CORE programs provide support to the commercial and industrial sector through a variety of different offerings. Lack of customer awareness of the program and uncertainty regarding energy and cost savings of efficiency measures will be addressed through outreach on the CORE Utilities' program websites, training seminars for large commercial and industrial customers and service providers, outreach to energy service companies and third party service providers, and program marketing to leads generated from referrals to customer service or energy service representatives. To address high costs associated with energy efficient equipment, financial incentives will be provided to promote program participation and overcome the first cost issue associated with more expensive equipment. Technical assistance, including but not limited to project evaluation, measure identification and energy audits, will be provided to increase customer knowledge regarding identification, installation, implementation and management of energy efficient measures.

Barriers that impact the supply infrastructure include business practices and policies that deter the development and delivery of energy efficient products and services. In particular, these barriers include: limited availability of trained energy efficiency professionals; lack of contractor availability and knowledge regarding energy audits; commercial energy building codes and other services; and lack of builder awareness and experience with efficiency technology.

The increasing demand for efficiency services from the customers and installers will address many of these barriers, ultimately causing builders and contractors to perceive energy efficiency services as profitable value added services, increasing availability and knowledge of contractors focused on building changes and expansions. Training will also be provided to supply contractors with code compliance assistance. Opportunities will be provided for customers to partner with third party service providers to help develop a competitive marketplace in the energy efficiency industry.

Barriers in the supply infrastructure include business practices and policies that deter the development and delivery of energy efficient products and services or indicate an insufficient availability or commitment to such energy efficient products or services. Perceptions of lack of demand for energy efficient projects and cost barriers to the development of innovative technology are among the larger barriers. To address these obstacles, incentives are available for energy efficient equipment not addressed by the prescriptive rebates. These steps in turn stimulate and facilitate development of innovative energy efficiency projects.

Efficiency Market	Market Barrier	Program Intervention	Program Objective
Customer Demand ↑	Uncertainty regarding the impacts of energy and cost savings of efficiency measures	Training Seminars Assistance from Energy Service Companies, Program Administrators, Engineers, third party service providers	Increased program participation Increased demand for energy efficient equipment and services
	High costs associated with premium efficiency equipment and/or incremental costs	Financial incentives	Reduced first cost for customers
	Limited customer capacity to identify, install, implement and manage energy efficiency measures	Technical Assistance, including project evaluation, measure identification and energy audits Customers utilize existing relationships with contractors Potential for customers to partner with third party service providers	Achieve energy efficiency goals Development of a competitive market place in the energy efficiency industry
	Lack of contractor availability and knowledge regarding energy audits, commercial energy building codes and other efficiency services	Contractors view energy services as profitable, due to increasing demand for efficiency measures Training activities	Increased supply of contractors capable of providing Technical Services Provide contractors with the expertise to provide code compliance assist.
	Perceived lack of demand for premium energy efficiency projects	Training to help Contractors view energy services as profitable, reach customers ready to adopt energy efficiency improvements	Development of a competitive market place in the energy efficiency industry
Supply Infrastructure	Cost barriers to the development of innovative technology	Program focuses on projects not eligible for other programs	Stimulates and facilitates the development of innovative energy efficiency projects.

For 2013-14, the CORE utilities are proposing to restructure the C&I program offerings by incorporating new construction and retrofit services into two CORE C&I programs, which will be called Large Business Energy Solutions and Small Business Energy Solutions. Each program will have its own budget and savings goals. This consolidation will allow the utilities to more effectively respond to customer demand through a more seamless structure. It will also provide greater flexibility to facilitate rapid response to address shifts in market conditions. These two programs, along with the Education Programs, are described in this section.

1. Large Business Energy Solutions Program

Overview:
This program will target electric customers with a twelve-month average demand of 200 kW or more and natural gas customers with an average annual energy usage of 40,000 therms or more.

The largest energy users are concentrated in manufacturing, healthcare, schools, ski areas, large retail, and large commercially metered multi-family facilities. These accounts are generally served by the CORE utilities managed account staff who typically work with these customers on a one-on-one basis to explore efficiency opportunities and assist them through the participation process. This customer segment is generally well informed about the opportunities for energy efficiency improvements and is generally familiar with the CORE programs. They often have in-house staff that evaluate and propose energy efficiency improvements.

The program also targets customers with new construction, major renovation, failed equipment replacement and customers operating aging, inefficient equipment and systems. The Gas Utilities will further target customers that heat their businesses with natural gas or have food service operations.

For new construction projects, the program offers prescriptive and custom rebates designed to cover the lesser of a one year payback or up to 75% of incremental costs. For retrofit projects, the program offers prescriptive and custom rebates designed to cover the lesser of a one year payback or up to 35%[7] of equipment and installation costs. Opportunities typically include lighting, motors, HVAC, air compressors, chillers, variable frequency drives as well as custom measures. For gas customers, additional opportunities include condensing boilers, high efficiency water heaters, high efficiency cooking equipment, and custom measures. The program also offers Technical Assistance including project evaluation, measure identification, equipment monitoring, compressed air leak detection, and energy audits. Technical Assistance services may require a customer co-payment.

Other initiatives will include: Energy Efficient Schools Initiative - offering rebates of up to 100% of incremental costs; Building Codes - training on the proper implementation of New Hampshire's commercial energy building code; and Compressed Air Services - assisting customers with comprehensive audits and training. NH Utilities will initially reserve five percent of the new equipment and construction sector budget for the Energy Efficient Schools Initiative; however, actual funding will be higher or lower depending on the number of new school building opportunities.

For new construction projects, incentives for customers installing high efficiency heating, cooling, hot water systems and controls will also be available. In the past, such incentives have only been available to gas customers. With the addition of funds from the Regional Greenhouse Gas Initiative auctions, incentives will now be offered on a fuel neutral basis,

[7] Gas companies will pay up to 50% on Customer Retrofit Projects due to the current low price of natural gas.

with electric utilities providing incentives to get customers to purchase the more efficient equipment.

Delivery:
NH Electric and Gas Utility staff will be responsible for delivery of this program through multiple channels including: Account Executives and Energy Service Representatives working directly with customers; Economic Development staff working with new prospects as well as assisting customers who are relocating; and Energy Efficiency Program Administrators generating leads through the building development community, real estate professionals, and town permitting offices. The program will emphasize the benefits of selecting premium efficiency alternatives during the design stage of a project. Audits may be used to identify the opportunities for energy efficiency improvements. Customers wishing to take advantage of this program will sign a rebate offer that documents what will be done, the estimated completion date, and the anticipated incentive amount.

Marketing & Education:
The utilities will market the program through a number of strategies including one-on-one marketing by utility representatives, vendors, energy service providers, seminars and training sessions, and may use direct marketing in the case of specific market transformation initiatives Marketing materials developed may include case studies. The builders/developers and heating/plumbing contractors who plan/install these systems, as well as the manufacturers, distributors, and wholesalers who bring this equipment to market will also be targeted.

This program also includes an educational component that will offer training seminars of interest to commercial, municipal and industrial customers. Training seminars being considered include Commercial Energy Audit Training, Compressed Air Services, Certified Energy Manager Class, and seminars on new technologies. Program success will be based on attaining the planned participation and energy saving goals. Evaluations will help determine program changes, if needed, over time to address the following market barriers.

Budgets, Goals, Benefits:

2013 Plan	Budget	Participation	Lifetime Savings	
Electric	$6,689,778	446	275,058,218	kWhs
Gas	$1,464,397	236	527,803	MMBTUs

2014 Plan	Budget	Participation	Lifetime Savings	
Electric	$6,894,939	458	284,307,831	kWhs
Gas	$1,524,457	256	551,328	MMBTUs

Measures of Success & Market Transition Strategy:
Program success will be based on attaining the planned participation and energy saving goals. Evaluations will help determine program changes, if needed, over time to address market barriers.

2. Small Business Energy Solutions Program

Overview:
The Small Business Energy Solutions Program will target electric customers with a twelve-month average demand of less than 200 kW and natural gas customers with an average annual energy usage of less than 40,000 therms.

Small-to-medium sized energy users include owners of office buildings, restaurants, small-to-medium retail, repair services, dry cleaners schools and small to medium commercially metered multifamily facilities, among many others. The main delivery channels for marketing to these customers include the utility websites, NHSaves.com, public speaking engagements, tradeshows and customer events. The utilities will continue to partner closely with the trade, contractor and builder community, as well as various energy efficiency equipment vendors, to promote the programs and ensure these key market allies are incorporating information about the incentive programs in their customer outreach and sales activities.

The program targets customers with new construction, major renovation, failed equipment replacement and customers operating aging, inefficient equipment and systems. For new construction projects, the program offers prescriptive and custom rebates designed to cover the lesser of a one year payback or up to 75% of incremental costs. With the addition of funds from the Regional Greenhouse Gas Initiative auctions, incentives will now be offered on a fuel blind basis, with electric utilities providing incentives on the electric, oil and liquid propane systems.

For retrofit projects, the program offers prescriptive and custom rebates designed to cover the lesser of a one year payback or up to 35%[7] of equipment and installation costs up to the customer's incentive cap. Retrofit services also include a turnkey solution tailored to the unique needs of small businesses, a customer base which is very diverse in terms of technical capabilities and financial resources. As part of the turnkey services, the utilities offer lighting, refrigeration and commercial kitchen equipment upgrades delivered by vendors who perform initial assessments of existing, recommend energy efficient improvements, and then install appropriate measures. Program offerings include but are not limited to lighting, programmable thermostats, hot water measures, spray valves and refrigeration measures. The program pays up to 50% of the installed costs up to the customer's incentive cap. In addition, customers may elect to use their own contractors to complete energy projects.

Marketing & Education:
In addition to the marketing being done by the other C&I Programs, marketing for this program will focus on direct mail to customers/members, leads from trade organizations, and referrals from each utilities' customer service organization.

[7] Gas companies will pay up to 50% on Customer Retrofit Projects due to the current low price of natural gas..

Delivery:
Utility personnel will administer the program and will contract for the delivery of program services. Leads will be generated from referrals from Customer Service or Energy Service Representatives, past audits, and other marketing efforts. Contractors will meet with the customer, perform a simple audit of the customer's facility, and recommend cost effective energy saving measures for installation. Customers may elect to have measures installed by the utility's contractor or a licensed electrician of their own choosing.

Budgets, Goals, Benefits:

2013 Plan	Budget	Participation	Lifetime Savings	
Electric	$4,924,644	1,945	149,653,145	kWhs
Gas	$1,303,289	417	446,726	MMBTUs

2014 Plan	Budget	Participation	Lifetime Savings	
Electric	$5,070,166	1,991	154,896,228	kWhs
Gas	$1,358,729	451	475,775	MMBTUs

Measures of Success & Market Transition Strategy:
Program success will be based on attaining the planned participation and energy saving goals as well as customer satisfaction with the program. Evaluations will help determine program changes, if needed, over time to address market barriers.

3. Educational Programs

Overview:
The NH CORE Electric & Gas Utilities believe that educational programs play an important role in raising awareness about energy efficiency and complement the other programs. The Educational Programs planned for 2013-2014 are as follows:

1. Energy Code Training: Provide financial support for the Utility/State of NH/NHPUC statewide residential and C&I energy code trainings. Will include other initiatives identified in "The NH Energy Building Code Compliance Roadmap" completed April 20, 2012, such as Specialized Energy Code Training for Real Estate & Mortgage Professionals, On-site Builder and Code official training, and additional Home and Business Energy Code Compliance Field Guides.

2. Commercial Energy Auditing Class: Deliver training program to assist facility managers in learning tools of the trade, identifying energy efficiency opportunities, monitoring and tracking energy use, and developing an energy management plan. Based on customer demand, the utilities may opt to offer a Certified Energy Manager (CEM) or similar class in place of the auditing class.

3. C&I Customer Education: Develop and offer training seminars and workshops of interest to C&I customers and professionals (e.g., NH Energy in Schools Workshop, High Performance Lighting Systems, new Energy Efficient Equipment Opportunities. Operations and Maintenance Best Practices). These seminars and workshops will help building owners, facility personnel, architects, engineers, energy service companies and others better understand the opportunities for improving the energy performance of their buildings and equipment. Educational opportunities also include collaborating and partnering with trade allies to encourage and sponsor energy efficiency seminars and presentations for NH businesses.

4. Energy Education for Students: The NH Electric Utilities will support programs such as:
   Grades K-2: Poss's Energy Posse
   Grades 3-4: "We understand it's up to us to use energy....wisely!" ("Energy UUUU")
   Grades 3-4: Energy UUUU2, a 1-day program for students and their teachers
   Grades 5-6: Watt Watchers, a 2-day program for students on lighting surveys
   Grades 7-12: Savings Through Energy Management (STEM)
   Grades 7-12: Bright Ideas, a 3-day program for students and their teachers
   Grades K-12: Lights for Learning an outreach program presented in the classroom or assembly style with the goal being to educate children about energy efficiency, conservation and to understand the value of ENERGY STAR. Following the energy education phase, students may participate in a fund-raising component that promotes the sale and use of low-cost, energy efficient lighting technologies.

The purpose of these programs is to educate students in grades K-12 about energy efficiency. The NH CORE Utilities will conduct outreach to schools to promote these programs through such activities as school presentations, fundraisers and energy efficiency educations displays in locations such as science centers or other educational venues.

In addition, the NH Electric & Gas Utilities have committed to numerous education initiatives as part of its CORE programs. The residential and low income education initiatives are integral to the delivery of the respective programs and are budgeted with the programs.

Delivery:
Varies by program; educational classes are presented by industry specialists.

Goals/Benefits:
Each educational effort is focused on meeting the needs of a particular customer or group of customers; however, the common theme of these efforts is to raise awareness and understanding of the benefits of energy efficiency, and encourage the implementation of energy efficiency improvements.

Measures of Success:
Success of these programs is based on customer satisfaction. This includes informal feedback from instructors and participants as well as customer satisfaction surveys used to evaluate a particular training session. These programs will be modified as needed to meet changing customer needs.

III. Utility Specific Program Descriptions

NEW HAMPSHIRE ELECTRIC COOPERATIVE, INC.

A. Smart Start Program

Overview:
The Smart Start Program provides members with an opportunity to install energy efficient measures with no up-front costs, and pay for them over time with the savings obtained from lower energy costs. Under the program, NHEC pays all of the costs associated with the purchase and installation of the approved measures. A Smart Start Delivery Charge, calculated to be less than the monthly savings, is added to the member's monthly electric bill until all costs are repaid. The program is designed to overcome many of the traditional barriers to energy efficiency projects including: high first cost; customer uncertainties related to achieving energy savings; customer reluctance to install measures if there is a possibility of moving from the premise before benefiting from the efficiency project; and the so-called "split incentive", where a landlord gets little return on an investment that reduces a tenant's energy costs and a tenant has no incentive to invest in their landlord's building.

Delivery:
NHEC plans to continue offering Smart Start to commercial members. NHEC staff will identify potential projects and make Smart Start offers where it applies. These offers may be combined with other energy efficiency programs for which the member is eligible.

Budget:	2013	2014
Program Implementation	$12,473	$13,318

Measures of Success & Market Transition Strategy:
Success factors for this program include Member acceptance of Smart Start offers, achieving high customer satisfaction ratings, and having a low default rate on Smart Start loans.

B. High Efficiency Heat Pump Program

Overview:
The objective of the High Efficiency Heat Pump Program is to assist residential members to reduce their energy costs by installing high efficiency heat pump technologies. These technologies include high efficiency air source heat pumps and geothermal heat pumps. The program has a number of goals, which include:

1. Increasing availability of energy efficient, zero onsite emission solutions to NHEC member's heating and cooling needs;
2. Assessing the market potential and technical feasibility of various heat pump technologies;
3. Identifying barriers to increased penetration of energy efficient heat pumps and ways to overcome them; and
4. Determining the cost effectiveness of various heat pump technologies and applications.

NHEC will offer this program to residential members for new construction applications in conjunction with the ENERGY STAR Homes Program.

Delivery:
Delivery will be coordinated with the Core ENERGY STAR Homes Program. NHEC will work with its members and installation contractors to insure maximum performance from the building shell and heating/cooling equipment.

Budget:	2013	2014
Program Implementation	$107,799	$115,401

Measures of Success & Market Transition Strategy:
Success factors for this program include attainment of the planned participation and estimated savings, and high customer satisfaction ratings.

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

This section provides details on issues and programs specific to PSNH.

A. Budget Narrative

The following assumptions were used to develop PSNH's budget:

1. The budget is based on forecasted 2013 sales of 7,683,823 MWh and 2014 sales of 7,814,006 MWh and a System Benefits Charge (SBC) rate of 1.8 mills/kWh.
2. A carryover balance of $18,386 was added to the 2013 budget.
3. Funds from the Regional Greenhouse Gas Initiative auctions (RGGI), estimated for both 2013 and 2014 to be $6M statewide, were allocated to each utility based on kWh Sales. PSNH included $4,382,093 in RGGI funds to both the 2013 and 2014 budgets (per HB 1490 and Commission Order No. 25,402)
4. Estimated ISO-NE Forward Capacity Payments for January – December 2013 were added to this budget ($1,900,000) and $2,090,000 for January – December 2014 . (In NHPUC Order No. 24,719 on December 22, 2007, the NHPUC stated "We also believe that it is appropriate, as a preliminary matter, to contribute any payments received by utilities for Core program peak load reduction back to the Core programs."). These funds were split first 15% for Home Energy Assistance and then 70% of the remainder for C&I and 30% for Residential.
5. A set aside was reserved for a performance incentive. The actual incentive will be based on the methods approved by the New Hampshire Public Utilities Commission. Two separate calculations are required. The first applies to the Smart Start Program and is based on 6% of Smart Start loans repaid[8]. The second applies to all other programs[9] and is based on the calculations recommended by the Energy Efficiency Working Group and approved by the Commission. The Performance Incentive section of this document covers this calculation in more detail. The set aside for the remaining programs was estimated at 8%[10]. The budget includes separate line items for the estimated commercial and residential incentives.
6. All customers fund the Home Energy Assistance Program (HEA) in proportion to their contributions to SBC revenues. Funding for this program comes "off the top" of the budget after the performance incentive calculation.
7. Marketing was estimated to be approximately 2% of the budget, with the majority of this being in the ENERGY STAR Lighting Program.
8. Monitoring and evaluation was estimated and budgeted at 5% of the overall budget.
9. The funds remaining after funding the HEA program are allocated between customer

[8] Docket DE 01-080, Order No. 23,851, November 29, 2001, Section III, page 19.

[9] Fuel-neutral savings and expenses associated with the NH Home Performance with ENERGY STAR program will be removed from the final performance incentive calculation.

[10] More precisely, this calculation is based on 8% of the non-incentive portion of the budget in accordance with the Energy Efficiency Working Group Report which states on page 21, part 3f, " For incentive calculation purposes only, 'planned energy efficiency budget' is defined as the total program budget minus performance incentives...".

classes in proportion to contributions to SBC revenues (41.2% Residential, 58.8% Commercial & Industrial);

In addition there are several factors that could impact the budget during implementation of the CORE Programs including:

10. Any difference between the actual spending level achieved in the 2012 CORE Programs and the System Benefits Charge revenues collected will be allocated to future year program budgets.
11. PSNH plans to monitor spending in each of the programs and propose adjustments as necessary (e.g. in response to customer demand) in accordance with the guidelines proposed in the Introduction section of this filing.
12. PSNH will accrue interest[11] monthly at the prime rate[12] on the average net balance of the SBC revenues less funds expended for programs and services.
13. PSNH's budget and SBC revenues are based on sales projections. Actual sales may differ resulting in proportionately more or less SBC revenue available for energy efficiency programs. Budgets will be adjusted to reflect actual sales.

The budget is presented in Attachment H.

B. Availability of C&I Programs

PSNH proposes to offer the CORE and Utility specific programs to all of the Company's commercial and industrial customers except for those taking service under Backup Delivery Service Rate B. Rate B is designed for customers who require backup and maintenance delivery service, but who normally provide their own generation during which time they make no contribution to the System Benefits Charge.

C. Customer Installed Generation

PSNH's commercial and industrial customers who supply a portion of their energy needs through means which by-pass their meter and for which no System Benefits Charge revenues are collected will qualify for services and incentives offered as part of the state-wide energy efficiency programs with certain restrictions. The energy supply could be generation installed by the Customer or another party on the customer's side of the meter. However, the restrictions noted below apply regardless of the source of the energy (collectively referred to here as "customer generation").

- Customer generation which exceeds 50% of the customer's annual maximum kW demand ("Demand") will not qualify for services and incentives.

- A customer's maximum incentive will be based on the net of their demand less the name plate rating of the customer generation. For example, a Rate GV customer with a demand of 150 kW who installs 60 kW of generation will be capped at the incentive available to

[11] DE 96-150, Order 23,574, November 1, 2000, page 25.
[12] http://www.moneycafe.com/library/primerate.htm

Rate G customers. The table below depicts incentive levels for commercial and industrial customers. Incentives are limited to the customer's end uses and may not be applied to the generation equipment.

- Customers who install generation within one year of the date they install measures for which they receive a monetary incentive must refund any difference between the incentive received and the incentive for which they would qualify after installing generation. Any such amount would be repaid within 60 days of PSNH's request for payment.

This policy does not apply to customer generation used for emergency supply during service outages on PSNH's transmission and distribution system. The customer may periodically test emergency generators without affecting program eligibility. In addition, customer generation which meets the requirements for net metering are not subject to the restrictions noted above.

D. Incentive Caps on C&I Programs

In order to manage the overall budget and to help achieve an equitable distribution of program funds, PSNH proposes the following annual caps on the level of incentives offered to any individual customer.

Customer Classification	Retrofit Annual Cap	New Construction Annual Cap
Rate G Customers (100 kW and below)	$50,000	$50,000
Rate GV Customers (101 kW to 1,000 kW)	$50,000 plus $5,000 for each GWH[13] above 1 GWH	$100,000
Rate LG Customers (in excess of 1,000 kW)	$100,000 plus $1,000 for each GWH above 10 GWH	$150,000

The retrofit caps apply to the total of all retrofit program incentives paid. Retrofit and New Equipment & Construction incentives are independent of one another. Customers selected to participate in the C&I RFP Program described in Section I may earn additional incentives and are not limited by the annual incentive caps shown above.

These customer caps are intended to allow PSNH to spread funds out to many different customers rather than on one or two large projects or customers. The caps will serve as guidelines to be used in dispersing rebates, and will not be absolute limits on the amount of incentive to be provided to any particular customer. PSNH reserves the right to provide incentive payments in excess of the caps on a case-by-case basis.

[13] GWH – a gigawatt-hour (equal to 1,000,000 kilowatt-hours). The cap will be based on the customer's GWHs for the preceding calendar year. For new or expanding facilities, the cap will be based on the estimated annual usage.

E. Smart Start Program

Overview:
The Smart Start Program provides customers with an opportunity to install energy saving measures with no up-front costs and to pay for them over time with the savings obtained from lower energy costs. Under the program, PSNH pays all of the costs associated with the purchase and installation of approved measures. A Smart Start Delivery Charge, calculated to be no more than the monthly savings, is added to the monthly electric bill until all costs are repaid. The program is designed to overcome many of the traditional barriers to energy efficiency projects including: high first cost, customer uncertainties related to achieving energy savings, customer reluctance to install measures if there is a possibility of moving from the premise before benefiting from the efficiency project, and the so-called "split incentive" where a landlord gets little return on an investment that reduces a tenant's energy costs and a tenant has no incentive to invest in their landlord's building.

Delivery:
PSNH plans to continue offering Smart Start to municipal customers. Company personnel will meet with municipal customers to inform them of the program, identify potential projects, and to make Smart Start offers. Smart Start offers may be combined with other energy efficiency programs for which the customer is eligible.

This program provides eligible customers with an opportunity to purchase energy efficient products and services with no up-front costs.

Budget:	2013	2014
Program Implementation	$35,000	$35,000

Measures of Success & Market Transition Strategy:
Success factors for this program include customer acceptance of Smart Start offers, achieving high customer satisfaction ratings, and having a low default rate on Smart Start loans.

F. ENERGY STAR Homes Program Enhancement: Geothermal and Air Source HP Option

Overview:
This enhancement will provide an incentive for customers to install geothermal and air source heat pumps as part of the ENERGY STAR Homes Program. New houses built in this program must still meet the minimum ENERGY STAR requirements in order to qualify for the geothermal rebate. The objective of this program is to assist residential customers in reducing their energy costs by installing high efficiency heat pump technologies. These technologies include high efficiency air source heat pumps and geothermal heat pumps. The program has a number of goals, which include:

1. Increasing availability of energy efficient, zero onsite emission solutions for home heating and cooling needs;
2. Assessing the market potential and technical feasibility of various heat pump technologies;
3. Identifying barriers to increased penetration of energy efficient heat pumps and ways to overcome them; and
4. Determining the cost effectiveness of various heat pump technologies and applications.

Delivery:
Delivery would be coordinated with the CORE ENERGY STAR Homes Program. Builders working with geothermal systems contractors and/or HVAC contractors would provide the services specific to these options.

Budgets, Goals, Benefits:

2013 Plan	Budget	Participation	Lifetime Savings
Electric	$378,119	69	29,333,578 kWhs

2014 Plan	Budget	Participation	Lifetime Savings
Electric	$384,697	70	29,767,730 kWhs

According to the Environmental Protection Agency, geothermal systems are the most energy efficient, environmentally clean, and cost efficient space conditioning systems available[14]. PSNH has been a strong supporter of geothermal systems in New Hampshire since 1994. More than 400 New Hampshire builders, contractors, and vendors have participated in earlier programs. The heat pump industry is growing as evidenced by customer demand and attendance at manufacturers' heat pump training sessions around the state. PSNH has also seen an interest by builders, HVAC contractors and customers to install Air Source Heat Pumps in New Hampshire. This enhancement to the ENERGY STAR Homes Program is important to the continued viability and growth of Geothermal and Air Source Heat Pump systems in New Hampshire.

[14] http://www.ghpc.org/home.htm

Measures of Success & Market Transition Strategy:
Success factors for this program include attaining the planned participation and energy savings goals. The geothermal and air source heat pump options would be available for the duration of the ENERGY STAR Homes Program. Evaluations will help determine program changes, if needed, over time to address the residential market barriers.

G. Residential Customer Engagement Pilot Program

Background:
PSNH included in the 2012 CORE Energy Efficiency Program Update filing a proposal to implement a Residential Customer Engagement Program (CEP) in 2012. In Order No. 25,315, the Commission approved the Partial Settlement Agreement filed with the Commission on December 15, 2011, and directed the Staff or a party to submit a description of the final terms of the CEP by March 31, 2012. In addition, the Commission indicated there would be no need for further Commission approval of the CEP if an agreement is reached and the CEP would be authorized by the Commission to proceed in 2012. On March 28, 2012, PSNH submitted a description of the final terms of the CEP agreed upon by the parties. On May 4, 2012, PSNH issued a Request for Proposal for Professional Services (RFP) to hire a vendor to assist with the implementation of the CEP. Responses to the RFP were received on June 1, 2012. As of the time of this filing, PSNH is reviewing the responses received from the RFP. Based on an estimate of 12-16 weeks for program deployment as indicated by the vendors, the earliest date for program launch is during the month of January 2013.

Overview:
PSNH's Residential Customer Engagement Pilot Program will be utilized as a tool to evaluate the effectiveness of using a behavioral-based energy efficiency program in New Hampshire before expanding the program to a larger audience of residential customers. The pilot program participants will receive personalized energy savings reports that will include information about the electric usage in their home and tailored tips and recommendations for energy savings. In addition, a program website containing energy savings tips will be available and the program participants will have the option of setting individual goals and tracking their progress.

Primary Objectives:
The primary objectives of the pilot program are summarized below.

- To measure the program effectiveness on: electric energy savings, enrollment in other energy-efficiency programs and customer satisfaction with the program.
- To test the effect of messaging on electric energy savings by utilizing two separate engagement methods: 1) Normative – customers are compared to and ranked against similar customers to stimulate electric energy savings; and 2) Rewards – customers receive reward points for saving electric energy that can be redeemed at local merchants.
- To design the pilot program so that electric energy savings and costs from the pilot will be scalable to the residential customer population.
- To implement a cost-effective pilot program (benefit/cost ratio >= 1).

Program Design:
The pilot program will include the following design features in order to meet the primary objectives of the pilot program.

- A randomly selected group of 25,000 residential customers will be selected as participants in the pilot program. Utilizing a randomly selected group will help to ensure the resulting electric energy savings and costs will be scalable to the residential customer population. In addition, 25,000 participants is the estimated minimum number of participants required to ensure the total kilowatt-hour savings achieved over the duration of the pilot program will result in a cost-effective pilot program.
- An opt-out enrollment approach will be utilized (i.e. the program participants are automatically enrolled in the program and must contact PSNH to be removed from the program). The other enrollment option is an opt-in approach, whereby any customer can enroll in the program by contacting PSNH. An opt-in approach would not likely result in a group of participants that are representative of the residential customer population; therefore, the electric energy savings results of the pilot program would not be scalable to the residential customer population. Utilizing an opt-out enrollment approach in the pilot program will help to ensure the resulting electric energy savings and costs will be scalable to the residential population.
- In order to test the effect messaging has on electric energy savings, enrollment in other energy efficiency programs and customer satisfaction with the pilot program, the 25,000 participants will be randomly separated into two groups of 12,500 participants. One of the two groups will receive printed reports utilizing normative messaging ("normative group"); while the other group will receive printed reports utilizing rewards messaging ("rewards group").
- All program participants will have access to a program website. The normative group will be directed to a site that primarily utilizes normative messaging and no rewards messaging and the rewards group will be directed to a site that primarily utilizes rewards messaging.
- The duration of the pilot program is 12 months.

Building Awareness of the Pilot Program:
PSNH plans to build awareness in the pilot program by utilizing bill inserts, press releases, social media and by placing articles on NHSAVES and PSNH's web-sites. In addition, an outreach effort to environmental, energy-efficiency and trade ally groups will be implemented.

Evaluation:
An independent third party will perform the evaluation of the pilot program. An evaluation company will be hired during the program start-up phase to ensure the pilot program objectives and the evaluation methodology are understood and agreed upon before the pilot program is launched and to ensure the necessary information will be tracked and available to the third party program evaluator.

Budgets, Goals, Benefits:

2013 Plan	Budget	Participation	Lifetime Savings
Electric	$252,079	25,000	2,700,000 kWhs

2014 Plan	Budget	Participation	Lifetime Savings
Electric	$282,753	25,000	4,000,000 kWhs

The vendor cost for the pilot program was budgeted at $250,000 in 2012. Of this amount, $66,000 is anticipated to be spent in 2012 to cover start-up and ongoing costs for project development for a January 2013 program launch. The remaining vendor cost of $184,000 is included in the budget amount for 2013, and it is anticipated this amount will be spent in 2013. The remaining $68,000 in the 2013 program budget will cover ongoing costs for the program implementation and possible costs associated with the evaluation of the program. In the event, a decision is made to continue the pilot program beyond the original 12 month term, PSNH has included funds to continue the pilot program in 2014. PSNH will work with interested Parties and the Commission's Staff in making a determination on whether the pilot program should continue beyond the original 12 month term.

Measures of Success & Market Transition Strategy:

Measures of Success

Success factors for this pilot program include: 1) implementing a cost effective pilot program and achieving the stated kilowatt-hour savings goals; 2) measuring the effectiveness of normative and rewards-based messaging on electric kilowatt-hour savings, enrollment in other energy-efficiency programs and customer satisfaction with the pilot program; 3) attaining results for both the normative and rewards-based messaging groups that are scalable to the residential customer population; 4) ensuring a third party evaluation of the pilot program results is completed and 5) utilizing the results of the pilot program and the third party evaluation to determine whether to expand the program and to aid in the development of the most effective future program design.

Market Transition Strategy

Customer behavioral-based energy-efficiency programs are premised on providing customer-specific energy usage information and personalized energy savings tips and recommendations to motivate customers to change their behavior and take action to save energy. Utilizing behavioral science-based marketing, rewards mechanisms and data presentment beyond what is typically displayed on customer bills has resulted in measurable energy savings in programs conducted by other utilities. PSNH's customer engagement program platform can also be utilized to educate and increase awareness and participation in other CORE energy efficiency programs. The results of PSNH's pilot program will help to determine how effective a behavioral-based energy efficiency program is in New Hampshire in educating residential customers on energy efficiency and transforming residential customers' energy efficiency behaviors.

H. Education Enhancement - C&I Customer Partnerships

Overview:
Partner with up to five customer groups to provide focused education to members on energy efficiency technologies and opportunities available in NH.

Delivery:
There is no set format envisioned for this proposal; it is intentionally left open to accommodate a wide range of opportunities. However, an example may serve to illustrate the type of partnerships undertaken so far.

- ✓ The NH Lodging & Restaurant Association in the development and implementation of a training program for their members interested in the sustainable lodging and restaurant program. In an effort to address member issues associated with travel and schedules, this organization is developing three trial webinars focused on energy issues. Each webinar would be approximately 60 to 90 minutes in length and offered during non-peak operational hours for the hospitality industry.

Goals/Benefits:
In its order[15] approving the CORE Programs, the Commission expressed interest in finding innovative approaches for market transformation. PSNH believes this proposal provides an opportunity to work with customers and other parties to develop alternatives to traditional approaches.

Budget:	2013	2014
Program Implementation	$32,751	$33,485

Measures of Success & Market Transition Strategy:
Specific success factors will vary depending on the partnership; however, in general, the goal will be to advance the partnership to a point where it can become self-sustaining.

[15] Order No. 23,850, November 29, 2001, page 18

I. C&I RFP Program for Competitive and Economic Development

Objective:
To promote competitive market development in the energy efficiency industry by encouraging third parties to bid for energy efficiency projects on a competitive basis. The RFP Program is aimed at energy efficiency potential from large C&I projects that are not participating through other existing energy efficiency programs.

Target Market:
The minimum customer size is 350 kW of demand, the minimum project energy saving is 100,000 kWh per year (can be aggregated sites), and the minimum total project cost is $150,000. C&I customers of PSNH, energy service companies[16] and other third party service providers representing C&I customers are eligible to participate in this program.

RFP participants can be any PSNH customer[17], energy service company, or third party service provider representing a PSNH customer who contracts with PSNH to provide energy savings from an approved energy efficiency project. It is expected that bidders typically will be of two types:

1. customers with significant in-house technical capability, or
2. customers allied with firms that specialize in implementing energy efficiency projects and have a staff of professionals trained to identify energy efficiency opportunities, calculate potential savings, design system modifications, manage construction and installation of energy efficiency measures, and measure energy savings.

Incentives:
The program offers incentives for measurable energy savings achieved by the installation of energy efficiency measures as specified in a project agreement. Eligible improvements include energy-efficient equipment, products, and measures that are cost-effective according to the criteria established by the NH Energy Efficiency Working Group and approved by the NHPUC. The estimated savings are verified using approved protocols. The estimated savings are measured based on the difference between the energy use of the new versus the existing customer equipment.

Eligible measures include replacing standard fluorescent lighting with high efficiency fluorescent lighting, installing variable speed drives on motors, installing lighting controls to reduce lighting operating hours, and replacing low efficiency air conditioning equipment with high efficiency equipment.

Measures that are <u>not</u> eligible include new construction projects, any power-producing project such as cogeneration, switching from electric energy to another fuel (fuel switching), or any repair or maintenance project.

[16] Contractors involved in the implementation of PSNH's C&I energy efficiency programs are ineligible to participate in the RFP Program.
[17] Except for Rate B customers (see Availability under C&I Program Descriptions).

One of the program's goals is to assess the degree to which projects require incentives. As such this program will not have published incentives. Each proposal will need to identify the required incentive amount. All bids are evaluated based upon a comparison of energy savings and other price and non-price variables. Non-price variables include such factors as whether the project includes measures other than lighting (e.g., HVAC and process measures) and whether the environmental impacts reduce on-site emissions or waste stream impacts. All projects will be evaluated on the basis of established cost-effectiveness criteria.

Incentive Strategy:
Incentives are intended to be market driven in that bidders (or potential participants) request the incentive level that is needed to implement a retrofit or replacement energy efficient project. If their incentive request is too high or their project savings are too low, a competing project will be awarded the limited RFP Program funds.

Delivery:
Potential bidders are invited to an annual bidders conferences" to learn how to participate in the program. PSNH will provide information on this program at this session as well as on the PSNH website to PSNH customers greater than 200 kW peak demand who might qualify either individually or on an aggregated demand basis. Potential energy service companies and third party service providers will also be notified. Collateral materials will be made available to educate these groups on the RFP Program.

Budgets, Goals, Benefits:

2013 Plan	Budget	Participation	Lifetime Savings
Electric	$561,432	12	34,723,249 kWhs

2014 Plan	Budget	Participation	Lifetime Savings
Electric	$574,023	13	35,518,375 kWhs

This program is designed to foster competition and to stimulate the development of innovative energy efficiency projects. It will also provide an opportunity to provide incentives for larger projects that might not be pursued because of funding "caps" in other programs. And finally, it will provide the data needed to assess whether or not the incentive levels in the other C&I programs are set appropriately. For example, if bidders in the RFP program consistently seek incentives lower or higher than those offered in the CORE C&I energy efficiency programs, it may lead to review and possible revision of the CORE incentive levels.

Measures of Success & Market Transition Strategy:
Success factors for this program include: attaining the planned customer participation and energy savings goals as well as and generating a high level of interest among customers, energy service companies and third party service providers that results in a competitive bidding process. PSNH staff will review the success of this program annually.

UNITIL ENERGY SYSTEMS, INC.

A. Combined Heat and Power (CHP) C&I Pilot Measure

Overview:
With the addition of RGGI funds allowing more C&I measures to be installed, the Company seeks to add a measure to its C&I offerings. The objective of the Combined Heat and Power (CHP) Pilot Measure is to give C&I customers an opportunity to take advantage of this highly efficient technology and to assist in the upfront installation costs. CHP systems reduce electricity (kWh and kW) requirements while providing waste heat to reduce heating and/or hot water (thermal Btus) requirements. Typically, CHP systems emit less greenhouse gases than grid power. Systems can be fueled by natural gas, diesel fuel, wood pellets, etc. The pilot measure has a number of goals:

1. Market the technology and educate customers - especially those with heat and/or hot water needs for at least 6,000 hours per year.
2. Screen projects to determine if they pass the TRC with the new avoided costs.
3. Monitor one (possibly two) projects for performance and compare this to proposed energy savings and fuel usage.
4. Assist in the upfront cost of installation via rebates capping the total for rebates at $100,000 for all projects for 2013-2014.
5. Advise customers to participate in ISO-NE programs using the equipment as a critical peak asset.

Implementation / Delivery:
The CHP Pilot Measure will be added to other measures in the C&I Programs (both Large and Small). Unitil will work with its customers to assure maximum performance from the equipment. For fossil fuel systems above 20kW, the systems must be in compliance with CARB 2007 standards. This is the standard adopted by NH as referenced in RSA 374-G (Distributed Energy Resources). The Company will seek to have a unit(s) installed in the summer of 2013 so that monitoring can take place during the 2013-2014 heating season with an evaluation report completed by the summer of 2014. This will allow time to determine if this technology should be included in future filings.

Measures of Success:
Success factors for this pilot measure include attainment of the participation, estimated savings, high customer satisfaction ratings, and acceptable M&E results, comparing results with the recent evaluation conducted by the MA utilities.

IV. Monitoring & Evaluation

A. Monitoring and Evaluation Plan

A settlement agreement in 2006 approved by the New Hampshire Public Utilities Commission on March 17, 2006 (Order No. 24,599 in DE 05-157) transferred responsibility for monitoring and evaluation efforts from the Utilities to Commission Staff. Under that agreement, the Commission receives input and advice from the utilities on monitoring and evaluation activities and to also coordinate efforts with the Utilities' Core programs[18] implementation efforts. In addition, there was also agreement:

> (1) to provide utilities with the opportunity to comment on preliminary study findings and results prior to publication, (2) to invite interested parties to attend and provide input at evaluation presentations, (3) to permit utilities, on a case-by-case basis considered in light of study design, costs, schedule and similar issues, to participate in regional monitoring and evaluation studies as well as studies conducted by multi-jurisdictional utilities, and (4) that the Commission would aggressively pursue all available means to protect customer confidential information as permitted by the Right-to-Know Law, RSA 91-A, given that monitoring and evaluation studies frequently require access to such information. (Order No. 24,599, Page 5)

For 2013 and 2014, Measurement and Verification (M&V) efforts are funded at approximately five percent of the annual program budgets. These funds are utilized to support the following activities:

1. Evaluation Planning
2. Measurement and Verification of New Hampshire CORE Energy Efficiency Programs
3. Regional Measurement and Verification Projects
4. Regional Avoided Energy Supply Cost Studies
5. Miscellaneous Research
6. CORE EE Program Tracking and Reporting

During 2013-2014, the Utilities have identified a number of evaluation activities planned for or needed in New Hampshire.

1. Evaluation Planning – A multi-year evaluation plan will be developed to describe the measurement and verification projects and activities that will be required to demonstrate the effectiveness and quantify the savings achieved by energy efficiency programs that are funded by New Hampshire customers via the System Benefits Charge. The evaluation plan will also address the requirements that have been established by ISO New England to measure and verify the demand reduction value of qualified demand resources offered into the ISO-NE Forward Capacity Market.

[18] NH gas evaluation activities are also coordinated with electric evaluations.

2. NH CORE EE M&V Projects – Several projects will be initiated in 2012 to demonstrate the effectiveness and quantify the savings achieved by the New Hampshire CORE Energy Efficiency programs and to comply with the requirements that have been established by ISO New England to measure and verify the demand reduction value of qualified demand resources offered into the ISO-NE Forward Capacity Market.

   - Home Performance with ENERGY STAR Program: In response to the Order relating to the Home Performance with ENERGY STAR program, a study should be undertaken to identify the "drivers of the increasing air conditioning load in both residential and C&I customer classes." Areas for study may include a market assessment of air conditioning equipment that would focus on opportunities for program interventions to reduce the rate of increase of air conditioning energy and peak demand in New Hampshire.

   - Home Performance with ENERGY STAR Program: The staff and parties were further directed to "develop peak demand as a factor when calculating cost/benefit tests" of proposed non-electric energy efficiency measures. Therefore, it is recommended that a load shape study be conducted in 2013 to meter central and room air conditioning units, mini split systems, and air source heat pumps, during the cooling season.

   - Impact evaluations are planned to be conducted for the following programs:
   a. ENERGY STAR Appliance Program: Impact evaluation in late 2013 to review electric and fuel neutral measures, prescriptive energy savings, and 2013 results.
   b. Home Energy Assistance Program: Impact evaluation to be initiated in later 2013 for the 2013 program period, reviewing one full year of results using the updated version of the home modeling software.
   c. ENERGY STAR Homes Program: Impact evaluation to review 2013 savings results with the new ENERGY STAR version 3.0.
   d. Large Business Energy Solutions Program (with PSNH's RFP Program): Impact Evaluation for 2012 (and/or 2013) program results.
   e. PSNH Customer Engagement Pilot: Impact evaluation on first year results.

3. Regional Measurement and Verification Projects - The New Hampshire utilities are members of the Regional Evaluation, Measurement and Verification Forum (EM&V Forum). The EM&V Forum measurement and verification projects are focused on the development of data that can be utilized by the members in a variety of applications, including compliance with ISO-NE M&V standards established for participants in the Forward Capacity Market. By pooling the resources of the members in New England, New York and the Mid-Atlantic states, primary data development can be accomplished more cost-effectively than independent contracting by each member. These jointly-funded projects also seek to share and leverage existing data in order to reduce the cost of primary data collection. Activities being considered include:

- Development of common definitions for Net Savings and Gross Savings, and cataloguing and reviewing role of net and gross savings in various state, regional and national energy policies.
- EM&V Methods for Emerging Technologies, including savings algorithms and assumptions to estimate savings for emerging technologies and programs in the region.
- Continued implementation and refinement of the Regional Energy Efficiency Database (REED) to support common reporting of program impacts.
- Loadshape research (Phase III) on VFDs for HVAC, including on-site metering of VFD installations throughout the region to develop 8760 loadshapes and associated coincidence factors.
- Incremental Cost Study (Phase II) to develop cost curves for additional priority residential and commercial / industrial electric and gas efficiency measures not included in Phase I of the study.
- Development of common approaches for evaluating savings associated with improved energy codes, and for estimating savings from utilities' efforts to advance code compliance.

4. Regional Avoided Energy Supply Cost Studies – The New England Avoided Energy Supply Component (AESC) Study Group conducts biennial studies to update the avoided energy and capacity costs utilized by member utilities in their energy efficiency program benefit-cost analyses. The next study is scheduled to be initiated in 2013.

5. Miscellaneous Research – In addition to program M&V studies, special studies are conducted to inform CORE EE Program planning and policy efforts. For example, a study was completed in 2009 to evaluate the potential for cost-effective energy efficiency investments in the residential, small commercial, large commercial and industrial classes in New Hampshire. Another study was completed in 2011 with the EESE Board that evaluated energy efficiency and sustainable energy policies and programs in New Hampshire and made a series of recommendations for improvements.

6. CORE EE Program Tracking and Reporting – M&V activities are supported by program tracking and reporting systems that maintain detailed energy efficiency project and measure data that are used to report energy and peak demand savings achieved by the programs.

B. REPORTING

Beginning in 2002, the NH Electric Utilities have worked with Parties and Staff to refine the NH CORE Energy Efficiency Quarterly Reports that are used to help gauge the progress of both the CORE Programs and the Utility Specific Programs. These reports provide information on the progress towards goals of each program by utility and in aggregate. These quarterly reports are defined as follows:

1. "**CORE NH Program Highlights**" compares program goals to actual accomplishments and includes data about progress toward achieving program goals, including actual expenditures, participation, and lifetime kWh savings.

2. "**Budget Details Report**" provides a series of pie charts illustrating program and sector (e.g. residential and commercial/industrial) expenditures by the program tracking activities defined on the next page.

3. "**Home Energy Assistance Program Report**":
   - states the number of single family homes and the number of multi-family units that received energy efficiency measures and services for that quarter.
   - identifies the county where energy efficiency services were provided and includes the number of units in the county where such services were provided or measures installed.
   - identifies for each Electric Utility and for the state in total, the number of projects completed, the number of jobs funded by both CORE and DOE, the cumulative collaborative DOE expenditures, the cumulative collaborative CORE expenditures, and the cumulative non collaborative CORE expenditures.
   - provides a breakdown of the types of measures installed and services provided sorted by county, utility, and dwelling type (e.g. single or multi-family).
   - provides a breakdown of completed jobs by county and contractor type (e.g. Local CAA, Outside CAA, Private Contractor).
   - includes an action plan for any utility that is below its quarterly production goals by more than 20%. The action plan shall include revised production goals. The subsequent quarterly report shall report on the status of the revised production goals.

4. **"Forward Capacity Market Report"** documents the payments received from ISO-NE and the associated expenses with this effort.

These reports will be submitted to the Commission with copies to the Parties and Staff in advance of quarterly meetings of the CORE Management Team with Parties and Staff.

Program Tracking Activities	
Tracking Activity	**Description**
ADMINISTRATION – INTERNAL	Used to track all internal utility costs associated with program design, development, regulatory support, and quality assurance. Costs captured in this activity include: employee labor, benefits, expenses, materials, and supplies
ADMINISTRATION – EXTERNAL	Used to track the total cost of contractors and consultants used in support of program design, development, regulatory support, and quality assurance. Captures all of the utility's external costs associated with program administration.
CUSTOMER REBATES & SERVICES	All rebate dollars paid directly to customers as well as "indirect" payments to customers such as discounted prices. Also includes all costs directly attributable to providing energy efficiency services to customers (e.g. technical audits, employee and contract labor for installing efficiency measures, expenses, materials, and supplies).
INTERNAL IMPLEMENTATION SERVICES	Used to track the utility's internal costs associated with delivering program services to customers. Costs captured in this activity include: employee labor, benefits, expenses, materials, and supplies.
MARKETING	Used to track all costs associated with marketing, advertising, trade shows, toll free numbers, and WEB site. Costs captured in this activity include: labor, benefits, expenses, consultants, contractors, materials, and supplies.
EVALUATION	Used to track all costs associated with monitoring and evaluation. Costs captured in this activity include: labor, benefits, expenses, consultants, contractors, tracking systems, materials, and supplies.

V. Performance Incentive Methodology

Basic Calculation

The NH Electric and Gas Utilities are allowed to earn a portion of their energy efficiency budget as an incentive "to motivate companies to achieve and exceed program goals." NHPUC Order No. 24,203, at 13 (September 5, 2003). The formula used to calculate this incentive was initially proposed by the Energy Efficiency Working Group in its final report and the Commission adopted the formula in its order regarding Electric Utility Restructuring – Energy Efficiency Programs, 85 NHPUC 684, 694 (2000) and approved the formula in Order No. 23,982 (May 31, 2002) regarding the CORE Energy Efficiency Programs. The Commission found that "the present incentive mechanism provides a just and reasonable balance between the interest of performances and the interest of customers." Order No. 24,203, at 13 (September 5, 2003). In NHPUC Order No. 25,189, at 22 (December 30, 2010), the Commission found it reasonable for the NH Electric and Gas Utilities to base the performance incentive calculation on actual spending rather than budget spending to avoid potential double counting of budgets in the calculation of the performance incentive.

Three factors influence the incentive: (1) the actual dollars spent, (2) the ratio of the actual Benefit-to-Cost Ratio achieved to the predicted Benefit-to-Cost Ratio, and (3) the ratio of the kWh savings achieved to the predicted kWh savings. The basic formula is:

$$\text{INCENTIVE} = [4\% \times \text{ACTUAL}] \times [(BC_{ACT}/BC_{PRE}) + (kWh_{ACT}/kWh_{PRE})]$$

Where:

- INCENTIVE - Performance incentive in dollars
- ACTUAL – Total dollars spent less the performance incentive
- BC_{ACT} - Actual Benefit-to-Cost ratio achieved
- BC_{PRE} - Predicted Benefit-to-Cost ratio
- kWh_{ACT} - Actual Lifetime Kilowatt-hour savings achieved
- kWh_{PRE} - Predicted Lifetime Kilowatt-hour savings

Residential and Commercial/Industrial Incentive Components

The performance incentive is made up of a residential component and a commercial/industrial component. The residential component is determined by summing the actual dollars spent and kWh savings and calculating a combined program benefit-to-cost ratio for residential programs. These values are then used in the formula above to determine an overall residential incentive. Programs included in the residential calculation are as follows: NH Home Performance with ENERGY STAR, Home Energy Assistance, ENERGY STAR Homes, ENERGY STAR Lighting, ENERGY STAR Appliances and any utility specific programs. The non-electric energy savings associated with the Home Performance with ENERGY STAR Fuel Neutral program will not be included in the final incentive calculation. The commercial/industrial component is determined in an analogous manner. Programs included in the commercial/industrial calculation are as follows: Large Business Energy Solutions, Small Business Energy Solutions, Education, and any utility specific programs.

Avoided Costs

The NH Electric Utilities requested and the NHPUC approved[19] the use of a single avoided cost methodology for Generation, Transmission, and Distribution. In determining the Benefit-to-Cost ratio, the NH Electric Utilities used the avoided generation costs from the *2011 Avoided-Energy-Supply Costs in New England*[20].

For the avoided Transmission and Distribution costs, we used the weighted average of all the NH Electric Utilities costs. Refer to Attachments B and C for additional information on avoided costs.

Other assumptions used in determining the future and present values of benefits include inflation at 0.50%[21] per annum and a nominal discount rate of 3.25%[22].

Threshold Conditions

There are three threshold conditions that apply to the performance incentive calculation. Specifically,

1. The combined benefit-to-cost ratio for residential programs must be 1.0 or greater. If not, there is no incentive associated with program cost effectiveness. The commercial/industrial component is calculated similarly.

2. The actual lifetime kWh savings for the residential programs must be 65% or greater than the predicted lifetime kWh savings; otherwise, there will be no incentive associated with kWh savings. Kilowatt-hour savings for the commercial/industrial component are treated similarly.

3. The Residential and Commercial/Industrial components are calculated separately and are independent of one another. The residential incentive component is capped at 12% of the combined budget for residential programs. The commercial/industrial component is calculated similarly.

[19] DE 01-057, Order No. 23,850, November 29, 2001, page 19.
[20] *Avoided Energy Supply Costs in New England*, August 2011.
[21] Used the Gross Domestic Product: Implicit Price Deflator and calculated the difference between the January 1, 2009 and January 1, 2010 rates. See http://research.stlouisfed.org/fred2/data/GDPDEF.txt
[22] Prime rate as of June 1, 2012, in accordance with Energy Efficiency Working Group Report, Section 7, page 17. Prime rate data taken from http://www.moneycafe.com/library/primerate.htm.

Potential Earnings: Performance Incentive Set Aside

The NH CORE Utilities have set aside a portion of their budget for the performance incentive. The Energy Efficiency Working Group Report states, "For incentive calculation purposes only, 'planned energy efficiency budget' is defined as the total program budget minus performance incentives[23]..." To comply with this, the NH CORE Utilities budgeted for an 8% performance incentive as follows:

$$INCENTIVE = 8\% \times [BUDGET_{TOT} - INCENTIVE]$$

Where:
INCENTIVE - Performance incentive in dollars
$BUDGET_{TOT}$ – Total dollars budgeted

Solving this equation for the performance incentive:

$$INCENTIVE = 0.074074 \times BUDGET_{TOT}$$

Smart Start Performance Incentive

A different methodology has been adopted by the Commission for determining the Smart Start performance incentive. It is calculated as 6% of loans repaid.

Performance Incentive Calculations

Attachments D, DG, E, F, G and GG present each utility's calculations for cost effectiveness, performance incentive, planned benefit-to-cost ratios, and planned energy savings for each program.

[23] DR 96-150, Energy Efficiency Working Group Report, July 6, 1999, page 21, part 3f.

VI. Attachments

ATTACHMENT A: CORE/WXN COLLABORATION IMPLEMENTATION PLAN

Project Timeline

While each customer situation may be different, the CAAs will make every effort to contact a customer within two weeks of the time the customer is assigned and to work with the customer to conduct all necessary audits within four weeks, and to complete the installation of all approved measures within eight weeks. The following illustrates the typical project timeline.

Task	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Schedule Audit								
Conduct Audit								
Transmit Data To OEP/Utility								
Provide Services								

Implementation Targets:

Initial Contact Customer:	2 weeks
Lead Assignment to Invoice Submittal:	8 weeks (on average) Up to 10 weeks (with exceptional conditions) Over 10 weeks – CAAs must submit customer specific documentation explaining the reason(s) for the extended timeline. No case should exceed 12 weeks.

Program Outline

1. Customer Intake
   This step produces a prioritized list of eligible customers from the combined intake efforts of the Wxn and CORE programs. Eligibility for CORE includes customers who meet the eligibility criteria for participation in the Electric Assistance Program, the Fuel Assistance Program, the DOE Weatherization Program or anyone living in subsidized housing. Customers who are eligible for DOE Weatherization and who authorize any required data sharing between their Utility and CAA, will be eligible for funding from both programs. See the Customer Intake Process diagram below for additional detail.
   a) CORE Customers (Utility Marketing)
      i. Marketing priority is based on (first priority) electric heat and (second priority) high usage, and then to all EAP participants
      ii. Utilities send marketing package with Customer Reply Card
      iii. Interested customers request services by returning Customer Reply Card
   b) Direct inquiries to Utilities from customers not participating in the EAP
      i. Customers accepted based on (first priority) electric heat and (second priority) high usage
      ii. Customer's eligibility is verified by CAA.
      iii. Customer is notified of eligibility outcome.
   c) Weatherization Program Customers (CAA Marketing)

i. Customers are prioritized in accordance with DOE Wxn Program rules (e.g. elderly, young children, persons with disabilities, households with high energy burden), and as needed, to meet CORE prioritization requirements described in Section (a)(i) above.
ii. Customers will be given an opportunity to request services from both Wxn and the CORE energy efficiency program and authorize required data sharing.

2. Work Scheduling
In this step eligible customers are assigned to a CAA, and an audit is scheduled. Every effort will be made to contact the customer within a two week period to schedule the audit at a mutually agreeable time.
   a) Utility assigns jobs to CAA. Alternatively, Utility may request CAAs to develop leads from the Wxn waiting list.
   b) CAA prescreens customer (e.g. electric heat? high use? still at this address?, previously served? any remaining opportunities? Etc.)
   c) Utility assigns all customers who will receive CORE program services and who pass the prescreen regardless of how they were brought into the program (EAP list, direct inquiry, and Wxn customers). [*Note: Based on field experience, this step may be moved to a point after the audit if it can simplify overall implementation of the program.*]
   d) CAA schedules audit within two weeks of job assignment.
   e) CAA notifies Utility of audit schedule date.
   f) If audit is not scheduled within two weeks, Utility may elect to reassign job to another CAA or a non-CAA contractor, approved by the Utility and trained in low income program delivery.

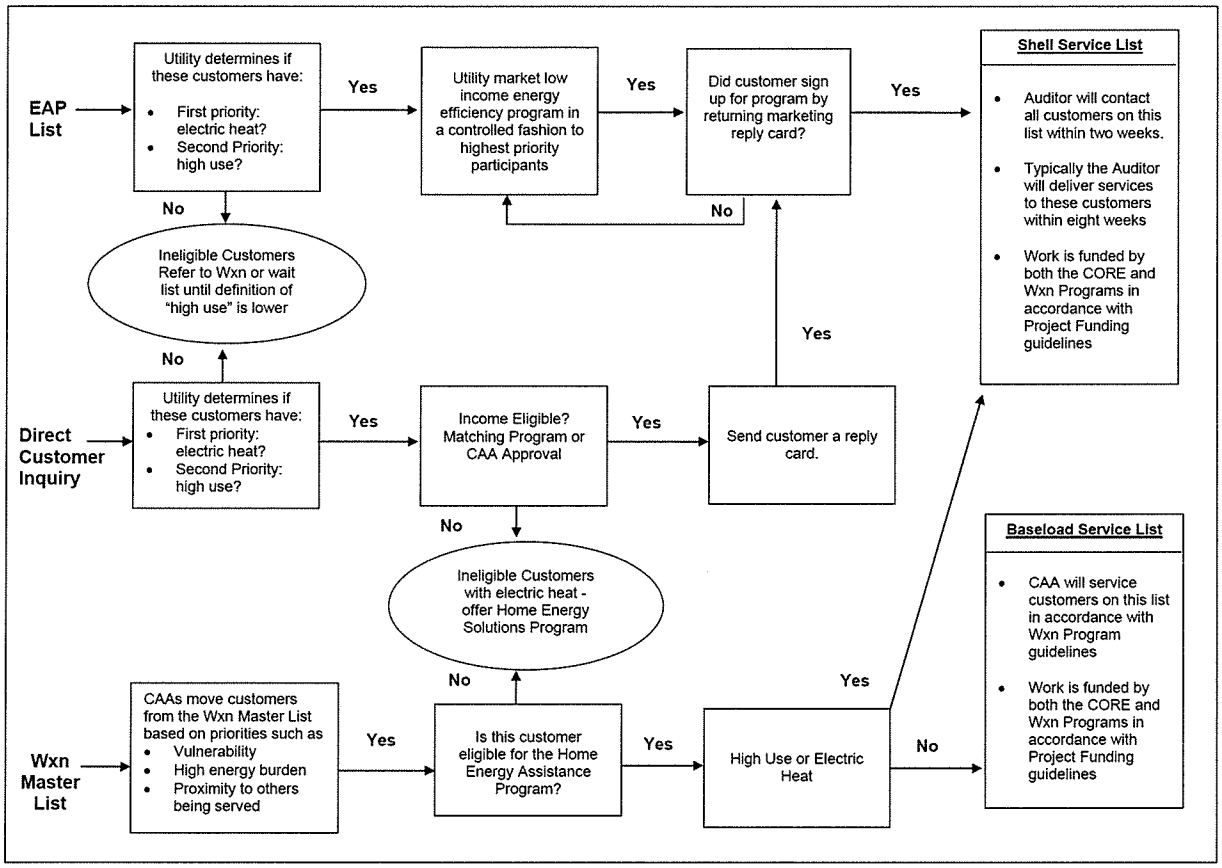
3. Conduct Audit
In this step the CAA will conduct all necessary home audits as detailed below, the initial blower door and combustion air zone testing as appropriate, and provide the customer and the Utility with their report. The home visit is typically completed within four weeks of assigning the job; report distribution may take longer as noted below.
   a) The audit software creates a list of cost effective measures to install. The Utility also provides a list of predetermined cost effective measures to install which will identify measures such as refrigerator replacements, CFLs, etc.
   b) Auditors will also identify any health and safety items and/or customer education that need to be addressed.
   c) The auditor will review the preliminary audit results with the customer and/or landlord, and if appropriate, seek written customer approval to provide weatherization services.
   d) Audit data is sent electronically to Utility within six weeks of the time the job is assigned.
   e) During the home visit, the CAA auditor identifies energy saving actions the customer can take and provides appropriate educational materials.
   f) A report is provided to customer/landlord within two weeks of the home visit and details the list of proposed services to be provided.

4. Provide Services
   This step includes the installation of measures, continuing customer education, the inspection of all completed work, customer signoff, and invoicing.
   a) All services, final inspections, and invoicing will typically be completed within eight weeks of authorization to provide services.
   b) CAA conducts final inspection on all jobs. Final inspection includes:
      i. Post-completion blower door and combustion air zone test
      ii. Review of all work completed by subcontractors to ensure compliance with program specifications
   c) CAA delivers education component of program including:
      i. Energy efficiency materials (as appropriate, may be covered in step 3.f above)
      ii. Review the "as installed" measures and audit report with the customer/landlord
   d) Obtain customer/landlord acknowledgement and approval of the services provided.
   e) When job (including Final Inspection) is complete, CAA electronically sends job completion report and invoice to Office of Energy & Planning (OEP) and Utility as appropriate.
   f) A customer satisfaction survey is mailed to the customer; survey results are shared by the Utility and OEP as appropriate.

5. Quality Assurance
   This step provides overall assurance that services are delivered in compliance with all program requirements.
   a) To ensure compliance with federal auditing requirements, OEP personnel will inspect a sampling of all jobs receiving Wxn funding. The Utilities will coordinate their QA activity with OEP when possible to avoid duplicate inspections of the same premise.
   b) QA will typically be conducted on a minimum of 10% of all jobs – more as deemed necessary.

6. Job Closeout
   This step includes follow-up on any customer concerns and invoice payment.
   a) Follow-up on any call back or QA concerns before processing invoices for payment.
   b) Review and pay CAA invoices. Check for errors such as "double billing."
   c) Process Customer Satisfaction Surveys.

Customer Intake Process



Project Funding

Measures will be funded based on the table below. The current program "cap" is $5,000 for the CORE low income Home Energy Assistance Program.

Measure Description	Funding Source	
	Shell	Baseload
Health & Safety	CORE/DOE[24]	DOE
Repair/Replace Non-electric Heating System[25]	DOE	DOE
Refrigerator	CORE	CORE
Lighting	CORE	CORE
Weatherization Services	CORE	DOE
Repair/Replace Electric Heating System[26] & Controls	CORE	CORE
Additional Measures As They Are Defined	*To Be Determined*	*To Be Determined*

CORE Program Auditor Training

All program auditors will be trained in the following areas. Training will be coordinated with utilities, OEP, and software vendor(s) to insure continuity, efficiency and consistency:

a) Sensitivity to low income customer's needs and guidelines for safe professional behavior in the low income community
b) Health and safety protocols related to Wxn will be reviewed and emphasized
c) Health and safety elements relating to appliances will be covered in depth
d) In-depth appliance diagnostics training
e) Training on customer education including how adults learn and how best to motivate customers to conserve.
f) Elements (b) through (e) must be coordinated with appliance software training and must thoroughly address the elements in the Customer Education Specifics Chart.
g) Auditing software and the process for communicating data to the Utilities.

The training will be offered as needed to accommodate new staff and changing program requirements. Costs for training may be shared between OEP and the Utilities.

[24] In the event the work is assigned to a non-CAA contractor or DOE funds are not available, CORE funds may be used for Health & Safety measures.
[25] Applies to qualifying systems fired by oil, propane, and solid fuels.
[26] Applies to electric heating systems only (for National Grid, does not apply to thermal storage or heat pump systems).

Training For Customer Service Representatives

Utility Customer Service Representatives will be trained to handle customer inquires regarding the CORE/Wxn program as well as other related programs designed to assist low income customers such as the Electric Assistance Program, the Fuel Assistance Program, and winter protections.

Low Income Customer Education and Training

Customer education will include a review of the customer's energy usage, and ways to reduce the energy usage. The auditor will discuss advantages of efficient lighting and appliances as well as life style changes that could reduce energy usage. The auditor will also discuss the weatherization opportunities in the customer's home. The *Energy Savers Booklet, Tips on Saving Energy & Money at Home*, will be provided to all program participants.

Capacity Planning

The tables on the next page depict (1) the Quarterly Production Schedule for each Utility and (2) the year end Job Distribution By County and By Utility.

The Utilities are committed to working with OEP and the CAAs to ensure there are sufficient qualified CAA personnel to meet program goals. If problems develop, the Utilities will address them with the CAAs and OEP before reassigning work to non-CAA contractors. It is understood that OEP cannot reimburse non-DOE approved subgrantees, and this must be taken into account in any work reassignment plan. For example, this would create significant problems in reassigning work that is already in progress. As such, to the extent non-CAA contractors were required to meet program goals, they would likely be given work that had not yet been assigned.

Maximizing Potential Benefits To Income Eligible Customers

The fundamental principle underlying the collaboration with the Community Action Agencies (CAAs) is that by working together, it will be possible to bring more services to more low income customers. As detailed in the Project Funding Table above, both Shell and Baseload jobs will be jointly funded by CORE and DOE dollars for all jobs implemented by the CAAs. The following table details the quarterly production schedule as well as the annual distribution of jobs by county and utility.

Low Income CORE & Wxn Participants by County

2013 HEA Quarterly Production Schedule

Utility	Total Jobs	1st. Qtr. 13%	2nd. Qtr. 36%	3rd. Qtr. 33%	4th. Qtr. 18%
LU-Electric	55	12	18	17	8
NHEC	57	7	16	20	14
PSNH	657	83	249	211	114
Unitil	49	8	15	17	9
LU-Gas	156	18	53	56	29
Northern Utilities	30	5	9	11	5
TOTAL Electric	**818**	**110**	**298**	**265**	**145**
TOTAL Gas	**186**	**23**	**62**	**67**	**34**
Cumulative TOTAL		133	493	825	1,004

2013 HEA Job Distribution By County and By Utility

BY COUNTY	LU-Electric	NHEC	PSNH	Unitil	LU-Gas	Northern Utilities	Grand Total
Belknap		8	80		20		**108**
Carroll		8	47				**55**
Cheshire	11		16				**27**
Coos		3	47		0		**50**
Grafton	17	21	29				**67**
Hillsborough	9		263		125		**397**
Merrimack		6	67	31	10		**114**
Rockingham	9	4	66	18	1	20	**118**
Strafford		0	28			10	**38**
Sullivan	9	7	14				**30**
Program Totals	55	57	657	49	156	30	**1,004**

Note: Quarterly numbers are benchmarks and are not meant to be used to evaluate production on a monthly basis.

Low Income CORE & Wxn Participants by County

2014 HEA Quarterly Production Schedule

Utility	Total Jobs	1st. Qtr. 13%	2nd. Qtr. 34%	3rd. Qtr. 35%	4th. Qtr. 18%
LU-Electric	58	12	18	21	7
NHEC	57	7	16	20	14
PSNH	657	81	242	222	112
Unitil	61	7	19	22	13
LU-Gas	164	17	48	64	35
Northern Utilities	35	5	9	12	9
TOTAL Electric	**833**	**107**	**295**	**285**	**146**
TOTAL Gas	**199**	**22**	**57**	**76**	**44**
Cumulative TOTAL		129	481	842	1,032

2014 HEA Job Distribution By County and By Utility

BY COUNTY	LU-Electric	NHEC	PSNH	Unitil	LU-Gas	Northern Utilities	Grand Total
Belknap		8	78		20		**106**
Carroll		8	45				**53**
Cheshire	11		17				**28**
Coos		3	48		0		**51**
Grafton	18	21	30				**69**
Hillsborough	10		265		130		**405**
Merrimack		6	65	36	13		**120**
Rockingham	10	4	65	25	1	23	**128**
Strafford		0	29			12	**41**
Sullivan	9	7	15				**31**
Program Totals	58	57	657	61	164	35	**1,032**

Note: Quarterly numbers are benchmarks and are not meant to be used to evaluate production on a monthly basis.

ATTACHMENT B: COMPLETED MONITORING & EVALUATION STUDIES

Evaluation Studies Completed since 2000

1. Hagler Bailly, Inc., 1999 Commercial & Industrial Free Rider Study, June 20, 2000.
2. RER, 1999 Energy Initiative Lighting Program Impact Evaluation, June 20, 2000.
3. RLW Analytics, Inc., Energy Initiative and Small C&I Programs Indoor Prescriptive Lighting Impact Study, June 19, 2000.
4. Michael P. Gallaher, Stephen A. Johnston, Laura J. Bloch, Research Triangle Institute Center for Economics Research, Small Commercial and Industrial Program Evaluation, June 2000.
5. RLW Analystics, Sample Design for the 1999 Custom Evaluation Studies Final Report, February 16, 2000.
6. RLW Analystics, Impact Evaluation analysis of the 1999 Custom Program Final Report, June 28, 2000.
7. SBW Consulting, Inc., Impact Evlauation Study of 1999 Custom Industrial Process Installations, June 1, 2000.
8. DMI, Impact Evaluation of 1999 Custom Industrial Process Installations, June 8, 2000.
9. Michael Ketcham, David Wortman, PE, Wortman Engineering, Impact Evaluation Study of 1999 Custom O&M Installations, June 7, 2000.
10. Michael Ketcham, David Wortman, PE, Wortman Engineering, Impact Evaluation Study of 1998 Custom Comprehensive Installations, February 24, 2000.
11. RER, Multifamily EnergyWise Program Impact Evaluation, July 2000.
12. quantec LLC, Impact Evaluation: Single-Family EnergyWise Program, July 10, 2000.
13. RLW Analytics, ENERGY STAR Market Update FINAL REPORT, June 28, 2000.
14. Easton Consultants, Inc., and Xenergy, Inc., Northeast Premium Motor Initiative Market Baseline and Transformation Assessment Final Report, August 17, 1999.
15. Aspen Systems Corporation, Final Report The Compressed Air Systems Market Assessment and Baseline Study for New England, January 7, 2000.
16. RLW Analytics, Commercial & Industrial O&M Market Segment Baseline Study Final Report, July 1999.
17. PA Consulting Group, National Grid 2000 Commercial and Industrial Free-Ridership and Spillover Study, August 24, 2001.
18. RLW Analytics, Sample Design for the 2000 Custom Evaluation Studies, July 19, 2001.
19. RLW Analytics, Impact Evaluation Analysis of the 2000 Custom Program Executive Summary, July 23, 2001.
20. HEC, Inc., Impact Evaluation Study of 1999 Custom HVAC Installations, December 8, 2000.
21. Science Applications International Corporation, 2000 Custom Lighting Impact Evaluation Executive Summary, July 17, 2001.
22. Xenergy, Inc., Compact Fluorescent Toirchiere Impact Evaluation Executive Summary, August 17, 2001.
23. PA Consulting Group, National Grid 2001 Commercial and Industrial Free-ridership and Spillover Study, July 2, 2002.
24. Shon Kraley, Ph.D., Lauren Miller, Heather Williams, M. Sami Khawaja Ph.D., Quantec, LLC, Impact Evaluation: Energy Initiative Prescriptive Lighting, 2000 – 2001, June 25, 2002.

25. Michael P. Gallaher, Stephen A. Johnston, Andrea Goesele, RTI Health, Social, and Economics Research, Small Commercial and Industrial Program Evaluation, June 2002.
26. Regional Economic Research, Inc. (RER), Impact Evaluation of the 2001 Multifamily Energy Wise Program, June 21, 2002.
27. Ebu Alpay, Scott Dimetrosky, Ken Seiden, Ph.D., Quantec, LLC, Impact Evaluation of the 2001 Appliance Management Program, July 1, 2002.
28. Bruce Harley, Conservation Service Croup, Inc., Energy Consumption Analysis of the ENERGY STAR Homes Program, June 15, 2002.
29. Select Energy Services, Inc., Evaluation of 2000 Custom Process Installations – Part I, June 26, 2002.
30. DMI, Final Report for National Grid USA Service Company Evaluation of 2000 Custom Process Installations-Part II, June 26, 2002.
31. SBW Consulting Inc., Impact Evaluation of 2000 Custom Comprehensive Installation FINAL REPORT, June 27, 2002.
32. RLW Analytics, Impact Evaluation Analysis of the 2001 Custom Program, June 26, 2002.
33. PA Government Services, Inc., National Grid 2002 Commercial and Industrial Free-ridership and Spillover Study, May 30, 2003.
34. RLW Analytics, Design 2000plus Lighting Hours of Use and Load Shape Measurement Executive Summary, May 30, 2003.
35. RLW Analytics, Sample Design for the 2002 Custom Evaluation Studies, July 2, 2003.
36. SBW Consulting, Inc., Evaluation of 2001 Custom Process Installations – Part I FINAL REPORT, June 23, 2003.
37. DMI, Evaluation of 2001 Custom Process Installations – Part II, June 27, 2003.
38. Select Energy Services, Inc., Evaluation of 2001 Custom Process Installations – Part III Compressed Air, June 30, 2003.
39. Select Energy Service, Inc., Evaluation of 2001 Custom HVAC Installations, July 9, 2003.
40. RLW Analytics, Impact Evaluation Analysis of the 2002 Custom Program, July 2, 2003.
41. Jane S. Peters, Ph.D., Marjorie R. McRae, Ph.D., Jessica B. Letteney, Research Into Action, Inc. and Tom Rooney, P.E. GDS Associates, Inc., Evaluation of the Building Operator Training and Certification (BOC) Program in the Northeast, September 6, 2002.
42. Energy & Resource Solutions (ERS), Final Report prepared for the New Hampshire Commercial & Industrial New Construction Program Baseline Evaluation for the NH Monitoring and Evaluation Team, June 2003.
43. Nexus Market Research, Inc., Dorothy Conant, Shel Felman Management Consulting, GDS Associates, Inc., Megdal & Associates, Evaluation of the New Hampshire ENERGY STAR® Homes Program Volume 1 Findings and Analysis, March 2003.
44. RLW Analytics, Sample Design for the 2003 Custom Evaluation Studies, February 20, 2004.
45. Select Energy Services, Inc., Evaluation of 2002 Custom Process Installation s – Part I, July 15, 2004.
46. DMI, Evaluation of 2002 Custom Process Installations Part II, June 2, 2004.
47. SBW Consulting, Inc., Impact Evaluation Study of 2002 Custom Process Installations Part III FINAL REPORT, July 16, 2004.
48. Science Applications International Corporation, National Grid USA Service Company Impact Evaluation of 2002 Custom Comprehensive Projects Final Report, June 8, 2004.

49. Science Applications International Corporation, Impact Evaluation of 2002 Custom Lighting Installations Final Report, July 15, 2004.
50. RLW Analytics, Impact Evaluation Analysis of the 2003 Custom Program, July 23, 2004.
51. Summit Blue Consulting, Billing Analysis of the Small Business Services Program Final Report, June 7, 2004.
52. RLW Analytics, 2003 Multiple Small Business Lighting Retrofit Program Impact Evaluation Final Report, June 2004.
53. RLW Analytics, National Grid 2003 Energy Initiative "EI" Program Lighting Impact Evaluation FINAL Report, June 2004.
54. RLW Analytics, Inc., Impact Evaluation of a Unitary HVAC Tune-Up Program Final Report – Executive Summary, June 14, 2004.
55. Nexus Market Research, Inc., Dorothy Conant, Shel Feldman Management Consulting, Scoping Study on Market Penetration Tracking of Energy-Efficient Motors and Packaged HVAC Systems in New England and New York, August 8, 2003.
56. Megdal & Associates with Opinion Dynamics Corporation, 2004 Commercial and Industrial Programs Free-Ridership and Spillover Study Executive Summary of National Grid Results Final Report, October 21, 2005.
57. Summit Blue Consulting, Impact Analysis of the 2004 Energy Initiative Program Final Report, July 26, 2005.
58. RLW Analytics, Sample Design and Impact Evaluation Analysis of the 2004 Custom Program, October 26, 2004.
59. Select Energy Services, Inc., Final Report for National Grid USA Service Company Evaluation of 2003 Custom Process Installations – Part I, August 24, 2005.
60. DMI, Evaluation of 2003 Custom Process Installations Part II, October 3, 2005.
61. DMI, Evaluation of 2003 Custom HVAC Installations Part I, October 12, 2005.
62. Select Energy Services, Inc., Final Report for National Grid USA Service Company Evaluation of 2003 Custom HVAC Installations – Part II, September 27, 2005.
63. RLW Analytics, Inc., National Grid USA Custom Lighting Impact Study Executive Summary 2004 energy Initiative and Design 2000plus Program, August 25, 2005.
64. PA Government Services Inc., National Grid USA Process Evaluation of 2004 Targeted Demand Response Program, June 30, 2005.
65. RLW Analytics, Impact and Process Evaluation Building Operator Training and Certification (BOC) Program Final Report, June 2005.
66. PA Consulting Group, 2005 Commercial and Industrial Programs Free-ridership and Spillover Study Revised, August 11, 2006.
67. Demand Management Institute, Prescriptive Variable Frequency Drive Worksheet Development, June 9, 2006.
68. Demand Management Institute, Impact Evaluation of 2004 Compressed Air Prescriptive Rebates, May 15, 2006.
69. RLW Analytics, Sample Design and Impact Evaluation Analysis for Prescriptive Compressed Air Measures in the Energy Initiative and Design 2000 Programs, May 31, 2006.
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ATTACHMENT C: AVOIDED COSTS

Summary of Avoided Electric Costs

In accordance with Commission Order No. 23,850, in DE 01-057, dated November 29, 2001, the NH Electric Utilities have based their avoided costs on the 2011 *Avoided-Energy-Supply Costs in New England: 2011 Final Report* ("2011 AESC"). Use of common avoided costs by the utilities ensures that all New Hampshire customers will have access to the same programs and services.

The present value of avoided costs over the life of program measures was calculated using a discount rate of 3.25% and a general inflation rate of 2.00%. The use of the 15% adder to represent non-quantified benefits – including environmental and other benefits as recommended by the Energy Efficiency Working Group, originally authorized by the NHPUC in DR 96-150, Order No. 23,574, dated November 1, 2000, has been discontinued because the 2011 AESC avoided costs include market-based price proxies for power plant emissions of NOx, SO_2, Mercury and CO_2.

The 2011 AESC avoided costs also include a 9% generic retail adder to account for the expected differential between retail and wholesale market prices. In recognition of diversity among states and utilities in energy service procurement and retail pricing policies, the contractor provided the sponsors the option to remove the adder from the avoided cost data. PSNH and NHEC have concluded that the 2011 AESC forecasted wholesale prices of energy and capacity represent a better approximation to the cost of energy service avoided by their retail customers than the prices which include a 9% increase to the wholesale prices.

Avoided Transmission and Distribution Costs

In accordance with Commission Order No. 23,850, in DE 01-057, dated November 29, 2001, the NH Electric Utilities have based their avoided transmission and distribution costs on the weighted average of NH utility costs and have escalated them for inflation and put them in 2011 dollars. Use of common avoided costs by the utilities ensures that all New Hampshire customers will have access to the same programs and services.

The following table also includes an adjustment to reduce the energy and capacity line loss multipliers by the estimated losses that are accounted for in the 2011 forecast of energy prices.

Marginal T&D Costs and Line Loss Factors ($2011)

	MDC ($/kW-yr)		MTC	Line Loss Multipliers				
	Res.(1)	C&I(2)	($/kW-yr)	Transmission Capacity	Summer Capacity	Winter Capacity	On-Peak Energy	Off-Peak Energy
GSE	$118.71	$86.39	$49.63	1.1220	1.1500	1.1350	1.0630	1.0890
NHEC	$163.05	$163.05	$103.02	1.0207	1.0818	1.0818	1.0818	1.0818
PSNH	$31.61	$31.61	$1.77	1.0000	1.0820	1.0820	1.0820	1.0840
Unitil	$73.03	$73.03	$29.26	1.0000	1.1217	1.1217	1.1217	1.0152

MWh Sales to Ultimate Customers in 2011

GSE	911,923	8.52%
NHEC	744,000	6.95%
PSNH	7,815,462	73.03%
Unitil	1,229,614	11.49%
Total	10,700,999	100.00%

Weighted Average Marginal T&D Costs and Line Loss Factors
(Energy Line Loss Multipliers have been reduced by estimated transmission losses.)

	MDC ($/kW-yr)		MTC	Line Loss Multipliers				
	Res.(1)	C&I(2)	($/kW-yr)	Transmission Capacity	Summer Capacity	Winter Capacity	On-Peak Energy	Off-Peak Energy
2011$	$52.93	$50.18	$16.05	1.012	1.072	1.071	1.018	1.010

Program Cost-Effectiveness - 2013 PLAN

	Total Resource Benefit/Cost Ratio	Present Value Benefit ($000)	Present Value Utility Costs ($000)	Present Value Customer Costs ($000)	Shareholder Incentive ($000)	Annual MWh Savings	Lifetime MWh Savings	Winter kW Savings	Summer kW Savings	Number of Customers Served
Residential Programs										
ENERGY STAR Homes	4.88	$ 411.2	$ 68.6	$ 15.7		27	510	9	6	41
Home Performance with ENERGY STAR	1.89	$ 460.2	$ 165.7	$ 77.3		17	183	6	1	108
ENERGY STAR Lighting	1.32	$ 184.4	$ 102.0	$ 37.8		444	2,670	174	46	7,241
ENERGY STAR Appliances	1.66	$ 846.8	$ 234.3	$ 275.9		114	1,227	8	17	759
Home Energy Assistance	1.21	$ 375.0	$ 310.9	$ -		52	753	6	6	55
	1.77									
Subtotal Residential	**1.68**	**$ 2,277.6**	**$ 881.6**	**$ 406.8**	**$ 70.5**	**654**	**5,343**	**203**	**76**	**8,203**
Commercial/Industrial Programs										
Large Business Energy Solutions	1.84	$ 2,264.9	$ 665.2	$ 567.2		1,819	23,689	238	326	40
Small Business Energy Solutions	1.67	$ 1,395.1	$ 507.9	$ 325.3		1,013	13,947	165	163	183
C&I Education	0.00	$ -	$ 18.3	$ -		-	-	-	-	-
	1.76									
Subtotal C&I	**1.68**	**$ 3,659.9**	**$ 1,191.4**	**$ 892.5**	**$ 95.3**	**2,833**	**37,636**	**403**	**488**	**223**
ISO-NE FCM		**0.00**	**25.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**-**
Total	**1.68**	**$ 5,937.49**	**$ 2,098.00**	**$ 1,299.21**	**$ 165.84**	**3,487**	**42,979**	**606**	**564**	**8,426**

Present Value Benefits - 2013 PLAN

		CAPACITY				ENERGY				
	Total Benefits ($000)	Summer Generation	Winter Generation	Transmission	Distribution	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak	Non Electric Resource
Residential Programs										
ENERGY STAR Homes	$411	$11	$0	$2	$6	$10	$12	$5	$6	$359
Home Performance w/Energy Star	$460	$0	$0	$0	$0	$4	$7	$0	$1	$449
ENERGY STAR Lighting	$184	$12	$0	$4	$14	$45	$58	$23	$28	$0
ENERGY STAR Appliances	$847	$9	$0	$3	$9	$20	$25	$13	$15	$752
Home Energy Assistance	$375	$5	$0	$1	$4	$14	$18	$6	$8	$319
Subtotal Residential	**$2,278**	**$37**	**$0**	**$11**	**$34**	**$92**	**$120**	**$48**	**$57**	**$1,879**
Commercial/Industrial Programs										
Large Business	$2,265	$251	$0	$67	$213	$368	$388	$396	$317	$264
Small Business	$1,395	$141	$0	$35	$113	$281	$255	$183	$150	$238
C&I Education	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal C&I	**$3,660**	**$392**	**$0**	**$102**	**$326**	**$649**	**$643**	**$579**	**$467**	**$502**
Total	**$5,937**	**$429**	**$0**	**$113**	**$360**	**$741**	**$764**	**$627**	**$525**	**$2,380**

Shareholder Incentive Calculation
2013

		Planned	Actual
Commercial/Industrial Incentive			
1. Benefit/Cost Ratio		1.76	
2. Threshold Benefit / Cost Ratio 1		1.00	
3. Lifetime kWh Savings		37,636,115	
4. Threshold Lifetime kWh Savings (65%) 2		24,463,475	
5. Budget		$1,191,407	
6. Benefit / Cost Percentage of Budget		4.00%	
7. Lifetime kWh Percentage of Budget		4.00%	
8. C/I Shareholder Incentive		$95,313	
9. Cap (12%)		$142,969	
Residential Incentive			
10. Benefit / Cost Ratio		1.77	
11. Threshold Benefit / Cost Ratio 1		1.00	
12. Lifetime kWh Savings		5,342,671	
13. Threshhold Lifetime kWh Savings (65%) 2		3,472,736	
14. Budget		$881,589	
15. Benefit / Cost Percentage of Budget		4.00%	
16. Lifetime kWh Percentage of Budget		4.00%	
17. Residential Incentive		$70,527	
18. Cap (12%)		$105,791	
19. TOTAL INCENTIVE EARNED	**$**	**165,840**	

Notes

1. Actual Benefit / Cost Ratio for each sector must be greater than or equal to 1.0.
2. Actual Lifetime kWh Savings for each sector must be greater than or equal to 65% of projected savings.
3. HPwES Fuel Neutral portion of the actual expenses will be reduced on final year-end incentive calculation per NHPUC Order Nos. 24,974 and 25,402.

2013 TRC BENEFIT COST TEST

Planned Versus Actual Benefit / Cost Ratio by Sector

2013

	Planned	Actual
Commercial & Industrial:		
1. Benefits (Value) From Eligible Programs	$ 3,660	
2. Implementation Expenses	$ 1,191	
3. Customer Contribution	$ 892	
4. Total Costs Excluding Shareholder Incentive	$ 2,084	
5. Benefit/Cost Ratio - C&I Sector	**1.76**	
6. Benefit/Cost Ratio - C&I Sector including SI	**1.68**	
Residential:		
6. Benefits (Value) From Eligible Programs	$ 2,278	
7. Implementation Expenses	$ 882	
8. Customer Contribution	$ 407	
9. Total Costs Excluding Shareholder Incentive	$ 1,288	
10. Benefit/Cost Ratio - Residential Sector	**1.77**	
11. Benefit/Cost Ratio - Residential Sector including SI	**1.68**	

Actual Lifetime Energy Savings by Sector and Program
2013

	Lifetime kWh Savings	
	Planned	Actual
Commercial & Industrial:		
Large Business	23,689,232	
Small Business	13,946,883	
C&I Education	0	
Total Commercial & Industrial Included for Incentive Calculation	**37,636,115**	
Residential:		
ENERGY STAR Homes	510,094	
Home Performance with ENERGY STAR	182,554	
ENERGY STAR Lighting	2,669,519	
ENERGY STAR Appliances	1,227,443	
Home Energy Assistance	753,061	
Total Residential Included for Incentive Calculation	**5,342,671**	
Total	**42,978,786**	

Program Cost-Effectiveness - 2014 PLAN

	Total Resource Benefit/Cost Ratio	Present Value Benefit ($000)	Utility Costs ($000)	Customer Costs ($000)	Shareholder Incentive ($000)		Annual MWh Savings	Lifetime MWh Savings	Winter kW Savings	Summer kW Savings	Number of Customers Served
Residential Programs											
ENERGY STAR Homes	4.95	$ 442.2	$ 72.7	$ 16.6			28	541	9	7	43
NH Home Performance with ENERGY STAR	1.94	$ 500.2	$ 175.6	$ 82.0			19	193	6	1	114
ENERGY STAR Lighting	1.39	$ 206.3	$ 108.1	$ 40.1			470	2,829	184	49	7,675
ENERGY STAR Appliances	1.71	$ 905.6	$ 248.3	$ 281.1			130	1,397	10	19	841
Home Energy Assistance	1.24	$ 408.8	$ 329.5	$ -			55	798	6	6	58
	1.82										
Subtotal Residential	**1.69**	$ 2,463.2	$ 934.3	$ 419.8	$ 101.0	$ -	702	5,759	216	81	8,731
Commercial/Industrial Programs											
Large Business	1.93	$ 2,523.8	$ 706.5	$ 604.5		0.00	1,940	25,254	254	347	42
Small Business	1.75	$ 1,539.6	$ 537.5	$ 343.5			1,079	14,842	176	173	192
C&I Education	0.00	$ -	$ 18.3	$ -			-	-	-	-	-
	1.84										
Subtotal C&I	**1.78**	$ 4,063.4	$ 1,262.3	$ 947.9	$ 74.7	$ -	$ 3,018	$ 40,096	$ 430	$ 520	$ 234
ISO NE FCM		-	25.0	-	-		-	-	-	-	-
Total	**1.73**	$ 6,526.64	$ 2,221.62	$ 1,367.69	$ 175.73		3,720	45,855	646	601	8,965

Present Value Benefits - 2014 PLAN

		CAPACITY				ENERGY				
	Total Benefits ($000)	Summer Generation	Winter Generation	Transmission	Distribution	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak	Non Electric Resource
Residential Programs										
ENERGY STAR Homes	$442	$12	$0	$2	$7	$11	$14	$5	$7	$384
Home Performance w/Energy Star	$500	$0	$0	$0	$0	$4	$7	$0	$1	$487
ENERGY STAR Lighting	$206	$13	$0	$5	$15	$50	$65	$26	$32	$0
ENERGY STAR Appliances	$906	$11	$0	$3	$10	$25	$31	$15	$17	$793
Home Energy Assistance	$409	$6	$0	$1	$4	$15	$20	$7	$9	$346
Subtotal Residential	**$2,463**	**$42**	**$0**	**$12**	**$37**	**$105**	**$137**	**$55**	**$65**	**$2,010**
Commercial/Industrial Programs										
Large Business	$2,524	$300	$0	$73	$233	$0	$413	$435	$443	$356
Small Business	$1,540	$166	$0	$38	$123	$0	$315	$285	$204	$168
C&I Education	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal C&I	**$4,063**	**$466**	**$0**	**$111**	**$356**	**$0**	**$728**	**$721**	**$647**	**$524**
Total	**$6,527**	**$508**	**$0**	**$123**	**$393**	**$105**	**$865**	**$775**	**$712**	**$2,534**

Shareholder Incentive Calculation
2014

		Planned	Actual
Commercial/Industrial Incentive			
1. Benefit/Cost Ratio		1.75	
2. Threshold Benefit / Cost Ratio 1		1.00	
3. Lifetime kWh Savings		40,095,966	
4. Threshold Lifetime kWh Savings (65%) 2		26,062,378	
5. Budget		$934,298	
6. Benefit / Cost Percentage of Budget		4.00%	
7. Lifetime kWh Percentage of Budget		4.00%	
8. C/I Shareholder Incentive		$74,744	
9. Cap (12%)		$112,116	
Residential Incentive			
10. Benefit / Cost Ratio		1.78	
11. Threshold Benefit / Cost Ratio 1		1.00	
12. Lifetime kWh Savings		5,758,753	
13. Threshhold Lifetime kWh Savings (65%) 2		3,743,189	
14. Budget		$1,262,320	
15. Benefit / Cost Percentage of Budget		4.00%	
16. Lifetime kWh Percentage of Budget		4.00%	
17. Residential Incentive		$100,986	
18. Cap (12%)		$151,478	
19. TOTAL INCENTIVE EARNED	**$**	**175,729**	

Notes

1. Actual Benefit / Cost Ratio for each sector must be greater than or equal to 1.0.
2. Actual Lifetime kWh Savings for each sector must be greater than or equal to 65% of projected savings.

2014 TRC BENEFIT COST TEST

Planned Versus Actual Benefit / Cost Ratio by Sector

2014

		Planned	Actual
Commercial & Industrial:			
1. Benefits (Value) From Eligible Programs	$	4,063	
2. Implementation Expenses	$	1,262	
3. Customer Contribution	$	948	
4. Total Costs Excluding Shareholder Incentive	$	2,210	
5. Benefit/Cost Ratio - C&I Sector		**1.84**	
6. Benefit/Cost Ratio - C&I Sector including SI		**1.78**	
Residential:			
6. Benefits (Value) From Eligible Programs	$	2,463	
7. Implementation Expenses	$	934	
8. Customer Contribution	$	420	
9. Total Costs Excluding Shareholder Incentive	$	1,354	
10. Benefit/Cost Ratio - Residential Sector		**1.82**	
11. Benefit/Cost Ratio - Residential Sector including SI		**1.69**	

Actual Lifetime Energy Savings by Sector and Program
2014

	Lifetime kWh Savings	
	Planned	Actual
Commercial & Industrial:		
Large Business	25,254,135	
Small Business	14,841,832	
C&I Education	0	
Total Commercial & Industrial Included for Incentive Calculation	**40,095,966**	
Residential:		
ENERGY STAR Homes	540,635	
NH Home Performance with ENERGY STAR	193,485	
ENERGY STAR Lighting	2,829,349	
ENERGY STAR Appliances	1,397,315	
Home Energy Assistance	797,969	
Total Residential Included for Incentive Calculation	**5,758,753**	
Total	**45,854,719**	

Attachment D-G: Total Resource Benefit Cost Analysis

January 1, 2013 - December 31, 2013 TRC BENEFIT COST TEST
Liberty Utilities Gas Energy Efficiency
New Hampshire Program Year ONE **Summary of Benefit, Costs Program Year 2013 (January 1, 2013 - December 31, 2013)**
Total Resource Cost Test

BCR Activity	TRC Benefit/ Cost	TRC Net Benefits	Total Benefits ($000)	Total Costs ($000)	PA Costs ($000)	Participant Costs ($000)	Annual MMBTU Savings	Lifetime MMBTU Savings	Participant Goal
Residential									
Low Income	1.04	$29	$779	$750	$750	$0	4,459	89,172	156
HPwES	2.71	$2,064	$3,268	$1,205	$730	$475	18,708	374,164	569
Residential Appliances	1.11	$162	$1,688	$1,526	$730	$796	12,407	207,559	2,578
Energy Star Homes	2.01	$110	$218	$108	$90	$18	995	24,863	37
Res Building Practices and Demo	NA	($70)	$0	$70	$70	$0	-	-	-
Shareholder Incentive					$190				
Subtotal: Residential	**1.55**	**$2,294**	**$5,953**	**$3,849**	**$2,560**	**$1,289**	**36,568**	**695,757**	**3,340**
Commercial & Industrial									
Large Business	1.36	$648	$2,441	$1,793	$1,184	$609	19,125	295,915	178
Small Business	1.71	$1,248	$3,015	$1,767	$1,093	$673	22,711	365,747	313
C&I Education	NA	($32)	$0	$32	$32	$0	-	-	-
Shareholder Incentive					$185				
Subtotal: Commercial & Industrial	**1.44**	**$1,863**	**$5,455**	**$3,777**	**$2,495**	**$1,282**	**41,836**	**661,662**	**491**
Grand Total	**1.50**	**$4,157**	**$11,409**	**$7,626**	**$5,054**	**$2,571**	**78,404**	**1,357,419**	**3,831**

January 1, 2014 - December 31, 2014 TRC BENEFIT COST TEST
Liberty Utilities Gas Energy Efficiency
New Hampshire Program Year TWO **Summary of Benefit, Costs Program Year 2014 (January 1, 2014 - December 31, 2014)**
Total Resource Cost Test

BCR Activity	TRC Benefit/ Cost	TRC Net Benefits	Total Benefits ($000)	Total Costs ($000)	PA Costs ($000)	Participant Costs ($000)	Annual MMBTU Savings	Lifetime MMBTU Savings	Participant Goal
Residential									
Low Income	1.07	$59	$846	$788	$788	$0	4,677	93,543	164
HPwES	2.80	$2,280	$3,545	$1,265	$767	$498	19,591	391,817	595
Residential Appliances	1.24	$388	$1,980	$1,592	$767	$825	13,937	236,334	2,697
Energy Star Homes	2.08	$123	$237	$114	$95	$19	1,044	26,106	38
Res Building Practices and Demo	NA	($74)	$0	$74	$74	$0	-	-	-
Shareholder Incentive					$199				
Subtotal: Residential	**1.64**	**$2,777**	**$6,608**	**$4,030**	**$2,688**	**$1,343**	**39,249**	**747,799**	**3,495**
Commercial & Industrial									
Large Business	1.45	$851	$2,738	$1,887	$1,244	$643	20,466	319,440	198
Small Business	1.80	$1,500	$3,373	$1,874	$1,149	$725	24,870	394,862	347
C&I Education	NA	($32)	$0	$32	$32	$0	-	-	-
Shareholder Incentive					$194				
Subtotal: Commercial & Industrial	**1.53**	**$2,318**	**$6,111**	**$3,987**	**$2,620**	**$1,367**	**45,336**	**714,302**	**545**
Grand Total	**1.59**	**$5,095**	**$12,719**	**$8,017**	**$5,307**	**$2,710**	**84,585**	**1,462,101**	**4,040**

Attachment DG: Shareholder Incentive Page 1 of 4

Liberty Utilities Gas Energy Efficiency

Target Shareholder Incentive Year ONE- January 1, 2013 - December 31, 2013

Commercial/Industrial Incentive

1. Target Benefit/Cost Ratio	1.44
2. Threshold Benefit/Cost Ratio	1.00
3. Target lifetime MMBTU	661,662
4. Threshold MMBTU	430,080
5. Budget	$2,310,000
6. CE Percentage	4.00%
7. Lifetime MMBTU Percentage	4.00%
8. Target C/I Incentive	**$184,800**
9. Cap	**$277,200**

Residential Incentive

10. Target Benefit/Cost Ratio	1.55
11. Threshold Benefit/Cost Ratio	1.00
12. Target lifetime MMBTU	695,757
13. Threshold MMBTU	452,242
14. Budget	$2,370,000
15. CE Percentage	4.00%
16. Lifetime MMBTU Percentage	4.00%
17. Target Residential Incentive	**$189,600**
18. Cap	**$284,400**
19. TOTAL TARGET INCENTIVE	**$374,400**

Line No. Notes:

1, 3, 5, 10, 12, and 14. See Exhibit B

2, 6, 7, 11, 15, and 16. Report to the New Hampshire Public Utilities Commission on Ratepayer-Funded Energy Efficiency Issues in New Hampshire, Docket No. DR 96-150, page 21.

4. 65% of line 3.

8. 8% of line 5.

9. 12% of line 5.

13. 65% of line 12.

17. 8% of line 14.

18. 12% of line 14.

19. Line 8 plus line 17.

Attachment DG: Shareholder Incentive Page 2 of 4

Liberty Utilities Gas Energy Efficiency

Target Benefit-Cost Ratio by Sector

Year ONE- January 1, 2013 - December 31, 2013

Commercial & Industrial:	**Planned**
1. Benefits (Value) From Eligible Programs	$5,455,428
2. Implementation Expenses	$2,277,686
3. Customer Contribution	$1,282,033
4. Shareholder Incentive	$184,800
5. Total Costs Including Shareholder Incentive	**$3,744,519**
6. Benefit/Cost Ratio - C&I Sector	**1.46**

Residential:	
7. Benefits (Value) From Eligible Programs	$5,953,227
8. Implementation Expenses	$2,370,000
9. Customer Contribution	$1,289,227
10. Shareholder Incentive	$189,600
11. Total Costs Including Shareholder Incentive	**$3,848,827**
12. Benefit/Cost Ratio - Residential Sector	**1.55**

Line No. Notes:

1 - 4 and 7-11. See Exhibit B.

5. Sum of lines 2-4.

6. Line 1 divided by line 5. The shareholder incentive mechanism described by the New Hampshire Energy Efficiency Working Group and approved by the Commission in Order No. 23,574 includes a circular calculation. A portion of the earned shareholder incentive is related to the benefit/cost ratio (BCR). However, the shareholder incentive is supposed to be included as an EE cost in determining the BCR. For the purpose of calculating the shareholder incentive, the Company has calculated the planned BCR including the shareholder incentive for one iteration and will compare the actual BCR including the shareholder incentive to the planned BCR including shareholder incentives when determining the earned incentive.

11. Sum of lines 7 - 10.

12. Line 7 divided by line 11. The shareholder incentive mechanism described by the New Hampshire Energy Efficiency Working Group and approved by the Commission in Order No. 23,574 includes a circular calculation. A portion of the earned shareholder incentive is related to the benefit/cost ratio. However, the shareholder incentive is supposed to be included as an EE cost in determining the benefit/cost ratio. For the purpose of calculating the shareholder incentive, the Company has calculated the planned benefit/cost ratio including the shareholder incentive for one iteration and will compare the actual benefit/cost ratio including the shareholder incentive to the planned benefit/cost ratio including shareholder incentives when determining the earned shareholder incentive.

Attachment DG: Shareholder Incentive Page 3 of 4

Liberty Utilities Gas Energy Efficiency

Target Shareholder Incentive Year TWO- January 1, 2014 - December 31, 2014

Commercial/Industrial Incentive

1. Target Benefit/Cost Ratio	1.53
2. Threshold Benefit/Cost Ratio	1.00
3. Target lifetime MMBTU	714,302
4. Threshold MMBTU	464,296
5. Budget	$2,425,500
6. CE Percentage	4.00%
7. Lifetime MMBTU Percentage	4.00%
8. Target C/I Incentive	**$194,040**
9. Cap	**$291,060**

Residential Incentive

10. Target Benefit/Cost Ratio	1.64
11. Threshold Benefit/Cost Ratio	1.00
12. Target lifetime MMBTU	747,799
13. Threshold MMBTU	486,070
$5.49/therm based on 50% of project cost	$2,488,500
$3.08/therm based on 50% of project cost.	4.00%
16. Lifetime MMBTU Percentage	4.00%
17. Target Residential Incentive	**$199,080**
18. Cap	**$298,620**
19. TOTAL TARGET INCENTIVE	**$393,120**

Line No. Notes:

1, 3, 5, 10, 12, and 14. See Exhibit B

2, 6, 7, 11, 15, and 16. Report to the New Hampshire Public Utilities Commission on Ratepayer-Funded Energy Efficiency Issues in New Hampshire, Docket No. DR 96-150, page 21.

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17. 8% of line 14.

18. 12% of line 14.

19. Line 8 plus line 17.

Attachment DG: Shareholder Incentive Page 4 of 4

Liberty Utilities Gas Energy Efficiency

Target Benefit-Cost Ratio by Sector

Year TWO- January 1, 2014 - December 31, 2014

Commercial & Industrial:	**Planned**
1. Benefits (Value) From Eligible Programs	$6,110,950
2. Implementation Expenses	$2,393,186
3. Customer Contribution	$1,367,387
4. Shareholder Incentive	$194,040
5. Total Costs Including Shareholder Incentive	**$3,954,613**
6. Benefit/Cost Ratio - C&I Sector	**1.55**

Residential:	
7. Benefits (Value) From Eligible Programs	$6,608,295
8. Implementation Expenses	$2,488,500
9. Customer Contribution	$1,342,688
10. Shareholder Incentive	$199,080
11. Total Costs Including Shareholder Incentive	**$4,030,268**
12. Benefit/Cost Ratio - Residential Sector	**1.64**

Line No. Notes:

1 - 4 and 7-11. See Exhibit B.

5. Sum of lines 2-4.

6. Line 1 divided by line 5. The shareholder incentive mechanism described by the New Hampshire Energy Efficiency Working Group and approved by the Commission in Order No. 23,574 includes a circular calculation. A portion of the earned shareholder incentive is related to the benefit/cost ratio (BCR). However, the shareholder incentive is supposed to be included as an EE cost in determining the BCR. For the purpose of calculating the shareholder incentive, the Company has calculated the planned BCR including the shareholder incentive for one iteration and will compare the actual BCR including the shareholder incentive to the planned BCR including shareholder incentives when determining the earned incentive.

11. Sum of lines 7 - 10.

12. Line 7 divided by line 11. The shareholder incentive mechanism described by the New Hampshire Energy Efficiency Working Group and approved by the Commission in Order No. 23,574 includes a circular calculation. A portion of the earned shareholder incentive is related to the benefit/cost ratio. However, the shareholder incentive is supposed to be included as an EE cost in determining the benefit/cost ratio. For the purpose of calculating the shareholder incentive, the Company has calculated the planned benefit/cost ratio including the shareholder incentive for one iteration and will compare the actual benefit/cost ratio including the shareholder incentive to the planned benefit/cost ratio including shareholder incentives when determining the earned shareholder incentive.

Program Cost-Effectiveness - 2013 PLAN

	Total Resource Benefit/Cost Ratio	Present Value Benefit ($000)	Present Value Utility Costs ($000)	Present Value Member Costs ($000)	Annual MWh Savings	Lifetime MWh Savings	Winter kW Savings	Summer kW Savings	Number of Members Served
Residential Programs									
ENERGY STAR Homes	7.0	$ 1,616.0	$ 161.7	$ 70.1	40.2	796.6	11.4	9.9	43
Home Performance w/Energy Star	2.5	$ 879.2	$ 224.6	$ 132.3	44.9	470.1	16.4	1.5	88
ENERGY STAR Lighting [*1]	1.3	$ 266.3	$ 125.8	$ 85.2	473.0	3,699.1	185.3	49.2	28,405
ENERGY STAR Appliances	2.4	$ 1,691.3	$ 278.5	$ 437.9	501.8	4,926.7	52.4	61.9	2,181
Home Energy Assistance	1.3	$ 376.5	$ 286.2	$ -	88.6	956.0	9.1	10.1	57
High Efficiency Heat Pump	3.7	$ 801.7	$ 107.8	$ 106.7	488.3	12,207.5	132.8	2.6	14
Subtotal Residential	**2.8**	**$ 5,631.0**	**$ 1,184.6**	**$ 832.2**	**1,636.7**	**23,055.9**	**407.4**	**135.2**	**30,788**
Commercial/Industrial Programs									
New Construction / Major Renovation	0.0								-
Large C&I Retrofit	2.3	$ 699.1	$ 155.9	$ 154.2	730.0	9,489.9	132.8	75.2	11
Small C&I Retrofit	2.3	$ 1,520.1	$ 421.0	$ 253.4	1,236.1	17,090.9	152.7	257.5	79
Other (Education)	0.0	$ -	$ 34.3	$ -	-	-	-	-	-
Smart Start	0.0	$ -	$ 12.5	$ -	-	-	-	-	-
Subtotal C&I	**2.2**	**2,219.2**	**623.6**	**407.6**	**1,966.1**	**26,580.8**	**285.6**	**332.8**	**90**
Total		**$ 7,850.2**	**$ 1,808.2**	**$ 1,239.8**	**3,602.8**	**49,636.7**	**692.9**	**468.0**	**30,878**

Note 1: Plan included 7,101 members purchasing a total of 28,405 lighting products (4 per member)

Present Value Benefits - 2013 PLAN

	Total Benefits ($000)	CAPACITY				ENERGY				Non Electric Resource
		Summer Generation	Winter Generation	Transmission	Distribution	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak	
Residential Programs										
ENERGY STAR Homes	$1,616,019	$16,855	$0	$3,223	$10,298	$14,976	$19,166	$7,862	$9,578	$1,534,059
Home Performance w/Energy Star	$879,181	$127	$0	$52	$165	$8,860	$17,642	$421	$511	$851,404
ENERGY STAR Lighting [*1]	$266,325	$20,438	$0	$6,066	$19,382	$64,053	$82,789	$33,082	$40,513	$0
ENERGY STAR Appliances	$1,691,258	$28,322	$0	$9,723	$31,066	$83,051	$106,595	$47,157	$55,195	$1,330,149
Home Energy Assistance	$376,539	$5,244	$0	$1,728	$5,521	$16,408	$21,459	$8,596	$10,437	$307,145
High Efficiency Heat Pump	$801,709	$5,137	$0	$935	$2,988	$261,813	$517,626	$6,554	$6,656	$0
Subtotal Residential	**$5,631,031**	**$76,124**	**$0**	**$21,728**	**$69,420**	**$449,161**	**$765,277**	**$103,673**	**$122,891**	**$4,022,758**
Commercial/Industrial Programs										
New Construction / Major Renovation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Large C&I Retrofit	$699,097	$56,547	$0	$15,282	$48,825	$198,401	$273,174	$61,051	$45,818	$0
Small C&I Retrofit	$1,520,056	$216,772	$0	$55,357	$176,866	$384,409	$297,772	$227,201	$161,679	$0
Other (Education)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Smart Start	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal C&I	**$2,219,153**	**$273,319**	**$0**	**$70,638**	**$225,691**	**$582,810**	**$570,946**	**$288,252**	**$207,497**	**$0**
Total	**$7,850,184**	**$349,443**	**$0**	**$92,366**	**$295,111**	**$1,031,971**	**$1,336,223**	**$391,925**	**$330,388**	**$4,022,758**

Shareholder Incentive Calculation
2013

	Planned	Actual
Commercial/Industrial Incentive		
1. Benefit/Cost Ratio	**2.05**	**0.00**
2. Threshold Benefit / Cost Ratio [1]	1.00	
3. Lifetime kWh Savings	**26,580,844**	**0**
4. Threshold Lifetime kWh Savings (65%) [2]	17,277,548	
5. Budget	$623,632	$0
6. Benefit / Cost Percentage of Budget	4.00%	
7. Lifetime kWh Percentage of Budget	4.00%	
8. C/I Member Incentive	$49,891	
9. Cap (12%)	$74,836	
Residential Incentive		
10. Benefit / Cost Ratio	**2.43**	**0.00**
11. Threshold Benefit / Cost Ratio [1]	1.00	
12. Lifetime kWh Savings	**23,055,887**	**0**
13. Threshhold Lifetime kWh Savings (65%) [2]	14,986,327	
14. Budget	$1,184,556	
15. Benefit / Cost Percentage of Budget	4.00%	
16. Lifetime kWh Percentage of Budget	4.00%	
17. Residential Incentive	$94,765	
18. Cap (12%)	$142,147	
19. TOTAL INCENTIVE EARNED	**$144,655**	

Notes

1. Actual Benefit / Cost Ratio for each sector must be greater than or equal to 1.0.
2. Actual Lifetime kWh Savings for each sector must be greater than or equal to 65% of projected savings.
3. HPwES Fuel Neutral portion of the actual expenses will be reduced on final year-end incentive calculation per NHPUC Order Nos. 24,974 and 25,402.

Planned Versus Actual Benefit / Cost Ratio by Sector
2013

		Planned		Actual
Commercial & Industrial:				
1.	Benefits (Value) From Eligible Programs	$ 2,219,153	$	-
2.	Implementation Expenses	$ 623,632	$	-
3.	Customer Contribution	$ 457,476	$	-
4.	Estimated Member Incentive	$ 49,891		
5.	Total Costs Including Member Incentive	$ 1,081,108	$	-
5.	Benefit/Cost Ratio - C&I Sector	**2.05**		**0.00**
Residential:				
6.	Benefits (Value) From Eligible Programs	$ 5,631,031	$	-
7.	Implementation Expenses	$ 1,184,556	$	-
8.	Customer Contribution	$ 926,986	$	-
4.	Estimated Member Incentive	$ 94,765		
5.	Total Costs Including Member Incentive	$ 2,111,543	$	-
10.	Benefit/Cost Ratio - Residential Sector	**2.67**		**0.00**

Actual Lifetime Energy Savings by Sector and Program
2013

	Lifetime kWh Savings	
	Planned	Actual
Commercial & Industrial:		
New Equipment & Construction	0	0
Large C&I Retrofit	9,489,929	0
Small Business Energy Solutions	17,090,915	0
Education	0	0
Other	0	0
Total Commercial & Industrial Included for Incentive Calculation	**26,580,844**	**0**
Residential:		
Home Energy Assistance Program	956,047	0
Home Energy Solutions Program	470,060	0
ENERGY STAR Homes Program	796,573	0
ENERGY STAR Appliance Program	4,926,680	0
ENERGY STAR Lighting Program	3,699,053	0
High Efficiency Heat Pump Program	12,207,474	0
Total Residential Included for Incentive Calculation	**23,055,887**	**0**

Program Cost-Effectiveness - 2014 PLAN

	Total Resource Benefit/Cost Ratio	Present Value Benefit ($000)	Present Value Utility Costs ($000)	Present Value Member Costs ($000)	Annual MWh Savings	Lifetime MWh Savings	Winter kW Savings	Summer kW Savings	Number of Members Served
Residential Programs									
ENERGY STAR Homes	7.6	$ 1,963.3	$ 173.1	$ 84.8	48.6	963.4	13.8	12.0	52
Home Performance w/Energy Star	2.5	$ 592.5	$ 240.4	$ 143.5	48.7	510.2	17.8	1.6	173
ENERGY STAR Lighting [*1]	1.3	$ 307.6	$ 134.6	$ 93.5	518.9	4,058.0	203.3	54.0	15,581
ENERGY STAR Appliances	2.5	$ 1,897.2	$ 298.1	$ 455.8	589.4	5,786.9	63.4	71.8	4,864
Home Energy Assistance	1.4	$ 388.1	$ 287.2	$ -	88.6	956.0	9.1	10.1	23
High Efficiency Heat Pump	4.0	$ 920.1	$ 115.4	$ 116.8	534.4	13,359.1	145.3	2.8	15
Subtotal Residential	**2.8**	**$ 6,068.9**	**$ 1,248.9**	**$ 894.4**	**1,828.6**	**25,633.6**	**452.7**	**152.4**	**20,707**
Commercial/Industrial Programs									
New Construction / Major Renovation	0.0								-
Large C&I Retrofit	2.4	$ 798.7	$ 166.5	$ 167.1	791.4	10,288.1	144.0	81.5	22
Small C&I Retrofit	2.4	$ 1,727.8	$ 449.5	$ 273.2	1,332.5	18,424.3	164.6	277.6	85
Other (Education)	0.0	$ -	$ 36.6	$ -	-	-	-	-	-
Smart Start	0.0	$ -	$ 13.3	$ -	-	-	-	-	-
Subtotal C&I	**2.3**	**2,526.5**	**665.9**	**440.3**	**2,123.9**	**28,712.4**	**308.6**	**359.2**	**107**
Total		**$ 8,595.4**	**$ 1,914.8**	**$ 1,334.7**	**3,952.5**	**54,346.0**	**761.3**	**511.6**	**20,815**

Note 1: Plan included 7,101 members purchasing a total of 28,405 lighting products (4 per member)

Present Value Benefits - 2014 PLAN

	Total Benefits ($000)	CAPACITY				ENERGY				Non Electric Resource
		Summer Generation	Winter Generation	Transmission	Distribution	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak	
Residential Programs										
ENERGY STAR Homes	$1,963,305	$21,721	$0	$3,976	$12,704	$19,054	$24,319	$9,951	$12,176	$1,859,404
Home Performance w/Energy Star	$976,440	$146	$0	$57	$182	$10,162	$20,232	$481	$584	$944,596
ENERGY STAR Lighting [*1]	$307,641	$23,377	$0	$6,788	$21,688	$74,314	$96,177	$38,289	$47,007	$0
ENERGY STAR Appliances	$1,897,215	$36,756		$11,494	$36,722	$103,043	$132,654	$58,000	$68,117	$1,450,429
Home Energy Assistance	$388,064	$6,030	$0	$1,763	$5,632	$17,347	$22,679	$9,072	$11,031	$314,511
High Efficiency Heat Pump	$920,143	$5,957	$0	$1,044	$3,335	$301,171	$593,494	$7,494	$7,649	$0
Subtotal Residential	**$6,452,809**	**$93,987**	**$0**	**$25,121**	**$80,263**	**$525,090**	**$889,555**	**$123,287**	**$146,563**	**$4,568,940**
Commercial/Industrial Programs										
New Construction / Major Renovation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Large C&I Retrofit	$798,707	$68,726	$0	$16,898	$53,990	$226,254	$311,217	$69,398	$52,224	$0
Small C&I Retrofit	$1,727,842	$259,657	$0	$60,869	$194,478	$435,824	$337,160	$256,666	$183,188	$0
Other (Education)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Smart Start	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal C&I	**$2,526,550**	**$328,383**	**$0**	**$77,767**	**$248,468**	**$662,078**	**$648,377**	**$326,064**	**$235,412**	**$0**
Total	**$8,979,358**	**$422,371**	**$0**	**$102,889**	**$328,731**	**$1,187,168**	**$1,537,933**	**$449,351**	**$361,678**	**$4,568,940**

Shareholder Incentive Calculation
2014

	Planned	Actual
Commercial/Industrial Incentive		
1. Benefit/Cost Ratio	**2.18**	**0.00**
2. Threshold Benefit / Cost Ratio [1]	1.00	
3. Lifetime kWh Savings	**28,712,381**	**0**
4. Threshold Lifetime kWh Savings (65%) [2]	18,663,048	
5. Budget	$665,944	$0
6. Benefit / Cost Percentage of Budget	4.00%	
7. Lifetime kWh Percentage of Budget	4.00%	
8. C/I Member Incentive	$53,275	
9. Cap (12%)	$79,913	
Residential Incentive		
10. Benefit / Cost Ratio	**2.63**	**0.00**
11. Threshold Benefit / Cost Ratio [1]	1.00	
12. Lifetime kWh Savings	**25,633,589**	**0**
13. Threshhold Lifetime kWh Savings (65%) [2]	16,661,833	
14. Budget	$1,248,904	
15. Benefit / Cost Percentage of Budget	4.00%	
16. Lifetime kWh Percentage of Budget	4.00%	
17. Residential Incentive	$99,912	
18. Cap (12%)	$149,869	
19. TOTAL INCENTIVE EARNED	**$153,188**	

Notes

1. Actual Benefit / Cost Ratio for each sector must be greater than or equal to 1.0.
2. Actual Lifetime kWh Savings for each sector must be greater than or equal to 65% of projected savings.
3. HPwES Fuel Neutral portion of the actual expenses will be reduced on final year-end incentive calculation per NHPUC Order Nos. 24,974 and 25,402.

Planned Versus Actual Benefit / Cost Ratio by Sector
2014

	Planned	Actual
Commercial & Industrial:		
1. Benefits (Value) From Eligible Programs	$ 2,526,550	$ -
2. Implementation Expenses	$ 665,944	$ -
3. Customer Contribution	$ 493,598	$ -
4. Estimated Member Incentive	$ 53,275	
5. Total Costs Including Member Incentive	$ 1,159,542	$ -
5. Benefit/Cost Ratio - C&I Sector	**2.18**	**0.00**
Residential:		
6. Benefits (Value) From Eligible Programs	$ 6,068,852	$ -
7. Implementation Expenses	$ 1,248,904	$ -
8. Customer Contribution	$ 994,332	$ -
4. Estimated Member Incentive	$ 99,912	
5. Total Costs Including Member Incentive	$ 2,243,236	$ -
10. Benefit/Cost Ratio - Residential Sector	**2.71**	**0.00**

Actual Lifetime Energy Savings by Sector and Program

2014

	Lifetime kWh Savings	
	Planned	Actual
Commercial & Industrial:		
New Equipment & Construction	0	0
Large C&I Retrofit	10,288,116	0
Small Business Energy Solutions	18,424,265	0
Education	0	0
Other	0	0
Total Commercial & Industrial Included for Incentive Calculation	**28,712,381**	**0**
Residential:		
Home Energy Assistance Program	956,047	0
Home Energy Solutions Program	510,156	0
ENERGY STAR Homes Program	963,376	0
ENERGY STAR Appliance Program	5,786,914	0
ENERGY STAR Lighting Program	4,057,994	0
High Efficiency Heat Pump Program	13,359,103	0
Total Residential Included for Incentive Calculation	**25,633,589**	**0**

Program Cost-Effectiveness - 2013 PLAN

	Total Resource Benefit/Cost Ratio	Present Value Benefit ($000)	Utility Costs ($000)	Customer Costs ($000)	Annual MWh Savings	Lifetime MWh Savings	Winter kW Savings	Summer kW Savings	Number of Customers Served
Residential Programs									
ENERGY STAR Homes	6.59	$7,058.43	$892.28	$178.05	497.4	10,586.6	162.3	139.6	312
ENERGY STAR Lighting	1.26	$1,502.63	$882.28	$308.43	3,616.7	21,754.6	1,416.9	376.5	59,009
ENERGY STAR Appliances	2.40	$14,509.26	$1,997.73	$4,050.39	2,821.4	30,263.4	287.4	373.2	16,741
Home Performance w/ENERGY STA	2.20	$6,567.29	$1,899.50	$1,082.74	443.7	4,576.8	84.1	14.8	1,050
Home Energy Assistance	1.63	$4,500.15	$2,763.38	$0.00	619.5	9,036.0	72.3	67.1	657
EnergyStar Homes (Geothermal)	2.87	$1,942.95	$378.12	$298.34	1,173.3	29,333.6	311.8	10.3	69
Customer Engagement Program	0.70	$177.43	$252.08	$0.00	2,700.0	2,700.0	283.6	308.2	25,000
Other		$0.00	$0.00	$0.00	0.0	-	-	-	-
Subtotal Residential	**2.42**	**$36,258.14**	**$9,065.357**	**$5,917.96**	**11,872.0**	**108,251.0**	**2,618.5**	**1,289.7**	**102,838**
Commercial/Industrial Programs									
Large Business Energy Solutions	2.26	$21,208.09	$5,052.89	$4,316.13	15,447.8	205,517.8	2,047.4	2,794.7	349
Small Business Energy Solutions	1.86	$12,227.37	$3,518.50	$3,054.66	7,900.4	107,385.3	1,304.5	1,243.9	1,610
Other (Education)	0.00	$0.00	$191.63	$0.00	0.0	-	-	-	4
C&I RFP Energy Rewards Program	2.83	$2,955.59	$561.43	$482.54	2,979.2	34,723.2	405.1	611.7	12
CI Partnerships		$0.00	$32.75	$0.00	0.0	-	-	-	6
Other		$0.00	$0.00	$0.00	0.0	-	-	-	-
Subtotal C&I	**2.11**	**$36,391.05**	**$9,357.199**	**$7,853.33**	**26,327.3**	**347,626.3**	**3,757.1**	**4,650.3**	**1,982**
Smart Start		$0.00	$35.00	$0.00	0.0	-	-	0	-
ISO-NE Forward Capacity Market		$0.00	$200.00	$0.00	0.0	-	-	0	-
		$0.00	**$235.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**-**
Total	**2.24**	**$72,649.19**	**$18,657.556**	**$13,771.29**	**38,199.3**	**455,877.4**	**6,375.6**	**5,940.1**	**104,820**

Note 1: Plan includes 59,009 customers purchasing a total of 236,036 lighting products.

Present Value Benefits - 2013 PLAN

		CAPACITY					ENERGY				
	Total Benefits	Summer Generation	Winter Generation	Transmission	Distribution	DRIPE	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak	Non Electric Resource
Residential Programs											
ENERGY STAR Homes	$7,058,433	$260,568	$0	$47,691	$153,177	$0	$203,423	$259,321	$102,141	$128,597	$5,903,515
ENERGY STAR Lighting	$1,502,629	$97,720	$0	$36,133	$116,052	$0	$363,629	$470,624	$188,852	$229,620	
ENERGY STAR Appliances	$14,509,257	$194,438	$0	$62,613	$201,101	$0	$508,578	$646,689	$305,474	$347,615	$12,242,749
Home Performance w/ENERGY STAR	$6,567,294	$4,506	$0	$1,884	$6,051	$0	$83,262	$136,215	$23,918	$29,000	$6,282,457
Home Energy Assistance	$4,500,149	$59,993	$0	$14,746	$47,363	$0	$162,357	$220,871	$77,767	$95,084	$3,821,967
EnergyStar Homes (Geothermal)	$1,942,953	$20,563	$0	$3,708	$11,910	$0	$623,220	$1,222,286	$33,109	$28,156	$0
Customer Engagement Program	$177,429	$13,706	$0	$5,129	$16,472	$0	$41,080	$53,238	$21,615	$26,190	$0
Other	$0	$0	$0	$0	$0		$0	$0	$0	$0	$0
Subtotal Residential	**$36,258,144**	**$651,493**	**$0**	**$171,904**	**$552,127**		**$1,985,549**	**$3,009,245**	**$752,877**	**$884,261**	**$28,250,688**
Commercial/Industrial Programs											
Large Business Energy Solutions	$21,208,090	$2,246,343	$0	$581,009	$1,866,098	$0	$3,052,116	$3,342,198	$3,514,421	$2,861,436	$3,744,469
Small Business Energy Solutions	$12,227,370	$1,050,381	$0	$264,943	$850,950	$0	$2,331,989	$1,985,923	$1,312,708	$1,058,623	$3,371,853
Other (Education)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
C&I RFP Energy Rewards Program	$2,955,591	$362,763	$0	$109,724	$352,414	$0	$412,245	$480,882	$685,603	$551,959	$0
CI Partnerships	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other	$0	$0	$0	$0	$0		$0	$0	$0	$0	$0
Subtotal C&I	**$36,391,051**	**$3,659,487**	**$0**	**$955,676**	**$3,069,462**		**$5,796,350**	**$5,809,003**	**$5,512,733**	**$4,472,018**	**$7,116,323**
Smart Start	$0	$0	$0	$0	$0		$0	$0	$0	$0	$0
Total	**$72,649,195**	**$4,310,979**	**$0**	**$1,127,580**	**$3,621,589**	**$0**	**$7,781,899**	**$8,818,248**	**$6,265,609**	**$5,356,279**	**$35,367,011**

Shareholder Incentive Calculation

2013

	Planned	Actual
Commercial/Industrial Incentive		
1. Benefit/Cost Ratio	**2.03**	**0.00**
2. Threshold Benefit / Cost Ratio [1]	1.00	
3. Lifetime kWh Savings	**347,626,342**	**0**
4. Threshold Lifetime kWh Savings (65%) [2]	225,957,122	
5. Budget [3]	$9,357,199	$0
6. Benefit / Cost Percentage of Budget	4.00%	
7. Lifetime kWh Percentage of Budget	4.00%	
8. C/I Shareholder Incentive	$748,576	
9. Cap (12%)	$1,122,864	
Residential Incentive		
10. Benefit / Cost Ratio	**2.31**	**0.00**
11. Threshold Benefit / Cost Ratio [1]	1.00	
12. Lifetime kWh Savings	**108,251,027**	**0**
13. Threshhold Lifetime kWh Savings (65%) [2]	70,363,167	
14. Budget [3]	$9,065,357	$0
15. Benefit / Cost Percentage of Budget	4.00%	
16. Lifetime kWh Percentage of Budget	4.00%	
17. Residential Incentive	$725,229	
18. Cap (12%)	$1,087,843	
19. TOTAL INCENTIVE EARNED	**$1,473,804**	

Notes

1. Actual Benefit / Cost Ratio for each sector must be greater than or equal to 1.0.
2. Actual Lifetime kWh Savings for each sector must be greater than or equal to 65% of projected savings.
3. HPwES Fuel Neutral portion of the actual expenses will be reduced on final year-end incentive calculation per NHPUC Order Nos. 24,974 and 25,402.

Planned Versus Actual Benefit / Cost Ratio by Sector

2013

	Planned	Actual
Commercial & Industrial:		
1. Benefits (Value) From Eligible Programs	$ 36,391,051	$ -
2. Implementation Expenses	$ 9,357,199	$ -
3. Customer Contribution	$ 7,853,327	$ -
4. Estimated Shareholder Incentive	$ 748,576	$ -
5. Total Costs (including shareholder incentive)	$ 17,959,102	$ -
6. Benefit/Cost Ratio - C&I Sector	**2.03**	**0.00**
Residential:		
7. Benefits (Value) From Eligible Programs	$ 36,258,144	$ -
8. Implementation Expenses	$ 9,065,357	$ -
9. Customer Contribution	$ 5,917,961	$ -
10. Estimated Shareholder Incentive	$ 725,229	
11. Total Costs (including shareholder incentive)	$ 15,708,546	$ -
12. Benefit/Cost Ratio - Residential Sector	**2.31**	**0.00**

Actual Lifetime Energy Savings by Sector and Program
2013

	Lifetime kWh Savings	
	Planned	Actual
Commercial & Industrial:		
Large Business Energy Solutions	205,517,772	0
Small Business Energy Solutions	107,385,321	0
Other (Education)	0	0
C&I RFP Energy Rewards Program	34,723,249	0
CI Partnerships	0	0
Other	0	0
Total Commercial & Industrial Included for Incentive Calculation	**347,626,342**	**0**
Residential:		
ENERGY STAR Homes	10,586,608	0
ENERGY STAR Lighting	21,754,639	0
ENERGY STAR Appliances	30,263,409	0
Home Performance w/ENERGY STAR	4,576,774	0
Home Energy Assistance	9,036,019	0
EnergyStar Homes (Geothermal)	29,333,578	0
Customer Engagement Program	2,700,000	0
Other	0	0
Total Residential Included for Incentive Calculation	**108,251,027**	**0**

Program Cost-Effectiveness - 2014 PLAN

	Total Resource Benefit/Cost Ratio	Present Value Benefit ($000)	Present Value Utility Costs ($000)	Present Value Customer Costs ($000)	Annual MWh Savings	Lifetime MWh Savings	Winter kW Savings	Summer kW Savings	Number of Customers Served
Residential Programs									
ENERGY STAR Homes	6.67	$7,256.84	$907.80	$180.80	505.1	10,749.9	164.8	141.8	317
ENERGY STAR Lighting	1.34	$1,632.86	$897.63	$317.44	3,722.3	22,389.8	1,458.3	387.5	60,732
ENERGY STAR Appliances	2.49	$15,259.32	$2,032.48	$4,102.68	2,982.1	31,982.4	309.5	391.9	17,574
Home Performance w/ENERGY STA	2.25	$6,727.90	$1,906.26	$1,081.07	443.0	4,569.5	84.0	14.8	1,048
Home Energy Assistance	1.67	$4,721.60	$2,819.76	$0.00	631.8	9,215.7	73.8	68.4	657
EnergyStar Homes (Geothermal)	3.01	$2,067.85	$384.70	$302.76	1,190.7	29,767.7	316.4	10.4	70
Customer Engagement Program	0.97	$275.03	$282.75	$0.00	4,000.0	4,000.0	420.1	456.6	25,000
Other		$0.00	$0.00	$0.00	0.0	-	-	-	-
Subtotal Residential	**2.49**	**$37,941.40**	**$9,231.388**	**$5,984.75**	**13,474.9**	**112,674.9**	**2,826.8**	**1,471.5**	**105,398**
Commercial/Industrial Programs									
Large Business Energy Solutions	2.37	$22,750.21	$5,166.20	$4,419.66	15,830.7	210,634.6	2,098.3	2,864.1	357
Small Business Energy Solutions	1.94	$12,993.27	$3,597.40	$3,115.86	8,098.5	110,068.7	1,337.8	1,274.0	1,641
Other (Education)	0.00	$0.00	$195.93	$0.00	0.0	-	-	-	4
C&I RFP Energy Rewards Program	3.00	$3,204.08	$574.02	$493.59	3,047.4	35,518.4	414.4	625.7	13
CI Partnerships		$0.00	$33.48	$0.00	0.0	-	-	-	6
Other		$0.00	$0.00	$0.00	0.0	-	-	-	-
Subtotal C&I	**2.21**	**$38,947.56**	**$9,567.042**	**$8,029.11**	**26,976.6**	**356,221.7**	**3,850.5**	**4,763.8**	**2,020**
Smart Start		$0.00	$35.00	$0.00	0.0	-	-	0	-
ISO-NE Forward Capacity Market		$0.00	$200.00	$0.00	0.0	-	-	0	-
		$0.00	$235.00	$0.00	0.0	-	-	0	-
Total	**2.33**	**$76,888.97**	**$19,033.43**	**$14,013.85**	**40,451.5**	**468,896.6**	**6,677.3**	**6,235.3**	**107,418**

Present Value Benefits - 2014 PLAN

		CAPACITY					ENERGY				
	Total Benefits	Summer Generation	Winter Generation	Transmission	Distribution	DRIPE	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak	Non Electric Resource
Residential Programs											
ENERGY STAR Homes	$7,256,838	$280,553	$0	$49,862	$159,308	$0	$217,232	$276,120	$108,458	$137,201	$6,028,104
ENERGY STAR Lighting	$1,632,863	$102,174	$0	$38,289	$122,335	$0	$397,201	$515,830	$206,054	$250,979	$0
ENERGY STAR Appliances	$15,259,321	$231,927	$0	$67,656	$216,163	$0	$568,077	$723,214	$339,163	$387,079	$12,726,041
Home Performance w/ENERGY STAR	$6,727,903	$4,825	$0	$1,937	$6,188	$0	$87,447	$142,965	$25,147	$30,482	$6,428,912
Home Energy Assistance	$4,721,600	$67,697	$0	$15,485	$49,475	$0	$174,117	$236,491	$83,091	$101,909	$3,993,333
EnergyStar Homes (Geothermal)	$2,067,854	$22,112	$0	$3,875	$12,379	$0	$664,802	$1,299,578	$35,104	$30,003	$0
Customer Engagement Program	$275,026	$21,072	$0	$7,823	$24,994	$0	$63,991	$83,272	$33,388	$40,486	$0
Other	$0	$0	$0	$0	$0		$0	$0	$0	$0	$0
Subtotal Residential	**$37,941,404**	**$730,361**	**$0**	**$184,927**	**$590,843**		**$2,172,867**	**$3,277,471**	**$830,406**	**$978,139**	**$29,176,390**
Commercial/Industrial Programs											
Large Business Energy Solutions	$22,750,213	$2,566,076	$0	$613,131	$1,958,964	$0	$3,290,933	$3,601,076	$3,779,307	$3,086,377	$3,854,350
Small Business Energy Solutions	$12,993,265	$1,194,068	$0	$279,390	$892,657	$0	$2,514,272	$2,140,535	$1,409,487	$1,140,205	$3,422,652
Other (Education)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
C&I RFP Energy Rewards Program	$3,204,083	$422,065	$0	$115,561	$369,220	$0	$444,142	$518,227	$738,782	$596,085	$0
CI Partnerships	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other	$0	$0	$0	$0	$0		$0	$0	$0	$0	$0
Subtotal C&I	**$38,947,561**	**$4,182,208**	**$0**	**$1,008,083**	**$3,220,841**		**$6,249,347**	**$6,259,837**	**$5,927,576**	**$4,822,666**	**$7,277,002**
Smart Start	$0	$0	$0	$0	$0		$0	$0	$0	$0	$0
		$0	$200	$0	$0	$0	$0	$0	$0		
		$0	$200	$0	$0	$0	$0	$0	$0		
Total	**$76,888,965**	**$4,912,569**	**$0**	**$1,193,010**	**$3,811,684**	**$0**	**$8,422,215**	**$9,537,309**	**$6,757,982**	**$5,800,804**	**$36,453,392**

Shareholder Incentive Calculation
2014

	Planned	Actual
Commercial/Industrial Incentive		
1. Benefit/Cost Ratio	**2.12**	**0.00**
2. Threshold Benefit / Cost Ratio [1]	1.00	
3. Lifetime kWh Savings	**356,221,683**	**0**
4. Threshold Lifetime kWh Savings (65%) [2]	231,544,094	
5. Budget [3]	$9,567,042	$0
6. Benefit / Cost Percentage of Budget	4.00%	
7. Lifetime kWh Percentage of Budget	4.00%	
8. C/I Shareholder Incentive	$765,363	
9. Cap (12%)	$1,148,045	
Residential Incentive		
10. Benefit / Cost Ratio	**2.43**	**0.00**
11. Threshold Benefit / Cost Ratio [1]	1.00	
12. Lifetime kWh Savings	**112,674,940**	**0**
13. Threshhold Lifetime kWh Savings (65%) [2]	73,238,711	
14. Budget [3]	$9,231,388	$0
15. Benefit / Cost Percentage of Budget	4.00%	
16. Lifetime kWh Percentage of Budget	4.00%	
17. Residential Incentive	$738,511	
18. Cap (12%)	$1,107,767	
19. TOTAL INCENTIVE EARNED	**$1,503,874**	

Notes

1. Actual Benefit / Cost Ratio for each sector must be greater than or equal to 1.0.
2. Actual Lifetime kWh Savings for each sector must be greater than or equal to 65% of projected savings.
3. HPwES Fuel Neutral portion of the actual expenses will be reduced on final year-end incentive calculation per NHPUC Order Nos. 24,974 and 25,402.

Planned Versus Actual Benefit / Cost Ratio by Sector

2014

	Planned	Actual
Commercial & Industrial:		
1. Benefits (Value) From Eligible Programs	$ 38,947,561	$ -
2. Implementation Expenses	$ 9,567,042	$ -
3. Customer Contribution	$ 8,029,106	$ -
4. Estimated Shareholder Incentive	$ 765,363	$ -
5. Total Costs (including shareholder incentive)	$ 18,361,511	$ -
6. Benefit/Cost Ratio - C&I Sector	**2.12**	**0.00**
Residential:		
7. Benefits (Value) From Eligible Programs	$ 37,941,404	$ -
8. Implementation Expenses	$ 9,231,388	$ -
9. Customer Contribution	$ 5,984,745	$ -
10. Estimated Shareholder Incentive	$ 738,511	
11. Total Costs (including shareholder incentive)	$ 15,954,644	$ -
12. Benefit/Cost Ratio - Residential Sector	**2.38**	**0.00**

Actual Lifetime Energy Savings by Sector and Program
2014

	Lifetime kWh Savings	
	Planned	Actual
Commercial & Industrial:		
Large Business Energy Solutions	210,634,613	0
Small Business Energy Solutions	110,068,695	0
Other (Education)	0	0
C&I RFP Energy Rewards Program	35,518,375	0
CI Partnerships	0	0
Other	0	0
Total Commercial & Industrial Included for Incentive Calculation	**356,221,683**	**0**
Residential:		
ENERGY STAR Homes	10,749,877	0
ENERGY STAR Lighting	22,389,770	0
ENERGY STAR Appliances	31,982,415	0
Home Performance w/ENERGY STAR	4,569,456	0
Home Energy Assistance	9,215,691	0
EnergyStar Homes (Geothermal)	29,767,730	0
Customer Engagement Program	4,000,000	0
Other	0	0
Total Residential Included for Incentive Calculation	**112,674,940**	**0**

Program Cost-Effectiveness - 2013 PLAN

	Total Resource Benefit/Cost Ratio	Present Value Benefit ($000)	Present Value Utility Costs ($000)	Present Value Customer Costs ($000)	Annual MWh Savings	Lifetime MWh Savings	Winter kW Savings	Summer kW Savings	Number of Customers Served
Residential Programs									
ENERGY STAR Homes	9.1	$ 2,449	$ 190.0	$ 78.9	441.1	10,639.5	306.1	19.2	47
Home Performance with Energy Star	2.8	$ 834	$ 211.0	$ 90.5	25.0	480.6	7.8	0.6	47
ENERGY STAR Lighting	1.0	$ 222	$ 170.0	$ 49.8	610.1	3,375.7	239.0	63.5	29,200
ENERGY STAR Appliances	2.2	$ 1,449	$ 280.0	$ 375.8	340.1	3,704.0	47.7	47.6	2,118
Home Energy Assistance	1.6	$ 664	$ 409.3	$ -	74.3	953.3	13.0	8.2	49
Res Education and Outreach	0.0	$ -	$ 25.0	$ -	0.0	0.0	0.0	0.0	0
Res Energy Code Training	0.0	$ -	$ 3.5	$ -	0.0	0.0	0.0	0.0	0
ISO-Related Expenses Res/LI	0.0	$ -	$ 5.0	$ -	0.0	0.0	0.0	0.0	0
Subtotal Residential	**3.0**	**$ 5,617**	**$ 1,293.9**	**$ 595.0**	**1,490.4**	**19,153.0**	**613.6**	**139.1**	**31,461**
Commercial/Industrial Programs									
New Construction / Major Renovation	1.6	$ 2,004.6	$ 285.0	$ 1,006.1	815.8	12,236.9	146.7	225.6	26
Large C&I Retrofit	1.1	$ 2,309.2	$ 530.8	$ 1,504.5	1,855.7	24,124.4	331.7	453.6	20
Small New Construction/Major Renovation	2.9	$ 424.5	$ 105.0	$ 42.3	62.8	816.8	5.8	11.4	32
Small C&I Retrofit	1.9	$ 1,061.6	$ 372.3	$ 181.0	801.0	10,413.3	128.0	222.1	41
C&I Education	0.0	$ -	$ 18.6	$ -	0.0	0.0	0.0	0.0	0
ISO-Related Expenses C&I	0.0	$ -	$ 5.0	$ -	0.0	0.0	0.0	0.0	0
Subtotal C&I	**1.4**	**5,799.9**	**1,321.7**	**2,733.9**	**3,535.3**	**47,591.3**	**612.1**	**912.8**	**119**
Total	**1.9**	**$ 11,417.3**	**$ 2,615.5**	**$ 3,328.9** 0	**5,025.8**	**66,744.4**	**1,225.7**	**1,051.9**	**31,580**
On Bill Financing Residential			$ 65.0						
On Bill Financing C&I			$ 50.0						
Total			**$ 115.0**						

Present Value Benefits - 2013 PLAN

		CAPACITY				ENERGY				
	Total Benefits ($000)	Summer Generation	Winter Generation	Transmission	Distribution	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak	Non Electric Resource
Residential Programs										
ENERGY STAR Homes	$2,449,034	$36,829	$0	$7,065	$22,574	$334,133	$196,670	$153,112	$98,549	$1,600,102
Home Performance w/ Energy Star	$834,150	$162	$0	$6	$19	$14,223	$17,922	$400	$436	$800,982
ENERGY STAR Lighting	$221,786	$14,833	$0	$489	$1,564	$62,969	$73,392	$32,769	$35,770	$0
ENERGY STAR Appliances	$1,448,905	$27,184	$0	$8,045	$25,705	$104,553	$62,506	$52,587	$27,494	$1,140,830
Home Energy Assistance	$663,513	$5,233	$0	$1,594	$5,092	$25,475	$22,518	$8,865	$6,492	$588,245
Subtotal Residential	**$5,617,389**	**$84,241**	**$0**	**$17,199**	**$54,953**	**$541,353**	**$373,010**	**$247,733**	**$168,741**	**$4,130,159**
Commercial/Industrial Programs										
Large New Construction / Major Renovation	$2,004,611	$233,082	$0	$56,450	$166,232	$224,855	$196,759	$227,416	$178,540	$721,276
Large C&I Retrofit	$2,309,158	$363,411	$0	$93,027	$236,276	$598,632	$457,569	$331,785	$228,457	$0
Small C&I New Construction/Major Renovation	$424,523	$9,222	$0	$2,072	$6,619	$22,155	$13,769	$12,487	$7,063	$351,138
Small C&I Retrofit	$1,061,610	$177,946	$0	$42,059	$134,380	$283,776	$176,357	$158,073	$89,019	$0
Subtotal C&I	**$5,799,901**	**$783,661**	**$0**	**$193,608**	**$543,506**	**$1,129,418**	**$844,454**	**$729,761**	**$503,079**	**$1,072,414**
Total	**$11,417,290**	**$867,902**	**$0**	**$210,808**	**$598,459**	**$1,670,771**	**$1,217,463**	**$977,494**	**$671,820**	**$5,202,573**

Shareholder Incentive Calculation
2013

	Planned	Actual
Commercial/Industrial Incentive		
1. Benefit/Cost Ratio	**1.4**	
2. Threshold Benefit / Cost Ratio [1]	1.0	
3. Lifetime kWh Savings	**47,591,310**	
4. Threshold Lifetime kWh Savings (65%) [2]	30,934,351	
5. Budget [3]	$1,321,664	
6. Benefit / Cost Percentage of Budget	4.00%	
7. Lifetime kWh Percentage of Budget	4.00%	
8. C/I Shareholder Incentive	$119,230	
9. Cap (12%)	$158,600	
Residential Incentive		
10. Benefit / Cost Ratio	**2.8**	
11. Threshold Benefit / Cost Ratio [1]	1.0	
12. Lifetime kWh Savings	**19,153,042**	
13. Threshhold Lifetime kWh Savings (65%) [2]	12,449,477	
14. Budget [3]	$1,293,855	
15. Benefit / Cost Percentage of Budget	4.00%	
16. Lifetime kWh Percentage of Budget	4.00%	
17. Residential Incentive	$118,116	
18. Cap (12%)	$155,263	
19. TOTAL PLANNED / EARNED INCENTIVE	**$237,346**	

Notes

1. Actual Benefit / Cost Ratio for each sector must be greater than or equal to 1.0.
2. Actual Lifetime kWh Savings for each sector must be greater than or equal to 65% of projected savings.
3. HPwES fuel neutral portion of the actual expenses will be reduced on final year-end incentive calculation. per NHPUC Order Nos. 24,974 and 25,402.

Planned Versus Actual Benefit / Cost Ratio by Sector
2013

		Planned		Actual
Commercial & Industrial:				
1.	Benefits (Value) From Eligible Programs	$ 5,799,902	$	-
2.	Implementation Expenses	$ 1,321,664	$	-
3.	Customer Contribution	$ 2,733,912	$	-
4.	Shareholder Incentive	$ 119,230	$	-
5.	Total Costs	$ 4,174,806	$	-
6.	Benefit/Cost Ratio - C&I Sector	**1.4**		**0.0**
Residential:				
6.	Benefits (Value) From Eligible Programs	$ 5,617,389	$	-
7.	Implementation Expenses	$ 1,293,855	$	-
8.	Customer Contribution	$ 594,991	$	-
9.	Shareholder Incentive	$ 118,116	$	-
10.	Total Costs	$ 2,006,962	$	-
11.	Benefit/Cost Ratio - Residential Sector	**2.8**		**0.0**

Actual Lifetime Energy Savings by Sector and Program
2013

	Lifetime kWh Savings	
	Planned	Actual
Commercial & Industrial:		
Large New Construction / Major Renovation	12,236,888	0
Large C&I Retrofit	24,124,397	0
Small C&I New Construction/Major Renovation	816,763	
Small C&I Retrofit	10,413,261	0
Total Commercial & Industrial	**47,591,310**	**0**
Residential:		
ENERGY STAR Homes	10,639,499	0
Home Performance with Energy Star	480,570	0
ENERGY STAR Lighting	3,375,679	0
ENERGY STAR Appliances	3,703,976	0
Home Energy Assistance	953,318	0
Total Residential	**19,153,042**	**0**

Program Cost-Effectiveness - 2014 PLAN

	Total Resource Benefit/Cost Ratio	Present Value Benefit ($000)	Present Value Utility Costs ($000)	Present Value Customer Costs ($000)	Annual MWh Savings	Lifetime MWh Savings	Winter kW Savings	Summer kW Savings	Number of Customers Served
Residential Programs									
ENERGY STAR Homes	9.3	$ 2,497.1	$ 190.0	$ 78.9	441.1	10,639.5	306.4	19.5	47
Home Performance with Energy Star	2.9	$ 887.9	$ 216.7	$ 94.6	26.1	502.4	8.2	0.6	49
ENERGY STAR Lighting	1.2	$ 275.5	$ 176.2	$ 52.8	646.5	3,571.2	253.3	67.3	31,512
ENERGY STAR Appliances	2.3	$ 1,507.9	$ 282.5	$ 382.3	347.3	3,782.1	48.7	48.5	2,162
Home Energy Assistance	1.7	$ 754.5	$ 456.0	$ -	82.3	1,056.6	14.4	9.0	61
Res Education and Outreach	0.0	$ -	$ 25.0	$ -	0.0	0.0	0.0	0.0	0
Res Energy Code Training	0.0	$ -	$ 3.5	$ -	0.0	0.0	0.0	0.0	0
ISO-Related Expenses Res/LI	0.0	$ -	$ 6.9	$ -	0.0	0.0	0.0	0.0	0
Subtotal Residential	**3.0**	**$ 5,923.0**	**$ 1,356.8**	**$ 608.6**	**1,543.3**	**19,551.8**	**631.0**	**145.1**	**33,831**
Commercial/Industrial Programs									
New Construction / Major Renovation	1.6	$ 2,119.0	$ 285.0	$ 1,006.1	815.8	12,236.9	146.7	225.6	26
Large C&I Retrofit	1.2	$ 2,693.5	$ 570.7	$ 1,614.9	1,991.9	25,894.1	354.8	485.7	22
Small New Construction/Major Renovation	3.0	$ 462.6	$ 110.8	$ 43.2	72.7	1,091.0	181.4	12.7	32
Small C&I Retrofit	2.1	$ 1,167.5	$ 375.0	$ 182.0	805.4	10,470.5	2,751.0	223.6	42
C&I Education	0.0	$ -	$ 18.6	$ -	0.0	0.0	0.0	0.0	0
ISO-Related Expenses C&I	0.0	$ -	$ 6.9	$ -	0.0	0.0	0.0	0.0	0
Subtotal C&I	**1.5**	**$ 6,442.6**	**$ 1,371.3**	**$ 2,846.2**	**3,685.8**	**49,692.4**	**3,433.9**	**947.7**	**122**
Total	**2.0**	**$ 12,365.6**	**$ 2,728.0**	**$ 3,454.8** 0	**5,229.1**	**69,244.2**	**4,064.9**	**1,092.7**	**33,953**
On Bill Financing Residential			$ 65.0						
On Bill Financing C&I			$ 50.0						
Total			**$ 115.0**						

Present Value Benefits - 2014 PLAN

		CAPACITY				ENERGY				
	Total Benefits ($000)	Summer Generation	Winter Generation	Transmission	Distribution	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak	Non Electric Resource
Residential Programs										
ENERGY STAR Homes	$2,449,034	$36,829	$0	$7,065	$22,574	$334,133	$196,670	$153,112	$98,549	$1,600,102
Home Performance w/Energy Star	$834,150	$162	$0	$6	$19	$14,223	$17,922	$400	$436	$800,982
ENERGY STAR Lighting	$221,786	$14,833	$0	$489	$1,564	$62,969	$73,392	$32,769	$35,770	$0
ENERGY STAR Appliances	$1,507,924	$31,654	$0	$9,611	$30,706	$112,810	$67,371	$56,611	$29,651	$1,169,509
Home Energy Assistance	$754,532	$6,563	$0	$1,880	$6,007	$29,746	$26,247	$10,341	$7,594	$666,153
Subtotal Residential	**$5,767,427**	**$90,040**	**$0**	**$19,051**	**$60,869**	**$553,881**	**$381,603**	**$253,233**	**$172,001**	**$4,236,747**
Commercial/Industrial Programs										
Large New Construction / Major Renovation	$2,118,954	$256,435	$0	$60,181	$192,280	$236,417	$206,535	$238,159	$187,590	$741,357
Large C&I Retrofit	$2,693,478	$436,213	$0	$113,614	$362,998	$479,133	$595,473	$373,839	$332,208	$0
Small C&I New Construction/Major Renovation	$462,617	$14,397	$0	$3,387	$10,820	$31,641	$19,574	$17,613	$10,028	$355,158
Small C&I Retrofit	$1,167,509	$200,826	$0	$52,306	$167,119	$300,148	$186,347	$166,655	$94,108	$0
Subtotal C&I	**$6,442,558**	**$907,870**	**$0**	**$229,488**	**$733,217**	**$1,047,339**	**$1,007,929**	**$796,266**	**$623,933**	**$1,096,515**
Total	**$12,209,984**	**$997,911**	**$0**	**$248,539**	**$794,086**	**$1,601,221**	**$1,389,532**	**$1,049,500**	**$795,935**	**$5,333,261**

Shareholder Incentive Calculation
2014

	Planned	Actual
Commercial/Industrial Incentive		
1. Benefit/Cost Ratio	**1.5**	
2. Threshold Benefit / Cost Ratio [1]	1.0	
3. Lifetime kWh Savings	**49,692,403**	
4. Threshold Lifetime kWh Savings (65%) [2]	32,300,062	
5. Budget [3]	$1,371,256	
6. Benefit / Cost Percentage of Budget	4.00%	
7. Lifetime kWh Percentage of Budget	4.00%	
8. C/I Shareholder Incentive	$123,507	
9. Cap (12%)	$164,551	
Residential Incentive		
10. Benefit / Cost Ratio	**2.8**	
11. Threshold Benefit / Cost Ratio [1]	1.0	
12. Lifetime kWh Savings	**19,551,802**	
13. Threshhold Lifetime kWh Savings (65%) [2]	12,708,671	
14. Budget [3]	$1,356,790	
15. Benefit / Cost Percentage of Budget	4.00%	
16. Lifetime kWh Percentage of Budget	4.00%	
17. Residential Incentive	$123,554	
18. Cap (12%)	$162,815	
19. TOTAL PLANNED / EARNED INCENTIVE	**$247,061**	

Notes

1. Actual Benefit / Cost Ratio for each sector must be greater than or equal to 1.0.
2. Actual Lifetime kWh Savings for each sector must be greater than or equal to 65% of projected savings.
3. HPwES fuel neutral portion of actual expenses will be reduced on final year-end incentive calculation. per NHPUC Order Nos. 24,974 and 25,402.

Planned Versus Actual Benefit / Cost Ratio by Sector
2014

	Planned	Actual
Commercial & Industrial:		
1. Benefits (Value) From Eligible Programs	$ 6,442,558	$ -
2. Implementation Expenses	$ 1,371,256	$ -
3. Customer Contribution	$ 2,846,183	$ -
4. Shareholder Incentive	$ 123,507	$ -
5. Total Costs	$ 4,340,946	$ -
6. Benefit/Cost Ratio - C&I Sector	**1.5**	**0.0**
Residential:		
6. Benefits (Value) From Eligible Programs	$ 5,923,046	$ -
7. Implementation Expenses	$ 1,356,790	$ -
8. Customer Contribution	$ 608,615	$ -
9. Shareholder Incentive	$ 123,554	$ -
10. Total Costs	$ 2,088,959	$ -
11. Benefit/Cost Ratio - Residential Sector	**2.8**	**0.0**

Actual Lifetime Energy Savings by Sector and Program
2014

	Lifetime kWh Savings	
	Planned	Actual
Commercial & Industrial:		
Large New Construction / Major Renovation	12,236,915	0
Large C&I Retrofit	25,894,052	0
Small C&I New Construction/Major Renovation	1,090,955	
Small C&I Retrofit	10,470,480	0
Total Commercial & Industrial	**49,692,403**	**0**
Residential:		
ENERGY STAR Homes	10,639,513	0
Home Performance with Energy Star	502,368	0
ENERGY STAR Lighting	3,571,156	0
ENERGY STAR Appliances	3,782,143	0
Home Energy Assistance	1,056,622	0
Total Residential	**19,551,802**	**0**

Attachment GG: Total Resource Benefit Cost Analysis

January 1, 2013 - December 31, 2013 TRC BENEFIT COST TEST
Unitil Gas Energy Efficiency
New Hampshire Program Year ONE Summary of Benefit, Costs Program Year 2013 (January 1, 2013 - December 31, 2013)
Total Resource Cost Test

BCR Activity	TRC Benefit/ Cost	TRC Net Benefits	Total Benefits ($000)	Total Costs ($000)	PA Costs ($000)	Participant Costs ($000)	Annual MMBTU Savings	Lifetime MMBTU Savings	Participant
Residential									
Home Energy Assistance	1.94	$148	$306	$158	$158	$0	1,056	20,710	30
Home Performance w/Energy Star	2.20	$242	$444	$202	$147	$55	1,323	29,913	24
Energy Star Appliances	1.08	$45	$640	$595	$300	$295	2,402	46,298	288
Energy Star Homes	1.59	$89	$240	$150	$87	$63	592	14,202	16
Res Building Practices and Demo	NA	($18)	$0	$18	$18	$0	-	-	-
Res Energy Code Training & Education	NA	($7)	$0	$7	$7	$0	-	-	-
Subtotal: Residential	**1.44**	**$500**	**$1,629**	**$1,130**	**$717**	**$413**	**5,373**	**111,123**	**358**
Commercial & Industrial									
Large Business Energy Solutions	4.72	$2,326	$2,952	$626	$305	$321	12,178	231,888	58
Small Business Energy Solutions	2.06	$546	$1,062	$517	$228	$288	3,965	80,979	104
C&I Codes, Energy Audits & Education	NA	($6)	$0	$6	$6	$0	-	-	
Subtotal: Commercial & Industrial	3.50	$2,866	$4,014	$1,148	$539	$609	16,143	312,867	163
Grand Total	**2.48**	**$3,366**	**$5,644**	**$2,277**	**$1,256**	**$1,022**	**21,516**	**423,990**	**520**

January 1, 2014 - December 31, 2014 TRC BENEFIT COST TEST
Unitil Gas Energy Efficiency
New Hampshire Program Year TWO Summary of Benefit, Costs Program Year 2014 (January 1, 2014 - December 31, 2014)
Total Resource Cost Test

BCR Activity	TRC Benefit/ Cost	TRC Net Benefits	Total Benefits ($000)	Total Costs ($000)	PA Costs ($000)	Participant Costs ($000)	Annual MMBTU Savings	Lifetime MMBTU Savings	Participant
Residential									
Home Energy Assistance	1.96	$177	$362	$185	$185	$0	1,238	24,281	35
Home Performance w/Energy Star	2.34	$306	$535	$229	$163	$65	1,579	35,713	29
Energy Star Appliances	1.09	$56	$704	$648	$326	$322	2,621	50,507	314
Energy Star Homes	1.15	$28	$216	$188	$109	$79	496	12,027	20
Res Building Practices and Demo	NA	$0	$0	$0	$0	$0	-	-	-
Res Energy Code Training & Education	NA	($7)	$0	$7	$7	$0	-	-	-
Subtotal: Residential	**1.45**	**$567**	**$1,816**	**$1,256**	**$790**	**$466**	**5,935**	**122,528**	**398**
Commercial & Industrial									
Large Business Energy Solutions	4.76	$2,355	$2,980	$626	$305	$321	12,178	231,888	58
Small Business Energy Solutions	2.07	$555	$1,072	$517	$228	$288	3,960	80,913	104
C&I Codes, Energy Audits & Education	NA	($6)	$0	$6	$6	$0	-	-	-
Subtotal: Commercial & Industrial	**3.53**	**$2,904**	**$4,052**	**$1,148**	**$539**	**$609**	**16,138**	**312,801**	**163**
Grand Total	**2.44**	**$3,471**	**$5,868**	**$2,404**	**$1,329**	**$1,075**	**22,073**	**435,329**	**560**

Attachment GG: Shareholder Incentive Page 1 of 4

Unitil Gas Energy Efficiency

Target Shareholder Incentive Year ONE- January 1, 2013 - December 31, 2013

Commercial/Industrial Incentive

1. Target Benefit/Cost Ratio	3.50
2. Threshold Benefit/Cost Ratio	1.00
3. Target lifetime MMBTU	312,867
4. Threshold MMBTU	203,363
5. Budget	$538,709
6. CE Percentage	4.00%
7. Lifetime MMBTU Percentage	4.00%
8. Target C/I Incentive	**$43,071**
9. Cap	**$64,645**

Residential Incentive

10. Target Benefit/Cost Ratio	1.44
11. Threshold Benefit/Cost Ratio	1.00
12. Target lifetime MMBTU	111,123
13. Threshold MMBTU	72,230
14. Budget	$716,862
15. CE Percentage	4.00%
16. Lifetime MMBTU Percentage	4.00%
17. Target Residential Incentive	**$57,315**
18. Cap	**$86,023**
19. TOTAL TARGET INCENTIVE	**$100,386**

Line No. Notes:
1, 3, 5, 10, 12, and 14. See Exhibit B
2, 6, 7, 11, 15, and 16. Report to the New Hampshire Public Utilities Commission on Ratepayer-Funded Energy Efficiency Issues in New Hampshire, Docket No. DR 96-150, page 21.
4. 65% of line 3.
8. 8% of line 5.
9. 12% of line 5.
13. 65% of line 12.
17. 8% of line 14.
18. 12% of line 14.
19. Line 8 plus line 17.

Attachment GG: Shareholder Incentive Page 2 of 4

Unitil Gas Energy Efficiency

Target Benefit-Cost Ratio by Sector

Year ONE- January 1, 2013 - December 31, 2013

Commercial & Industrial:	**Planned**
1. Benefits (Value) From Eligible Programs	$4,014,228
2. Implementation Expenses	$495,639
3. Customer Contribution	$609,074
4. Shareholder Incentive	$43,071
5. Total Costs Including Shareholder Incentive	**$1,147,784**
6. Benefit/Cost Ratio - C&I Sector	**3.50**

Residential:	
7. Benefits (Value) From Eligible Programs	$1,629,425
8. Implementation Expenses	$659,548
9. Customer Contribution	$412,708
10. Shareholder Incentive	$57,315
11. Total Costs Including Shareholder Incentive	**$1,129,570**
12. Benefit/Cost Ratio - Residential Sector	**1.44**

Line No. Notes:

1 - 4 and 7-11. See Exhibit B.

5. Sum of lines 2-4.

6. Line 1 divided by line 5. The shareholder incentive mechanism described by the New Hampshire Energy Efficiency Working Group and approved by the Commission in Order No. 23,574 includes a circular calculation. A portion of the earned shareholder incentive is related to the benefit/cost ratio (BCR). However, the shareholder incentive is supposed to be included as an EE cost in determining the BCR. For the purpose of calculating the shareholder incentive, the Company has calculated the planned BCR including the shareholder incentive for one iteration and will compare the actual BCR including the shareholder incentive to the planned BCR including shareholder incentives when determining the earned incentive.

11. Sum of lines 7 - 10.

12. Line 7 divided by line 11. The shareholder incentive mechanism described by the New Hampshire Energy Efficiency Working Group and approved by the Commission in Order No. 23,574 includes a circular calculation. A portion of the earned shareholder incentive is related to the benefit/cost ratio. However, the shareholder incentive is supposed to be included as an EE cost in determining the benefit/cost ratio. For the purpose of calculating the shareholder incentive, the Company has calculated the planned benefit/cost ratio including the shareholder incentive for one iteration and will compare the actual benefit/cost ratio including the shareholder incentive to the planned benefit/cost ratio including shareholder incentives when determining the earned shareholder incentive.

Attachment GG: Shareholder Incentive Page 3 of 4

Unitil Gas Energy Efficiency

Target Shareholder Incentive Year TWO- January 1, 2014 - December 31, 2014

Commercial/Industrial Incentive

1. Target Benefit/Cost Ratio	3.53
2. Threshold Benefit/Cost Ratio	1.00
3. Target lifetime MMBTU	312,801
4. Threshold MMBTU	203,321
5. Budget	$538,709
6. CE Percentage	4.00%
7. Lifetime MMBTU Percentage	4.00%
8. Target C/I Incentive	**$43,071**
9. Cap	**$64,645**

Residential Incentive

10. Target Benefit/Cost Ratio	1.45
11. Threshold Benefit/Cost Ratio	1.00
12. Target lifetime MMBTU	122,528
13. Threshold MMBTU	79,643
$5.49/therm based on 50% of project cost	$790,228
$3.08/therm based on 50% of project cost.	4.00%
16. Lifetime MMBTU Percentage	4.00%
17. Target Residential Incentive	**$63,180**
18. Cap	**$94,827**
19. TOTAL TARGET INCENTIVE	**$106,251**

Line No. Notes:
1, 3, 5, 10, 12, and 14. See Exhibit B
2, 6, 7, 11, 15, and 16. Report to the New Hampshire Public Utilities Commission on Ratepayer-Funded Energy Efficiency Issues in New Hampshire, Docket No. DR 96-150, page 21.
4. 65% of line 3.
8. 8% of line 5.
9. 12% of line 5.
13. 65% of line 12.
17. 8% of line 14.
18. 12% of line 14.
19. Line 8 plus line 17.

Attachment GG: Shareholder Incentive Page 4 of 4

Unitil Gas Energy Efficiency

Target Benefit-Cost Ratio by Sector

Year TWO- January 1, 2014 - December 31, 2014

Commercial & Industrial:	**Planned**
1. Benefits (Value) From Eligible Programs	$4,051,800
2. Implementation Expenses	$495,639
3. Customer Contribution	$609,057
4. Shareholder Incentive	$43,071
5. Total Costs Including Shareholder Incentive	**$1,147,767**
6. Benefit/Cost Ratio - C&I Sector	**3.53**

Residential:	
7. Benefits (Value) From Eligible Programs	$1,816,198
8. Implementation Expenses	$727,048
9. Customer Contribution	$465,900
10. Shareholder Incentive	$63,180
11. Total Costs Including Shareholder Incentive	**$1,256,127**
12. Benefit/Cost Ratio - Residential Sector	**1.45**

Line No. Notes:

1 - 4 and 7-11. See Exhibit B.

5. Sum of lines 2-4.

6. Line 1 divided by line 5. The shareholder incentive mechanism described by the New Hampshire Energy Efficiency Working Group and approved by the Commission in Order No. 23,574 includes a circular calculation. A portion of the earned shareholder incentive is related to the benefit/cost ratio (BCR). However, the shareholder incentive is supposed to be included as an EE cost in determining the BCR. For the purpose of calculating the shareholder incentive, the Company has calculated the planned BCR including the shareholder incentive for one iteration and will compare the actual BCR including the shareholder incentive to the planned BCR including shareholder incentives when determining the earned incentive.

11. Sum of lines 7 - 10.

12. Line 7 divided by line 11. The shareholder incentive mechanism described by the New Hampshire Energy Efficiency Working Group and approved by the Commission in Order No. 23,574 includes a circular calculation. A portion of the earned shareholder incentive is related to the benefit/cost ratio. However, the shareholder incentive is supposed to be included as an EE cost in determining the benefit/cost ratio. For the purpose of calculating the shareholder incentive, the Company has calculated the planned benefit/cost ratio including the shareholder incentive for one iteration and will compare the actual benefit/cost ratio including the shareholder incentive to the planned benefit/cost ratio including shareholder incentives when determining the earned shareholder incentive.

NH CORE Energy Efficiency Program - 2013 Budget Details

RESIDENTIAL PROGRAMS	Internal Adm	External Adm	Cust Rebts/Services	Internal Impl.	Marketing	Evaluation (see Note 1)	Total
LU-Electric	$5,487	$6,859	$44,584	$6,173	$2,058	$3,430	$68,591
NHEC	$14,858	$5,366	$88,272	$43,968	$1,150	$8,085	$161,699
PSNH	$19,373	$0	$734,006	$80,000	$14,284	$44,614	$892,277
Unitil	$14,926	$285	$116,940	$41,599	$2,000	$14,250	$190,000
ENERGY STAR Homes	$54,645	$12,510	$983,802	$171,740	$19,492	$70,379	$1,312,567
LU-Electric	$8,163	$10,204	$66,326	$9,184	$3,061	$5,102	$102,039
NHEC	$11,557	$4,173	$68,732	$25,016	$10,000	$6,288	$125,766
PSNH	$19,156	$0	$540,506	$95,000	$183,500	$44,114	$882,276
Unitil	$10,880	$1,700	$73,760	$45,390	$24,500	$13,770	$170,000
ENERGY STAR Lighting	$49,756	$16,077	$749,324	$174,590	$221,061	$69,274	$1,280,081
LU-Electric	$18,743	$23,429	$152,290	$21,086	$7,029	$11,715	$234,292
NHEC	$11,557	$4,173	$221,448	$25,016	$10,000	$6,288	$278,482
PSNH	$43,376	$0	$1,743,464	$55,000	$56,000	$99,886	$1,997,726
Unitil	$17,235	$4,840	$135,520	$93,035	$13,500	$15,870	$280,000
ENERGY STAR Appliances	$90,912	$32,442	$2,252,722	$194,137	$86,529	$133,759	$2,790,500
LU-Electric	$13,257	$16,572	$107,717	$14,915	$4,972	$8,286	$165,718
NHEC	$20,637	$7,452	$139,873	$44,242	$1,150	$11,229	$224,583
PSNH	$41,243	$0	$1,508,279	$240,000	$15,000	$94,975	$1,899,497
Unitil	$16,172	$2,513	$100,518	$65,107	$9,608	$17,092	$211,011
NH Home Performance w/ENERGY St	$91,309	$26,537	$1,856,387	$364,264	$30,730	$131,582	$2,500,808
LU-Electric	$24,876	$31,095	$202,117	$27,985	$9,328	$15,547	$310,949
NHEC	$26,301	$9,498	$205,623	$29,494	$1,000	$14,311	$286,227
PSNH	$60,000	$0	$2,425,214	$135,000	$5,000	$138,169	$2,763,383
Unitil	$28,204	$5,460	$205,794	$129,219	$3,250	$37,417	$409,344
Home Energy Assistance	$139,381	$46,053	$3,038,748	$321,699	$18,578	$205,444	$3,769,904
LU-Electric	$0	$0	$0	$0	$0	$0	$0
NHEC	$9,906	$3,577	$153,959	$33,968	$1,000	$5,390	$207,800
PSNH	$13,683	$0	$487,505	$95,000	$2,500	$31,510	$630,198
Unitil (Res. Website, ISO Expenses)	$520	$10,900	$65,000	$22,080	$0	$0	$98,500
Other Residential Programs	$24,109	$14,477	$706,464	$151,048	$3,500	$36,900	$936,498
Total Residential Programs	**$450,111**	**$148,096**	**$9,587,447**	**$1,377,477**	**$379,890**	**$647,337**	**$12,590,358**

COMMERCIAL, INDUSTRIAL AND MUNICIPAL PROGRAMS							
LU-Electric	$53,217	$66,521	$432,387	$59,869	$19,956	$33,261	$665,211
NHEC	$14,326	$5,173	$89,334	$37,778	$1,500	$7,795	$155,906
PSNH	$109,711	$0	$3,850,531	$815,000	$25,000	$252,645	$5,052,887
Unitil	$58,639	$1,810	$514,164	$177,761	$5,000	$58,400	$815,774
Large Business Energy Solutions	$235,893	$73,504	$4,886,417	$1,090,408	$51,456	$352,101	$6,689,778
LU-Electric	$40,630	$50,787	$330,118	$45,709	$15,236	$25,394	$507,874
NHEC	$38,681	$13,968	$289,087	$56,668	$1,500	$21,048	$420,952
PSNH	$76,395	$0	$2,846,175	$400,000	$20,000	$175,925	$3,518,495
Unitil	$36,230	$5,521	$237,299	$145,666	$8,876	$43,732	$477,323
Small Business Energy Solutions	$191,936	$70,276	$3,702,679	$648,042	$45,612	$266,099	$4,924,644
LU-Electric	$1,466	$1,832	$11,909	$1,649	$550	$916	$18,322
NHEC	$4,298	$1,552	$24,162	$12,422	$2,000	$2,339	$46,773
PSNH (Education, RFP, Smart Start)	$17,062	$0	$681,463	$73,250	$8,000	$41,042	$820,817
til (Education, C&I Web, ISO Expenses)	$1,646	$1,828	$50,000	$25,092	$0	$0	$78,566
Other C&I Programs	$24,471	$5,212	$767,534	$112,413	$10,550	$44,297	$964,478
Total Non-Residential Programs	**$452,300**	**$148,992**	**$9,356,630**	**$1,850,863**	**$107,618**	**$662,497**	**$12,578,900**
TOTAL (Both Sectors)	**$902,411**	**$297,089**	**$18,944,077**	**$3,228,340**	**$487,508**	**$1,309,834**	**$25,169,259**

Note 1: Evaluation amounts are based on 5% of total budgets. Actual program expenses will vary from numbers shown.

New Hampshire CORE Energy Efficiency Goals - 2013

	LU Electric		NHEC		PSNH		UNITIL		TOTALS	
PROGRAMS										
ENERGY STAR Homes										
Number of Homes / Lifetime kWh Savings	41	510,094	43	796,573	312	10,586,608	47	10,639,499	443	22,532,774
B/C Ratio / Planned Budget	4.88	$68,591	6.97	$161,699	6.59	$892,277	9.11	$190,000		$1,312,567
ENERGY STAR Lighting										
Number of Units / Lifetime kWh Savings	7,241	2,669,519	28,405	3,699,053	236,036	21,754,639	29,200	3,375,679	300,882	31,498,890
B/C Ratio / Planned Budget	1.32	$102,039	1.26	$125,766	1.26	$882,276	1.01	$170,000		$1,280,081
ENERGY STAR Appliances										
Number of Rebates / Lifetime kWh Savings	759	1,227,443	2,181	4,926,681	16,741	30,263,409	2,117	3,703,976	21,797	40,121,509
B/C Ratio / Planned Budget	1.66	$234,292	2.36	$278,482	2.40	$1,997,726	2.21	$280,000		$2,790,500
Home Performance w/ENERGY STAR										
Number of Rebates / Lifetime kWh Savings	108	182,554	88	470,060	1,050	4,576,774	47	480,570	1,292	5,709,958
B/C Ratio / Planned Budget	1.89	$165,718	1.07	$224,583	2.20	$1,899,497	2.77	$211,011		$2,500,808
Home Energy Assistance										
Number of Units / Lifetime kWh Savings	55	753,061	57	956,047	657	9,036,019	49	953,318	818	11,698,444
B/C Ratio / Planned Budget	1.21	$310,949	1.32	$286,227	1.63	$2,763,383	1.62	$409,344		$3,769,904
Large Business Energy Solutions										
Number of Participants / Lifetime kWh Savings	40	23,689,232	11	9,489,929	349	205,517,772	46	36,361,285	446	275,058,218
B/C Ratio / Planned Budget	1.84	$665,211	2.25	$155,906	2.26	$5,052,887	1.30	$815,774		$6,689,778
Small Business Energy Solutions										
Number of Participants / Lifetime kWh Savings	183	13,946,883	79	17,090,915	1,610	107,385,322	73	11,230,025	1,945	149,653,145
B/C Ratio / Planned Budget	1.67	$507,874	2.25	$420,952	1.86	$3,518,495	2.12	$477,323		$4,924,644
Educational Programs										
B/C Ratio / Planned Budget		$18,322		$34,300		$191,634		$23,566	0	267,822
										$0
Company Specific Programs / ISO-NE FCM Work										
Number of Participants / Lifetime kWh Savings			14	12,207,474	25,081	66,756,827			25,095	78,964,301
B/C Ratio / Planned Budget		$25,000		$107,800		$1,424,381		$38,500		$1,595,681
Smart Start (NHEC/PSNH), RGGI RLF (NHEC/UES)										
Number of Participants / Planned Budget				$112,473		$35,000		$115,000	0	$262,473
										$0
Utility Performance Incentive										
B/C Ratio / Planned Budget		$165,840		$144,655		$1,473,804		$237,346		$2,021,644
TOTAL PLANNED BUDGET		**$2,263,836**		**$2,052,843**		**$20,131,360**		**$2,967,864**		**$27,415,903**

NOTES:
Smart Start / RGGI RLF: Includes $100,000 for NHEC's residential revolving loan fund; Also includes $65,000 for Unitil's residential and $50,000 for their C&I revolving loan fund. **$327,624** **$536,272,938**

NH CORE Energy Efficiency Program - 2014 Budget Details

RESIDENTIAL PROGRAMS	Internal Adm	External Adm	Cust Rebts/Services	Internal Impl.	Marketing	Evaluation (see Note 1)	Total
LU-Electric	$5,816	$7,270	$47,253	$6,543	$2,181	$3,635	$72,698
NHEC	$15,601	$5,366	$106,757	$35,666	$1,150	$8,562	$173,102
PSNH	$19,964	$0	$745,326	$82,680	$14,443	$45,390	$907,803
Unitil	$14,926	$285	$116,940	$41,599	$2,000	$14,250	$190,000
ENERGY STAR Homes	$56,307	$12,920	$1,016,276	$166,487	$19,774	$71,837	$1,343,602
LU-Electric	$8,652	$10,815	$70,297	$9,733	$3,244	$5,407	$108,149
NHEC	$12,134	$4,173	$75,401	$26,267	$10,000	$6,659	$134,634
PSNH	$19,740	$0	$551,323	$98,183	$183,500	$44,881	$897,627
Unitil	$11,277	$1,762	$77,345	$47,046	$24,500	$14,272	$176,203
ENERGY STAR Lighting	$51,803	$16,750	$774,366	$181,229	$221,244	$71,220	$1,316,613
LU-Electric	$19,865	$24,832	$161,407	$22,349	$7,450	$12,416	$248,319
NHEC	$26,869	$9,241	$210,998	$26,267	$10,000	$14,745	$298,120
PSNH	$44,697	$0	$1,773,321	$56,843	$56,000	$101,624	$2,032,484
Unitil	$17,413	$4,885	$62,468	$127,930	$52,500	$17,305	$282,500
ENERGY STAR Appliances	$108,844	$38,958	$2,208,194	$233,388	$125,950	$146,090	$2,861,423
LU-Electric	$14,051	$17,564	$114,166	$15,808	$5,269	$8,782	$175,640
NHEC	$21,669	$7,452	$151,804	$46,454	$1,150	$11,891	$240,420
PSNH	$41,921	$0	$1,505,985	$248,040	$15,000	$95,313	$1,906,259
Unitil	$16,605	$2,581	$105,078	$66,852	$8,000	$17,550	$216,667
NH Home Performance w/ENERGY St	$94,247	$27,597	$1,877,034	$377,154	$29,419	$133,536	$2,538,986
LU-Electric	$26,359	$32,949	$214,170	$29,654	$9,885	$16,475	$329,493
NHEC	$26,616	$9,498	$205,623	$29,335	$1,000	$15,156	$287,228
PSNH	$62,010	$0	$2,472,244	$139,523	$5,000	$140,988	$2,819,765
Unitil	$31,668	$6,019	$228,095	$143,895	$2,750	$43,583	$456,011
Home Energy Assistance	$146,654	$48,466	$3,120,133	$342,407	$18,635	$216,202	$3,892,496
LU-Electric	$0	$0	$0	$0	$0	$0	$0
NHEC	$10,401	$3,577	$59,049	$35,666	$1,000	$5,708	$115,401
PSNH	$14,678	$0	$528,717	$88,183	$2,500	$33,373	$667,450
Unitil (Res. Website, ISO Expenses)	$749	$10,948	$65,000	$9,088	$14,625	$0	$100,409
Other Residential Programs	$25,828	$14,525	$652,766	$132,936	$18,125	$39,081	$883,261
Total Residential Programs	**$483,682**	**$159,215**	**$9,648,768**	**$1,433,602**	**$433,147**	**$677,966**	**$12,836,381**

COMMERCIAL, INDUSTRIAL AND MUNICIPAL PROGRAMS							
LU-Electric	$56,522	$70,653	$459,242	$63,587	$21,196	$35,326	$706,526
NHEC	$15,043	$5,173	$96,848	$39,667	$1,500	$8,255	$166,486
PSNH	$113,611	$0	$3,925,864	$843,417	$25,000	$258,310	$5,166,202
Unitil	$61,749	$1,690	$538,654	$185,036	$3,000	$65,596	$855,725
Large Business Energy Solutions	$246,925	$77,516	$5,020,608	$1,131,707	$50,696	$367,487	$6,894,939
LU-Electric	$42,998	$53,747	$349,357	$48,372	$16,124	$26,874	$537,472
NHEC	$40,615	$13,968	$311,640	$59,501	$1,500	$22,289	$449,513
PSNH	$79,111	$0	$2,905,020	$413,400	$20,000	$179,870	$3,597,401
Unitil	$36,919	$5,264	$241,111	$145,158	$6,250	$51,078	$485,780
Small Business Energy Solutions	$199,643	$72,979	$3,807,128	$666,431	$43,874	$280,111	$5,070,166
LU-Electric	$1,466	$1,832	$11,909	$1,649	$550	$916	$18,322
NHEC	$4,512	$1,552	$26,098	$13,306	$2,000	$2,476	$49,944
PSNH (Education, RFP, Smart Start)	$17,669	$0	$696,258	$74,590	$8,000	$41,922	$838,438
(Education, ISO Expenses, RGGI RLF)	$1,769	$1,870	$50,000	$26,113	$0	$0	$79,751
Other C&I Programs	$25,415	$5,254	$784,265	$115,658	$10,550	$45,314	$986,456
Total Non-Residential Programs	**$471,983**	**$155,749**	**$9,612,001**	**$1,913,796**	**$105,120**	**$692,912**	**$12,951,561**
TOTAL (Both Sectors)	**$955,665**	**$314,964**	**$19,260,769**	**$3,347,398**	**$538,267**	**$1,370,879**	**$25,787,942**

Note 1: Evaluation amounts are based on 5% of total budgets. Actual program expenses will vary from numbers shown.

New Hampshire CORE Energy Efficiency Goals - 2014

	LU Electric		NHEC		PSNH		UNITIL		TOTALS	
PROGRAMS										
ENERGY STAR Homes										
Number of Homes / Lifetime kWh Savings	43	540,635	52	963,376	317	10,749,877	47	10,639,513	459	22,893,400
B/C Ratio / Planned Budget	4.88	$72,698	7.61	$173,102	6.67	$907,803	9.29	$190,000		$1,343,602
ENERGY STAR Lighting										
Number of Units / Lifetime kWh Savings	7,675	2,829,349	31,161	4,057,994	242,927	22,389,770	31,512	3,571,156	313,275	32,848,269
B/C Ratio / Planned Budget	1.32	$108,149	1.35	$134,634	1.34	$897,627	1.20	$176,203		$1,316,613
ENERGY STAR Appliances										
Number of Rebates / Lifetime kWh Savings	841	1,397,315	2,524	5,786,914	17,574	31,982,415	2,162	3,782,143	23,101	42,948,787
B/C Ratio / Planned Budget	1.68	$248,319	2.52	$298,120	2.49	$2,032,484	2.27	$282,500		$2,861,423
Home Performance w/ENERGY STAR										
Number of Rebates / Lifetime kWh Savings	114	193,485	96	510,156	1,048	4,569,456	49	502,368	1,307	5,775,464
B/C Ratio / Planned Budget	1.89	$175,640	1.10	$240,420	2.25	$1,906,259	2.85	$216,667		$2,538,986
Home Energy Assistance										
Number of Units / Lifetime kWh Savings	58	797,969	57	956,047	657	9,215,691	61	1,056,622	833	12,026,330
B/C Ratio / Planned Budget	1.21	$329,493	1.35	$287,228	1.67	$2,819,765	1.65	$456,011		$3,892,496
Large Business Energy Solutions										
Number of Participants / Lifetime kWh Savings	42	25,254,135	11	10,288,116	357	210,634,613	48	38,130,967	458	284,307,831
B/C Ratio / Planned Budget	1.83	$706,526	2.39	$166,486	2.37	$5,166,202	1.38	$855,725		$6,894,939
Small Business Energy Solutions										
Number of Participants / Lifetime kWh Savings	192	14,841,832	85	18,424,265	1,641	110,068,696	74	11,561,436	1,991	154,896,228
B/C Ratio / Planned Budget	1.67	$537,472	2.39	$449,513	1.94	$3,597,401	2.29	$485,780		$5,070,166
Educational Programs										
B/C Ratio / Planned Budget		$18,322		$36,626		$195,931		$47,066	0	$297,945
Company Specific Programs / ISO-NE FCM Work										
Number of Participants / Lifetime kWh Savings	0	0	15	13,359,103	25,082	69,286,105			25,097	82,645,208
B/C Ratio / Planned Budget		$25,000		$115,401		$1,474,957		$18,095		$1,633,454
Smart Start (NHEC/PSNH), RGGI RLF (UES)										
Number of Participants / Planned Budget		$0		$13,318		$35,000		$115,000	0	$163,318
										$0
Utility Performance Incentive										
B/C Ratio / Planned Budget		$175,729		$153,188		$1,503,874		$247,061		$2,079,852
TOTAL PLANNED BUDGET		**$2,397,347**		**$2,068,036**		**$20,537,304**		**$3,090,107**		**$28,092,794**

NOTES:
SmartStart, RGGI Revolving Loan Funding: Unitil allocated $65,000 to their Residential and $50,000 to their C&I revolving loan fund.

NH CORE Energy Efficiency Program - 2013 Budget Details

Liberty Utilities - Gas

RESIDENTIAL	Internal Adm	External Adm	Cust Rebts/Services	Internal Impl.	Marketing	Evaluation	Total
ENERGY STAR Homes	$7,200	$9,000	$58,500	$8,100	$2,700	$4,500	$90,000
ENERGY STAR Lighting	$0	$0	$0	$0	$0	$0	$0
ENERGY STAR Appliances	$58,400	$73,000	$474,500	$65,700	$21,900	$36,500	$730,000
Home Performance w/ENERGY STAR	$58,400	$73,000	$474,500	$65,700	$21,900	$36,500	$730,000
Home Energy Assistance	$60,000	$75,000	$510,000	$67,500	$0	$37,500	$750,000
Education							
Energy Code Training							
Building Practices & Demo	$5,600	$7,000	$45,500	$6,300	$2,100	$3,500	$70,000
							$2,370,000
COMMERCIAL & INDUSTRIAL							
Large Business Energy Solutions	$96,096	$120,120	$780,780	$91,305	$36,036	$60,060	$1,184,397
Small Business: New	$88,704	$110,880	$720,720	$84,281	$33,264	$55,440	$1,093,289
Codes, Audit Training & Education	$0	$0	$0	$32,314	$0	$0	$32,314
							$2,310,000
							$4,680,000

Northern Utilities

RESIDENTIAL	Internal Adm	External Adm	Cust Rebts/Services	Internal Impl.	Marketing	Evaluation	Total
ENERGY STAR Homes	$5,901	$1,504	$36,000	$30,115	$0	$6,480	$80,000
ENERGY STAR Lighting	$0	$0	$0	$0	$0	$0	$0
ENERGY STAR Appliances	$21,692	$1,925	$156,725	$74,283	$2,500	$17,875	$275,000
Home Performance w/ENERGY STAR	$10,098	$1,261	$64,416	$39,050	$9,240	$10,935	$135,000
Home Energy Assistance	$11,264	$1,736	$74,195	$44,956	$1,250	$11,600	$145,000
Education							$0
Energy Code Training	$180	$592	$0	$6,275	$0	$0	$7,048
Building Practices & Demo	$1,120	$1,050	$0	$15,330	$0	$0	$17,500
							$659,548
COMMERCIAL & INDUSTRIAL							
Large Business Energy Solutions	$21,078	$640	$169,800	$63,082	$3,000	$22,400	$280,000
Small Business: New	$16,397	$1,270	$116,000	$54,043	$5,490	$16,800	$210,000
Codes, Audit Training & Education	$180	$451	$0	$5,007	$0	$0	$5,639
							$495,639
							$1,155,186

New Hampshire CORE Energy Efficiency Goals - 2013

	Liberty Utilities - Gas		Northern Utilities		TOTALS	
PROGRAMS						
ENERGY STAR Homes						
Number of Homes / Lifetime MMBTU Savings	37	24,863	16	14,202	53	39,065
B/C Ratio / Planned Budget	2.01	$90,000	1.59	$80,000		$170,000
ENERGY STAR Lighting						
Number of Units / Lifetime MMBTU Savings	0	0			0	0
B/C Ratio / Planned Budget	0.00	$0				$0
ENERGY STAR Appliances						
Number of Rebates / Lifetime MMBTU Savings	2,578	207,559	288	46,298	2,866	253,857
B/C Ratio / Planned Budget	1.11	$730,000	1.08	$275,000		$1,005,000
Home Performance w/ENERGY STAR						
Number of Rebates / Lifetime MMBTU Savings	569	374,164	24	29,913	593	404,077
B/C Ratio / Planned Budget	2.71	$730,000	2.20	$135,000		$865,000
Home Energy Assistance						
Number of Units / Lifetime MMBTU Savings	156	89,172	30	20,710	186	109,882
B/C Ratio / Planned Budget	1.04	$750,000	1.94	$145,000		$895,000
Large Business Energy Solutions						
Number of Participants / Lifetime MMBTU Savin	178	295,915	58	231,888	236	527,803
B/C Ratio / Planned Budget	1.36	$1,184,397	4.72	$280,000		$1,464,397
Small Business Energy Solutions						
Number of Participants / Lifetime MMBTU Savin	313	365,747	104	80,979	417	446,726
B/C Ratio / Planned Budget	1.71	$1,093,289	2.06	$210,000		$1,303,289
Educational Programs						
B/C Ratio / Planned Budget		$32,314		$12,686	0	$45,000
Company Specific Programs						
Number of Participants / Lifetime MMBTU Saving	0	0			0	0
B/C Ratio / Planned Budget		$70,000		$17,500		$87,500
Smart Start Program						
Number of Participants / Planned Budget		$0			0	$0
Utility Performance Incentive						
B/C Ratio / Planned Budget		$374,400		$100,386		$474,786
TOTAL PLANNED BUDGET		**$5,054,400**		**$1,255,572**		**$6,309,972**

NH CORE Energy Efficiency Program - 2014 Budget Details

Liberty Utilities - Gas

RESIDENTIAL	Internal Adm	External Adm	ust Rebts/Servic	Internal Impl.	Marketing	Evaluation	Total
ENERGY STAR Homes	$7,560	$9,450	$61,425	$8,505	$2,835	$4,725	$94,500
ENERGY STAR Lighting	$0	$0	$0	$0	$0	$0	$0
ENERGY STAR Appliances	$61,320	$76,650	$498,225	$68,985	$22,995	$38,325	$766,500
Home Performance w/ENERGY STAR	$61,320	$76,650	$498,225	$68,985	$22,995	$38,325	$766,500
Home Energy Assistance	$63,000	$78,750	$535,500	$70,875	$0	$39,375	$787,500
Education							
Energy Code Training							
Building Practices & Demo	$5,880	$7,350	$47,775	$6,615	$2,205	$3,675	$73,500
							$2,488,500
COMMERCIAL & INDUSTRIAL							
Large Business Energy Solutions	$100,901	$126,126	$819,819	$96,710	$37,838	$63,063	$1,244,457
Small Business: New	$93,139	$116,424	$756,756	$89,271	$34,927	$58,212	$1,148,729
Codes, Audit Training & Education	$0	$0	$0	$32,314	$0	$0	$32,314
							$2,425,500
							$4,914,000

Northern Utilities

RESIDENTIAL	Internal Adm	External Adm	ust Rebts/Servic	Internal Impl.	Marketing	Evaluation	Total
ENERGY STAR Homes	$7,376	$1,880	$45,000	$37,644	$0	$8,100	$100,000
ENERGY STAR Lighting							$0
ENERGY STAR Appliances	$23,664	$2,100	$170,973	$81,036	$2,727	$19,500	$300,000
Home Performance w/ENERGY STAR	$11,220	$1,401	$71,573	$43,389	$10,267	$12,150	$150,000
Home Energy Assistance	$13,206	$2,035	$86,987	$52,707	$1,466	$13,600	$170,000
Education							$0
Energy Code Training	$180	$591	$6,275	$0	$0	$0	$7,048
Building Practices & Demo	$0	$0	$0	$0	$0	$0	$0
							$727,048
COMMERCIAL & INDUSTRIAL							
Large Business Energy Solutions	$21,078	$640	$169,800	$63,082	$3,000	$22,400	$280,000
Small Business: New	$16,397	$1,270	$116,000	$54,043	$5,490	$16,800	$210,000
Codes, Audit Training & Education	$180	$451	$0	$5,007	$0	$0	$5,639
							$495,639
							$1,222,687

New Hampshire CORE Energy Efficiency Goals - 2014

	Liberty Utilities - Gas		Northern Utilities		TOTALS	
PROGRAMS						
ENERGY STAR Homes						
Number of Homes / Lifetime MMBTU Savings	37	24,863	20	12,027	57	36,890
B/C Ratio / Planned Budget	2.01	$94,500	1.15	$100,000		$194,500
ENERGY STAR Lighting						
Number of Units / Lifetime MMBTU Savings	0	0			0	0
B/C Ratio / Planned Budget	0.00	$0				$0
ENERGY STAR Appliances						
Number of Rebates / Lifetime MMBTU Savings	2,578	207,559	314	50,507	2,892	258,066
B/C Ratio / Planned Budget	1.11	$766,500	1.09	$300,000		$1,066,500
Home Performance w/ENERGY STAR						
Number of Rebates / Lifetime MMBTU Savings	569	374,164	29	35,713	598	409,877
B/C Ratio / Planned Budget	2.71	$766,500	2.34	$150,000		$916,500
Home Energy Assistance						
Number of Units / Lifetime MMBTU Savings	164	89,172	35	24,281	199	113,453
B/C Ratio / Planned Budget	1.04	$787,500	1.96	$170,000		$957,500
Large Business Energy Solutions						
Number of Participants / Lifetime MMBTU Savings	178	295,915	58	231,888	236	527,803
B/C Ratio / Planned Budget	1.36	$1,244,457	4.76	$280,000		$1,524,457
Small Business Energy Solutions						
Number of Participants / Lifetime MMBTU Savings	313	365,747	104	80,913	417	446,660
B/C Ratio / Planned Budget	1.71	$1,148,729	2.07	$210,000		$1,358,729
Educational Programs						
B/C Ratio / Planned Budget		$32,314		$12,687	0	$45,001
Company Specific Programs						
Number of Participants / Lifetime MMBTU Savings	0	0			0	0
B/C Ratio / Planned Budget		$73,500		$0		$73,500
Smart Start Program						
Number of Participants / Planned Budget		$0			0	$0
Utility Performance Incentive						
B/C Ratio / Planned Budget		$393,120		$106,251		$499,371
TOTAL PLANNED BUDGET		**$5,307,120**		**$1,328,938**		**$6,636,058**

Liberty Utilities Electric Home Energy Assistance Program

	Quantity				Annual Savings per Unit (kWh)				Measure Life				Installation or Realization Rate		Total Lifetime Savings (kWh)				Annual Savings per Unit (MMBTU)				Total Lifetime MMBTU Savings			
	2011	2011				2011	2013	2014		2011	2013	2014	2011	2013		2011				2011	2013	2014		2011 Actual	2013 Plan	2014 Plan
Measure	Plan	Actual	2013 Plan	2014 Plan	2011 Plan	Actual	Plan	Plan	2011 Plan	Actual	Plan	Plan	2011	2014	2011 Plan	Actual	2013 Plan	2014 Plan	2011 Plan	Actual	Plan	Plan	2011 Plan			
AMP Baseload	50.0	52.0			206.0	206.0			13.0	13.0			100%		133,900.0	139,256.0			0.0	0.0			0.0	0.0		
Electric Weatherization	2.0	1.0			541.0	595.0			20.0	20.0			100%		21,640.0	11,900.0			0.0	0.0			0.0	0.0		
CFLs	289.0	237.0			63.0	63.0			8.0	8.0			100%		145,704.0	119,448.0			0.0	0.0			0.0	0.0		
Fixtures	45.0	14.0			127.3	126.0			20.0	20.0			100%		114,540.0	35,280.0			0.0	0.0			0.0	0.0		
Replacement Refrigerator	31.0	26.0			1013.0	1016.0			19.0	19.0			100%		596,676.0	501,904.0			0.0	0.0			0.0	0.0		
DHWater Measure (elec)	23.0	23.0			414.0	419.0			15.0	15.0			100%		142,845.0	144,555.0			0.0	0.0			0.0	0.0		
DHWater Measure (OIL)	12.0	47.0			0.0	0.0			15.0	15.0			100%		0.0	0.0			6.2	0.0			1,124.3	0.0		
Tstats	7.0	14.0			299.3	288.0			10.0	10.0			100%		20950.0	40320.0			0.0	0.0			0.0	0.0		
AMP Oil Wx	25.0	47.0			145.6	143.0			15.0	20.0			100%		54600.0	134420.0			1.4	1645.0			525.0	1,546,300.0		
Refrigerator Removal	0.0	27.0			0.0	136.0			0.0	5.0			100%		0.0	18360.0			0.0	0.0			0.0	0.0		
Freezer Replacement	0.0	2.0			0.0	726.0			0.0	19.0			100%		0.0	27588.0			0.0	0.0			0.0	0.0		
Weatherization Package (Electric Heat)			1.1	1.2			2,412.6	2,412.7			19.8	19.8		86.2%			45,047.1	47,736.5			0.0	0.0		0	0	0
Weatherization Package (Kerosene Heat)			16.1	17.1			0.0	0.0			20.6	20.6		86.2%			0.0	0.0			14.7	14.7		0	4,193	4,443
Weatherization Package (Liquid Propane Heat)			4.8	5.1			0.0	0.0			21.4	21.4		86.2%			0.0	0.0			12.9	12.9		0	1,151	1,220
Weatherization Package (Natural Gas Heat)			16.6	17.6			0.0	0.0			19.4	19.4		86.2%			0.0	0.0			6.9	6.9		0	1,921	2,036
Weatherization Package (Wood Heat)			2.7	2.8			0.0	0.0			21.0	21.0		86.2%			0.0	0.0			21.5	21.6		0	1,044	1,106
Weatherization Package (Oil Heat)			13.4	14.2			0.0	0.0			20.0	20.0		86.2%			0.0	0.0			19.8	19.8		0	4,583	4,856
Weatherization Package (Other)			0.0	0.0			0.0	0.0			0.0	0.0		86.2%			0.0	0.0						0	0	0
Electric Svgs on Fossil Heated Homes			53.7	56.9			931.5	912.0			14.3	14.3		86.2%			616,563.6	640,255.4			0.0	0.0		0	0	0

Liberty Utilities Electric Home Performance with ENERGY STAR®

	Quantity				Annual Savings per Unit (kWh)				Measure Life				Installation or Realization Rate		Total Lifetime Savings (kWh)				Annual Savings per Unit (MMBTU)				Total Lifetime MMBTU Savings			
		2011				2011	2013	2014	2011	2011	2013	2014	2013		2011				2011	2011	2013	2014	2011	2011	2013	2014
Measure	2011 Plan	Actual	2013 Plan	2014 Plan	2011 Plan	Actual	Plan	Plan	Plan	Actual	Plan	Plan	2011	2014	2011 Plan	Actual	2013 Plan	2014 Plan	Plan	Actual	Plan	Plan	Plan	Actual	Plan	Plan
HES - ELECTRIC																										
EnergyWise SF Elec	10	5			915	1,398			12	9			100.00%	100.00%	109,824	62,910			0.0	0.0			0.0	0.0		
EnergyWise SF Non Elec	51	69			535	615			8	8			100.00%	100.00%	218,104	339,300			0.0	0.0			0.0	0.0		
EW Multi Electric CFL	520	1,320			67	67			5	5			100.00%	100.00%	173,056	439,326.0			0.0	0.0			0.0	0.0		
EW Multi Electric DHWs	29	0			83	0			15	15			100.00%	100.00%	36,300	0.0			0.0	0.0			0.0	0.0		
EW Multi Electric Heat Fixtures	291	112			347	347			20	20			100.00%	100.00%	2,021,635	778,086.0			0.0	0.0			0.0	0.0		
EW Multi Electric Heat REFRIG	22	0			329	0			13	13			100.00%	100.00%	94,042	0.0			0.0	0.0			0.0	0.0		
Lighting only projects (6 CFLs, possble ref. voucher)			0.0	0.00			0.0	0.0			7	7		100.00%			0.0	0.0			0	0.00			0	0
Weatherization for > 30% Electric Heat (MultiFamily)			0.0	0.0			0.0	0.0			14	14		100.00%			0.0	0.0			0	0.00			0	0
Baseload SF			4.6	4.9			138.0	138.0			5	5		100.00%			3,173.0	3362.9			0	0.00			0	0
Baseload MF			36.1	38.3			138.0	138.0			5	5		100.00%			24,906.3	26397.6			0	0.00			0	0
Other			0.0	0.0			0.0	0.0			8	8		100.00%			0.0	0.0			0	0.00			0	0
Other			0.0	0.0			0.0	0.0			0	0		100.00%			0.0	0.0			0	0.00			0	0
Other			0.0	0.0			0.0	0.0			14	14		100.00%			0.0	0.0			0	0.00			0	0
Fuel Neutral, SF, Electric, CFLs			32.8	34.8			138.0	138.0			5	5		100.00%			22,647.0	24003.0			0	0.00			0	0
Fuel Neutral Pilot (Oil)-SF- 52%			26.4	28.0			0.0	0.0			21	21		100.00%			0.0	0.0			28.6	28.6			15,815	16,763
Fuel Neutral Pilot (LP) - SF - 20%			3.1	3.3			0.0	0.0			21	21		100.00%			0.0	0.0			22.5	22.6			1,451	1,546
Fuel Neutral Pilot (Gas) - SF - 3%			0.1	0.1			0.0	0.0			19	19		100.00%			0.0	0.0			15.5	14.4			38	37
Fuel Neutral Pilot (Wood) - SF- 18%			1.8	1.9			0.0	0.0			21	21		100.00%			0.0	0.0			19.0	18.8			724	759
Fuel Neutral Pilot (Kerosene) - SF - 2%			0.3	0.3			0.0	0.0			22	22		100.00%			0.0	0.0			32.7	31.9			214	221
Fuel Neutral Pilot (Electric) - SF - 5%			1.1	1.2			6,552.2	6,552.2			18	18		100.00%			131,827.7	139720.9			-	0.0			0	0
Heating System Replacements (Oil Boilers?)			1.4	1.5			0.0	0.0			20	20		100.00%			0.0	0.0			11.4	11.2			325	340

	Quantity				Annual Savings per Unit (kWh)				Measure Life				In-Service / Realization Rate		Total Lifetime Savings (kWh)				Annual Savings per Unit (MMBTU)				Total Lifetime MMBTU Savings			
Measure	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 2014	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan		2011 Plan	2011 Actual	2013 Plan	2014 Plan
RNC ES Homes (Heating) All Fuel Typ	50.0	13.0			286.0	2,863.0			25	25			100%		357,125.0	930,400.0			26.9	588.7			33,600.0	191,327.5		
RNC ES Homes (Cooling) All Units	50.0	13.0			20.0	-2.0			25	25			100%		25,100.0	-675.0			0.0	0.0			0.0	0.0		
RNC ES Homes (Water Heating) All F	50.0	13.0			32.0	287.0			15	15			100%		24,060.0	55,878.0			4.3	50.8			3,225.0	9,906.0		
Indoor Fixture	1,000.0	14.0			105.9	111.0			8	8			100%		847,200.0	12,383.0			0.0	0.0			0.0	0.0		
Screw In Bulb	500.0	561.0	233.5	247.4	50.6	43.0	18.5	18.5	7	7	5	5	100%	100%	177,100.0	168,861.0	21554.5	22,845.0	0.0	0.0	0.0	0.0			0.0	0.0
Interior HW Fixtures			70.0	74.2			62.3	62.3			20	20		100%			87225.2	92,447.5			0.0	0.0			0.0	0.0
Exterior Fixtures			0.0	0.0			0.0	0.0			5	5		100%			0.0	0.0			0.0	0.0			0.0	0.0
Clothes Washer	34.0	4.0	3.5	3.7	15.0	46.0	260.7	260.7	11	11	11	11	100%	100%	5,610.0	2,024.0	10041.8	10,643.0	0.6	0.7	0.7	0.8	220.0	30.8	28.4	33.0
Dishwasher	3.0	11.0	14.0	14.8	33.3	39.0	33.0	33.0	10	10	10	10	100%	100%	1,000.0	4,290.0	4622.6	4,899.3	0.0	0.5	0.4	0.4	0.0	110.0	56.0	60.0
Refrigerator	50.0	13.0	18.7	19.8	144.7	107.0	106.0	106.0	12	12	12	12	100%	100%	64,200.0	16,692.0	23757.2	25,179.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Room AC			0.0	0.0			0.0	0.0			9	9		100%			0.0	0.0			0.0	0.0			0.0	0.0
Central AC			0.0	0.0			0.0	0.0			14	14		100%			0.0	0.0			0.0	0.0			0.0	0.0
Thermostat			17.5	18.6			0.0	0.0			12	12		100%			0.0	0.0			0.0	0.0			0.0	0.0
Oil Heated Home (5%)			1.2	1.2			519.8	519.8			25	25		100%			15169.8	16,078.1			29.0	29.1			846.1	900.0
Gas Heated Home (55%)			12.8	13.6			481.5	481.5			25	25		100%			154561.4	163,815.3			23.7	23.7			7609.7	8075.0
LP Heated Home (35%)			8.2	8.7			506.0	506.0			25	25		100%			103365.9	109,554.6			40.6	40.5			8284.3	8775.0
Elec Baseboard Heated Home (5%)			1.2	1.2			3,077.0	3,077.0			25	25		100%			89795.8	95,172.1			0.0	0.0			0.0	0.0
ASHP Heated Home			0	0			0	0.00			25	25		100%			0.0	0.0			0.0	0.0			0.0	0.0

Liberty Utilities Electric ENERGY STAR® Lighting Program

	Quantity				Annual Savings per Unit (kWh)				Measure Life				In-Service & Realization Rate		Total Lifetime Savings (kWh)			
Measure	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 2014	2011 Plan	2011 Actual	2013 Plan	2014 Plan
Catalog CFLs	46	79	350.8	371.8	51.0	51.0	14.3	14.3	5	5	5	5	84.0%	62.3%	9,828.0	16,888.0	15,654.5	16,591.8
Catalog Interior Fixtures (Lamps and HW Fixture	26	16	46.2	48.9	107.0	107.0	60.0	60.0	8	8	8	8	104.0%	96.4%	23,499.0	14,312.0	21,367.9	22,647.2
Catalog Exterior Fixtures	26	0	23.1	24.5	107.0	107.0	62.3	62.3	5	5	5	5	109.0%	100.0%	15,277.0	0.0	7,185.5	7,615.7
Catalog Torchieres	13	0	13.8	14.7	120.0	120.0	64.8	64.8	8	8	8	8	108.0%	93.5%	13,641.0	0.0	6,716.3	7,118.4
Catalog LED Fixtures	0	0	4.6	4.9	0.0	0.0	26.3	26.3	20	20	20	20	95.0%	95.0%	0.0	0.0	2,305.1	2,443.1
Catalog LED Bulbs	0	0	23.1	24.5	0.0	0.0	26.3	26.3	20	20	20	20	95.0%	95.0%	0.0	0.0	11,525.4	12,215.4
Retail LED Bulbs	0	0	0.0	0.0	0.0	43.0	0.0	0.0	5	5	20	20	80.3%	50.0%	0.0	0.0	0.0	0.0
Retail CFLs	12,872	17,987	942.8	999.2	51.0	51.0	14.3	14.3	5	5	5	5	84.0%	62.3%	2,730,189.0	3,845,165.0	42,071.5	44,590.4
Retail CFL Multi-packs	0	0	26,310.0	27,885.2	0.0	111.0	14.3	14.3	8	8	8	8	96.4%	62.3%	0.0	0.0	1,878,539.5	1,991,011.8
Retail Interior Fixtures (Lamps and HW Fixtures)	67	98	263.1	278.9	106.0	106.0	60.0	60.0	5	5	5	5	104.0%	96.4%	58,973.0	86,680.0	76,123.2	80,680.8
Retail Exterior Fixtures	66	8	17.5	18.6	106.0	106.0	62.3	62.3	5	5	5	5	109.0%	100.0%	37,766.0	4,600.0	5,461.0	5,788.0
Retail Torchieres	13	0	4.4	4.6	104.0	47.0	64.8	64.8	8	8	8	20	108.0%	93.5%	11,868.0	0.0	2,126.8	5,635.4
Retail LED Fixtures	0	144	87.7	93.0	0.0	47.0	26.3	26.3	8	8	20	20	100.0%	95.0%	0.0	54,374.0	43,796.4	46,418.6
Retail LED Bulbs	13	0	877.0	929.5	47.0	0.0	26.3	26.3	8	8	20	20	100.0%	95.0%	4,960.0	0.0	437,964.5	464,186.4

	Quantity				Annual Savings per Unit (kWh)				Measure Life				In-Service / Realization Rate		Total Lifetime Savings (kWh)				Annual Savings per Unit (MMBTU)				Total Lifetime MMBTU Savings			
					2011									2013	2011				2011				2011			
Measure	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	Actual	2013 Plan	2014 Plan	2011 Plan	Actual	2013 Plan	2014 Plan	2011	2014	2011 Plan	Actual	2013 Plan	2014 Plan	2011 Plan	Actual	2013 Plan	2014 Plan	2011 Plan	Actual	2013 Plan	2014 Plan
Clothes Washer Tier 1 Electric DHW	19.0	9.0			104.0	104.0			11	11			100.0%	100.0%	21,736.0	10,296.0			0	0			0.0	0.0		
Clothes Washer Tier 1 Gas DHW	7.0	2.0			0.0	0.0			11	11			100.0%	100.0%	0.0	0.0			0.3	0.3			22.0	5.5		
Clothes Washer Tier 1 Oil DHW	24.0	18.0			0.0	0.0			11	11			100.0%	100.0%	0.0	0.0			0.0	0.2			0.0	39.6		
Clothes Washer Tier 1 Electric Dryer	49.0	25.0			57.0	57.0			11	11			100.0%	100.0%	30,723.0	15,675.0			0.0	0			0.0	0.0		
Clothes Washer Tier 1 Other Dryer	2.0	5.0			0.0	0.0			11	11			100.0%	100.0%	0.0	0.0			0.0	0.1			0.0	7.2		
Clothes Washer Tier 2 Electric DHW	12.0	21.0			137.0	137.0			11	11			100.0%	100.0%	18,084.0	31,647.0			0.0	0.0			0.0	0.0		
Clothes Washer Tier 2 Gas DHW	4.0	9.0			0.0	0.0			11	11			100.0%	100.0%	0.0	0.0			0.3	0.3			11.0	31.7		
Clothes Washer Tier 2 Oil DHW	15.0	42.0			0.0	0.0			11	11			100.0%	100.0%	0.0	0.0			0.0	0.3			0.0	129.4		
Clothes Washer Tier 2 Electric Dryer	31.0	66.0			103.0	103.0			11	11			100.0%	100.0%	35,123.0	74,778.0			0.0	0.0			0.0	0.0		
Clothes Washer Tier 2 Other Dryer	1.0	7.0			0.0	0.0			11	11			100.0%	100.0%	0.0	0.0			0.0	0.2			0.0	18.5		
Clothes Washer Tier 3 Electric DHW	84.0	74.0	323.1	365.9	172.0	172.0	260.7	260.7	11	11	11	11	100.0%	100.0%	158,928.0	140,008.0	926,431.0	1,049,246.0	0.0	0.0	0.7	1.0	0.0	0.0	2,618.0	4,169.0
Clothes Washer Tier 3 Gas DHW	30.0	37.0			0.0	0.0			11	11			100.0%	100.0%	0.0	0.0			0.4	0.4			132.0	166.9		
Clothes Washer Tier 3 Oil DHW	105.0	272.0			0.0	0.0			11	11			100.0%	100.0%	0.0	0.0			0.0	0.4			0.0	1,077.1		
Clothes Washer Tier 3 Electric Dryer	210.0	333.0			104.0	104.0			11	11			100.0%	100.0%	240,240.0	380,952.0			0.0	0.0			0.0	0.0		
Clothes Washer Tier 3 Other Dryer	7.0	54.0			0.0	0.0			11	11			100.0%	100.0%	0.0	0.0			0.3	0.2			22.0	143.0		
Energy Star Room A/C	85.0	189.0	105.6	119.6	20.0	20.0	16.2	16.2	9	9	9	9	100.0%	100.0%	15,003.0	34,020.0	15,354.0	17,397.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0
Energy Star Refrigerator	300.0	249.0	161.5	183.0	107.0	107.0	107.0	107.0	12	12	12	12	100.0%	100.0%	385,200.0	319,716.0	207,420.0	234,912.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0
Energy Star Room Air Purifiers	25.0	1.0	3.7	4.2	58.0	58.0	350.6	350.6	9	9	9	9	100.0%	100.0%	13,050.0	522.0	13,104.0	14,841.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0
Energy Star Dehumidifiers	0.0	0.0			0.0	213.0			12	12			100.0%	100.0%	0.0	0.0			0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0
Energy Star Water Coolers	0.0	0.0			0.0	361.0			10	10			100.0%	100.0%	0.0	0.0			0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0
Smartstrip Power Strip	85.0	16.0	8.1	9.1	57.0	57.0	75.0	75.0	5	5	5	5	100.0%	100.0%	24,225.0	4,560.0	3,030.0	3,420.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0
2nd Refrigerator Pickup/Turnin	80.0	56.0	12.4	14.1	413.0	413.0	835.0	834.9	8	8	8	8	100.0%	100.0%	264,320.0	185,024.0	63,008.0	94,008.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0
2nd Freezer Pickup/Turnin	0.0	0.0	6.2	7.0	0.0	0.0	234.3	662.9	8	8	8	8	100.0%	100.0%	0.0	0.0	11,648.0	37,320.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0
Room AC Pickup/Turnin	0.0	0.0	0.6	0.7	0.0	0.0	17.7	18.5	5	5	5	5	100.0%	100.0%	0.0	0.0	55.0	65.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0
Fuel Neutral Heating, Hot Water and Controls																										
Energy Star Central AC (385 Hours CN in NH)			3.3	3.3			110.2	110.2			14	14		100.0%			5,068.0	5,068.0							-	-
Energy Star Mini Split Heat Pump			5.9	5.9			122.8	122.8			12	12		100.0%			8,712.0	8,712.0							-	-
Energy Star Mini Split Heat Pump (+ Gas)											12	12		100.0%			0.0	0.0								
Energy Star Mini Split Heat Pump (+ Oil)			4.3	4.3			(2,158.1)	(2,158.1)			12	12		100.0%			-110,460.0	-110,460.0			73.0	73.0			3,736.4	3,736.4
Energy Star Mini Split Heat Pump (+ LP)			1.6	1.6			(2,158.4)	(2,158.4)			12	12		100.0%			-42,648.0	-42,648.0			25.0	25.0			494.0	494.0
ES Furnace w/ECM (LP), AFUE >=95%			7.9	7.9			168.0	168.0			18	18		100.0%			23,832.0	23,832.0			35.0	35.0			4,966.0	4,966.0
ES Furnace w/ECM (LP), AFUE >=96%			3.9	3.9			168.0	168.0			18	18		100.0%			11,916.0	11,916.0			22.0	22.0			1,560.7	1,560.7
ES Furnace w/ECM (LP), AFUE >=97%			1.3	1.3			168.2	168.2			18	18		100.0%			3,978.0	3,978.0			8.0	8.0			189.2	189.2
ES Furnace w/ECM (Oil), AFUE >=85%			3.9	3.9			168.0	168.0			18	18		100.0%			11,916.0	11,916.0			71.0	71.0			5,036.9	5,036.9
ES Furnace w/ECM (Oil), AFUE >=90%			1.3	1.3			168.8	168.2			18	18		100.0%			3,992.4	3,978.0			27.0	27.0			638.5	638.5
ES Boiler (LP), AFUE>=90%			7.9	7.9			-	-			20	20		100.0%			0.0	0.0			82.0	82.0			12,927.3	12,927.3
ES Boiler (LP), AFUE>=96%			2.6	2.6			-	-			20	20		100.0%			0.0	0.0			34.0	34.0			1,786.7	1,786.7
ES Boiler (Oil), AFUE>=85%			49.9	49.9			-	-			20	20		100.0%			0.0	0.0			268.0	268.0			267,584.7	267,584.3
ES Boiler (Oil), AFUE>=90%			6.6	6.6			-	-			20	20		100.0%			0.0	0.0			71.0	71.0			9,327.6	9,327.6
Boil: LP, Combo condensing boiler w/ On-Demand DWH 90%			0.7	0.7			-	-			20	20		100.0%			0.0	0.0			12.0	12.0			157.7	157.6
Boil: Oil, Combo condensing boiler w/ On-Demand DWH 90%			0.7	0.7			-	-			20	20		100.0%			0.0	0.0			12.0	12.0			157.7	157.6
Water Heater: LP Tankless, EF>=0.82 (1/1/09 Criteria)			15.8	15.8			-	-			20	20		100.0%			0.0	0.0			153.0	153.0			48,240.9	48,240.8
DHW: LP, Indirect Water Heater (attached to LP Energy Star FHW boiler)			0.7	0.7			-	-			20	20		100.0%			0.0	0.0			5.0	5.0			65.7	65.7
DHW: Oil, Indirect Water Heater (attached to oil Energy Star FHW boiler)			0.7	0.7			-	-			20	20		100.0%			0.0	0.0			5.0	5.0			65.7	65.7
DHW: LP, Stand Alone Storage Water Heater (EF>=0.67)			0.7	0.7			-	-			13	13		100.0%			0.0	0.0			2.0	2.0			17.1	17.1
DHW: Heat Pump Water Heater 50 Gallon Electric, EF>=2.3 (ES<EF>=2.0)			0.7	0.7			1,775.1	1,775.1			10	10		100.0%			11,660.0	11,660.0			0.0	0.0			-	-
DHW: Heat Pump Water Heater 80 Gallon Electric, EF>=2.3 (ES<EF>=2.0)			0.7	0.7			2,671.7	2,671.8			10	10		100.0%			17,550.0	17,550.0			0.0	0.0			-	-
BRC: Gas, Boiler Reset Controls			0.0	0.0			-	-			15	15		100.0%			0.0	0.0			0.0	0.0			-	-
BRC: LP, Boiler Reset Controls			5.9	5.9			-	-			15	15		100.0%			0.0	0.0			57.0	57.0			5,054.7	5,054.6
BRC: Oil, Boiler Reset Controls			7.9	7.9			-	-			15	15		100.0%			0.0	0.0			76.0	76.0			8,986.1	8,986.0
TSTAT: LP, 7-Day Programmable Thermostats			0.7	0.7			13.7	13.7			15	15		100.0%			135.0	135.0			5.0	5.0			49.3	49.3
TSTAT: Oil, 7-Day Programmable Thermostats			0.7	0.7			13.7	13.7			15	15		100.0%			135.0	135.0			5.0	5.0			49.3	49.3
TSTAT: LP, WiFi Enabled 7-Day Programmable Thermostats			0.7	0.7			13.7	13.7			15	15		100.0%			135.0	135.0			4.0	4.0			39.4	39.4
TSTAT: Oil, WiFi Enabled 7-Day Programmable Thermostats			0.7	0.7			13.7	13.7			15	15		100.0%			135.0	135.0			4.0	4.0			39.4	39.4

	Quantity				Annual Savings per Unit (kWh)				Measure Life				In-Service or		Total Lifetime Savings (kWh)					Annual Savings per Unit (MMBTU)				Total Lifetime MMBTU Savings			
Measure	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 2014	2011 Plan	2011 Actual	2013 Plan	2014 Plan		2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan
Large New Equipment and Construction 2011*																											
D2 CAIR	86,319	3				86,319			15	15			103%		1,334,000.0	180,139				0.0	0.0			0.0	0.0		
D2 Cool Choice	32,641	4				32,641			13	15			106%		0.4370	1,458,670				0.0	0.0			0.0	0.0		
D2 Custom	238,114	5				238,114			16	15			92%		4.0360	6,853,897				0.0	0.0			0.0	0.0		
D2 Lights	87,400	11				87,400			15	15			104%		1.4630	6,090,590				0.0	0.0			0.0	0.0		
D2 VSD	32,124	1				32,124			15	15			102%		0.4910	238,411				0.0	0.0			0.0	0.0		
D2 MotorUp	0	1							15	15			62%			163,017				0.0	0.0			0.0	0.0		
NEW EQUIPMENT TRACK																											
Cooling			3.4	3.6			32,180.77	32,209.72			15	15	92.5%	94.0%			1,533,671.1	1,634,965.5				0.0	0.0		0.0	0.0
Heating			0.3	0.4			49,654.55	49,908.57			15	15	92.5%	94.0%			231,042.6	246,298.9				0.0	0.0		0.0	0.0
Lighting			1.0	1.1			61,522.00	61,902.83			15	15	92.5%	94.0%			867,460.2	925,193.7				0.0	0.0		0.0	0.0
Lighting LED			0.0				0.00				15	15	92.5%	94.0%			0.0	0.0				0.0	0.0		0.0	0.0
Lighting (Occ Sensors Only)			0.3	0.3			22,762.07	22,700.00			10	10	92.5%	94.0%			62,049.4	66,147.8				0.0	0.0		0.0	0.0
Other			0.7	0.3			121,041.5	270,554.8			15	15	92.5%	94.0%			1,109,345.7	1,182,595.2				0.0	0.0		0.0	0.0
Process			2.4	2.6			50,779.5	50,606.9			15	15	92.5%	94.0%			1,747,018.2	1,862,304.4				0.0	0.0		0.0	0.0
Lighting - Parking Lot Lights			0.0	0.0			0.00	0.00									0.0	0.0				0.0	0.0		0.0	0.0
RETROFIT TRACK																											
EI HVAC	19,148.0	3.0			0.0	52,119.1			13.0	13.0			102.0%			2,032,644.0				0.0	0.0			0.0	0.0		
EI CAIR	460,771.0	6.0			0.0	49,902.6			13.0	13.0			109.2%			3,831,163.0				0.0	0.0			0.0	0.0		
EI Custom	2,249,275.0	14.0			0.0	117,446.5			13.0	13.0			111.7%			21,104,034.0				0.0	0.0			0.0	0.0		
EI Light	59,856.0	2.0			0.0	215,127.8			13.0	13.0			103.0%			5,593,322.0				0.0	0.0			0.0	0.0		
EI VSD	0.0	0.0			0.0	0.0			0.0	0.0			0.0%			0.0				0.0	0.0			0.0	0.0		
Cooling			2.6	2.7				61,197.7			12.6	12.6	94.0%	94.0%			0	1,983,343				0.0	0.0		0.0	0.0
Heating			1.3	1.4				16,326.4			20.1	20.1	94.0%	94.0%			0	426,259				0.0	0.0		0.0	0.0
Lighting			11.6	12.3				49,079.6			13.0	13.0	94.0%	94.0%			0	7,376,925				0.0	0.0		0.0	0.0
Lighting - LED			1.2	1.3				83,041.1			13.0	13.0	94.0%	94.0%			0	1,337,141				0.0	0.0		0.0	0.0
Lighting - Occ Sensors only			2.5	2.5				28,437.8			9.1	9.4	94.0%	94.0%			0	626,196				0.0	0.0		0.0	0.0
Other			0.8	0.9				26,121.0			13.0	13.6	94.0%	94.0%			0	301,266				0.0	0.0		0.0	0.0
Lighting - Parking Lot Lights			1.2	1.2				48,062.0			13.0	13.0	94.0%	94.0%			0	732,726				0.0	0.0		0.0	0.0
Process			7.0	7.5				61,457.0			11.8	11.7	94.0%	94.0%			0	5,044,159				0.0	0.0		0.0	0.0
Fuel Neutral Heating, Hot Water and Controls																											
1 Energy Star Central Air Conditioner			0.0	0.0			0.0	0.0			14.0	14.0		100%			0.0	0.0				0.00	0.00		0.0	0.0
2 Energy Star Mini Split Heat Pump			0.6	0.6			0.1	0.1			12.0	12.0		100%			0.4	0.6				0.00	0.00		0.0	0.0
3 Energy Star Mini Split Heat Pump (for homes w/Gas heat)			0.0	0.0			0.0				12.0	12.0		100%			0.0	0.0				0.00	0.00		0.0	0.0
4 Energy Star Mini Split Heat Pump (for homes w/LP heat)			0.1	0.1			0.0	0.0			12.0	12.0		100%			0.0	0.0				16.16	17.26		11	12
5 Energy Star Mini Split Heat Pump (for homes w/Oil heat)			0.2	0.2			0.0	0.0			12.0	12.0		100%			0.0	0.0				17.19	17.50		48	48
40 Boilers, LP ≥ 90% thermal efficiency (500 to 999 MBH), Condensing			0.0	0.1			0.0	0.0			25	25		100.0%			0.0	0.0				68.78	6.90		25	25
41 Boilers, Oil ≥ 85% thermal efficiency (500 to 999 MBH)			0.0	0.0			0.0	0.0			25	25		100.0%			0.0	0.0				0.00	0.00		0	0
42 Boilers, Gas ≥ 90% thermal efficiency (1000 to 1700 MBH), Condensing			0.0	0.0			0.0	0.0			25	25		100.0%			0.0	0.0				0.00	0.00		0	0
43 Boilers, LP ≥ 90% thermal efficiency (1000 to 1700 MBH), Condensing			0.9	0.9			0.0	0.0			25	25		100.0%			0.0	0.0				2.29	2.30		50	50
44 Boilers, Oil ≥ 85% thermal efficiency (1000 to 1700 MBH)			0.0	0.0			0.0	0.0			25	25		100.0%			0.0	0.0				0.00	0.00		0	0
45 Boilers, Gas ≥ 90% thermal efficiency (1701 to 2000 MBH), Condensing			0.0	0.0			0.0	0.0			25	25		100.0%			0.0	0.0				0.00	0.00		0	0
46 Boilers, LP ≥ 90% thermal efficiency (1701 to 2000 MBH), Condensing			1.4	1.4			0.0	0.0			25	25		100.0%			0.0	0.0				248.41	249.32		8,850	8,850
47 Boilers, Oil ≥ 85% thermal efficiency (1701 to 2000 MBH)			0.0	0.0			0.0	0.0			25	25		100.0%			0.0	0.0				0.00	0.00		0	0

Notes:
1. 2011 Large Business Actual Participant Data unavailable

	Measure	Quantity 2011 Plan	Quantity 2011 Actual	Quantity 2013 Plan	Quantity 2014 Plan	Annual Savings per Unit (kWh) 2011 Plan	Annual Savings per Unit (kWh) 2011 Actual	Annual Savings per Unit (kWh) 2013 Plan	Annual Savings per Unit (kWh) 2014 Plan	Measure Life 2011 Plan	Measure Life 2011 Actual	Measure Life 2013 Plan	Measure Life 2014 Plan	In-Service or Installation Rate 2011	In-Service or Installation Rate 2013	In-Service or Installation Rate 2014	Total Lifetime Savings (kWh) 2011 Plan	Total Lifetime Savings (kWh) 2011 Actual	Total Lifetime Savings (kWh) 2013 Plan	Total Lifetime Savings (kWh) 2014 Plan	Annual Savings per Unit (MMBTU) 2011 Plan	Annual Savings per Unit (MMBTU) 2011 Actual	Annual Savings per Unit (MMBTU) 2013 Plan	Annual Savings per Unit (MMBTU) 2014 Plan	Total Lifetime MMBTU Savings 2011 Plan	Total Lifetime MMBTU Savings 2011 Actual	Total Lifetime MMBTU Savings 2013 Plan	Total Lifetime MMBTU Savings 2014 Plan
	Small Business Energy Solutions (2011 NG)	536,796.0				536,796.0	0.0			11.0	0.0			0.0%			6,062,000.0	0.0			0.0	0.0			0.0	0.0		
	D2 CAIR	0.0	0.0			0.0	0.0			0.0	0.0			0.0%			0.0	0.0			0.0	0.0			0.0	0.0		
	D2 Cool Choice	0.0	4.0			0.0	46,104.4			0.0	10.7			104.0%			0.0	495,030.7			0.0	0.0			0.0	0.0		
	D2 Custom	0.0	3.0			0.0	68,792.5			0.0	18.0			105.7%			0.0	894,502.1			0.0	0.0			0.0	0.0		
	D2 Lights	0.0	84.0			0.0	602,380.6			0.0	11.1			97.5%			0.0	6,670,133.8			0.0	0.0			0.0	0.0		
	D2 VSD	0.0	0.0			0.0	0.0			0.0	0.0			0.0%			0.0	0.0			0.0	0.0			0.0	0.0		
	Vendor Miser	0.0	1.0			0.0	356.7			0.0	5.0			104.0%			0.0	1,783.6			0.0	0.0			0.0	0.0		
	NEW EQUIPMENT TRACK																											
	Cooling			1.0	1.3			38,769.7	32,167.9			15.0	15.0			92.5%			537,929.2	587,929.2	571,927.5			0.0	0.0			0.0	0.0
	Heating			0.1	0.1			49,291.1	49,285.7			15.0	15.0			92.5%			81,043.9	81,043.9	86,163.8			0.0	0.0			0.0	0.0
	Lighting			0.4	0.4			61,782.6	61,774.4			15.0	15.0			92.5%			304,403.6	304,403.6	323,643.3			0.0	0.0			0.0	0.0
	Lighting LED			0.0	0.0			0.0	0.0			15.0	15.0			92.5%			0.0	0.0	0.0			0.0	0.0			0.0	0.0
	Lighting (Occ Sensors Only)			0.1	0.1			22,778.3	22,777.8			20.0	19.0			92.5%			21,765.3	21,765.3	23,154.3			0.0	0.0			0.0	0.0
	Other			0.2	0.2			121,503.5	121,495.5			15.0	15.0			92.5%			389,096.6	389,096.6	413,663.1			0.0	0.0			0.0	0.0
	Process			0.9	0.9			50,703.8	50,700.8			15.0	15.0			92.5%			612,761.6	612,761.6	651,486.8			0.0	0.0			0.0	0.0
	RETROFIT TRACK																											
	Lighting - New Construction			15.7	16.7			13,787.6	13,787.6			15.9	15.9			100.0%			3,432,068.4	3,648,984.8				0.0	0.0			0.0	0.0
	Lighting - Retrofit			18.3	19.5			19,981.5	19,981.5			12.8	12.8			100.0%			4,692,832.2	4,989,446.0				0.0	0.0			0.0	0.0
	Lighting - Direct Install			21.0	22.3			14,488.6	14,488.5			12.9	12.9			100.0%			3,906,001.7	4,152,879.9				0.0	0.0			0.0	0.0
	Cooling			0.0	0.0			0.0				12.9	13.0			100.0%			0.0	0.0				0.0	0.0			0.0	0.0
	Lighting - Catalog Sales			72.9	77.5			46.3	46.3			6.0	6.0			100.0%			20,256.0	21,534.0				0.0	0.0			0.0	0.0
	Smart Strips			8.8	9.4			75.0	75.0			5.0	5.0			100.0%			3,305.0	3,515.0				0.0	0.0			0.0	0.0
	Fuel Neutral Heating, Hot Water and Controls																											
	Energy Star Central Air Conditioner			2.3	2.3			110.4	110.4			14.0	14.0	1.0		100.0%			3,514.0	3,514.0				0.0	0.0			0.0	0.0
	Energy Star Mini Split Heat Pump			17.7	17.7			61.4	61.4			12.0	12.0	1.0		100.0%			13,052.0	13,052.0				0.0	0.0			0.0	0.0
	Energy Star Mini Split Heat Pump (for homes w/Gas heat)			0.0	0.0			0.0				12.0	12.0	1.0		100.0%			0.0	0.0				0.0	0.0			0.0	0.0
	Energy Star Mini Split Heat Pump (for homes w/LP heat)			2.5	2.5			0.0	0.0			12.0	12.0	1.0		100.0%			0.0	0.0				15.4	15.4			460.0	460.0
	Energy Star Mini Split Heat Pump (for homes w/Oil heat)			6.3	6.3			0.0	0.0			12.0	12.0	1.0		100.0%			0.0	0.0				17.1	17.1			1,296.0	1,296.0
11	On Demand Tankless Water Heater, LP, >=.82 EF w/Electronic Ignition			2.5	2.5			0.0	0.0			20.0	20.0	1.0		100%			0.0	0.0				7.1	7.1			360.0	360.0
12	On Demand Tankless Water Heater, Oil, >=.82 EF w/Electronic Ignition			0.0	0.0			0.0	0.0			20.0	20.0	1.0		100%			0.0	0.0				0.0	0.0			0.0	0.0
13	On Demand Tankless Water Heater, Gas, >=.95 EF w/Electronic Ignition			0.0	0.0			0.0	0.0			20.0	20.0	1.0		100%			0.0	0.0				0.0	0.0			0.0	0.0
14	On Demand Tankless Water Heater, LP, >= 91 EF w/Electronic Ignition			1.5	1.5			0.0	0.0			20.0	20.0	1.0		100%			0.0	0.0				8.9	9.9			300.0	300.0
26	Boilers, LP ≥ 90% AFUE (up to 300 MBH), Condensing			1.3	1.3			0.0	0.0			25.0	25.0	1.0		100%			0.0	0.0				23.0	23.0			725.0	725.0
27	Boilers, Oil ≥ 85% AFUE (up to 300 MBH)			2.5	2.5			0.0	0.0			25.0	25.0	1.0		100%			0.0	0.0				23.0	23.0			1,450.0	1,450.0
28	Boilers, Gas ≥ 96% AFUE (up to 300 MBH), Condensing			0.0	0.0			0.0	0.0			25.0	25.0	1.0		100%			0.0	0.0				0.0	0.0			0.0	0.0
29	Boilers, LP ≥ 96% AFUE (up to 300 MBH), Condensing			0.0	0.0			0.0	0.0			25.0	25.0	1.0		100%			0.0	0.0				0.0	0.0			0.0	0.0
30	Boilers, Oil ≥ 87% AFUE (up to 300 MBH)			0.0	0.0			0.0	0.0			25.0	25.0	1.0		100%			0.0	0.0				0.0	0.0			0.0	0.0
31	Boilers, Gas >= 90% thermal efficiency (301 to 499 MBH), Condensing			0.0	0.0			0.0	0.0			25.0	25.0	1.0		100%			0.0	0.0				0.0	0.0			0.0	0.0
32	Boilers, LP >= 90% thermal efficiency (301 to 499 MBH), Condensing			1.3	1.3			0.0	0.0			25.0	25.0	1.0		100%			0.0	0.0				42.0	42.0			1,325.0	1,325.0
33	Boilers, Oil >= 85% thermal efficiency (301 to 499 MBH)			2.5	2.5			0.0	0.0			25.0	25.0	1.0		100%			0.0	0.0				42.4	42.4			2,675.0	2,675.0
48	Boiler Reset Controls, Oil, After Market, 1 shift operation			1.3	1.3			0.0	0.0			15.0	15.0	1.0		100%			0.0	0.0				19.0	19.0			360.0	360.0
49	Boiler Reset Controls, Gas, After Market, >1 shift operation			1.3	1.3			0.0	0.0			15.0	15.0	1.0		100%			0.0	0.0				19.0	19.0			360.0	360.0

Notes:

Liberty Utilities Gas Home Energy Assistance Program

	Quantity				Annual Savings per Unit (mmbtu)				Measure Life				Installation or Realization Rate			Total Lifetime Savings (mmbtu)			
Measure	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan
Low Income	260.0	271.0	156.0	164.1	31.8	11.7	17.2	28.5	20.0	20.0	20.0	20.0	1.0	1.0	1.0	165,360.0	63,648.0	89,172.0	93,540.0

Liberty Utilities Gas Home Performance with ENERGY STAR®

	Quantity				Annual Savings per Unit (mmbtu)				Measure Life				Installation or Realization Rate		Total Lifetime Savings (mmbtu)			
Measure	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013&2014	2011 Plan	2011 Actual	2013 Plan	2014 Plan
Single Family (1-4 Units)	733	203	24	27	19	19	34	37	20	20	20	20	100%	100%	280,218	77,546	16,120	20,228
Multi-Family (5+ Units)	367	545	544	568	19	19	33	33	20	20	20	20	100%	100%	140,109	208,190	358,060	373,840

Liberty Utilities Gas ENERGY STAR® Homes Program

	Quantity				Annual Savings per Unit (mmbtu)				Measure Life				In-Service / Realization Rate		Total Lifetime Savings (mmbtu)			
Measure	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 & 2014	2011 Plan	2011 Actual	2013 Plan	2014 Plan
Energy Star Homes	30	33	37	38	27	27	27	27	25	25	25	25	100%	100.00%	20,400	22,440	24,875	26,100

Liberty Utilities Gas ENERGY STAR® Appliance Program

	Quantity				Annual Savings per Unit (mmbtu)				Measure Life				In-Service / Realization Rate			Total Lifetime Savings (mmbtu)			
Measure	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan
High Efficiency Gas Steam Boiler	0.0	21.0			0.0	12.9			0.0	25.0			100%			0.0	6,772.5		
Tankless Water Heaters (EF 0.82)	232.0	2.0	90.0	94.0	8.0	1.9	8.0	9.7	20.0	13.0	20.0	20.0	100%	100%	100%	37,120.0	49.4	14,400.0	18,240.0
Indirect Water Heater (attached to gas Energy Star FHW boiler)	27.0	53.0	175.0	180.0	3.7	8.0	3.7	8.0	20.0	20.0	20.0	20.0	100%	100%	100%	2,000.0	8,480.0	12,960.0	28,800.0
Stand Alone Storage Water Heater (EF 0.67)	162.0	6.0	62.0	65.0	3.7	3.7	3.7	3.7	13.0	13.0	13.0	13.0	100%	100%	100%	7,787.0	286.0	2,982.2	3,133.0
Combo condensing boiler w/ On-Demand DWH 90%	104.0	45.0	40.0	45.0	21.1	21.1	17.8	17.8	20.0	20.0	20.0	20.0	100%	100%	100%	43,880.0	18,990.0	14,240.0	16,020.0
Furnace (forced hot air) 92% AFUE	0.0	19.0			0.0	21.1			0.0	18.0			100%			0.0	7,216.2		
Furnace (forced hot air) 92% AFUE w/ECM	0.0	23.0			0.0	11.8			0.0	18.0			100%			0.0	4,885.2		
Furnace (forced hot air) 94% AFUE w/ECM	25.0	168.0			18.0	14.2			18.0	18.0			100%			8,100.0	42,940.8		
Furnace (forced hot air) 95% AFUE w/ECM			192.0	208.0			4.5	4.5	18.0	18.0	18.0	18.0	100%	100%	100%			15,552.0	16,848.0
Furnace (forced hot air) 96% AFUE w/ECM	76.0	1.0	30.0	32.0	20.7	20.7	5.9	5.9	18.0	18.0	18.0	18.0	100%	100%	100%	28,314.0	373.1	3,186.0	3,402.0
Furnace 97+AFUE (<150) w/ECM Motor			17.0	17.0			18.5	18.5			18.0	18.0		100%	100%			5,670.0	5,670.0
Boiler (forced hot water) 85% AFUE	0.0	56.0			0.0	7.2			0.0	20.0			100%			0.0	8,064.0		
Boiler (forced hot water) 96% AFUE	200.0	0.0	12.0	12.0	21.3	0.0	13.1	13.1	20.0	20.0	20.0	20.0	100%	100%	100%	85,200.0	0.0	3,144.0	3,140.0
Boiler (forced hot water) 90% AFUE	7.0	146.0	99.0	102.0	13.7	14.2	10.4	10.4	20.0	20.0	20.0	20.0	100%	100%	100%	1,920.0	41,464.0	20,600.0	21,220.0
Early Retirement Steam Boiler (Retire)			0.0	0.0			0.0	0.0			10.0	10.0		100%	100%			0.0	0.0
Boiler Reset Controls	20.0	2.0	18.0	19.0	7.9	7.9	4.5	4.5	15.0	15.0	15.0	15.0	100%	100%	100%	2,370.0	237.0	1,215.0	1,290.0
Tankless Water Heater (EF 0.95)	15.0	93.0			10.3	7.8	0.0	0.0	20.0	20.0			100%	100%	100%	3,100.0	14,508.0		
Condensing Gas Water Heater (EF 0.94)	15.0	0.0			25.0	0.0			15.0	15.0			100%			5,625.0	10,881.0		
Tankless Water Heater (EF 0.94)			30.0	32.0			10.1	9.9			20.0	20.0		100%	100%			6,060.0	6,360.0
7-Day Programmable Thermostats	1,130.0	393.0	1,410.0	1,470.0	7.7	8.0	3.2	3.2	15.0	15.0	15.0	15.0	100%	100%	100%	130,515.0	29,475.0	67,680.0	70,560.0
WiFiThermostats (controls gas heat only)			81.0	84.0			6.6	6.6			15.0	15.0		100%	100%			8,025.0	8,310.0
WiFiThermostats (controls elec cooling & gas heat only)			322.0	337.0			6.6	6.6			15.0	15.0		100%	100%			31,875.0	33,360.0

Liberty Utilities Gas Large Business Energy Solutions Program

	Quantity				Annual Savings per Unit (mmbtu)				Measure Life				Installation or Realization Rate		Total Lifetime Savings (mmbtu)			
Measure	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 & 2014	2011 Plan	2011 Actual	2013 Plan	2014 Plan
CEEP	0.0	5.0			0.0	351.0			15.0	21.0			100%		-	36,121.0		
Large Business Retrofit	174.0	113.0	25.0	26.0	266.2	286.0	414.4	414.4	15.0	12.0	15.0	15.0	100%	100%	694,665.0	384,727.0	155,400.0	161,610.0
Large Business New Equipment	8.0	1.0	4.0	4.0	634.1	2375.2	634.3	634.3	18.0	20.0	18.0	18.0	100%	100%	91,314.0	44,469.0	45,666.0	45,666.0
Furnace (forced hot air) 92% AFUE	0.0	2.0			0.0	21.1			18.0	18.0			100%		-	759.6		
Furnace 92+ AFUE (<150) w/ECM Motor	0.0	1.0			0.0	19.6			18.0	18.0			100%	100%	-	352.8		
Furnace 94+ AFUE (<150) w/ECM Motor	0.0	2.0			0.0	23.6			18.0	18.0			100%	100%	-	849.6		
Furnace 95+ AFUE (<150) w/ECM Motor			9.0	11.0			16.1	16.1			18.0	18.0	100%	100%			2,610.0	3,186.0
Furnace 96+ AFUE (<150) w/ECM Motor			1.0	3.0			21.0	20.7			18.0	18.0	100%	100%			378.0	1,116.0
Infrared	10.0	20.0	12.0	13.0	223.2	74.4	48.3	48.3	17.0	17.0	17.0	17.0	100%	100%	37,944.0	25,296.0	9,860.0	10,676.0
On demand, Tankless Water Heater >=.82,	60.0	4.0	0.0	0.0	17.8	30.4	0.0	0.0	20.0	20.0	0.0	0.0	100%	100%	21,300.0	2,432.0	-	-
Indirect Water Heaters (Combined appliance efficiency rating >=85% (EF=.82)	37.0	15.0	12.0	13.0	75.0	30.4	20.7	20.7	15.0	15.0	15.0	15.0	100%	100%	41,625.0	6,840.0	3,720.0	4,035.0
Condensing Stand Alone >95% TE, >75000 btu	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	15.0	15.0	15.0	100%	100%	-	-	-	-
Integrated water heater/condensing boiler (0.9 EF, 0.9 AFUE)	2.0	45.0	0.0	0.0	1.1	21.1	0.0	0.0	20.0	20.0	25.0	25.0	100%	100%	43.6	18,990.0	-	-
Boiler >=96% AFUE, <= 300 mbh	5.0	3.0	0.0	0.0	37.0	16.8	0.0	0.0	25.0	25.0	25.0	25.0	100%	100%	4,625.0	1,260.0	-	-
Condensing boiler <= 300 mbh	45.0	21.0	0.0	0.0	47.4	32.3	0.0	0.0	25.0	25.0	25.0	25.0	100%	100%	53,303.6	16,957.5	-	-
Condensing boiler 301-499 mbh	42.0	8.0	7.0	10.0	222.1	78.3	56.1	56.1	25.0	25.0	25.0	25.0	100%	100%	233,231.3	15,660.0	9,825.0	14,025.0
Condensing boiler 500-999 mbh	15.0	13.0	2.0	2.0	89.0	146.7	103.0	103.0	25.0	25.0	25.0	25.0	100%	100%	33,375.0	47,677.5	5,150.0	5,150.0
Condensing boiler 1000-1700 mbh	7.0	12.0	2.9	3.0	83.2	264.1	189.3	189.3	25.0	25.0	25.0	25.0	100%	100%	14,554.2	79,230.0	13,525.0	14,200.0
Condensing boiler 1701+ mbh	4.0	4.0	3.0	4.0	249.0	332.6	331.3	331.3	25.0	25.0	25.0	25.0	100%	100%	24,900.0	33,260.0	24,850.0	33,125.0
Condensing Unit Heaters	0.0	0.0	6.0	7.0	0.0	0.0	41.0	40.9	18.0	18.0	18.0	18.0	100%	100%	-	-	4,428.0	5,148.0
Hydronic boiler <= 300mbh	10.0	1.0			16.8	16.8			25.0	25.0			100%		4,200.0	420.0		
Hydronic boiler 301-499 mbh	2.0	0.0			0.0	3.5			25.0	25.0			100%	100%				
Hydronic boiler 500-999 mbh	2.0	0.0			0.0	6.5			25.0	25.0			100%	100%				
Hydronic boiler 1000-1700 mbh	1.0	0.0			0.0	12.0			25.0	25.0			100%	100%				
Hydronic boiler 1701+ mbh	1.0	0.0			0.0	15.0			25.0	25.0			100%	100%				
Fryers	2.0	0.0	2.0	2.0	293.0	0.0	58.5	58.5	12.0	12.0	12.0	12.0	100%	100%	7,032.0	-	1,404.0	1,404.0
High Efficiency Gas Steamer (Energy Star >=38% efficiency)	2.0	0.0	1.0	1.0	153.5	0.0	107.0	107.0	10.0	10.0	12.0	12.0	100%	100%	3,070.0	-	1,284.0	1,284.0
High Efficiency Gas Convection Oven (>=40% efficiency)	3.0	4.0	1.0	1.0	16.7	24.8	31.0	31.0	12.0	12.0	12.0	12.0	100%	100%	600.0	1,190.4	372.0	372.0
High Efficiency Gas Combination Oven (>=40% efficiency)	2.0	0.0	1.0	1.0	60.5	0.0	110.0	110.0	12.0	12.0	12.0	12.0	100%	100%	1,452.0	-	1,320.0	1,320.0
High Efficiency Gas Conveyer Oven (>=40% efficiency)	1.0	0.0	1.0	1.0	169.0	0.0	85.0	85.0	12.0	12.0	12.0	12.0	100%	100%	2,028.0	-	1,020.0	1,020.0
High Efficiency Gas Rack Oven (>=50% efficiency)	1.0	11.0	1.0	1.0	211.0	0.0	211.0	211.0	12.0	12.0	12.0	12.0	100%	100%	2,532.0	-	2,532.0	2,532.0
High Efficiency Gas Griddle	1.0	0.0	1.0	1.0	19.0	0.0	19.0	19.0	12.0	12.0	12.0	12.0	100%	100%	228.0	-	228.0	228.0
Pre Rinse Spray Valve	10.0	125.0	30.0	34.0	33.6	33.6	32.6	33.7	5.0	5.0	5.0	5.0	100%	100%	1,680.0	21,000.0	4,888.2	5,725.0
Boiler Reset Controls (retrofit only)	2.0	9.0	8.0	8.0	35.5	1.0	35.5	35.5	20.0	20.0	15.0	15.0	100%	100%	1,420.0	180.0	4,260.0	4,260.0
Steam Traps	20.0	17.0	33.0	36.0	25.3	25.3	23.6	25.7	1.0	1.0	3.0	3.0	100%	100%	506.0	430.1	2,332.0	2,775.0
Thermostat	20.0	64.0	15.0	16.0	2.5	9.7	2.4	2.5	15.0	15.0	15.0	15.0	100%	100%	750.0	9,276.0	534.4	600.0

Liberty Utilities Gas Small Business Energy Solutions Program

	Quantity				Annual Savings per Unit (mmbtu)				Measure Life				In-Service & Realization Rate		Total Lifetime Savings (mmbtu)			
Measure	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 & 2014	2011 Plan	2011 Actual	2013 Plan	2014 Plan
Small Business Custom	23	0			324	0			15	0			100%		111,885	0		
Small Business Retrofit Custom			25	26			324	324			15	15		100%			121,620	126,465
Small New Equipment Custom			7	7			634	634			18	18		100%			79,902	79,902
Pre Rinse Spray Valve			52	54			34	34			5	5		100%			8,736	1,814
Boiler Reset Controls (retrofit only)			3	5			36	36			15	15		100%			1,598	178
Steam Traps			8	9			26	26			3	3		100%			617	231
Thermostat			9	10			3	3			15	15		100%			338	25
Condensing boiler <= 300 mbh			55	49			22	22			25	25		100%			30,388	1,083
Hydronic boiler <= 300 mbh			0	0			-	-			25	25		100%			0	0
Infrared			22	23			74	74			17	17		100%			27,826	1,711
On demand, Tankless Water Heater >=.82,			12	15			7	7			20	20		100%			1,704	107
Indirect Water Heaters (Combined appliance efficiency rating >=85% (EF=.82)			45	46			30	30			15	15		100%			20,520	1,398
Condensing Stand Alone >95% TE, >75000 btu			5	10			25	25			15	15		100%			1,875	250
Integrated water heater/condensing boiler (0.9 EF, 0.9 AFUE)			8	9			25	25			20	20		100%			3,930	221
Boiler >=96% AFUE, <= 300 mbh			5	10			22	22			25	25		100%			2,763	221
Condensing boiler 301-499 mbh			21	22			42	42			25	25		100%			22,208	931
Condensing boiler 500-999 mbh			11	12			77	77			25	25		100%			21,203	925
Condensing boiler 1000-1700 mbh			0	0			-	-			25	25		100%			0	0
Condensing boiler 1701+ mbh			0	0			-	-			25	25		100%			0	0
Hydronic boiler 301-499 mbh			0	0			-	-			25	25		100%			0	0
Hydronic boiler 500-999 mbh			0	0			-	-			25	25		100%			0	0
Hydronic boiler 1000-1700 mbh			0	0			-	-			25	25		100%			0	0
Hydronic boiler 1701+ mbh			0	0			-	-			25	25		100%			0	0
Condensing Unit Heaters			5	6			41	41			18	18		100%			3,683	246
Fryers			9	12			59	59			12	12		100%			6,329	703
High Efficiency Gas Steamer (Energy Star >=38% efficiency)			2	5			154	154			12	12		100%			3,686	768
High Efficiency Gas Convection Oven (>=40% efficiency)			2	5			25	25			12	12		100%			595	124
High Efficiency Gas Combination Oven (>=40% efficiency)			3	3			40	40			12	12		100%			1,451	121
High Efficiency Gas Conveyer Oven (>=40% efficiency)			2	3			85	85			12	12		100%			2,028	254
High Efficiency Gas Rack Oven (>=50% efficiency)			1	3			211	211			12	12		100%			2,536	634
High Efficiency Gas Griddle			1	3			19	19			12	12		100%			222	56

NHEC Home Energy Assistance Program

Measure	Quantity				Annual Savings per Unit (kWh)				Measure Life				Installation or Realization Rate		Total Lifetime Savings (kWh)				Annual Savings per Unit (MMBTU)				Total Lifetime MMBTU Savings			
	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 2014	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan
Electric Savings for Fossil Heated Homes	85	85	57	57	1,360	1,246	1,747	1,747	11.0	10.69	10.79	10.79	86.20%	88.80%	1,095,797	975,831	956,047	956,047								
Weatherizaton - Electric Heat		0																								
Weatherization - Kerosene Heated	85	6	23	23					11.0	15.68	13.85	13.85	86.20%	88.80%					5.3	10.4	24.6	24.6	4,288	839	6,912	6,912
Weatherization - LP Heated	85	5							11.0	15.55			86.20%	88.80%					4.1	4.9			3,272	328		
Weatherization - NG Heated																										
Weatherization - Wood Heated	85	3							11.0	12.61			86.20%	88.80%					3.1	22.9			2,507	748		
Weatherization - Oil Heated	85	15	34	34					11.0	10.98	10.99	10.99	86.20%	88.80%					10.4	19.4	17.3	17.3	8,366	2,749	5,799	5,799
Weatherization - Other																										
Weatherization - Baseload																										
Heating System Replacements											20.00	20.00	100.00%	100.00%												

Planning Assumptions

1. MMBTU savings for 2013 only include savings resulting from SBC funded weatherization, projected to be 15-17 MMBTUs per home (WAP collaboration funding is expected to pay for other additional MMBTU Savings). For gas heated homes, it is expected that the gas companies will pay for most of the weatherization project and will claim associated MMBTU savings.

NHEC Home Performance with Energy Star Program

Measure	Quantity				Annual Savings per Unit (kWh)				Measure Life				Installation or Realization Rate		Total Lifetime Savings (kWh)				Annual Savings per Unit (MMBTU)				Total Lifetime MMBTU Savings			
	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 2014	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan
Weatherizaton: Electric Heat	39	15	9	10	5,787	5,238	4,388	4,388	10.9	16.34	10.9	10.9	100.00%	100.00%	2,480,854	1,283,858	421,887	457,874	6	12			2,705	2,929		
Weatherizaton: LP Heat			11	11							22.3	22.3	100.00%	100.00%							23	23			5,360	5,818
Weatherizaton: Oil Heat			45	49							20.6	20.6	100.00%	100.00%							29	29			26,582	28,850
Weatherizaton: Kerosene			3	3							19.6	19.6	100.00%	100.00%							21	21			1,082	1,175
Weatherization: Wood Heat			4	5							18.9	18.9	100.00%	100.00%							14	14			1,200	1,303
Electric Baseload: Single Family			17	18			369	369			7.8	7.8	100.00%	100.00%			48,173	52,282								

Planning Assumptions

1. For CFL savings, we assumed EISA was fully in place for 2012 and our contractors installed 6 CFLs per home audited/weatherized (2.7 hrs/day x 365 days/year x (49.9-18.4)/1,000) x 6 = 186.3 kWhs/year.

2. Plan to audit and install electric measures (Light Fixtures, CFLs, and Refrigerator Replacement) at 17 SF homes in 2013, and provide weatherization & electric measures at 63 fuel neutral homes and 9 electrically heated homes. Used average energy savings from the 2011 Cadmus Impact Evaluation, Table 16, page 30, adjusted based on actual 2012 results through Aug 6, 2012.

NHEC Energy Star Homes Program

	Quantity				Annual Savings per Unit (kWh)				Measure Life				In-Service / Realization Rate		Total Lifetime Savings (kWh)				Annual Savings per Unit (MMBTU)				Total Lifetime MMBTU Savings			
Measure	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 2014	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan
ES CFL Lights	223	47	38	46	51	51	23	23	7.00	7.00	5.00	5.00	0.80	0.80	63,388	13,377	3,524	4,261								
ES Light Fixture (Interior)	37	112	90	109	106	106	62	62	20.00	20.00	20.00	20.00	1.00	1.00	78,589	237,120	112,683	136,279								
ES Clothes Washer	26	25	26	31	223	223	261	261	11.00	11.00	11.00	11.00	1.00	1.00	63,740	61,328	73,778	89,227								
ES Dishwasher	37	44	36	43	33	33	33	33	10.00	10.00	10.00	10.00	1.00	1.00	12,250	14,520	11,745	14,205								
ES Refrigerator	32	44	36	43	107	107	106	106	12.00	12.00	12.00	12.00	1.00	1.00	40,513	56,496	45,273	54,753								
ES Central AC	22	5	2	3	113	263	198	198	14.00	14.00	14.00	14.00	1.00	1.00	35,235	18,426	5,930	7,172								
Oil Heated Homes		3				80			25.00	25.00	25.00	25.00	1.00	1.00		6,000				59				4,424		
Liquid Propane Heated Homes	22	31	29	35	909	781	757	757	25.00	25.00	25.00	25.00	1.00	1.00	506,135	605,275	543,640	657,478	43	69	66	66	23,872	53,165	47,242	57,134
ASHP Heated Home		3				4,945			25.00	25.00	25.00	25.00	1.00	1.00		370,875										
GSHP Heated Homes	15	12	14	17					25.00	25.00	25.00	25.00	1.00	1.00												

Planning Assumptions

1. Appliance Measure Life Changes
   - > ES Room AC reduced from 12 to 8 years.
   - > Clothes Washer reduced from 14 to 11 years.
   - > Dishwasher reduced form 12 to 10 years.
   - > Refrigerator reduced form 13 to 12 years.
2. Lighting Changes: Measure life was reduced.
   - > CFL reduced from 8 to 5 years (Eg. 6500 hour bulb / 3.44 hours/day = 5.18 years)
   - > Annual kWH Savings reduced due to the new standards from the Energy Independence & Securities Act that reduces base bulb wattage between 2012-2014.
3. ENERGY STAR CFL Lights incentives capped at 12 per home for 2012.

NHEC Energy Star Lighting Program

	Quantity				Annual Savings per Unit (kWh)				Measure Life				In-Service & Realization Rate		Total Lifetime Savings (kWh)			
Measure	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 2014	2011 Plan	2011 Actual	2013 Plan	2014 Plan
Catalog Sales: CFLs	717	273	1,676	1,839	52	52	23	23	5.00	5.00	5.00	5.00	0.80	0.62	148,602	56,564	120,043	131,692
Retail Sales: CFLs	3,586	1,736	1,676	1,839	51	51	23	23	5.00	5.00	5.00	5.00	0.80	0.62	729,082	352,913	120,043	131,692
Retail Sales: Multipacks	30,126	30,231	21,304	23,371	51	51	23	23	5.00	5.00	5.00	5.00	0.80	0.62	6,120,319	6,145,681	1,525,975	1,674,050
Retail Sales: Interior Fixture	1,076	299	568	623	106	106	62	62	8.00	8.00	8.00	8.00	0.96	0.96	878,350	244,095	272,812	299,285
Retail Sales: Exterior Fixture	359	49	57	62	106	106	62	62	5.00	5.00	5.00	5.00	1.00	1.00	189,823	25,935	17,688	19,404
Retail Sales: Torchieres		7	36	37	104	104	69	69	8.00	8.00	8.00	8.00	0.94	0.94	0	5,465	18,537	19,078
Retail Sales: LED Fixtures		119	284	312	47	47	28	28	20.00	20.00	20.00	20.00	0.95	0.95	0		149,317	163,807
Retail Sales: # LEDs (102 packs)			2,841	3,116	47	47	28	28	20.00	20.00	20.00	20.00	0.95	0.95	0	0	1,493,174	1,638,065

Planning Assumptions

1. Assumed the Energy Indepence and Security Act of 2007 was fully in place in Jan2012 (e.g., Used 72W halogen as base rather than 100W incandescent) This reduces the kWH savings for all CFLs - the largest rebated product - by nearly 1/3.
2. Realization Rates for CFLs were modified from 80.3% to 62.3%, per KEMA Impact Evaluation, June 22, 2012.
3. Average hours on per energy efficient lights were ALL modified to 2 hours/day (from 3.4, or 41% reduction), per KEMA Impact Evaluation, June 22, 2012.
3. Assumed an increase in LED bulbs and fixture purchases in 2013-2014.

NHEC Energy Star Appliance Program

Measure	Quantity				Annual Savings per Unit (kWh)				Measure Life				In-Service / Realization Rate		Total Lifetime Savings (kWh)				Annual Savings per Unit (MMBTU)				Total Lifetime MMBTU Savings			
	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan
Energy Star Clothes Washer	746	1,026	858	1,006	223	223	261	261	11.00	11.00	11.00	11.00	1.00	1.00	1,829,838	2,516,834	2,461,138	2,884,346		0.14	0.74	0.74		1,624	6,964	8,161
Energy Star Room A/C	173	294	200	234	16	16	16	16	9.00	9.00	9.00	9.00	1.00	1.00	25,225	42,750	29,024	34,015								
Smartstrip Power Strip	52	25	60	70	75	75	75	75	5.00	5.00	5.00	5.00	1.00	1.00	19,527	9,381	22,469	26,332								
Energy Star Refrigerator	520	649	599	702	107	107	107	107	12.00	12.00	12.00	12.00	1.00	1.00	668,226	833,316	768,871	901,083								
2nd Refrigerator Pickup	226	194	200	234	413	413	835	835	8.00	8.00	8.00	8.00	1.00	1.00	745,110	640,976	1,333,348	1,562,626								
2nd Freezer Pickup			60	70	413	413	663	663	8.00	8.00	8.00	8.00	1.00	1.00			317,608	372,223								
Energy Star Room Air Purifiers	17	11	20	23	268	268	391	391	9.00	9.00	9.00	9.00	1.00	1.00	41,842	26,532	70,173	82,240								
Energy Star Cental Air Conditioner			5	5	263	263	110	110	14.00	14.00	14.00	14.00	1.00	1.00			7,144	7,144								
Energy Star Mini Split Heat Pump			8	8			123	123			12.00	12.00	1.00	1.00			12,279	12,279								
Energy Star Mini Split Heat Pump (for homes w/Gas heat)							-2,158	-2,158			12.00	12.00	1.00	1.00							15.43	15.43				
Energy Star Mini Split Heat Pump (for homes w/Oil heat)			4	4			-2,158	-2,158			12.00	12.00	1.00	1.00			-112,084	-112,084			17.14	17.14			890	890
Energy Star Mini Split Heat Pump (for homes w/LP heat)			4	4			-2,158	-2,158			12.00	12.00	1.00	1.00			-103,590	-103,590			15.43	15.43			741	741
Furn: LP, Furnace, FHA, AFUE >=95% w/ECM			11	11			168	168			18.00	18.00	1.00	1.00			33,579	33,579			4.50	4.50			899	899
Furn: LP, Furnace, FHA, AFUE >=96% w/ECM			6	6			168	168			18.00	18.00	1.00	1.00			16,789	16,789			5.55	5.55			555	555
Furn: LP, Furnace, FHA, AFUE >=97% w/ECM			2	2			168	168			18.00	18.00	1.00	1.00			5,596	5,596			5.90	5.90			197	197
Furn: Oil, Furnace, FHA, AFUE >=85% w/ECM			6	6			168	168			18.00	18.00	1.00	1.00			16,789	16,789			18.00	18.00			1,799	1,799
Furn: Oil, Furnace, FHA, AFUE >=90 w/ECM			2	2			168	168			18.00	18.00	1.00	1.00			5,596	5,596			20.70	20.70			690	690
Boil: LP Boiler, FHW, AFUE >= 90%			11	11							20.00	20.00	1.00	1.00							10.40	10.40			2,310	2,310
Boil: LP Boiler, FHW, AFUE >=96%			4	4							20.00	20.00	1.00	1.00							13.10	13.10			970	970
Boil: Oil Boiler, FHW, AFUE >=85%			70	70							20.00	20.00	1.00	1.00							5.38	5.38			7,567	7,567
Boil: Oil Boiler, FHW, AFUE >=90%			9	9							20.00	20.00	1.00	1.00							10.75	10.75			1,989	1,989
Boil: LP, Combo condensing boiler w/ On-Demand DWH 90%			1	1							20.00	20.00	1.00	1.00							17.80	17.80			329	329
Boil: Oil, Combo condensing boiler w/ On-Demand DWH 90%			1	1							20.00	20.00	1.00	1.00							17.80	17.80			329	329
DHW: LP, Tankless Water Heaters (EF>= 0.82)			22	22							20.00	20.00	1.00	1.00							9.70	9.70			4,308	4,308
DHW: LP, Indirect Water Heater (attached to LP Energy Star FHW boiler)			1	1							20.00	20.00	1.00	1.00							8.00	8.00			148	148
DHW: Oil, Indirect Water Heater (attached to oil Energy Star FHW boiler)			1	1							20.00	20.00	1.00	1.00							8.00	8.00			148	148
DHW: LP, Stand Alone Storage Water Heater (EF>=0.67)			1	1							13.00	13.00	1.00	1.00							3.70	3.70			45	45
DHW: Energy Star Heat Pump 50 Gal Water Heater, EF>=2.3 (ES<EF>=2.0)			1	1			1,775	1,775			10.00	10.00	1.00	1.00			16,425	16,425			0.00	0.00			0	0
DHW: Energy Star Heat Pump 80 Gal Water Heater, EF>=2.3 (ES<EF>=2.0)			1	1			2,672	2,672			10.00	10.00	1.00	1.00			24,725	24,725			0.00	0.00			0	0
BRC: Gas, Boiler Reset Controls			0	0							15.00	15.00	1.00	1.00							9.60	9.60			0	0
BRC: LP, Boiler Reset Controls			8	8							15.00	15.00	1.00	1.00							9.60	9.60			1,199	1,199
BRC: Oil, Boiler Reset Controls			11	11							15.00	15.00	1.00	1.00							9.60	9.60			1,599	1,599
TSTAT: LP, 7-Day Programmable Thermostats			1	1			14	14			15.00	15.00	1.00	1.00			200	200			7.70	7.70			107	107
TSTAT: Oil, 7-Day Programmable Thermostats			1	1			14	14			15.00	15.00	1.00	1.00			200	200			7.70	7.70			107	107
TSTAT: LP, WiFi Enabled 7-Day Programmable Thermostats			1	1			14	14			15.00	15.00	1.00	1.00			200	200			6.60	6.60			92	92
TSTAT: Oil, WiFi Enabled 7-Day Programmable Thermostats			1	1			14	14			15.00	15.00	1.00	1.00			200	200			6.60	6.60			92	92

Planning Assumptions

1. Clothes Washer Annual kWH Savings updated based on mix of Electric Water Heating customer and per EnergyStar.gov Savings Calculator.
2. Room Air Purifier Annual kWH Savings updated per EnergyStar.gov Savings Calculator.
3. Central air conditioner and Mini Split Heat Pump Annual kWh savings added per EnergyStar.gov calculator, and conservatively assumed 50% of heat provided by heat pump, 50% provided by existing fossil system.
4. All Heating, Hot Water, Programmable Thermostats and Boiler Reset Control energy savings provided by U.S. Department of Energy during ARRA Program and adjusted with recent Gas Networks data if available.

NHEC Large Business Energy Solutions Program

	Quantity				Annual Savings per Unit (kWh)				Measure Life				In-Service or Realizaton Rate		Total Lifetime Savings (kWh)				Annual Savings per Unit (MMBTU)				Total Lifetime MMBTU Savings			
Measure	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan
Snowmaking-Retrofit	1	3	1	1	321,194	333,129	333,129	333,129	13.0	13.0	13.0	13.0	94.0%	98.7%	3,924,991	12,212,509	4,519,386	4,899,506								
Lighting-Retrofit	21	11	6	7	20,818	36,984	44,921	44,921	13.0	13.0	13.0	13.0	94.0%	98.7%	5,242,846	4,971,389	3,656,535	3,964,082								
VFD-Retrofit		2	2	2		38,743	38,743	38,743	13.0	13.0	13.0	13.0	94.0%	98.7%		946,879	1,051,212	1,139,628								
Refrigeration-Retrofit		1	1	1		19,371	19,371	19,371	13.0	13.0	13.0	13.0	94.0%	98.7%		236,714	262,796	284,900								
Motors-Retrofit		1				16,688			13.0	13.0	13.0	13.0	94.0%	98.7%		203,927										
HVAC-Retrofit		1				29,870			13.0	13.0	13.0	13.0	94.0%	98.7%		365,011										

NHEC Small Business Energy Solutions Program

	Quantity				Annual Savings per Unit (kWh)				Measure Life				In-Service or Installation Rate		Total Lifetime Savings (kWh)				Annual Savings per Unit (MMBTU)				Total Lifetime MMBTU Savings			
Measure	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 2014	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan
Lighting-Retrofit	29	40	58	62	7,026	14,922	12,623	12,623	13.0	13.0	15.9	15.9	92.90%	93%	2,431,013	7,208,554	10,780,416	11,621,452								
Refrigeration-Retrofit	3	4	6	7	22,555	12,396	13,242	13,242	13.0	13.0	12.9	12.9	92.90%	93%	867,136	598,833	1,002,768	1,080,999								
VFD-Retrofit		1				8,969			13.0	13.0			92.90%	93%		108,314										
Average New Construction Project	5				32,605				15.0	15.0	15.0	15.0	92.5%	100.0%	2,248,898											
Lighting-New Construction		7	9	9		91,447	42,705	42,705	15.0	15.0	15.0	15.0	92.5%	100.0%		8,881,790	5,587,285	6,023,177								
HVAC-New Construction		4	4	4		13,326	6,925	6,925	15.0	15.0	15.0	15.0	92.5%	100.0%		739,593	411,843	443,973								
VFD-New Construction		1				20,197			15.0	15.0	15.0	15.0	92.5%	100.0%		280,233										
Refrigeration-New Construction		1	2	3		21,156	46,695	46,695	15.0	15.0	15.0	15.0	92.5%	100.0%		293,540	1,666,177	1,796,164								
Lighting Catalog		2				745				5.0			92.90%	93%		6,921										
Weatherization		1				23,782				18.0			92.90%	93%		397,683										

NHEC Company Specific Programs
A. High Efficiency Heat Pump Program

	Quantity				Annual Savings per Unit (kWh)				Measure Life				In-Service or Realization Rate		Total Lifetime Savings (kWh)			
Measure	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 2014	2011 Plan	2011 Actual	2013 Plan	2014 Plan
A. GSHP (Heating)	12	12	14	15	18,232	42,073	33,057	33,057	25	25	25	25	100.00%	100.00%	5,696,795	12,621,975	11,682,515	12,784,621
A. GSHP (Cooling)	12	12	14	15	286	76	96	96	25	25	25	25	100.00%	100.00%	89,303	22,776	34,024	37,233
A. GSHP (Hot Water)	12	12	14	15	1,811	1,613	1,389	1,389	25	25	25	25	100.00%	100.00%	565,856	483,849	490,935	537,248
A. ASHP (Heating)		2			9,671	-2,661			25	25	25	25	100.00%	100.00%		-133,025		
A. ASHP (Cooling)		2			71.19	101.50			25	25	25	25	100.00%	100.00%		5,075		
A. ASHP (Hot Water)		2			519.55	725.77			25	25	25	25	100.00%	100.00%		36,289		

Planning Assumptions

A. Energy Star Homes - Geothermal & Air Source Heat Pump

1. GSHP = Ground Source (Geothermal) Heat Pump; ASHP = Air Source Heat Pump; Split System Heat Pump (ex. Mitsubishi "Mr. Slim")

2. Home Energy Raters incorporating a new Heat Pump COP calculation for the rated home to more accurately account for pumping power requirements. This reduced savings by 8% from 2011.

3. The User Defined Reference Home for New Hampshire continues to be updated to reflect code changes. Revisions will include a change to the efficiency of the reference heating system efficiency, resulting in a 5% reduction in savings.

4. Planning for additional homes to have Air Source Heat Pumps installed in 2012 due to their cold climate heating improvements. (Some may choose to go through the ENERGY STAR Homes program.)

PSNH Home Energy Assistance Program

Measure	Quantity				Annual Savings per Unit (kWh)				Measure Life				Installation or Realization Rate		Total Lifetime Savings (kWh)				Annual Savings per Unit (MMBTU)				Total Lifetime MMBTU Savings			
	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 2014	2011 2011 Plan	Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan
Electric Savings for Fossil Heated Homes	740.0	287	643.9	656.7	1,117.0	1,262.6	1,059.0	1,059.0	13.4	11.96	14.31	14.31	86.20%	86.20%	9,511,864	3,735,874	8,408,970	8,576,174								
Weatherizaton - Electric Heat	20.0	230	13.1	13.4	3,187.0	1,710.5	2,799.0	2,799.0	17.4	13.56	19.78	19.78	86.20%	86.20%	957,672	4,599,760	627,049	639,517					0	0	0	0
Weatherization - Kerosene Heated	111.0	62	193.2	197.0					20.9	14.64	20.62	20.62	86.20%	86.20%	0	0	0	0	15.00	16.12	17.00	17.00	29,967	12,924	58,362	59,523
Weatherization - LP Heated	59.2	36	57.9	59.1					19.3	11.86	21.39	21.39	86.20%	86.20%	0	0	0	0	15.00	18.80	15.00	15.00	14,796	6,999	16,024	16,343
Weatherization - NG Heated	229.4	36	199.6	203.6					17.2	6.54	19.43	19.43	86.20%	86.20%	0	0	0	0	15.00	17.32	8.00	8.00	51,017	3,761	26,744	27,275
Weatherization - Wood Heated	14.8	5	32.2	32.8					20.3	13.38	20.95	20.95	86.20%	86.20%	0	0	0	0	15.00	113.31	25.00	25.00	3,885	6,349	14,534	14,823
Weatherization - Oil Heated	325.6	148	161.0	164.2					18.9	11.73	19.99	19.99	86.20%	86.20%	0	0	0	0	15.00	21.71	23.00	23.00	79,610	33,240	63,810	65,079
Weatherization - Other													86.20%	86.20%	0	0	0	0					0	0	0	0
Weatherization - Baseload		269				640.5			13.0	12.71			86.20%	86.20%	0	1,887,795	0	0					0	0	0	0
															0	0	0	0					0	0	0	0
Heating System Replacements											20.00	20.00	100.00%	100.00%	0	0	0	0					0	0	0	0

Planning Assumptions

1. MMBTU savings for 2013 only include savings resulting from SBC funded weatherization, projected to be 15-25 MMBTUs per home (WAP collaboration funding is expected to pay for other additional MMBTU Savings). For gas heated homes, it is expected that the gas companies will pay for most of the weatherization project and will claim associated MMBTU savings.

PSNH Home Performance with ENERGY STAR®

	Quantity				Annual Savings per Unit (kWh)				Measure Life				Installation or Realization Rate		Total Lifetime Savings (kWh)				Annual Savings per Unit (MMBTU)				Total Lifetime MMBTU Savings			
	2011	2011	2013	2014	2011	2011	2013	2014	2011	2011	2013	2014		2013	2011				2011	2011	2013	2014	2011	2011	2013	2014
Measure	Plan	Actual	Plan	Plan	Plan	Actual	Plan	Plan	Plan	Actual	Plan	Plan	2011	2014	2011 Plan	Actual	2013 Plan	2014 Plan	Plan	Actual	Plan	Plan	Plan	Actual	Plan	Plan
HES - ELECTRIC																										
Weatherizaton-Baseload: Electric Heat/Lighting		14				11,395.7				11.0			100.00%	100.00%	0	1,750,156	0	0					0	0	0	0
Weatherizaton-Baseload: LP Heat/Lighting													100.00%	100.00%	0	0	0	0					0	0	0	0
Weatherizaton-Baseload: Oil Heat/Lighting													100.00%	100.00%	0	0	0	0					0	0	0	0
Weatherizaton-Baseload: Electric Savings													100.00%	100.00%	0	0	0	0					0	0	0	0
Weathization-HVAC: Electric/Wood Heat		7				8,617.6				22.1			100.00%	100.00%	0	1,335,557	0	0					0	0	0	0
Weatherization-HVAC: LP Heat													100.00%	100.00%	0	0	0	0					0	0	0	0
Weatherization-HVAC: Oil Heat													100.00%	100.00%	0	0	0	0					0	0	0	0
Weatherization-HVAC: Elec w/LP Backup													100.00%	100.00%	0	0	0	0					0	0	0	0
Electric Baseload: Single Family	51.3	112	64.4	64.3	186.3	331.2	294.0	294.0	5.0	7.6	7.9	7.9	100.00%	100.00%	47,774	280,153	149,169	148,932					0	0	0	0
Electric Baseload: Multi-Family	402.7	366	505.5	504.7	186.3	888.1	294.0	294.0	5.0	16.4	7.9	7.9	100.00%	100.00%	375,001	5,331,344	1,170,908	1,169,053					0	0	0	0
															0	0	0	0								
FUEL-NEUTRAL PILOT ELECTRIC SAVINGS															0	0	0	0								
Pilot Wxn - Electric Heat Savings	562.2				186.3	9,638.0			5.0	14.6			100.00%	100.00%	523,563	0	0	0					0	0	0	0
Fuel Neutral Pilot (Kerosene)						315.5				8.0			100.00%	100.00%	0	0	0	0					0	0	0	0
Fuel Neutral Pilot (LP)						578.9				11.6			100.00%	100.00%	0	0	0	0					0	0	0	0
Fuel Neutral Pilot (Gas)						177.3				9.8			100.00%	100.00%	0	0	0	0					0	0	0	0
Fuel Neutral Pilot (Oil)						443.0				8.9			100.00%	100.00%	0	0	0	0					0	0	0	0
Fuel Neutral Pilot (Wood)						5,216.3				16.3			100.00%	100.00%	0	0	0	0					0	0	0	0
Fuel Neutral Pilot (ElecBaseload)	5.62185				6,533.8	946.0			14.6	12.6			100.00%	100.00%	536,291	0	0	0					0	0	0	0
															0	0	0	0								
FUEL NEUTRAL HPwES															0	0	0	0								
SF, Electric, CFLs			459.7	458.9			378.0	378.0			8.1	8.1	100.00%	100.00%	0	0	1,410,809	1,408,545					0	0	0	0
Wxn Oil Heated Homes	314.8235	314	369.6	369.0		0.0			20.2	19.38	21.0	21.0	100.00%	100.00%	0	0	0	0	22.30	38.40	28.56	28.56	141,535	229,079	221,439	221,084
Wxn LP Heated Homes	112.437	54	43.2	43.1		0.0			20.4	20.48	20.9	20.9	100.00%	100.00%	0	0	0	0	22.30	33.79	22.52	22.52	51,150	36,490	20,324	20,291
Wxn Gas Heated Homes	16.86554	2	1.8	1.8		0.0			16.9	21.11	18.6	18.6	100.00%	100.00%	0	0	0	0	22.30	64.41	15.51	15.51	6,343	2,705	532	531
Wxn Wood Heated Homes	101.1933	24	25.3	25.2		0.0			20.6	21.57	21.1	21.1	100.00%	100.00%	0	0	0	0	22.30	98.38	19.02	19.02	46,576	51,943	10,133	10,116
Wxn Kerosene Heated Homes	11.2437	1	4.1	4.1		0.0			16.9	21.26	22.1	22.1	100.00%	100.00%	0	0	0	0	22.30	46.88	32.70	32.70	4,240	984	2,991	2,986
Wxn Electrically Heated Homes			15.6	15.6			6,552.2	6,552.2			18.0	18.0	100.00%	100.00%	0	0	1,845,888	1,842,926					0	0	0	0
Pilot - Fossil - Audits & CFLs				0									100.00%	100.00%	0	0	0	0					0	0	0	0
Pilot - Heating System Replacements	20.0	34	20	20		0	0.0		20.0	21.7	20.0	20.0	100.00%	100.00%	0	0	0	0	11.36	6.60	11.36	11.36	4,544	4,937	4,544	4,544

Planning Assumptions

1. For CFL savings, we assumed EISA was fully in place for 2012 and our contractors installed 6 CFLs per home audited/weatherized (2.7 hrs/day x 365 days/year x (49.9-18.4)/1,000) x 6 = 186.3 kWhs/year.

2. Plan to audit and install electric measures (Light Fixtures, CFLs, and Refrigerator Replacement) at 64 SF and 506 MF homes, and provide weatherization & electric measures at 460 fuel neutral homes. Used average energy savings from the 2011 Cadmus Impact Evaluation, Table 16, page 30, adjusted based on actual 2012 results through Aug 6, 2012.

PSNH ENERGY STAR® Homes Program

	Quantity				Annual Savings per Unit (kWh)				Measure Life				In-Service / Realization Rate		Total Lifetime Savings (kWh)				Annual Savings per Unit (MMBTU)				Total Lifetime MMBTU Savings			
Measure	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 2014	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan
ES CFL Lights	3,844	4,566	3,121	3,169	39.1	50.6	23.0	23.0	5	5	5	5	80.30%	80.30%	603,270	928,225	288,178	292,623					0	0	0	0
ES Light Fixture (Interior)	1,153	4,270	312	317	105.9	105.9	62.3	62.3	20	20	20	20	100.00%	100.00%	2,441,232	9,040,213	388,727	394,722					0	0	0	0
ES Light Fixture (Exterior)		0	0	0	105.9	105.9	62.3	62.3	5	5	5	5	100.00%	100.00%	0	0	0	0					0	0	0	0
ES Clothes Washer	57.7	270.0	46.8	48	223.0	223.0	223.0	223.0	11	11	11	11	100.00%	100.00%	141,416	662,340	114,851	116,622	0.14	0.95	0.7376	0.7376	91	2,809	380	386
ES Dishwasher	230.6	438.0	218.5	222	33.0	33.0	33.0	33.0	10	10	10	10	100.00%	100.00%	76,105	144,540	72,103	73,215	0.40	0.40	0.1888	0.18880	922	1,752	413	419
ES Refrigerator	307.5	589.0	249.7	254	106.0	107.0	106.0	106.0	12	12	12	12	100.00%	100.00%	391,127	756,276	317,629	322,527					0	0	0	0
ES Room AC		0.0	0.0	0	16.2	36.4	16.2	16.2	9	9	9	9	100.00%	100.00%	0	0	0	0					0	0	0	0
ES Central AC			0.0	0	263.0	263.2	263.0	263.0	14	14	14	14	100.00%	100.00%	0	0	0	0					0	0	0	0
ES Thermostats	288.3	381.0	234.1	238	0.0	0.0	0.0	0.0	12	12	12	12	100.00%	100.00%	0	0	0	0					0	0	0	0
Oil Heated Homes	19.2	9.0	15.6	16	519.8	597.8	519.8	519.8	25	25	25	25	100.00%	100.00%	249,747	134,500	202,817	205,945	28.99	37.69	46.00	46.00	13,928	8,481	17,948	18,225
Natural Gas Heated Homes	211.4	183.0	46.8	48	481.5	23.8	481.5	481.5	25	25	25	25	100.00%	100.00%	2,544,603	109,025	563,577	572,269	23.71	22.93	25.80	25.80	125,306	104,900	30,199	30,665
Liquid Propane Heated Homes	134.5	302.0	171.7	174	506.0	544.2	506.0	506.0	25	25	25	25	100.00%	100.00%	1,701,754	4,109,075	2,171,679	2,205,171	40.55	36.77	37.20	37.20	136,376	277,650	159,657	162,119
Electric Baseboard Heated Home	19.2	3.0	15.6	16	3,077.0	7,081.7	7,323.0	7,323.0	25	25	25	25	100.00%	100.00%	1,478,345	531,125	2,857,206	2,901,270					0	0	0	0
ASHP Heated Home		151.0	62.4	63	1,600.0	5,871.6	2,313.0	2,313.0	25	25	25	25	100.00%	100.00%	0	22,165,125	3,609,841	3,665,513					0	0	0	0
																		0								0
Wood Heated Homes		2.0				239.5			25	25	25	25	100.00%	100.00%	0	11,975	0	0		26.50			0	1,325	0	0
GSHP Heated Homes		2.0				20,058.5			25	25	25	25	100.00%	100.00%	0	1,002,925	0	0					0	0	0	0
GSHP/NG Heated Homes		0.0				0.0			25	25	25	25	100.00%	100.00%	0	0	0	0					0	0	0	0

Planning Assumptions 802.924 1066.15

1. Planned participation - 384 homes. Expect a fewer number of electric heated homes (multi-family) than in 2010)
   (The 2010 Air Source Heat Pumps were the result of a large development that will have been completed in 2011.)
2. Appliance Measure Life Changes
   > ES Room AC reduced from 12 to 8 years.
   > Dishwasher reduced form 12 to 10 years.
   > Clothes Washer reduced from 14 to 11 years.
   > Refrigerator reduced form 13 to 12 years.
3. Lighting Changes: Measure life was reduced.
   > CFL reduced from 8 to 5 years (Eg. 6500 hour bulb / 3.44 hours/day = 5.18 years)
   > Annual kWH Savings reduced due to the new standards from the Energy Independence & Securities Act that reduces base bulb wattage between 2012-2014.
4. ENERGY STAR CFL Lights incentives capped at 12 per home for 2012.

PSNH ENERGY STAR® Lighting Program

	Quantity				Annual Savings per Unit (kWh)				Measure Life				In-Service & Realization Rate		Total Lifetime Savings (kWh)			
Measure	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 2014	2011 Plan	2011 Actual	2013 Plan	2014 Plan
Catalog Sales: CFLs	3,851	3,532	2,859	2,942	39.6	51.61	23.00	23.00	5	5	5	5	80.30%	62.30%	611,473	731,812	204,772	210,750
Catalog Sales: Interior Fixtures	1,685	366	376	387	107.1	107.10	62.27	62.27	8	8	8	8	96.40%	96.40%	1,392,163	302,307	180,636	185,909
Catalog Sales: Exterior Fixtures	194	113	188	194	107.1	107.10	62.27	62.27	5	5	5	5	100.00%	100.00%	104,145	60,513	58,557	60,266
Catalog Sales: Torchieres	39	21	113	116	120.0	119.98	69.35	69.35	8	8	8	8	93.50%	93.50%	34,906	18,846	58,538	60,247
Catalog Sales: LED Fixtures	65	0	38	39	47.0	47.16	27.67	27.67	20	20	20	20	95.00%	95.00%	57,931		19,773	20,351
Catalog Sales: LEDs	648	0	188	194	47.0	47.16	27.67	27.67	20	20	20	20	95.00%	95.00%	579,313	0	98,867	101,753
Retail Sales: # CFLs (1-2 packs)	3,355	13,512	7,683	7,907	39.1	50.63	23.00	23.00	5	5	5	5	80.30%	62.30%	526,541	2,746,864	550,324	566,391
Retail Sales: # CFLs (3-6 packs)	210,036	222,592	214,407	220,667	39.1	50.63	23.00	23.00	5	5	5	5	80.30%	62.30%	32,966,010	45,250,882	15,357,877	15,806,253
Retail Sales: # CFL (> 6 packs)	0	0		0	39.1	50.63	23.00	23.00	5	5	5	5	80.30%	62.30%	0	0	0	0
Retail Sales: Interior Fixture	583	3,120	2,144	2,207	105.9	105.86	62.27	62.27	8	8	8	8	96.40%	96.40%	476,296	2,547,079	1,029,624	1,059,684
Retail Sales: Exterior Fixture	117	186	143	147	105.9	105.86	62.27	62.27	5	5	5	5	100.00%	100.00%	61,761	98,447	44,503	45,802
Retail Sales: Torchieres	29	0	36	37	104.4	104.37	69.35	69.35	8	8	8	8	93.50%	93.50%	22,775	0	18,537	19,078
Retail Sales: LED Fixtures	583		715	736	47.0	47.16	27.67	27.67	20	20	20	20	95.00%	95.00%	521,382		375,694	386,662
Retail Sales: # LEDs (102 packs)	1,167	1,092	7,147	7,356	47.0	47.16	27.67	27.67	20	20	20	20	95.00%	95.00%	1,042,885	978,434	3,756,939	3,866,623

Planning Assumptions

1. Assumed the Energy Indepence and Security Act of 2007 was fully in place in Jan2012 (e.g., Used 72W halogen as base rather than 100W incandescent) This reduces the kWH savings for all CFLs - the largest rebated product - by nearly 1/3.
2. Realization Rates for CFLs were modified from 80.3% to 62.3%, per KEMA Impact Evaluation, June 22, 2012.
3. Average hours on per energy efficient lights were ALL modified to 2 hours/day (from 3.4, or 41% reduction), per KEMA Impact Evaluation, June 22, 2012.
3. Assumed an increase in LED bulbs and fixture purchases in 2013-2014.

PSNH ENERGY STAR® Appliance Program

Measure	Quantity				Annual Savings per Unit (kWh)				Measure Life				In-Service / Realization Rate		Total Lifetime Savings (kWh)				Annual Savings per Unit (MMBTU)				Total Lifetime MMBTU Savings			
	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 2014	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan
Energy Star Clothes Washer	4,824.2	8,098.0	7,809.0	8,242.4	223.01	223.01	260.68	260.68	11	11	11	11	100.00%	100.00%	11,834,033	19,864,839	22,392,048	23,634,903		0.14	0.74	0.74		12,814	63,359	66,875
Energy Star Room A/C	3,308.0	2,537.0	2,552.9	2,694.6	16.16	16.16	16.16	16.16	9	9	9	9	100.00%	100.00%	481,014	368,901	371,217	391,821							0	
Smartstrip Power Strip	1,102.7	200.0	195.2	206.1	75.04	75.04	75.04	75.04	5	5	5	5	100.00%	100.00%	413,746	75,044	73,252	77,318							0	
Energy Star Refrigerator	3,445.9	4,736.0	3,904.5	4,121.2	106.00	107.00	107.00	107.00	12	12	12	12	100.00%	100.00%	4,383,133	6,081,024	5,013,355	5,291,618							0	
2nd Refrigerator Pickup	964.8	50.0	300.3	317.0	413.00	413.00	835.00	835.00	8	8	8	8	100.00%	100.00%	3,187,831	165,200	2,006,303	2,117,662							0	
2nd Freezer Pickup		0.0	150.2	158.5	413.00	450.00	663.00	663.00	8	8	8	8	100.00%	100.00%		0	796,514	840,724							0	
Energy Star Freezers					67.00	67.00	114.00	114.00	11	11	12	12	100.00%	100.00%												
Energy Star Dishwasher (CEE Tier 2)					60.00	60.00	60.00	60.00	10	10	10	10	100.00%	100.00%					0.19	0.19	0.19	0.19	0	0		0
Energy Star Dishwasher (w/Oil DHW)					33.00	33.00	33.00	33.00	10	10	10	10	100.00%	100.00%					0.19	0.19	0.19	0.19	0	0		0
Energy Star Dehumidifiers					213.00	213.00	213.00	213.00	12	12	12	12	100.00%	100.00%												
Energy Star Room Air Purifiers	137.8	67.0	90.1	95.1	268.00	268.00	390.63	390.63	9	9	9	9	100.00%	100.00%	332,456	161,604	316,772	334,355							0	
Room AC Pickup/Turn-in		3.0	15.0	15.9	18.00	18.00	16.16	16.16	5	5	5	5	100.00%	100.00%		270	1,213	1,280							0	
Energy Star Set-top Boxes & Cable Boxes							100.00	100.00			5	5	100.00%	100.00%												
Energy Star Water Coolers					361.00	361.00	361.00	361.00		10	10	10	100.00%	100.00%												
Energy Star Cental Air Conditioner			43.1	43.1	263.23	263.23	110.29	110.29	14	14	14	14	100.00%	100.00%			66,525	66,525							0	
Energy Star Mini Split Heat Pump			77.6	77.6			122.87	122.87			12	12	100.00%	100.00%			114,347	114,347							0	
Energy Star Mini Split Heat Pump (for homes w/Gas heat)							-2,158.12	-2,158.12			12	12	100.00%	100.00%							15.43	15.43				0
Energy Star Mini Split Heat Pump (for homes w/Oil heat)			57.6	57.6			-2,158.12	-2,158.12			12	12	100.00%	100.00%			-1,490,416	-1,490,416			17.14	17.14			11,837	11,837
Energy Star Mini Split Heat Pump (for homes w/LP heat)			20.0	20.0			-2,158.12	-2,158.12			12	12	100.00%	100.00%			-517,949	-517,949			15.43	15.43			3,703	3,703
Furn: LP, Furnace, FHA, AFUE >=95% w/ECM			103.4	103.4			168.00	168.00			18	18	100.00%	100.00%			312,684	312,684			4.50	4.50			8,375	8,375
Furn: LP, Furnace, FHA, AFUE >=96% w/ECM			51.7	51.7			168.00	168.00			18	18	100.00%	100.00%			156,342	156,342			5.55	5.55			5,165	5,165
Furn: LP, Furnace, FHA, AFUE >=97% w/ECM			17.2	17.2			168.00	168.00			18	18	100.00%	100.00%			52,114	52,114			5.90	5.90			1,830	1,830
Furn: Oil, Furnace, FHA, AFUE >=85% w/ECM			51.7	51.7			168.00	168.00			18	18	100.00%	100.00%			156,342	156,342			18.00	18.00			16,751	16,751
Furn: Oil, Furnace, FHA, AFUE >=90 w/ECM			17.2	17.2			168.00	168.00			18	18	100.00%	100.00%			52,114	52,114			20.70	20.70			6,421	6,421
Boil: LP Boiler, FHW, AFUE >= 90%			103.4	103.4							20	20	100.00%	100.00%							10.40	10.40			21,507	21,507
Boil: LP Boiler, FHW, AFUE >=96%			34.5	34.5							20	20	100.00%	100.00%							13.10	13.10			9,030	9,030
Boil: Oil Boiler, FHW, AFUE >=85%			654.9	654.9							20	20	100.00%	100.00%							5.38	5.38			70,425	70,425
Boil: Oil Boiler, FHW, AFUE >=90%			86.2	86.2							20	20	100.00%	100.00%							10.75	10.75			18,533	18,533
Boil: LP, Combo condensing boiler w/ On-Demand DWH 90%			8.6	8.6							20	20	100.00%	100.00%							17.80	17.80			3,068	3,068
Boil: Oil, Combo condensing boiler w/ On-Demand DWH 90%			8.6	8.6							20	20	100.00%	100.00%							17.80	17.80			3,068	3,068
DHW: LP, Tankless Water Heaters (EF>= 0.82)			206.8	206.8							20	20	100.00%	100.00%							9.70	9.70			40,120	40,120
DHW: LP, Indirect Water Heater (attached to LP Energy Star FHW boiler)			8.6	8.6							20	20	100.00%	100.00%							8.00	8.00			1,379	1,379
DHW: Oil, Indirect Water Heater (attached to oil Energy Star FHW boiler)			8.6	8.6							20	20	100.00%	100.00%							8.00	8.00			1,379	1,379
DHW: LP, Stand Alone Storage Water Heater (EF>=0.67)			8.6	8.6							13	13	100.00%	100.00%							3.70	3.70			414	414
DHW: Energy Star Heat Pump 50 Gal Water Heater, EF>=2.3 (ES=EF>=2.0)			8.6	8.6			1,775.00	1,775.00			10	10	100.00%	100.00%			152,947	152,947							0	
DHW: Energy Star Heat Pump 80 Gal Water Heater, EF>=2.3 (ES=EF>=2.0)			8.6	8.6			2,672.00	2,672.00			10	10	100.00%	100.00%			230,239	230,239							0	
BRC: Gas, Boiler Reset Controls											15	15	100.00%	100.00%							9.60	9.60				0
BRC: LP, Boiler Reset Controls			77.6	77.6							15	15	100.00%	100.00%			0	0			9.60	9.60			11,167	11,167
BRC: Oil, Boiler Reset Controls			103.4	103.4							15	15	100.00%	100.00%			0	0			9.60	9.60			14,890	14,890
TSTAT: LP, 7-Day Programmable Thermostats			8.6	8.6			14.40	14.40			15	15	100.00%	100.00%			1,861	1,861			7.70	7.70			995	995
TSTAT: Oil, 7-Day Programmable Thermostats			8.6	8.6			14.40	14.40			15	15	100.00%	100.00%			1,861	1,861			7.70	7.70			995	995
TSTAT: LP, WiFi Enabled 7-Day Programmable Thermostats			8.6	8.6			14.40	14.40			15	15	100.00%	100.00%			1,861	1,861			6.60	6.60			853	853
TSTAT: Oil, WiFi Enabled 7-Day Programmable Thermostats			8.6	8.6			14.40	14.40			15	15	100.00%	100.00%			1,861	1,861			6.60	6.60			853	853

Planning Assumptions

1. Clothes Washer Annual kWH Savings updated based on mix of Electric Water Heating customer and per EnergyStar.gov Savings Calculator.
2. Room Air Purifier Annual kWH Savings updated per EnergyStar.gov Savings Calculator.
3. Central air conditioner and Mini Split Heat Pump Annual kWh savings added per EnergyStar.gov calculator, and conservatively assumed 50% of heat provided by heat pump, 50% provided by existing fossil system.
4. All Heating, Hot Water, Programmable Thermostats and Boiler Reset Control energy savings provided by U.S. Department of Energy during ARRA Program and adjusted with recent Gas Networks data if available.

PSNH Large Business Energy Solutions Program

	Quantity				Annual Savings per Unit (kWh)				Measure Life				In-Service or Realization Rate		Total Lifetime Savings (kWh)				Annual Savings per Unit (MMBTU)				Total Lifetime MMBTU Savings			
Measure	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 2014	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan
NEW EQUIPMENT TRACK																							0	0	0	0
Cooling	43.6	55.0	44.2	45.3	53,315.0	34,776.7	34,776.7	34,777	15.8	14.0	15.0	15.0	92.5%	92.5%	34,000,960	24,784,371	21,310,899	21,877,583					0	0	0	0
Heating	0.0	4.0	4.3	4.5	48,790.0	53,278.3	53,278.3	53,278	15.0	17.3	15.0	15.0	92.5%	92.5%	0	3,404,899	3,210,435	3,295,804					0	0	0	0
Lighting	21.8	24.0	13.0	13.4	59,615.0	66,783.4	66,783.4	66,783	15.0	15.0	15.0	15.0	92.5%	92.5%	18,001,360	22,238,868	12,059,476	12,380,154					0	0	0	0
Lighting (LED)	0.0	0.0	0.0	0.0			0.0	0	15.0	15.0	15.0	15.0	92.5%	92.5%	0	0	0	0					0	0	0	0
Lighting (Occ Sensors Only)	0.0	2.0	3.8	3.9		24,628.0	24,628.0	24,628	15.0	10.0	10.0	10.0	92.5%	92.5%	0	455,618	862,163	885,089					0	0	0	0
Other	0.0	2.0	8.5	8.7		131,370.3	131,370.3	131,370	15.0	15.0	15.0	15.0	92.5%	92.5%	0	3,645,527	15,414,643	15,824,539					0	0	0	0
Process	29.0	39.0	31.9	32.8	78,123.0	54,812.6	54,812.6	54,813	15.9	13.9	15.0	15.0	92.5%	92.5%	33,346,145	27,574,157	24,275,347	24,920,860					0	0	0	0
Lighting - Parking Lot Lights	-	6.0					0.0	0	15.0	13.0	15.0	15.0	92.5%	92.5%	0	0	0	0					0	0	0	0
																							0	0	0	0
RETROFIT TRACK																							0	0	0	0
Cooling	15.4	15.0	18.6	19.0	74,299	106,077.7	65,104	65,104	12.8	12.4	12.6	12.6	94.0%	94.0%	13,727,948	18,480,327	14,293,887	14,634,952					0	0	0	0
Heating	-	10.0	9.4	9.6		19,891.0	17,369	17,369	13.0	13.1	20.1	20.1	94.0%	94.0%	0	2,444,215	3,072,035	3,145,336					0	0	0	0
Lighting	46.5	81.0	83.6	85.6	91,962	63,383.8	52,212	52,212	12.7	12.9	13.0	13.0	94.0%	94.0%	51,032,269	62,434,514	53,165,257	54,433,827					0	0	0	0
Lighting - LED	4.0	8.0	8.9	9.1	72,862	84,966.0	88,342	88,342	13.0	13.0	13.0	13.0	94.0%	94.0%	3,564,700	8,306,276	9,636,735	9,866,676					0	0	0	0
Lighting - Occ Sensors only	5.9	14.0	16.9	17.3	28,951	35,414.2	30,253	30,253	9.0	9.1	9.4	9.4	94.0%	94.0%	1,435,386	4,247,879	4,512,326	4,619,994					0	0	0	0
Other		1.0	6.1	6.3		10,500.0	27,788	27,788		13.0	13.6	13.6	94.0%	94.0%	0	128,310	2,171,361	2,223,172					0	0	0	0
Lighting - Parking Lot Lights		6.0	8.5	8.7		47,270.3	51,130	51,130		13.0	13.0	13.0	94.0%	94.0%	0	3,465,861	5,280,733	5,406,736					0	0	0	0
Process	29.5	48.0	50.5	51.7	85,195	92,159.5	65,380	65,380	13.4	11.8	11.7	11.7	94.0%	94.0%	31,725,299	48,860,675	36,353,093	37,220,510					0	0	0	0
Fuel Neutral Heating, Hot Water and Controls																										
Energy Star Cental Air Conditioner			0.0	0.0			110.29	110.29			14.0	14.0	100.0%	100%			0	0								
Energy Star Mini Split Heat Pump			4.1	4.1			122.87	122.87			12.0	12.0	100.0%	100%			6,075	6,075								
Energy Star Mini Split Heat Pump (for homes w/Gas heat)							-2,158.12	-2,158.12			12.0	12.0	100.0%	100%			0	0			15.43	15.43			0	0
Energy Star Mini Split Heat Pump (for homes w/LP heat)			0.8	0.8			-2,158.12	-2,158.12			12.0	12.0	100.0%	100%			-21,339	-21,339			15.43	15.43			153	153
Energy Star Mini Split Heat Pump (for homes w/Oil heat)			3.3	3.3			-2,158.12	-2,158.12			12.0	12.0	100.0%	100%			-85,354	-85,354			17.14	17.14			678	678
Boilers, LP >= 90% thermal efficiency (301 to 499 MBH), Condensing			1.0	1.0							25	25		100.0%							42.30	42.30	0	0	1,089	1,089
Boilers, Oil >= 85% thermal efficiency (301 to 499 MBH)			0.0	0.0							25	25		100.0%							42.30	42.30	0	0	0	0
Boilers, LP ≥ 90% thermal efficiency (500 to 999 MBH), Condensing			0.0	0.0							25	25		100.0%							77.10	77.10	0	0	0	0
Boilers, Oil ≥ 85% thermal efficiency (500 to 999 MBH)			2.1	2.1							25	25		100.0%							77.10	77.10	0	0	3,970	3,970
Boilers, LP ≥ 90% thermal efficiency (1000 to 1700 MBH), Condensing			0.2	0.2							25	25		100.0%							142.60	142.60	0	0	734	734
Boilers, Oil ≥ 85% thermal efficiency (1000 to 1700 MBH)			12.4	12.4							25	25		100.0%							142.60	142.60	0	0	44,062	44,062
Boilers, LP ≥ 90% thermal efficiency (1701 to 2000 MBH), Condensing			0.0	0.0							25	25		100.0%							249.00	249.00			0	0
Boilers, Oil ≥ 85% thermal efficiency (1701 to 2000 MBH)			20.2	20.2							25	25		100.0%							249.00	249.00			125,665	125,665
7-Day Programmable Thermostats (LP)			0.0	0.0							15	15		100.0%							7.70	7.70			0	0
7-Day Programmable Thermostats (Oil)			0.0	0.0							15	15		100.0%							7.70	7.70			0	0
Boiler Reset Controls, LP, After Market, 1 shift operation			0.0	0.0							15	15		100.0%							19.30	19.30			0	0
Boiler Reset Controls, Oil, After Market, 1 shift operation			1.2	1.2							15	15		100.0%							19.30	19.30			358	358
Boiler Reset Controls, LP, After Market, >1 shift operation			0.0	0.0							15	15		100.0%							35.50	35.50			0	0
Boiler Reset Controls, Oil, After Market, >1 shift operation			0.0	0.0							15	15		100.0%							35.50	35.50			0	0
Steam Traps, LP (greater than 10 steam traps requires pre-approval)			0.0	0.0							3	3		100.0%							25.70	25.70			0	0
Steam Traps, Oil (greater than 10 steam traps requires pre-approval)			0.0	0.0							3	3		100.0%							25.70	25.70			0	0
																		0								

Planning Assumptions

PSNH Small Business Energy Solutions Program

	Quantity				Annual Savings per Unit (kWh)				Measure Life				In-Service or Installation Rate		Total Lifetime Savings (kWh)				Annual Savings per Unit (MMBTU)				Total Lifetime MMBTU Savings			
Measure	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 2014	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan
Lighting - New Equipment & Construction			143.5	147.0			13,788	13,788		12.8	15.9	15.9	92.90%	100%	0	0	31,432,153	32,196,145								
Lighting - Retrofit	448.0	530.0	167.8	171.8	17,000	18,408.9	19,982	19,982	13.1	13.1	12.8	12.8	92.90%	100%	92,827,671	119,082,650	42,978,806	44,023,451								
Lighting - Direct Install			192.1	196.8			14,489	14,489		12.8	12.9	12.9	92.90%	100%	0	0	35,772,621	36,642,113								
Lighting - Catalog Sales	534.0	170.0	667.7	683.9	440	80.9	46.31	46	5.4	6.0	6.0	6.0	92.90%	100%	1,178,700	71,110	185,501	190,010								
SmartStrips	65	1.0	80.7	82.7	113.00	75.0	75.0	75	5	5.0	5.0	5.0	92.90%	100%	34,118	349	30,280	31,016								
Fuel Neutral Heating, Hot Water and Controls																										
Energy Star Central Air Conditioner			32.3	32.3			110.29	110.29			14.0	14.0	100.0%	100%			49,810	49,810								
Energy Star Mini Split Heat Pump			125.4	125.4			122.87	122.87			12.0	12.0	100.0%	100%			184,973	184,973								
Energy Star Mini Split Heat Pump (for homes w/Gas heat)							-2,158.12	-2,158.12			12.0	12.0	100.0%	100%			0	0			15.43	15.43			0	0
Energy Star Mini Split Heat Pump (for homes w/LP heat)			35.8	35.8			-2,158.12	-2,158.12			12.0	12.0	100.0%	100%			-928,235	-928,235			15.43	15.43			6,637	6,637
Energy Star Mini Split Heat Pump (for homes w/Oil heat)			89.6	89.6			-2,158.12	-2,158.12			12.0	12.0	100.0%	100%			-2,320,588	-2,320,588			17.14	17.14			18,430	18,430
On Demand Tankless Water Heater, LP, >=.82 EF w/Electronic Ignition			35.8	35.8							20	20	100.0%	100%							7.10	7.10	0	0	5,090	5,090
On Demand Tankless Water Heater, Oil, >=.82 EF w/Electronic Ignition			0.0	0.0							20	20	100.0%	100%							7.10	7.10	0	0	0	0
On Demand Tankless Water Heater, LP, >=.95 EF w/Electronic Ignition			21.5	21.5							20	20	100.0%	100%							9.59	9.59	0	0	4,125	4,125
On Demand Tankless Water Heater, Oil, >=.95 EF w/Electronic Ignition			0.0	0.0							20	20	100.0%	100%							9.59	9.59	0	0	0	0
Boilers, LP ≥ 90% AFUE (up to 300 MBH), Condensing			17.9	17.9							25	25	100.0%	100%							22.80	22.80	0	0	10,215	10,215
Boilers, Oil ≥ 85% AFUE (up to 300 MBH)			35.8	35.8							25	25	100.0%	100%							22.80	22.80	0	0	20,430	20,430
Boilers, LP ≥ 96% AFUE (up to 300 MBH), Condensing			0.0	0.0							25	25	100.0%	100%							25.20	25.20	0	0	0	0
Boilers, Oil ≥ 87% AFUE (up to 300 MBH)			0.0	0.0							25	25	100.0%	100%							25.20	25.20	0	0	0	0
Boilers, LP >= 90% thermal efficiency (301 to 499 MBH), Condensing			17.9	17.9							25	25	100.0%	100%							42.30	42.30	0	0	18,952	18,952
Boilers, Oil >= 85% thermal efficiency (301 to 499 MBH)			35.8	35.8							25	25	100.0%	100%							42.30	42.30	0	0	37,904	37,904
7-Day Programmable Thermostats (LP)			0.0	0.0							15	15	100.0%	100%							7.70	7.70	0	0	0	0
7-Day Programmable Thermostats (Oil)			0.0	0.0							15	15	100.0%	100%							7.70	7.70	0	0	0	0
Boiler Reset Controls, LP, After Market, 1 shift operation			17.9	17.9							15	15	100.0%	100%							19.30	19.30	0	0	5,188	5,188
Boiler Reset Controls, Oil, After Market, 1 shift operation			17.9	17.9							15	15	100.0%	100%							19.30	19.30	0	0	5,188	5,188
Boiler Reset Controls, LP, After Market, >1 shift operation			0.0	0.0							15	15	100.0%	100%							35.50	35.50	0	0	0	0
Boiler Reset Controls, Oil, After Market, >1 shift operation			0.0	0.0							15	15	100.0%	100%							35.50	35.50	0	0	0	0
Steam Traps, LP (greater than 10 steam traps requires pre-approval)			0.0	0.0							3	3	100.0%	100%							25.70	25.70	0	0	0	0
Steam Traps, Oil (greater than 10 steam traps requires pre-approval)			0.0	0.0							3	3	100.0%	100%							25.70	25.70	0	0	0	0

Planning Assumptions

1. We are updating the catalog with some lighting products, such as MR16 replacements, to assist customers like Inns, Restaurants, Barbershops/Salons, etc. to assist them with do-it-yourself retrofits. This is expected to result in more catalog sales.
2. Used average energy savings from the Gas Networks, and expanded for oil and LP.

PSNH Company Specific Programs
A. Energy Star Homes - Geothermal & Air Source Heat Pump Program
B. C&I RFP Program
C. Customer Engagement Program

	Quantity				Annual Savings per Unit (kWh)				Measure Life				In-Service or Realization Rate		Total Lifetime Savings (kWh)			
Measure	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 2014	2011 Plan	2011 Actual	2013 Plan	2014 Plan
A. GSHP (Heating)	51.7		54	55	21,499		15,303	15,303	25	25	25	25	100.00%	100.00%	27,772,064	0	20,642,251	20,947,767
A. GSHP (Cooling)	51.7		54	55	158		81	81	25	25	25	25	100.00%	100.00%	204,351	0	108,924	110,536
A. GSHP (Hot Water)	51.7		54	55	1,155		1,538	1,538	25	25	25	25	100.00%	100.00%	1,491,453	0	2,074,868	2,105,577
A. GSHP (Lights & Appliances)	51.7		54	55	-177		-238	-238	25	25	25	25	100.00%	100.00%	-228,068	0	-321,282	-326,037
A. GSHP (HVAC: All-in-1)		53				25,510			25	25	25	25	100.00%	100.00%	0	33,800,300	0	0
A. ASHP (Heating)	14.5		15	15	9,671		17,244	17,244	25	25	25	25	100.00%	100.00%	3,513,613	0	6,542,007	6,638,832
A. ASHP (Cooling)	14.5		15	15	71.19		468	468	25	25	25	25	100.00%	100.00%	25,865	0	177,549	180,177
A. ASHP (Hot Water)	14.5		15	15	519.55		0	0	25	25	25	25	100.00%	100.00%	188,763	0	0	0
A. ASHP (Lights & Appliances)	14.5		15	15	-79.45		288	288	25	25	25	25	100.00%	100.00%	-28,866	0	109,261	110,878
A. ASHP (HVAC: All-in-1)		1				18,344			25	25	25	25	100.00%	100.00%	0	458,600	0	0
A. Split Sys HP (Heating)			0	0			9,671	9,671	25	25	25	25	100.00%	100.00%	0	0	0	0
A. Split Sys HP (Cooling)			0	0			71	71	25	25	25	25	100.00%	100.00%	0	0	0	0
A. Split Sys HP (Hot Water)			0	0			520	520	25	25	25	25	100.00%	100.00%	0	0	0	0
A. Split Sys HP (Lights & Appliances)			0	0			-79	-79	25	25	25	25	100.00%	100.00%	0	0	0	0
B. C&I RFP: Lighting	2.5	1	2.2	2.2	392,000	769,917	392,000	392,000	13.0	13	13.0	13.0	100.00%	100.00%	12,623,686	10,008,921	11,152,478	11,407,859
B. C&I RFP: Process	5.2	6	6.1	6.3	212,000	143,841	212,000	212,000	11.5	13	11.5	11.5	100.00%	100.00%	12,663,160	11,219,611	14,916,470	15,258,042
B. C&I RFP: Cooling	2.4	1	4.2	4.3	197,000	224,527	197,000	197,000	10.5	10	10.5	10.5	100.00%	100.00%	4,897,976	2,245,270	8,654,300	8,852,474
B. C&I RFP: Lighting (Occ Sensors Only		1	0.0	0.0		107,001	30,767	30,767		10	10	10.0	100.00%	100.00%	0	1,070,010	0	0
B. C&I RFP: Heating		3	0.0	0.0		74,513		0		10			100.00%	100.00%	0	2,232,407	0	0
C. Customer Engagement			25,000	25,000			108	160			1.0	1.0		100.00%			2,700,000	4,000,000

Planning Assumptions

A. Energy Star Homes - Geothermal & Air Source Heat Pump

1. GSHP = Ground Source (Geothermal) Heat Pump; ASHP = Air Source Heat Pump; Split System Heat Pump (ex. Mitsubishi "Mr. Slim")

2. Home Energy Raters incorporating a new Heat Pump COP calculation for the rated home to more accurately account for pumping power requirements. This reduced savings by 8% from 2011.

3. The User Defined Reference Home for New Hampshire continues to be updated to reflect code changes. Revisions will include a change to the efficiency of the reference heating system efficiency, resulting in a 5% reduction in savings.

4. Planning for additional homes to have Air Source Heat Pumps installed in 2013 due to their cold climate heating improvements. (Some may choose to go through the ENERGY STAR Homes program.)

B. C&I RFP Program

1. PSNH estimated smaller Lighting and Cooling projects and larger Process projects in 2012 than were done in 2010.

C. Customer Engagement Program: Energy savings were estimated by the contractor in their proposal.

Unitil ENERGY STAR® Homes Program

	Quantity				Annual Savings per Unit (kWh)				Measure Life				In-Service / Realization Rate		Total Lifetime Savings (kWh)				Annual Savings per Unit (MMBTU)				Total Lifetime MMBTU Savings			
Measure	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 2014	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan
E-STAR Homes - CFLs	354	403	541	541	51	51	23	23	7	7	5	5	100%	100%	125,697	143,185	62,204	62,204	0.0	0.0	0.0	0.0	0	0	0	0
E-STAR Homes - Fixtures	0	264	38	38	106	106	62	62	20	20	20	20	100%	100%	0	558,927	46,871	46,871	0.0	0.0	0.0	0.0	0	0	0	0
E-STAR Homes - Dishwashers	39	59	47	47	107	107	33	33	10	10	11	11	100%	100%	41,730	63,130	17,077	17,077	1.9	1.9	0.0	0.0	741	1,121	0	0
E-STAR Homes - Refrigerators	20	56	35	35	107	107	107	107	12	12	12	12	100%	100%	25,236	71,904	45,304	45,304	0.0	0.0	0.0	0.0	0	0	0	0
E-STAR Homes - Clotheswashers	6	14	16	16	223	223	261	261	11	11	12	12	100%	100%	14,464	34,343	51,508	51,508	0.1	0.1	0.0	0.0	9	22	0	0
E-STAR Homes - Thermostats	39	0	16	16	0	0	0	0	10	10	15	15	100%	100%	0	0	0	0	7.5	0.0	6.4	6.4	2,948	0	1,581	1,581
E-STAR Homes - Heating (Elec)	0	0	3	3	0	0	1,925	1,925	25	25	25	25	100%	100%	0	0	158,483	158,483	0.0	0.0	0.0	0.0	0	0	0	0
E-STAR Homes - Heating (Oil)	39	0	0	0	1,200	0	0	0	25	25	25	25	100%	100%	1,179,261	0	0	0	36.0	0.0	0.0	0.0	35,378	0	0	0
E-STAR Homes - Heating (Nat Gas)	0	48	11	11	0	32	0	0	25	25	25	25	100%	100%	0	38,924	0	0	0.0	19.8	30.0	30.0	0	23,711	8,118	8,118
E-STAR Homes - Heating (Propane)	0	7	28	28	0	1,137	1,136	1,136	25	25	25	25	100%	100%	0	198,900	801,647	801,648	0.0	62.7	62.7	62.7	0	10,970	44,232	44,232
E-STAR Homes - Geothermal	0	3	5	5	0	79,058	79,041	79,041	25	25	25	25	100%	100%	0	5,929,350	9,296,216	9,296,229	0.0	0.0	0.0	0.0	0	0	0	0
E-STAR Homes - Cooling	10	8	28	28	131	228	227	227	25	25	25	25	100%	100%	32,184	45,525	160,188	160,189	0.0	0.0	0.0	0.0	0	0	0	0
E-STAR Homes - Water Heating (Elec)	0	0	3	3	0	0	3,012	3,012	15	15	15	15	100%	100%	0	0	148,785	148,785	0.0	0.0	0.0	0.0	0	0	0	0
E-STAR Homes - Water Heating (Oil)	39	0	0	0	0	0	0	0	15	15	15	15	100%	100%	0	0	0	0	2.0	0.0	0.0	0.0	1,179	0	0	0
E-STAR Homes - Water Heating (Nat Gas)	0	0	11	11	0	0	0	0	15	15	15	15	100%	100%	0	0	0	0	0.0	0.0	4.0	4.0	0	0	649	649
E-STAR Homes - Water Heating (Propane)	0	59	28	28	0	204	0	0	15	15	15	15	100%	100%	0	180,735	0	0	0.0	1.2	4.1	4.1	0	1,052	1,715	1,715
													100%	100%												

Planning Assumptions

Unitil Home Energy Assistance Program

	Quantity				Annual Savings per Unit (kWh)				Measure Life				Installation or Realization Rate		Total Lifetime Savings (kWh)				Annual Savings per Unit (MMBTU)				Total Lifetime MMBTU Savings			
Measure	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 2014	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan
CFLs	348.9	311	245	272	50.8	89.1	23.0	23.0	8	8	7	7	91.2%	91.2%	129,297	202,280	36,026	39,930	0.0	0.0	0.0	0.0	0	0	0	0
Refrigerator	46.5	28	74	82	781.0	950.1	820.5	820.5	19	19	12	12	91.2%	91.2%	629,473	460,994	661,092	732,730	0.0	0.0	0.0	0.0	0	0	0	0
Wx Electric, MF	0.0	0	7	8	0.0	0.0	1,473.7	1,473.7	20	20	20	20	91.2%	91.2%	0	0	197,895	219,339	0.0	0.0	0.0	0.0	0	0	0	0
Wx Oil, MF	0.0	0	6	7	0.0	0.0	0.0	0.0	20	20	20	20	91.2%	91.2%	0	0	0	0	0.0	0.0	28.7	28.7	0	0	3,381	3,747
Wx Propane, MF	0.0	0	1	2	0.0	0.0	0.0	0.0	20	20	20	20	91.2%	91.2%	0	0	0	0	0.0	0.0	43.6	43.6	0	0	1,283	1,422
DHW MF Elec	0.0	0	15	16	0.0	0.0	120.0	120.0	7	7	7	7	91.2%	91.2%	0	0	11,280	12,502	0.0	0.0	0.0	0.0	0	0	0	0
Wx Electric	5.8	16	7	8	2,354.5	1,532.9	44.7	44.7	20	20	20	20	91.2%	91.2%	249,696	447,353	5,600	6,207	0.0	0.0	0.0	0.0	0	0	0	0
Wx Gas	6.4	11	0	0	0.0	0.0	0.0	0.0	20	20	20	20	91.2%	91.2%	0	0	0	0	22.0	22.6	0.0	0.0	2,810	4,973	0	0
Wx Oil	25.6	24	21	23	0.0	0.0	66.1	66.1	20	20	20	20	91.2%	91.2%	0	0	24,852	27,545	28.6	38.4	38.2	38.2	14,633	18,412	15,741	17,447
Wx Propane	20.3	7	7	8	0.0	0.0	115.4	115.4	20	20	20	20	91.2%	91.2%	0	0	14,467	16,035	32.8	51.9	18.7	18.7	13,349	7,270	2,566	2,844
DHW Elec	0.0	31	3	4	0.0	365.0	96.0	96.0	7	7	7	7	91.2%	91.2%	0	72,235	2,106	2,334	0.0	0.0	0.0	0.0	0	0	0	0
DHW Non-Elec	0.0	23	5	6	0.0	0.0	0.0	0.0	7	7	7	7	91.2%	91.2%	0	0	0	0	0.0	5.3	0.7	0.7	0	858	25	28
DWH Gas	5.4	0	0.0	0.0	0.0	0.0	0.0	0.0	7	7	7	7	91.2%	91.2%	0	0	0	0	11.3	0.0	0.0	0.0	430	0	0	0
DHW Oil	21.0	0	0.0	0.0	0.0	0.0	0.0	0.0	7	7	7	7	91.2%	91.2%	0	0	0	0	2.3	0.0	0.0	0.0	338	0	0	0
Thermostats	0.0	414	0.0	0.0	0.0	234.6	0.0	0.0	10	10	10	10	91.2%	91.2%	0	885,661	0	0	0.0	0.3	0.0	0.0	0	1,225	0	0

Planning Assumptions

Unitil Home Performance with ENERGY STAR®

Measure	Quantity				Annual Savings per Unit (kWh)				Measure Life				Installation or Realization Rate		Total Lifetime Savings (kWh)				Annual Savings per Unit (MMBTU)				Total Lifetime MMBTU Savings			
	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 2014	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan
FUEL NEUTRAL HPwES																										
HES CFLs	301	230	225	235	51	56	23	23	7	7	7	7	100%	100%	107,208	90,542	36,200	37,842	0.00	0.00	0	0	0	0	0	0
HES Wx, Electric	10	0	0	0	1,904	0	0	0	20	20	20	20	100%	100%	382,685	0	0	0	0.00	0.00			0	0	0	0
HES Wx, Oil	40	0	0	0	0	0	0	0	20	20	20	20	100%	100%	0	0	0	0	30.00	0.00	0	0	24,119	0	0	0
HES Air Sealing, Electric	0	7	5	5	0	643	829	829	15	15	15	15	100%	100%	0	67,527	58,227	60,868	0.0	0.0	0.0	0.0	0	0	0	0
HES Insulation, Electric	0	16	9	10	0	1,052	1,629	1,629	25	25	25	25	100%	100%	0	420,711	381,618	398,928	0.0	0.0	0.0	0.0	0	0	0	0
HES Insulation, Gas	0	1	0	0	0	0	0	0	25	25	25	25	100%	100%	0	0	0	0	0.0	19.1	0.0	0.0	0	477	0	0
HES Air Sealing, Gas	0	1	0	0	0	0	0	0	15	15	15	15	100%	100%	0	0	0	0	0.0	15.5	0.0	0.0	0	232	0	0
HES Air Sealing, Oil	0	26	28	29	0	0	0	0	15	15	15	15	100%	100%	0	0	0	0	0.0	12.1	5.2	5.2	0	4,709	2,176	2,275
HES Insulation, Oil	0	20	28	29	0	0	0	0	25	25	25	25	100%	100%	0	0	0	0	0.0	53.2	23.5	23.5	0	26,607	16,516	17,265
HES Air Sealing, Propane	0	5	9	10	0	0	0	0	15	15	15	15	100%	100%	0	0	0	0	0.0	7.9	12.5	12.5	0	592	1,756	1,835
HES Insulation, Propane	0	4	9	10	0	0	0	0	25	25	25	25	100%	100%	0	0	0	0	0.0	38.7	38.5	38.5	0	3,869	9,010	9,419
HES Air Sealing, Wood	0	1	0	0	0	0	0	0	15	15	15	15	100%	100%	0	0	0	0	0.0	15.2	0.0	0.0	0	228	0	0
HES Insulation, Wood	0	1	0	0	0	0	0	0	25	25	25	25	100%	100%	0	0	0	0	0.0	49.8	0.0	0.0	0	1,245	0	0
Baseload (CFLs only)	15	0	5	5	51	0	138	138	7	7	7	7	100%	100%	5,212	0	4,525	4,730	0.0	0.0	0.0	0.0	0	0	0	0
Thermostats	0	34	0	0	0	133	0	0	10	10	10	10	100%	100%	0	45,170	0	0	0.0	3.0	0.0	0.0	0	1,031	0	0
DWH ISMs	0	10	0	0	0	164	0	0	7	7	7	7	100%	100%	0	11,459	0	0	0.0	4.2	0.0	0.0	0	296	0	0
High Efficiency Furnace	0	1	0	0	0	0	0	0	18	18	18	18	100%	100%	0	0	0	0	0.0	14.6	0.0	0.0	0	263	0	0

Planning Assumptions

Unitil ENERGY STAR® Lighting Program

	Quantity				Annual Savings per Unit (kWh)				Measure Life				In-Service & Realization Rate		Total Lifetime Savings (kWh)			
Measure	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 2014	2011 Plan	2011 Actual	2013 Plan	2014 Plan
Retail Sales: # CFLs	417,879	34,735	19,564	21,114	51	51	23	23	5	5	5	5	80.3%	62.3%	85,159,124	7,078,609	1,401,358	1,512,356
Retail Sales: Interior Fixture	22	390	292	315	106	106	62	62	8	8	8	8	96.4%	96.4%	17,944	318,385	140,224	151,331
Retail Sales: Exterior Fixture	879	58	29	32	106	106	62	62	5	5	5	5	100.0%	100.0%	465,357	30,699	9,091	9,811
Retail Sales: Torchieres	0	8	0	0	104	104	69	69	8	8	8	8	93.5%	93.5%	0	6,246	0	0
Retail Sales: # LEDs	22	90	292	315	47	47	28	28	20	20	20	20	95.0%	95.0%	19,643	80,640	153,497	165,655
Retailer Promotion: CFLs	0	16,743	20,400	20,400	52	52	23	23	7	7	5	5	80.3%	62.3%	0	4,856,686	1,461,240	1,461,240
Retailer Promotion: LEDs	0	0	280	280	0	0	28	28	20	20	20	20	95.0%	95.0%	0	0	147,188	147,188
Retailer Promotion: LED fixtures	0	0	120	120	0	0	28	28	20	20	20	20	95.0%	95.0%	0	0	63,081	63,081

Planning Assumptions

1. Assumed the Energy Indepence and Security Act of 2007 was fully in place in Jan2012 (e.g., Used 72W halogen as base rather than 100W incandescent) This reduces the kWH savings for all CFLs - the largest rebated product - by nearly 1/3.
2. Realization Rates for CFLs were modified from 80.3% to 62.3%, per KEMA Impact Evaluation, June 22, 2012.
3. Average hours on per energy efficient lights were ALL modified to 2 hours/day (from 3.4, or 41% reduction), per KEMA Impact Evaluation, June 22, 2012.
3. Assumed an increase in LED bulbs and fixture purchases in 2013-2014.

Unitil ENERGY STAR® Appliance Program

	Quantity				Annual Savings per Unit (kWh)				Measure Life				In-Service / Realization Rate		Total Lifetime Savings (kWh)				Annual Savings per Unit (MMBTU)				Total Lifetime MMBTU Savings			
Measure	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan
Energy Star Clothes Washer	1,054	1,148	884	903	223	223	261	261	11	11	11	11	100.00%	100.00%	2,585,477	2,816,107	2,535,680	2,589,625	0.1	0.1	0.7	0.7	1,668	1,817	7,175	7,327
Energy Star Room A/C	162	410	393	401	31	31	16	16	9	9	9	9	100.00%	100.00%	44,827	113,342	57,148	58,364	0.0	0.0	0.0	0.0	0	0	0	0
2nd Refrigerator Pickup	162	8	20	20	413	413	835	835	8	8	8	8	100.00%	100.00%	535,759	26,432	131,268	134,060	0.0	0.0	0.0	0.0	0	0	0	0
Smartstrip Power Strip	65	120	98	100	75	75	79	79	5	5	5	5	100.00%	100.00%	24,323	45,000	38,810	39,636	0.0	0.0	0.0	0.0	0	0	0	0
Energy Star Refrigerator	162	687	590	602	107	107	107	107	12	12	12	12	100.00%	100.00%	208,207	882,108	756,951	773,055	0.0	0.0	0.0	0.0	0	0	0	0
Energy Star Room Air Purifiers	16	12	20	20	238	238	391	391	9	9	9	9	100.00%	100.00%	34,734	25,704	69,086	70,555	0.0	0.0	0.0	0.0	0	0	0	0
Energy Star Central AC (385 Hours ON in NH)	0	0.0	3.8	3.9	0	0	110	110	0	0	14	14	100.00%	100.00%	0	0	5,886	5,979	0.0	0.0	0.0	0.0	0	0	0	0
Energy Star Mini Split Heat Pump	0	0.0	6.9	7.0	0	0	123	123	0	0	12	12	100.00%	100.00%	0	0	10,118	10,277	0.0	0.0	0.0	0.0	0	0	0	0
DHW: LP, Tankless Water Heaters (EF>= 0.82)	0	0.0	18.3	18.6	0	0	0	0	0	0	20	20	100.00%	100.00%	0	0	0	0	0.0	0.0	9.7	9.7	0	0	3,550	3,606
DHW: LP, Indirect Water Heater (attached to LP Energy Star FH	0	0.0	0.8	0.8	0	0	0	0	0	0	20	20	100.00%	100.00%	0	0	0	0	0.0	0.0	8.0	8.0	0	0	122	124
DHW: Oil, Indirect Water Heater (attached to oil Energy Star FI	0	0.0	0.8	0.8	0	0	0	0	0	0	20	20	100.00%	100.00%	0	0	0	0	0.0	0.0	8.0	8.0	0	0	122	124
DHW: LP, Stand Alone Storage Water Heater (EF>=0.67)	0	0.0	0.8	0.8	0	0	0	0	0	0	13	13	100.00%	100.00%	0	0	0	0	0.0	0.0	3.7	3.7	0	0	37	37
DHW: Heat Pump Water Heater 50 Gallon Electric, EF>=2.3 (ES	0	0.0	0.8	0.8	0	0	1,775	1,775	0	0	10	10	100.00%	100.00%	0	0	13,533	13,747	0.0	0.0	0.0	0.0	0	0	0	0
DHW: Heat Pump Water Heater 80 Gallon Electric, EF>=2.3 (ES	0	0.0	0.8	0.8	0	0	2,672	2,672	0	0	10	10	100.00%	100.00%	0	0	20,373	20,694	0.0	0.0	0.0	0.0	0	0	0	0
Boil: LP, Combo condensing boiler w/ On-Demand DWH 90%	0	0.0	0.8	0.8	0	0	0	0	0	0	20	20	100.00%	100.00%	0	0	0	0	0.0	0.0	17.8	17.8	0	0	271	276
Boil: Oil, Combo condensing boiler w/ On-Demand DWH 90%	0	0.0	0.8	0.8	0	0	0	0	0	0	20	20	100.00%	100.00%	0	0	0	0	0.0	0.0	17.8	17.8	0	0	271	276
Furn: LP, Furnace, FHA, AFUE >=95% w/ECM	0	0.0	9.1	9.3	0	0	168	168	0	0	18	18	100.00%	100.00%	0	0	27,668	28,104	0.0	0.0	4.5	4.5	0	0	741	753
Furn: LP, Furnace, FHA, AFUE >=96% w/ECM	0	0.0	4.6	4.6	0	0	168	168	0	0	18	18	100.00%	100.00%	0	0	13,834	14,052	0.0	0.0	5.6	5.6	0	0	457	464
Furn: LP, Furnace, FHA, AFUE >=97% w/ECM	0	0.0	1.5	1.5	0	0	168	168	0	0	18	18	100.00%	100.00%	0	0	4,611	4,684	0.0	0.0	5.9	5.9	0	0	162	164
Furn: Oil, Furnace, FHA, AFUE >=85% w/ECM	0	0.0	4.6	4.6	0	0	168	168	0	0	18	18	100.00%	100.00%	0	0	13,834	14,052	0.0	0.0	18.0	18.0	0	0	1,482	1,506
Furn: Oil, Furnace, FHA, AFUE >=90 w/ECM	0	0.0	1.5	1.5	0	0	168	168	0	0	18	18	100.00%	100.00%	0	0	4,611	4,684	0.0	0.0	20.7	20.7	0	0	568	577
Boiler, LP, FHW, AFUE >= 90%	0	0.0	9.1	9.3	0	0	0	0	0	0	20	20	100.00%	100.00%	0	0	0	0	0.0	0.0	10.4	10.4	0	0	1,903	1,933
Boiler, LP, FHW, AFUE >=96%	0	0.0	3.0	3.1	0	0	0	0	0	0	20	20	100.00%	100.00%	0	0	0	0	0.0	0.0	13.1	13.1	0	0	799	812
Boiler, Oil, FHW, AFUE >=85%	0	0.0	57.9	58.9	0	0	0	0	0	0	20	20	100.00%	100.00%	0	0	0	0	0.0	0.0	5.4	5.4	0	0	6,232	6,330
Boiler, Oil, FHW, AFUE >=90%	0	0.0	7.6	7.7	0	0	0	0	0	0	20	20	100.00%	100.00%	0	0	0	0	0.0	0.0	10.8	10.8	0	0	1,640	1,666
TSTAT: LP, 7-Day Programmable Thermostats	0	0.0	0.8	0.8	0	0	14	14	0	0	15	15	100.00%	100.00%	0	0	165	167	0.0	0.0	7.7	7.7	0	0	88	89
TSTAT: Oil, 7-Day Programmable Thermostats	0	0.0	0.8	0.8	0	0	14	14	0	0	15	15	100.00%	100.00%	0	0	165	167	0.0	0.0	7.7	7.7	0	0	88	89
TSTAT: LP, WiFi Enabled 7-Day Programmable Thermostats	0	0.0	0.8	0.8	0	0	14	14	0	0	15	15	100.00%	100.00%	0	0	165	167	0.0	0.0	6.6	6.6	0	0	75	77
TSTAT: Oil, WiFi Enabled 7-Day Programmable Thermostats	0	0.0	0.8	0.8	0	0	14	0	0	0	15	15	100.00%	100.00%	0	0	165	0	0.0	0.0	6.6	6.6	0	0	75	77
BRC: LP, Boiler Reset Controls	0	0.0	6.9	7.0	0	0	0	0	0	0	15	15	100.00%	100.00%	0	0	0	0	0.0	0.0	4.5	4.5	0	0	463	470
BRC: Oil, Boiler Reset Controls	0	0.0	9.1	9.3	0	0	0	0	0	0	15	15	100.00%	100.00%	0	0	0	0	0.0	0.0	4.5	4.5	0	0	618	627

Planning Assumptions

1. Clothes Washer Annual kWH Savings updated based on mix of Electric Water Heating customer and per EnergyStar.gov Savings Calculator.
2. Room Air Purifier Annual kWH Savings updated per EnergyStar.gov Savings Calculator.
3. Central air conditioner and Mini Split Heat Pump Annual kWh savings added per EnergyStar.gov calculator, and conservatively assumed 50% of heat provided by heat pump, 50% provided by existing fossil system.
4. All Heating, Hot Water, Programmable Thermostats and Boiler Reset Control energy savings provided by U.S. Department of Energy during ARRA Program and adjusted with recent Gas Networks data if available.

Unitil Large Business Energy Solutions Program

	Quantity				Annual Savings per Unit (kWh)				Measure Life				In-Service or Realizaton Rate		Total Lifetime Savings (kWh)				Annual Savings per Unit (MMBTU)				Total Lifetime MMBTU Savings			
Measure	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 2014	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan
NEW EQUIPMENT TRACK																							0	0	0	0
Large C&I (Rolled-Up average)	13	0	0	0	43,236	0	0	0	15	15	15	15	100%	100%	8,431,037	0	0	0	0	0	0	0	0	0	0	0
Lighting	0	1	6	6	0	105,175	58,349	58,349	15	15	15	15	100%	100%	0	1,577,625	4,846,325	4,846,335	0	0	0	0	0	0	0	0
HVAC	0	4	6	6	0	2,419	27,693	27,693	15	15	15	15	100%	100%	0	145,140	2,683,415	2,683,421	0	0	0	0	0	0	0	0
Non-Lighting (Rolled Up)	0	0	6	6	0	0	48,577	48,577	15	15	15	15	100%	100%	0	0	4,707,148	4,707,159	0	0	0	0	0	0	0	0
ComprAir	0	1	0	0	0	11,913	0	0	15	15	15	15	100%	100%	0	178,695	0	0	0	0	0	0	0	0	0	0
Motors	0	1	0	0	0	7,634	0	0	20	20	20	20	100%	100%	0	152,680	0	0	0	0	0	0	0	0	0	0
VFDs	0	1	0	0	0	67,102	0	0	15	15	15	15	100%	100%	0	1,006,530	0	0	0	0	0	0	0	0	0	0
RETROFIT TRACK																										
LCI Non Lighting (Rolled-Up average)	7	0	4	4	92,713	0	82,048	82,048	13	13	13	14	89%	89%	7,465,898	0	3,920,115	4,531,344	0	0	0	0	0	0	0	0
Lighting	22	15	10	11	92,713	144,094	117,843	117,843	13	13	13	13	89%	89%	23,599,102	25,007,433	13,794,384	14,806,276	0	0	0	0	0	0	0	0
Freezer/Cooler LEDs	0	2	1	1	0	103,481	83,273	83,273	13	13	13	13	89%	89%	0	2,394,561	994,662	1,067,626	0	0	0	0	0	0	0	0
LEDs	0	0	2	3	0	0	77,951	77,951	13	13	13	13	89%	89%	0	0	2,234,629	2,398,551	0	0	0	0	0	0	0	0
VFDs	0	3	3	3	0	53,949	95,100	95,100	13	13	13	13	89%	89%	0	1,872,570	3,180,608	3,413,922	0	0	0	0	0	0	0	0
CFL Bulbs	0	1	0	0	0	86,464	0	0	5	5	5	5	89%	89%	0	384,765	0	0	0	0	0	0	0	0	0	0
Motors	0	2	0	0	0	6,410	0	0	13	13	13	13	89%	89%	0	148,316	0	0	0	0	0	0	0	0	0	0
Occupancy Sensors	0	1	0	0	0	9,387	0	0	9	9	9	9	89%	89%	0	75,190	0	0	0	0	0	0	0	0	0	0
Fuel Neutral Heating, Hot Water and Controls																										
Oil: Air Source Heat Pump Split Systems (Energy Star >= 14.5 SEER)	0	0	0.8	1	0	0	0	0	0	0	12	12	100%	100%	0	0	0	0	0.0	0.0	17.1	0.0	0	0	156	0
Boilers (301 to 499 MBH), Condensing	0	0	1.5	2	0	0	0	0	0	0	25	25	100%	100%	0	0	0	0	0.0	0.0	42.3	42.3	0	0	1,600	1,600
Boilers (1000 to 1700 MBH)	0	0	2.3	2	0	0	0	0	0	0	25	25	100%	100%	0	0	0	0	0.0	0.0	142.6	142.6	0	0	8,089	8,089
Boilers (1701 to 2000 MBH)	0	0	3.8	4	0	0	0	0	0	0	25	25	100%	100%	0	0	0	0	0.0	0.0	249.0	249.0	0	0	23,541	23,541

Planning Assumptions

Unitil Small Business Energy Solutions Program

Measure	Quantity				Annual Savings per Unit (kWh)				Measure Life				In-Service or Installation Rate		Total Lifetime Savings (kWh)				Annual Savings per Unit (MMBTU)				Total Lifetime MMBTU Savings			
	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 2014	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan
SBS NC - Lighting	0	0	5	5	0	0	13,788	13,788	13	13	13	13	93%	97%	0	0	812,990	913,016	0	0	0	0	0	0	0	0
Lighting - Retrofit	46	41	33	34	19,372	19,508	20,343	20,343	13	13	13	13	93%	97%	10,855,741	9,659,281	8,581,033	8,605,986	0	0	0	0	0	0	0	0
Refrigerator/Freezer LEDs	0	3	1	1	0	15,602	46,807	46,807	13	13	13	13	93%	97%	0	565,288	674,724	686,606	0	0	0	0	0	0	0	0
SBS Retro Non-Lighting	12	0	6	7	19,372	0	11,433	11,433	13	13	13	13	93%	120%	2,713,935	0	1,157,504	1,177,888	0	0	0	0	0	0	0	0
Air Compressors	0	1	0	0	0	9,484	0	0	13	13	13	13	93%	97%	0	0	0	0	0	0	0	0	0	0	0	0
Occupancy Sensors	0	3	0	0	0	3,874	0	0	9	9	9	9	93%	97%	0	0	0	0	0	0	0	0	0	0	0	0
Unitary AC	0	3	0	0	0	11,987	0	0	15	15	15	15	93%	97%	0	0	0	0	0	0	0	0	0	0	0	0
Unitary HP	0	1	0	0	0	1,398	0	0	15	15	15	15	93%	97%	0	0	0	0	0	0	0	0	0	0	0	0
Fuel Neutral Heating, Hot Water and Controls																										
Central Air Conditioner (Energy Star >= 14.5 SEER), 3 ton	0	0	2	2	0	0	110	110	0	0	14	14	100%	100%	0	0	3,773	3,773	0.0	0.0	0.0	0.0	0	0	0	0
LP: Air Source Heat Pump Split Systems (Energy Star >= 14.5 SEER)	0	0	3	3	0	0	0	0	0	0	12	12	100%	100%	0	0	0	0	0.0	0.0	15.4	15.4	0	0	503	503
Oil: Air Source Heat Pump Split Systems (Energy Star >= 14.5 SEER)	0	0	7	7	0	0	0	0	0	0	12	12	100%	100%	0	0	0	0	0.0	0.0	17.1	17.1	0	0	1,396	1,396
On Demand Tankless Water Heater, EF >=0.82 EF w/Electronic Ignition	0	0	3	3	0	0	0	0	0	0	20	20	100%	100%	0	0	0	0	0.0	0.0	7.1	7.1	0	0	386	386
On Demand Tankless Water Heater >=.95 EF w/Electronic Ignition	0	0	16	16	0	0	0	0	0	0	20	20	100%	100%	0	0	0	0	0.0	0.0	9.6	9.6	0	0	3,124	3,124
Boilers (up to 300 MBH), Condensing	0	0	1	1	0	0	0	0	0	0	25	25	100%	100%	0	0	0	0	0.0	0.0	22.8	22.8	0	0	774	774

Planning Assumptions

Unitil Gas ENERGY STAR® Homes Program

	Quantity				Annual Savings per Unit (MMBTU)				Measure Life				Installation or Realization Rate		Total Annual MMBTU Savings				Total Lifetime MMBTU Savings			
Measure	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 2014	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan
RNC ES Homes (Heating)	0.0	0.0	15.6	19.5	0.0	0.0	34.4	34.4	0.0	0.0	25	25	100%	100%	0.0	0.0	535.9	669.9	0	0	13,398	16,747
RNC ES Homes (Water Heating)	0.0	0.0	15.6	19.5	0.0	0.0	3.1	3.1	0.0	0.0	15	15	100%	100%	0.0	0.0	48.8	61.0	0	0	732	916
RNC Dishwashers	0.0	0.0	15.6	19.5	0.0	0.0	0.4	0.4	0.0	0.0	10	10	100%	100%	0.0	0.0	6.2	7.8	0	0	62	78
RNC Clotheswashers	0.0	0.0	4.7	5.9	0.0	0.0	0.2	0.2	0.0	0.0	11	11	100%	100%	0.0	0.0	0.9	1.1	0	0	10	12

Unitil Gas Home Performance with ENERGY STAR®

	Quantity				Annual Savings per Unit (MMBTU)				Measure Life				Installation or Realization Rate		Total Annual MMBTU Savings				Total Lifetime MMBTU Savings			
Measure	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 2014	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan
Weatherization (per home)	26	0	0	0	40.0	0.0	0.0	0.0	20	0	0	0	100%	100%	1,040.0	0.0	0.0	0.0	20,800	0	0	0
Air Sealing	0	19	24	29	0.0	10.9	9.0	9.0	15	15	15	15	100%	100%	0.0	206.7	217.7	259.9	0	3,101	3,265	3,898
Insulation	0	19	24	29	0.0	27.9	42.8	42.8	25	25	25	25	100%	100%	0.0	529.3	1,034.0	1,234.5	0	13,232	25,850	30,862
Thermostats	0	2	5	6	0.0	2.1	7.7	7.7	15	15	15	15	100%	100%	0.0	4.2	37.4	44.6	0	64	561	670
DWH ISMs	0	4	5	6	0.0	5.9	7.0	7.0	4	4	7	7	100%	100%	0.0	23.6	33.9	40.5	0	94	237	283

Unitil Gas ENERGY STAR Appliances

	Quantity				Annual Savings per Unit (MMBTU)				Measure Life				Installation or Realization Rate		Total Annual MMBTU Savings				Total Lifetime MMBTU Savings			
Measure	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 2014	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan
Boiler Reset Controls	13	1	0	0	7.9	7.9	4.5	4.5	15	15	15	15	100%	100%	102.7	7.9	0.0	0.0	1,541	119	0	0
Boiler (forced hot water) 85% AFUE	13	3	0	0	7.2	7.2	0.0	0.0	20	20	0	0	100%	100%	93.6	21.6	0.0	0.0	1,872	432	0	0
Boiler (forced hot water) 90% AFUE	87	37	46	50	14.2	14.2	10.4	10.4	20	20	20	20	100%	100%	1,235.4	525.4	479.4	523.0	24,708	10,508	9,588	10,460
Boiler (forced hot water) >= 96% AFUE	0	0	12	13	0.0	0.0	13.1	13.1	0	0	20	20	100%	100%	0.0	0.0	151.0	164.7	0	0	3,019	3,294
Furnace (forced hot air) 92% AFUE	0	13	0	0	21.1	21.1	0.0	0.0	18	18	0	0	100%	100%	0.0	274.3	0.0	0.0	0	4,937	0	0
Furnace (forced hot air) 92% AFUE w/ ECM	22	0	0	0	11.8	11.8	0.0	0.0	18	18	0	0	100%	100%	259.6	0.0	0.0	0.0	4,673	0	0	0
Furnace (forced hot air) 94% AFUE w/ ECM	65	42	0	0	14.2	14.2	0.0	0.0	18	18	0	0	100%	100%	920.4	594.7	0.0	0.0	16,567	10,705	0	0
Furnace (forced hot air) 95% AFUE w/ECM	0	0	17	19	0.0	0.0	4.5	4.5	0	0	18	18	100%	100%	0.0	0.0	77.8	84.9	0	0	1,400	1,527
Furnace (forced hot air) >= 97% AFUE	0	0	17	19	0.0	0.0	5.9	5.9	0	0	18	18	100%	100%	0.0	0.0	102.0	111.3	0	0	1,836	2,003
Integrated water heater/condensing boiler	13	13	29	31	21.0	21.0	17.8	17.8	20	20	20	20	100%	100%	273.0	273.0	512.8	559.4	5,460	5,460	10,256	11,189
High Efficiency Stand Alone Water Heater (0.62 EF)	4	1	0	0	1.9	1.9	0.0	0.0	13	13	0	0	100%	100%	7.6	1.9	0.0	0.0	99	25	0	0
Tankless Water Heaters (EF 0.82)	43	21	40	44	9.7	9.7	9.7	9.7	20	20	20	20	100%	100%	417.1	203.7	391.2	426.8	8,342	4,074	7,825	8,536
Tankless Water Heaters (EF 0.94)	0	0	9	9	0.0	0.0	10.1	10.1	0	0	20	20	100%	100%	0.0	0.0	87.3	95.2	0	0	1,746	1,905
Indirect Water Heater (attached to gas Energy Star FHW boiler)	43	18	40	44	8.0	8.0	8.0	8.0	20	20	20	20	100%	100%	344.0	144.0	322.7	352.0	6,880	2,880	6,453	7,040
Energy Star Programmable Thermostats	143	44	69	75	7.5	7.5	3.2	3.2	15	15	15	15	100%	100%	1,072.5	330.0	221.3	241.4	16,088	4,950	3,319	3,621
Wi-Fi Thermostats (controls gas heat only)	0	0	9	9	0.0	0.0	6.6	6.6	0	0	15	15	100%	100%	0.0	0.0	57.0	62.2	0	0	856	933

Unitil Gas Home Energy Assistance Program

	Quantity				Annual Savings per Unit (MMBTU)				Measure Life				Installation or Realization Rate		Total Annual MMBTU Savings				Total Lifetime MMBTU Savings			
Measure	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 2014	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan
Weatherization (per home)	23	0	0	0	34.3	0.0	0.0	0.0	20	0	0	0	100%	100%	790.0	0.0	0.0	0.0	15,797	0	0	0
Air Sealing SF	0	2	9	11	0.0	45.9	23.2	23.2	15	15	15	15	100%	100%	0.0	91.8	209.4	245.5	0	1,377	3,141	3,682
Insulation SF	0	3	9	11	0.0	54.9	29.5	29.5	25	25	25	25	100%	100%	0.0	164.7	266.2	312.0	0	4,117	6,654	7,801
Air Sealing MF	0	86	21	25	0.0	2.3	6.2	6.2	15	15	15	15	100%	100%	0.0	198.6	129.5	151.9	0	2,979	1,943	2,278
Insulation MF	0	16	21	25	0.0	0.1	8.8	8.8	25	25	25	25	100%	100%	0.0	2.2	185.1	217.0	0	56	4,627	5,424
DHW ISMs (aerators & pipewrap) SF	0	2	9	11	0.0	1.9	3.0	3.0	4	4	4	4	100%	100%	0.0	3.8	26.6	31.2	0	15	106	125
DHW ISMs (aerators & pipewrap) MF	0	16	21	25	0.0	1.9	3.2	3.2	4	4	4	4	100%	100%	0.0	31.0	67.5	79.1	0	124	270	317
Heating System Replacement	0	6	1	2	0.0	36.8	10.4	10.4	0	18	20	20	100%	100%	0.0	220.8	14.1	16.5	0	4,037	281	330
Thermostats	0	92	21	25	0.0	7.8	7.5	7.5	0	15	15	15	100%	100%	0.0	719.3	157.7	184.9	0	10,790	2,366	2,774
Controls	0	1	0	0	0.0	13.4	0.0	0.0	0	15	0	0	100%	100%	0.0	13.4	0.0	0.0	0	200	0	0
Water Heater Stand Alone	0	1	0	0	0.0	12.5	0.0	0.0	0	13	0	0	100%	100%	0.0	12.5	0.0	0.0	0	163	0	0

Unitil Gas Large Business Energy Solutions

Measure	Quantity				Annual Savings per Unit (MMBTU)				Measure Life				Installation or Realization Rate		Total Annual MMBTU Savings				Total Lifetime MMBTU Savings			
	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 2014	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan
RETROFIT TRACK																						
C&I Retrofit Custom	5	2	2	2	679.4	3,060.0	4,469.8	4,469.8	18	20	18	18	100%	100%	3,397.1	6,120.0	8,981.0	8,981.1	61,149	122,400	161,659	161,659
Multi-Family Rolled Up	5	0	0	0	631.7	0.0	0.0	0.0	18	0	0	0	100%	100%	3,158.6	0.0	0.0	0.0	55,276	0	0	0
Multi-Family Windows	0	1	0	0	0.0	723.0	0.0	0.0	0	25	0	0	100%	100%	0.0	723.0	0.0	0.0	0	18,075	0	0
Multi-FamilyCondensing Boiler	0	44	0	0	0.0	32.3	0.0	0.0	0	25	0	0	100%	100%	0.0	1,421.2	0.0	0.0	0	35,530	0	0
Multi-Family Water Heater - Indirect	0	44	0	0	0.0	30.4	0.0	0.0	0	15	0	0	100%	100%	0.0	1,337.6	0.0	0.0	0	20,064	0	0
NEW EQUIPMENT TRACK																						
Furnace 94+ AFUE (<150) w/ECM Motor	5	0	0	0	23.6	23.6	0.0	0.0	18	18	0	0	100%	100%	118.0	0.0	0.0	0.0	2,124	0	0	0
Furnace 97+ AFUE (<150) w/ECM Motor	0	0	1	1	0.0	0.0	18.5	18.5	0	0	18	18	100%	100%	0.0	0.0	20.8	20.8	0	0	375	375
Condensing boiler <= 300 mbh	15	2	6	6	32.3	32.3	22.8	22.8	25	25	25	25	100%	100%	484.5	64.6	128.3	128.3	12,113	1,615	3,207	3,207
Condensing boiler 301-499 mbh	0	3	12	12	78.3	78.3	56.1	56.1	25	25	25	25	100%	100%	0.0	234.9	662.8	662.8	0	5,873	16,570	16,570
Condensing boiler 500-999 mbh	0	6	9	9	146.7	146.7	103.0	103.0	25	25	25	25	100%	100%	0.0	880.2	927.2	927.2	0	22,005	23,179	23,179
Condensing boiler 1000-1700 mbh	0	0	3	3	264.1	264.1	189.2	189.2	25	25	25	25	100%	100%	0.0	0.0	532.2	532.2	0	0	13,305	13,305
Boiler >=96% AFUE, <= 300 mbh	0	0	3	3	0.0	0.0	29.3	29.3	0	0	25	25	100%	100%	0.0	0.0	82.4	82.4	0	0	2,061	2,061
Infrared	2	0	0	0	74.4	74.4	48.3	48.3	17	17	17	17	100%	100%	148.8	0.0	0.0	0.0	2,530	0	0	0
On demand, Tankless Water Heater >=.82,	9	0	0	0	7.1	7.1	7.1	7.1	20	20	20	20	100%	100%	63.9	0.0	0.0	0.0	1,278	0	0	0
Indirect Water Heaters (Combined appliance efficiency rating >=85% (EF=.82)	12	5	8	8	30.4	30.4	20.7	20.7	15	15	15	15	100%	100%	364.8	152.0	174.7	174.7	5,472	2,280	2,620	2,620
Condensing Stand Alone >95% TE, >75000 btu	2	0	0	0	25.0	25.0	25.0	25.0	15	15	15	15	100%	100%	50.0	0.0	0.0	0.0	750	0	0	0
WATER HEATER TANK 0.67 EF	0	0	2	2	0.0	0.0	3.0	3.0	0	0	13	13	100%	100%	0.0	0.0	5.1	5.1	0	0	66	66
Integrated water heater/condensing boiler (0.9 EF, 0.9 AFUE)	6	0	5	5	24.6	24.6	24.6	24.6	20	20	20	20	100%	100%	147.6	0.0	110.7	110.7	2,952	0	2,214	2,214
Fryers	3	9	7	7	60.0	60.0	58.6	58.6	12	12	12	12	100%	100%	180.0	540.0	428.6	428.6	2,160	6,480	5,143	5,143
High Efficiency Gas Combination Oven (>=44% efficiency)	0	1	1	1	40.3	40.3	110.3	110.3	12	12	12	12	100%	100%	0.0	40.3	124.1	124.1	0	484	1,489	1,489
Thermostats	5	0	0	0	7.5	7.5	0.0	0.0	15	15	0	0	100%	100%	37.5	0.0	0.0	0.0	563	0	0	0
Hydronic Boiler (301-499 mbh)	1	0	0	0	35.3	35.3	0.0	0.0	1	1	0	0	100%	100%	35.3	0.0	0.0	0.0	35	0	0	0
Custom Projects	0	2	0	0	0.0	159.9	0.0	0.0	0	25	0	0	100%	100%	0.0	319.7	0.0	0.0	0	7,993	0	0

Unitil Gas Small Business Energy Solutions

Measure	Quantity				Annual Savings per Unit (MMBTU)				Measure Life				Installation or Realization Rate		Total Annual MMBTU Savings				Total Lifetime MMBTU Savings			
	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011	2013 2014	2011 Plan	2011 Actual	2013 Plan	2014 Plan	2011 Plan	2011 Actual	2013 Plan	2014 Plan
RETROFIT TRACK																						
Furnace 95+ AFUE (<150) w/ECM Motor	0	0	3	3	0.0	0.0	16.1	16.1	0	0	18	18	100%	100%	0.0	0.0	48.1	48.1	0	0	865	866
Condensing boiler <= 300 mbh	0	0	9	9	0.0	0.0	22.8	22.8	0	0	25	25	100%	100%	0.0	0.0	204.2	204.4	0	0	5,105	5,109
Infrared	0	0	18	18	0.0	0.0	48.3	48.3	0	0	17	17	100%	100%	0.0	0.0	865.2	865.8	0	0	14,708	14,719
Fryers	0	0	6	6	0.0	0.0	58.6	58.6	0	0	12	12	100%	100%	0.0	0.0	349.9	350.1	0	0	4,199	4,202
Boiler >=96% AFUE, <= 300 mbh	0	0	3	3	0.0	0.0	29.3	29.3	0	0	25	25	100%	100%	0.0	0.0	87.5	87.5	0	0	2,187	2,188
On demand, Tankless Water Heater >=.82,	0	0	3	3	0.0	0.0	7.1	7.1	0	0	20	20	100%	100%	0.0	0.0	21.2	21.2	0	0	424	424
High Efficiency Gas Convection Oven (>=44% efficiency)	0	0	6	6	0.0	0.0	30.6	30.6	0	0	12	12	100%	100%	0.0	0.0	182.7	182.8	0	0	2,192	2,194
Boiler Reset Controls	0	0	1	1	0.0	0.0	35.5	35.5	0	0	15	15	100%	100%	0.0	0.0	38.2	31.8	0	0	572	477
Custom SCI Weatherization	0	0	3	3	0.0	0.0	141.1	141.1	0	0	25	25	100%	100%	0.0	0.0	421.2	421.5	0	0	10,530	10,537
NEW EQUIPMENT TRACK	0																					
Condensing boiler <= 300 mbh	0	0	22	22	0.0	0.0	22.8	22.8	0	0	25	25	100%	100%	0.0	0.0	507.8	507.8	0	0	12,695	12,695
Indirect Water Heaters (Combined appliance efficiency rating >=85% (EF=.8	0	0	9	9	0.0	30.4	20.7	20.7	0	0	15	15	100%	100%	0.0	0.0	184.4	184.4	0	0	2,766	2,766
Boiler >=96% AFUE, <= 300 mbh	0	0	13	13	0.0	0.0	29.3	29.3	0	0	25	25	100%	100%	0.0	0.0	391.5	391.5	0	0	9,789	9,789
Condensing boiler 301-499 mbh	0	0	9	9	0.0	78.3	56.1	56.1	0	0	25	25	100%	100%	0.0	0.0	499.8	499.8	0	0	12,495	12,495
Thermostats	0	0	9	9	0.0	0.0	7.7	7.7	0	0	15	15	100%	100%	0.0	0.0	68.6	68.6	0	0	1,029	1,029
Boiler Reset Controls	0	0	3	3	0.0	0.0	35.5	35.5	0	0	15	15	100%	100%	0.0	0.0	94.9	94.9	0	0	1,423	1,423
SMALL BUSINESS SERVICES (Retrofit & New Equipment)																						
Small C&I Custom (Rolled-up)	11	0	0	0	314.7	0.0	0.0	0.0	18	0	0	0	100%	100%	3461.2	0.0	0.0	0.0	62,302	0	0	0
DHW Custom (Hot Water Ozone)	0	1	0	0	0.0	306.9	0.0	0.0	0	15	0	0	100%	100%	0.0	306.9	0.0	0.0	0	4,604	0	0
Indirect Water Heaters	0	1	0	0	0.0	30.4	0.0	0.0	0	15	0	0	100%	100%	0.0	30.4	0.0	0.0	0	456	0	0
Condensing Stand Alone Water Heater >95% TE, >75000 btu	0	1	0	0	0.0	25.0	0.0	0.0	0	15	0	0	100%	100%	0.0	25.0	0.0	0.0	0	375	0	0
ECM Furnace	0	2	0	0	0.0	37.2	0.0	0.0	0	18	0	0	100%	100%	0.0	74.3	0.0	0.0	0	1,337	0	0
Infrared Heaters	0	6	0	0	0.0	74.4	0.0	0.0	0	17	0	0	100%	100%	0.0	446.4	0.0	0.0	0	7,589	0	0
Furnace 94+ AFUE (<150) w/ECM Motor	0	1	0	0	0.0	23.6	0.0	0.0	0	18	0	0	100%	100%	0.0	23.6	0.0	0.0	0	425	0	0
Condensing boiler 301-499 mbh	0	3	0	0	0.0	78.3	0.0	0.0	0	25	0	0	100%	100%	0.0	234.9	0.0	0.0	0	5,873	0	0
Boiler Reset control	0	1	0	0	0.0	35.5	0.0	0.0	0	20	0	0	100%	100%	0.0	35.5	0.0	0.0	0	710	0	0
Roof Insulation	0	1	0	0	0.0	261.2	0.0	0.0	0	25	0	0	100%	100%	0.0	261.2	0.0	0.0	0	6,530	0	0
Food Service High Efficiency Gas Convection Oven (>=40% efficiency)	0	2	0	0	0.0	24.8	0.0	0.0	0	12	0	0	100%	100%	0.0	49.6	0.0	0.0	0	595	0	0
Food Service Fryers	0	2	0	0	0.0	60.0	0.0	0.0	0	12	0	0	100%	100%	0.0	120.0	0.0	0.0	0	1,440	0	0

ATTACHMENT M: 2013 STATEWIDE BUDGET S AND GOALS (ELECTRIC AND GAS)

NH CORE Energy Efficiency Program Goals
(January 1 - December 31, 2013)

NH CORE ENERGY EFFICIENCY PROGRAMS	EXPENSES ($)	SAVINGS (Lifetime kWh)	NUMBER OF CUSTOMERS
RESIDENTIAL (nhsaves@home)			
ENERGY STAR Homes	$1,312,567	22,532,774	443
ENERGY STAR Lighting [1]	$1,280,081	31,498,890	300,882
ENERGY STAR Appliances	$2,790,500	40,121,509	21,797
NH Home Performance w/ENERGY STAR	$2,500,808	5,709,958	1,292
Home Energy Assistance	$3,769,904	11,698,444	818
TOTAL RESIDENTIAL	**$11,653,860**	**111,561,575**	**325,233**
COMMERCIAL & INDUSTRIAL			
(nhsaves@work)			
Educational Programs	$267,822		
Large Business Energy Solutions	$6,689,778	275,058,218	446
Small Business Energy Solutions	$4,924,644	149,653,145	1,945
TOTAL COMMERICAL & INDUSTRIAL	**$11,882,244**	**424,711,363**	**2,391**
TOTAL	**$23,536,105**	**536,272,938**	**327,624**

NH CORE ENERGY EFFICIENCY PROGRAMS	EXPENSES ($)	SAVINGS (Lifetime MMBTU)	NUMBER OF CUSTOMERS
RESIDENTIAL (nhsaves@home)			
ENERGY STAR Homes	$170,000	39,065	53
ENERGY STAR Lighting	$0	0	0
ENERGY STAR Appliances	$1,005,000	253,857	2,866
NH Home Performance w/ENERGY STAR	$865,000	404,077	593
Home Energy Assistance	$895,000	109,882	186
TOTAL RESIDENTIAL	**$2,935,000**	**806,881**	**3,698**
COMMERCIAL & INDUSTRIAL			
(nhsaves@work)			
Educational Programs	$45,000		
Large Business Energy Solutions	$1,464,397	527,803	236
Small Business Energy Solutions	$1,303,289	446,726	417
TOTAL COMMERICAL & INDUSTRIAL	**$2,812,686**	**974,529**	**654**
TOTAL	**$5,747,686**	**1,781,410**	**4,352**

The Power to make a difference.

365 days a year.

Since 2002 New Hampshire electric customers have been taking advantage of the CORE Energy Efficiency Programs. All energy improvements, from the very small to the very large, have combined to make a real difference -- saving energy, money, and protecting the environment.

Since the inception of the CORE Programs, New Hampshire electric customers have:

Saved enough 8.7 billion lifetime kWh – enough energy to power the city of Concord for 22 years!

Saving 8.7 billion kWhs is equivalent to saving $1.2 billion at today's average costs of $0.1317/kWh – benefiting both customers and the economy.

Reduced emissions by 4.9 million tons – the equivalent of taking more than 1 million cars off the road for a full year.

The New Hampshire gas customers have also:

Saved enough 5.7 million lifetime MMBTUs – enough energy to heat 3,850 homes for 20 years!

Saving 5.7 million lifetime MMBTTUs is equivalent to saving $57.5 million at today's average costs of $1.0556/therm – benefiting both customers and the economy.

Reduced emissions by 337,000 tons – the equivalent of taking more than 58,500 cars off the road for a full year.

NHSaves is about people in
New Hampshire doing the right thing –
working together to save energy,
reduce costs and
protect the environment.

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