

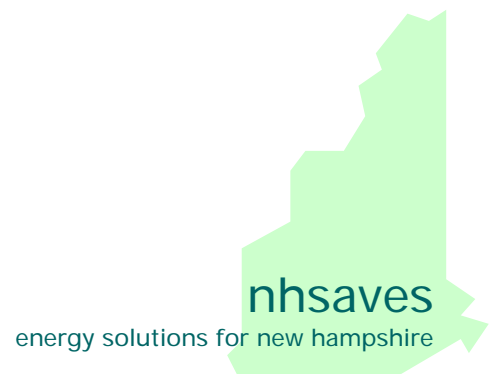
**UPDATED**

**2012 CORE New Hampshire  
Energy Efficiency Programs  
(Electric and Gas)**

Granite State Electric Company d/b/a National Grid  
New Hampshire Electric Cooperative, Inc.  
Public Service Company of New Hampshire  
Unitil Energy Systems, Inc.  
EnergyNorth Natural Gas, Inc. d/b/a National Grid NH, Inc.  
Northern Utilities, Inc.

**NHPUC Docket No.  
DE 10-188**

**SEPTEMBER 30, 2011**



## **I. PROGRAM CHANGES AND UPDATES FOR 2012**

On August 2, 2010, the New Hampshire Electric and Gas Utilities submitted their plans for the 2011-2012 New Hampshire Energy Efficiency Programs for the period January 1, 2011, through December 31, 2012. The programs were approved as modified by a Settlement Agreement in Order No. 25,189 on December 30, 2010. In accordance with that Settlement Agreement, the Utilities are filing these proposed program changes for 2012. Those sections which are contained in the original electric and gas plans for the 2011-2012 program years that are not updated below remain in their original form as approved by the Commission.

This document describes the proposed changes for 2012 which include:

- ⇒ Budget Changes
- ⇒ CORE Program Changes
- ⇒ Utility Specific Program Changes
- ⇒ Monitoring and Evaluation Updates
- ⇒ Shareholder Incentive Updates

The Utilities stand ready to work with Staff and interested Parties to further understanding of these changes and to provide New Hampshire citizens with CORE Program improvements in 2012.

## **II. BUDGET CHANGES**

National Grid: No changes to 2012 overall budget.

NHEC: Overall budget increased by \$200k and funded by a prior year carryover.

PSNH: Included in the 2012 budget is funding for a customer engagement pilot program. Residential and education program budgets were reduced (not HEA) to fund this program. This new program will explore the possibility of replacing residential lighting savings likely to be lost as a result of the new standards established by the Energy Independence & Security Act of 2007.

UES: UES estimated the 2011 year-end SBC fund balances by sector and carried them into 2012. Actuals will be trued up and the final carry-forward will be reported in the Company's 2011 Performance Incentive to be filed in June 2012.

National Grid NH: National Grid NH is proposing to increase its gas Low Income program budget by \$100,000 through reallocation from the C&I gas programs. The reallocation will more effectively align the gas low income program budget with National Grid NH's electric income eligible weatherization budget.

Northern Utilities: Northern will be implementing a residential ENERGY STAR® Homes program.

### III. CORE PROGRAM CHANGES

#### A. Residential Program Changes

##### 1. ENERGY STAR® Homes Program<sup>1</sup>

EPA's implementation of ENERGY STAR HOMES Version 3.0 was delayed from January 1, 2012 until July 1, 2012. The Utilities have been and will continue working with HERS Raters and Builders to assist in the transition to this new version.

##### 2. NH Home Performance with ENERGY STAR® Program<sup>2</sup>

In 2012 PSNH and UES propose to implement a full scale fuel-neutral program as described in their September 1, 2011 filing with the Commission. National Grid and NHEC will continue serving electric heat customers through 2012, but plan to transition their program to be fuel neutral after electrically heated homes have been served. National Grid NH and Northern plan to continue serving gas customers.

As a full scale program, the Utilities have included all of the costs and the savings of this program in their updated 2012 budgets and reflect the inclusion of the Performance Incentive calculation for all of the fuel neutral savings for 2012. Specifically, the Performance Incentive would apply to the entire program as is the case for other fuel neutral programs such as Home Energy Assistance and ENERGY STAR® Homes.

The Utilities will modify the Home Heating Index on the NHSaves web page to direct customers<sup>3</sup> who do not qualify for this program to other resources for energy audits and/or installation services.

The Utilities would note that the federal administration of the Home Performance with ENERGY STAR program is moving from EPA to U.S. Department of Energy (DOE). The Utilities are aware that DOE is considering some changes to this program and will continue working with DOE during this transition.

There is one minor change to the program for the Gas Utilities. Northern will offer a 50% maximum rebate with a cap of \$4,000 per unit to individually metered customers in multi-family complexes with 5 or more units. The rebate will be negotiated based on project savings and the availability of funding. National Grid NH will offer the same rebates with the same program parameters through its Energy Audit with Home Performance program. This change will allow both companies to serve these customers in the same manner.

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<sup>1</sup> New Home Construction with ENERGY STAR® Program (Gas)

<sup>2</sup> Home Performance with ENERGY STAR® Program, Energy Audit with Home Performance and Weatherization

<sup>3</sup> Hereinafter the word "customer" will be understood to mean both customer and NHEC members.

### 3. ENERGY STAR® Lighting Program

The Utilities are expanding rebates to include a \$5 incentive for customers purchasing ENERGY STAR LED bulbs from the catalog and at retail stores. We expect more LEDs to earn the ENERGY STAR certification and expect prices will start coming down from the current \$15 - \$70 price range.

Also, the Energy Independence and Security Act (EISA) of 2007 sets energy efficiency standards for light bulbs with the first phase going into effect January 2012. “Under the new law, screw-based light bulbs will use fewer watts for a similar lumen output. The standards are technology neutral, which means any type of bulb can be sold as long as it meets the efficiency requirements. Common household light bulbs that traditionally use between 40 and 100 watts will use at least 27% less energy by 2014. The law applies to the manufacturer date and will begin affecting 100-watt bulbs in January 2012 and end with 40-watt bulbs in January 2014. California began the transition one year earlier.”<sup>4</sup>

The law is being phased in over the next three years as follows:

Today's Bulbs	After the Standard	Standard Effective Date
100 watt	≤ 72 watts	January 1, 2012
75 watt	≤ 53 watts	January 1, 2013
60 watt	≤ 43 watts	January 1, 2014
40 watt	≤ 29 watts	January 1, 2014

This new EISA law is intended to change the current lighting stock in people's homes over time as they replace their bulbs. The Utilities have taken a conservative approach to the energy savings calculations, reducing the lighting savings by nearly 1/3, to be sure to capture the changes to the law while also including energy savings that are acceptable to ISO-NE as part of its Forward Capacity Market requirements.

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<sup>4</sup> [http://www.energystar.gov/ia/products/lighting/cfls/downloads/EISA\\_Backgrounder\\_FINAL\\_4-11\\_EPA.pdf](http://www.energystar.gov/ia/products/lighting/cfls/downloads/EISA_Backgrounder_FINAL_4-11_EPA.pdf)

#### 4. Residential High-Efficiency Heating, Water Heating and Controls Program (Gas Only)

Based on year-to-date 2011 customer activity and to align with modifications to the Gas Networks® equipment model standards in other New England States, the Gas Utilities are including the following program incentives in 2012:

Product	Rating	2012 Incentive
High Efficiency Natural Gas Warm Air Furnaces	96% AFUE or greater w/Electronic Commutated Motor	\$800
High Efficiency Natural Gas Boiler	85% AFUE or greater	n/a
	90% AFUE or greater	\$1,000
	96% AFUE or greater	\$1,500
Combined High Efficiency Boiler & Water Heating Unit	Condensing Boiler with On-Demand Domestic Hot Water, AFUE of 85% or greater	\$1,000
	Condensing Boiler with On-Demand Domestic Hot Water, AFUE of 90% or greater	\$1,600
High Efficiency Indirect Water Heater	Attached to a natural gas boiler	\$400
Condensing Gas Water Heater	94% thermal efficiency or greater (75 to 300 MBH)	\$500
On-Demand, Tankless Water Heater	.82 Energy Factor (EF) or greater with electronic ignition	\$500
	.95 Energy Factor (EF) or greater with electronic ignition	\$800
High Efficiency Storage Water Heater	.67 Energy Factor	\$100
Heat Recovery Ventilator	Factory-assembled, packaged unit including fans or blowers that transfers heat between two isolated airstreams. Excludes portable units.	\$500
After-Market Boiler Reset Controls	Must be connected to natural gas boiler	\$200
Programmable Thermostat	ENERGY STAR® labeled or 7-day programmable	\$25 (up to 2 per household)

The Gas Utilities may change rebates and add or remove measures as appropriate.

## B. Low Income Weatherization

### 1. Home Energy Assistance Program<sup>5</sup>

The Electric and Gas Utilities continue working collaboratively with the Community Action Agencies to deliver this program. Collaboration with WAP/ARRA funds is expected to continue into 2012. Program administrators will continue to work with NH OEP on WAP/HEA coordination.

The Gas Utilities plan to transition their Low Income program to follow the NH CORE HEA model for income eligibility, eligible measures, etc.

The Utilities propose to complete 948 HEA projects in 2012. Attachment A to this document provides a detailed breakdown by utility and county for each quarter of 2012.

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<sup>5</sup> Residential Gas Income-Eligible Program (National Grid NH, Northern)

## C. Commercial & Industrial Program Changes<sup>6</sup>

### 1. New Equipment and Construction Program

This program is premised on New Hampshire's adoption of the IECC 2009 energy code. For example, HVAC rebates have been modified in 2011 and 2012 to provide incentives on HVAC systems that exceed the energy code. New prescriptive rebates have been added for LED fixtures and lamps.

### 2. Large C&I Retrofit Program

Prescriptive LED rebates have been added to encourage this new technology, as long as the LEDs are either ENERGY STAR certified or meet the New England Design Lights Consortium's testing specifications. The Utilities are also watching the price of fluorescent products<sup>7</sup> due to the limited availability and steep cost increases of phosphors – the main component in fluorescent products. To date, we have not made any changes to incentives but will continue watching to determine the impact this has on the program.

### 3. Small Business Energy Solutions Program

National Grid and UES project financing will transition to RGGI financing upon Commission approval of updated tariffs.

### 4. Educational Programs

The Utilities are testing out adding a new program called "Lights for Learning" to compliment the Energy Education for Students programs. Lights for Learning™ is an education-based outreach program presented in the classroom or assembly style. Following the energy education phase, students may participate in a fund-raising component that promotes the sale and use of low-cost, energy efficient compact fluorescent light bulbs (CFLs). The Program helps children learn about the value of conservation and energy efficiency. It also leads to an optional fund raising activity to benefit school projects while encouraging participants and their communities to become more energy conscious.

The main objective for the Lights for Learning program is to educate children about energy efficiency, conservation and reducing carbon dioxide emissions and to understand the value of ENERGY STAR. Children then educate their family and friends about the benefits of energy efficiency while raising funds for school projects. It's a different twist when kids tell parents to "please shut off the lights".

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<sup>6</sup> National Grid and UES are individually seeking regulatory approval to change their RGGI on-bill-financing programs from serving municipal customers only to serving all C&I customers.

<sup>7</sup> [http://sylvania-lamps.com/index.php?option=com\\_news&view=detail&n\\_id=10&Itemid=22&lang=en](http://sylvania-lamps.com/index.php?option=com_news&view=detail&n_id=10&Itemid=22&lang=en)

## **IV. Utility Specific Program Changes**

### **PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE**

#### ENERGY STAR® Homes Program Enhancement: Geothermal and Air Source HP Option

PSNH plans to reduce the cap on this program from \$7,500 per home to \$4,500 per home. This is partially due to the increase in demand for this program and in recognition of the 30% federal tax credit that is available through December 31, 2016.

#### Customer Engagement Pilot Program (New)

PSNH proposes to implement a customer engagement education pilot program for up to 10% of its customers. This program is designed to help customers reduce their energy use and produce verifiable energy savings. Program elements include: personalized energy usage information and suggestions for improving efficiency, a comprehensive website with targeted feedback on bill savings, tailored incentives for customers who are saving energy, and opportunities for interested customers to collaborate with others within their community or organization to save energy.



## **V. MONITORING AND EVALUATION UPDATES**

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 CORE Utilities to Commission Staff. Under that agreement, the Commission receives input and advice from the Utilities on monitoring and evaluation activities.

In 2012 no changes are anticipated regarding the responsibilities of the parties. Further, funding for Monitoring and Evaluation is proposed to remain at approximately five per cent of the annual program budgets. Specific Monitoring and Evaluation proposals for the coming year include::

- Evaluation Planning (plan to issue an RFP in Q4 2011 for a Multi-Year M&E Study)
- Monitoring & Evaluation of New Hampshire CORE Energy Efficiency Programs (plan to initiate the C&I New Equipment & Construction Impact Evaluation in Q4 2011 to be completed in 2012)
- Regional Measurement and Verification Projects
- Regional Avoided Energy Supply Cost Studies
- Miscellaneous Research
- CORE EE Program Tracking and Reporting

As required by ISO-NE for participation in the Forward Capacity Market, measurement and verification (M&V) will be used to evaluate the impact of efficiency measures during system peak hours and thus the capacity value that will be used in determining any applicable payments. As currently drafted, state utility commissions are responsible for approving M&V plans for efficiency measures installed through programs under their jurisdiction. The Utilities will work with the Staff and other interested parties to ensure that the electric programs' M&E efforts evolve in such a way that they are in alignment with ISO-NE M&V requirements in order to minimize expense and possible duplication of effort.

The Gas Utilities conduct their own Monitoring and Evaluation and will work collaboratively with the Electric Utilities as appropriate.

## VI. SHAREHOLDER INCENTIVE UPDATES

For 2012 the Utilities are not proposing any changes to the methodology used to calculate the shareholder incentive. However, the Utilities do recommend that avoided costs be updated to reflect the findings from the *2011 Avoided Energy Supply Costs in New England*<sup>8</sup>.

While no changes are being proposed at this time, the Settlement Agreement reached in this docket last December called for the Utilities to continue to meet with Staff and interested Parties to examine the design of the performance incentive and to consider whether the performance incentive could be better aligned with energy efficiency goals. At the time of this filing the final report detailing the results of this investigation had not yet been released. Furthermore, the independent study of energy efficiency and sustainable energy commissioned by the NHPUC and conducted by Vermont Energy Investment Corporation, is expected to offer suggestions for improving the shareholder incentive. However, this study too has yet to be released.

The Utilities believe that these studies might provide the basis for additional discussions of any recommendations to change the shareholder incentive. Accordingly, the Utilities are not proposing any changes until such time as these studies are finalized and all interested parties have had an opportunity to review and evaluate the studies' recommendations.

National Grid NH: In response to the PUC Staff's question regarding how National Grid NH would modify the performance incentive calculation with respect to any carryover of program funds from 2010 to 2011, National Grid NH notes that the performance incentive for each year should be calculated in accordance with the rules in effect for that year. Thus, the performance incentive for 2010 has been calculated according to the rules in effect in 2010. It should be noted that, because National Grid NH did not achieve its therm savings target for its commercial and industrial program in 2010, it did not collect any performance incentive for the commercial and industrial savings component share of the incentive calculation and the Company did not collect the maximum allowable performance incentive for that year. In other words, the Company did not earn an incentive on funds that carried over from a prior period.

National Grid NH agrees with the PUC that unspent funds that are carried forward should not receive a second performance incentive in the year to which the funds have been carried over. This is an issue that is specifically addressed in Commission Order No. 25,189 at page 23 issued in DE 10-188. Since a performance incentive has already been earned by National Grid NH on the \$380,888 from the 2010 residential program that it carried forward to 2011, National Grid NH will not seek to earn any performance incentive on those funds in 2011. With respect to unspent funds in the amount of \$1,343,234 from National Grid NH's 2010 commercial and industrial program, National Grid NH is currently discussing with various stakeholders whether or not those funds should be carried forward or returned to customers. If they are carried forward, the Company does not intend to seek to earn a second performance incentive on these funds. If these funds are returned to customers, then no adjustment will be required.

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<sup>8</sup> *Avoided Energy Supply Costs in New England*, August 2011.

## ATTACHMENT A: CORE/WXN COLLABORATION IMPLEMENTATION PLAN

### 2012 HEA Quarterly Production Schedule

Utility	Total Jobs	1st. Qtr.	2nd. Qtr.	3rd. Qtr.	4th. Qtr.
		21%	34%	29%	16%
Unitil	73	18	25	21	9
NGRID	54	11	18	17	8
NHEC	61	11	16	20	14
PSNH	760	159	262	220	119
<b>TOTAL</b>	<b>948</b>	<b>199</b>	<b>321</b>	<b>278</b>	<b>150</b>
<b>Year-to-date TOTAL</b>		<b>199</b>	<b>520</b>	<b>798</b>	<b>948</b>

### 2012 HEA Job Distribution By County and By Utility

BY COUNTY	Unitil		Nationalgrid		NHEC		PSNH		Totals		Grand Total
	Shell	Baseload	Shell	Baseload	Shell	Baseload	Shell	Baseload	Shell	Baseload	
	A	B	A	B	A	B	A	B	A	B	
Belknap					1	8	30	58	31	66	97
Carroll					1	8	25	30	26	38	64
Cheshire			8	3			9	7	17	10	27
Coos					1	2	23	31	24	33	57
Grafton			14	3	7	15	12	20	33	38	71
Hillsborough			7	1			100	190	107	191	298
Merrimack	22	25			1	5	30	51	53	81	134
Rockingham	18	8	8	1	1	4	45	20	72	33	105
Strafford					0	0	25	38	25	38	63
Sullivan			7	2	1	6	9	7	17	15	32
Program Totals	40	33	44	10	13	48	308	452	405	543	
Grand Totals	73		54		61		760		948		948

A = Shell job - where Utility pays for conservation measures, ie wall insulation, air sealing, baseload etc. and DOE (or other programs) pays for heating system, repairs (See Section on Project Funding)

B =Baseload job - where Utility pays for baseload measures and DOE (or other programs) pays for non-baseload conservation measures, ie: wall insulation, air sealing, etc., H&S and repairs (See Section on Project Funding)

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

## **ATTACHMENT C: AVOIDED COSTS (UPDATED)**

### 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 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 2.05%. 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 NO<sub>x</sub>, SO<sub>2</sub>, Mercury and CO<sub>2</sub>.

The 2011 AESC avoided costs also include a 9% generic wholesale risk premium 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.

### Comparison of 2011 AESC and 2009 AESC Results

The differences between the 2011 and 2009 avoided costs are summarized as follows:

1. The 2011 New Hampshire 15-year levelized weighted average avoided electric energy costs are 15.7% lower than the 2009 results.
2. The 2011 New Hampshire 15-year levelized avoided electric capacity costs are 91% higher than the 2009 results.
3. The 2011 New Hampshire 15-year levelized average avoided retail gas costs are 30% lower than the 2009 results.
4. The 2011 New Hampshire 15-year levelized avoided residential oil costs are 9.1% higher than the 2009 results.

### 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 and capacity prices.

Marginal T&D Costs and Line Loss Factors (\$2011)								
	<u>MDC (\$/kW-yr)</u>		<u>MTC (\$/kW-yr)</u>	<u>Line Loss Multipliers</u>				
	<u>Res.(1)</u>	<u>C&amp;I(2)</u>		<u>Transmission</u>	<u>Summer</u>	<u>Winter</u>	<u>On-Peak</u>	<u>Off-Peak</u>
				<u>Capacity</u>	<u>Capacity</u>	<u>Capacity</u>	<u>Energy</u>	<u>Energy</u>
Granite State	\$118.71	\$86.39	\$49.63	1.1220	1.1500	1.1350	1.0630	1.0890
PSNH	\$31.37	\$31.37	\$1.70	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
NHEC	\$106.93	\$106.93	\$87.88	1.0000	1.0917	1.0917	1.0917	1.0917
MWh Sales to Ultimate Customers in 2010								
Granite State	604,429	5.80%						
PSNH	7,860,683	75.39%						
Unitil	1,223,100	11.73%						
NHEC	<u>739,137</u>	<u>7.09%</u>						
Total	10,427,349	100.00%						
Weighted Average Marginal T&D Costs and Line Loss Factors (Energy Line Loss Multipliers have been reduced by estimated transmission losses.)								
	<u>MDC (\$/kW-yr)</u>		<u>MTC (\$/kW-yr)</u>	<u>Line Loss Multipliers</u>				
	<u>Res.(1)</u>	<u>C&amp;I(2)</u>		<u>Transmission</u>	<u>Summer</u>	<u>Winter</u>	<u>On-Peak</u>	<u>Off-Peak</u>
				<u>Capacity</u>	<u>Capacity</u>	<u>Capacity</u>	<u>Energy</u>	<u>Energy</u>
2011\$	\$46.68	\$44.80	\$13.82	1.007	1.071	1.070	1.019	1.011

### Summary of Avoided Natural Gas Costs

Avoided natural gas costs have decreased by approximately 35% making projects less cost effective.

**Program Cost-Effectiveness - 2012 PLAN**

	Total Resource Benefit/Cost Ratio	Present Value				Annual MWh Savings	Lifetime MWh Savings	Winter kW Savings	Summer kW Savings	Number of Customers Served
		Benefit (\$000)	Utility Costs (\$000)	Customer Costs (\$000)	Shareholder Incentive (\$000)					
Residential Programs										
ENERGY STAR Homes	4.37	\$ 503.8	\$ 104.6	\$ 10.7		28	340	7	8	25
NH Home Performance with ENERGY STA	2.30	\$ 343.4	\$ 141.2	\$ 7.9		290	4,227	30	15	145
ENERGY STAR Lighting <sup>*1</sup>	1.37	\$ 165.2	\$ 80.9	\$ 39.6		495	2,519	147	39	14,507
ENERGY STAR Appliances	1.90	\$ 250.5	\$ 80.5	\$ 51.3		124	1,260	17	18	875
Home Energy Assistance	2.23	\$ 495.5	\$ 222.0	\$ -		88	1,324	16	9	54
	2.38									
Subtotal Residential	2.23	\$ 1,758.3	\$ 629.3	\$ 109.6	\$ 50.3	1,025	9,670	218	89	15,606
Commercial/Industrial Programs										
New Construction / Major Renovation	2.66	\$ 849.8	\$ 250.0	\$ 70.0		592	9,105	102	143	13
Large C&I Retrofit	3.32	\$ 3,315.9	\$ 405.6	\$ 592.8		3,041	39,537	385	528	26
Small C&I Retrofit	2.01	\$ 690.3	\$ 216.1	\$ 127.1		713	7,843	92	164	33
	2.92									
Subtotal C&I	2.80	\$ 4,855.9	\$ 871.7	\$ 789.9	\$ 69.7	4,347	56,484	579	835	72
Total	2.62	6614.22	1500.95	899.53	120.08	5,372	66,155	797	924	15,678

Note 1: National Grid plan estimates number of products rebated.

**Present Value Benefits - 2012 PLAN**

	Total Benefits (\$000)	CAPACITY				ENERGY				Non Electric Resource
		Summer Generation	Winter Generation	Transmission	Distribution	Winter Peak	Winter Off	Summer	Summer Off	
							Peak	Peak	Peak	
Residential Programs										
ENERGY STAR Homes	\$504	\$11	\$0	\$2	\$7	\$6	\$8	\$4	\$4	\$462
Home Performance w/Energy Star	\$343	\$11	\$0	\$3	\$9	\$80	\$103	\$41	\$51	\$46
ENERGY STAR Lighting *1	\$165	\$7	\$0	\$3	\$9	\$42	\$55	\$22	\$27	\$0
ENERGY STAR Appliances	\$250	\$7	\$0	\$2	\$8	\$22	\$29	\$12	\$14	\$155
Home Energy Assistance	\$496	\$8	\$0	\$2	\$6	\$24	\$32	\$14	\$16	\$394
Subtotal Residential	\$1,758	\$44	\$0	\$12	\$38	\$175	\$227	\$94	\$112	\$1,057
Commercial/Industrial Programs										
New Construction / Major Renovation	\$850	\$117	\$0	\$28	\$93	\$267	\$133	\$145	\$65	\$0
Large C&I Retrofit	\$3,316	\$329	\$0	\$91	\$301	\$1,115	\$587	\$607	\$286	\$0
Small C&I Retrofit	\$690	\$73	\$0	\$24	\$80	\$263	\$72	\$144	\$35	\$0
Subtotal C&I	\$4,856	\$519	\$0	\$143	\$474	\$1,646	\$792	\$896	\$386	\$0
Total	\$6,614	\$563	\$0	\$155	\$513	\$1,821	\$1,019	\$989	\$498	\$1,057

## Shareholder Incentive Calculation 2012

	<u>Planned</u>	<u>Actual</u>
<b>Commercial/Industrial Incentive</b>		
1. Benefit/Cost Ratio	2.80	
2. Threshold Benefit / Cost Ratio <sup>1</sup>	1.00	
3. Lifetime kWh Savings	56,484,148	
4. Threshold Lifetime kWh Savings (65%) <sup>2</sup>	36,714,696	
5. Budget	871,701	
6. Benefit / Cost Percentage of Budget	4.00%	
7. Lifetime kWh Percentage of Budget	4.00%	
<b>8. C/I Shareholder Incentive</b>	<b>\$69,736</b>	
<b>9. Cap (12%)</b>	<b>\$104,604</b>	
<b>Residential Incentive</b>		
10. Benefit / Cost Ratio	2.23	
11. Threshold Benefit / Cost Ratio <sup>1</sup>	1.00	
12. Lifetime kWh Savings	9,670,442	
13. Threshold Lifetime kWh Savings (65%) <sup>2</sup>	6,285,787	
14. Budget	\$629,253	
15. Benefit / Cost Percentage of Budget	0	
16. Lifetime kWh Percentage of Budget	0	
<b>17. Residential Incentive</b>	<b>\$50,340</b>	
<b>18. Cap (12%)</b>	<b>\$75,510</b>	
<b>19. TOTAL INCENTIVE EARNED</b>	<b>\$ 120,076</b>	

### 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.



2011 TRC BENEFIT COST TEST

**Planned Versus Actual Benefit / Cost Ratio by Sector**  
**2012**

	<b><u>Planned</u></b>	<b><u>Actual</u></b>
<b>Commercial &amp; Industrial:</b>		
1. Benefits (Value) From Eligible Programs	\$ 4,856	
2. Implementation Expenses	\$ 872	
3. Customer Contribution	<u>\$ 790</u>	
4. Total Costs Excluding Shareholder Incentive	\$ 1,662	
5. Benefit/Cost Ratio - C&I Sector	<b>2.92</b>	
6. Benefit/Cost Ratio - C&I Sector including SI	<b>2.80</b>	
<b>Residential:</b>		
6. Benefits (Value) From Eligible Programs	\$ 1,758	
7. Implementation Expenses	\$ 629	
8. Customer Contribution	<u>\$ 110</u>	
9. Total Costs Excluding Shareholder Incentive	\$ 739	
10. Benefit/Cost Ratio - Residential Sector	<b>2.38</b>	
11. Benefit/Cost Ratio - Residential Sector including SI	<b>2.23</b>	

## Actual Lifetime Energy Savings by Sector and Program 2012

	Lifetime kWh Savings	
	<u>Planned</u>	<u>Actual</u>
<b>Commercial &amp; Industrial:</b>		
New Equipment & Construction	9,104,728	
Large C&I Retrofit	39,536,529	
Small Business Energy Solutions	7,842,891	
 Total Commercial & Industrial Included for Incentive Calculation	 <b>56,484,148</b>	
<b>Residential:</b>		
Home Energy Assistance Program	1,324,252	
NH Home Performance with ENERGY STAR	4,227,348	
ENERGY STAR Homes Program	340,042	
ENERGY STAR Appliance Program	1,259,794	
ENERGY STAR Lighting Program	2,519,006	
 Total Residential Included for Incentive Calculation	 <b>9,670,442</b>	
 Total	 <b>66,154,590</b>	

**Program Cost-Effectiveness - 2012 PLAN**

	Total Resource Benefit/Cost Ratio	Present Value								Number of Members Served
		Benefit (\$000)	Utility Costs	Member		Annual MWh Savings	Lifetime MWh Savings	Winter kW Savings	Summer kW Savings	
			(\$000)	Costs (\$000)						
Residential Programs										
ENERGY STAR Homes	4.6	\$ 1,307.4	\$ 160.9	\$ 126.0	59.2	915.1	11.9	23.6	57	
Home Performance w/Energy Star	1.6	\$ 336.9	\$ 180.8	\$ 31.9	342.1	3,729.4	115.3	115.3	59	
ENERGY STAR Lighting * <sup>1</sup>	2.3	\$ 405.2	\$ 108.1	\$ 64.3	1,281.2	6,791.2	298.1	79.2	39,467	
ENERGY STAR Appliances	1.4	\$ 396.0	\$ 142.1	\$ 140.9	360.3	3,674.5	49.6	44.5	1,914	
Home Energy Assistance	2.2	\$ 477.1	\$ 215.6	\$ -	73.6	883.4	24.8	24.8	61	
High Efficiency Heat Pump	<u>2.3</u>	<u>\$ 657.4</u>	<u>\$ 138.4</u>	<u>\$ 148.1</u>	<u>408.6</u>	<u>10,214.7</u>	<u>107.3</u>	<u>6.1</u>	<u>20</u>	
Subtotal Residential	2.5	\$ 3,580.0	\$ 946.0	\$ 511.2	2,525.1	26,208.2	607.0	293.5	41,578	
Commercial/Industrial Programs										
New Construction / Major Renovation	1.2	\$ 480.1	\$ 129.4	\$ 265.7	386.9	5,803.3	49.3	75.6	14	
Large C&I Retrofit	1.0	\$ 477.4	\$ 148.0	\$ 312.0	461.9	6,004.8	56.3	86.2	23	
Small C&I Retrofit	1.3	\$ 390.6	\$ 165.0	\$ 128.1	370.4	4,815.5	46.0	74.5	31	
Other (Education)	0.0	\$ -	\$ 35.6	\$ -	-	-	-	-	-	
Smart Start	<u>0.0</u>	<u>\$ -</u>	<u>\$ 13.4</u>	<u>\$ -</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	
Subtotal C&I	1.1	1,348.1	491.4	705.8	1,219.2	16,623.7	151.6	236.3	68	
Total		\$ 4,928.1	\$ 1,437.3	\$ 1,217.1	3,744.3	42,831.9	758.6	529.8	41,646	

Note 1: Plan included 9,867 members purchasing a total of 39,467 lighting products (4 per member)

**Present Value Benefits - 2012 PLAN**

	Total Benefits (\$000)	CAPACITY				ENERGY				Non Electric Resource
		Summer Generation	Winter Generation	Transmission	Distribution	Summer Off				
						Winter Peak	Winter Off Peak	Summer Peak	Peak	
Residential Programs										
ENERGY STAR Homes	\$1,307	\$24,267	\$0	\$4,979	\$16,381	\$14,014	\$18,001	\$13,190	\$10,913	\$1,205,673
Home Performance w/Energy Star	\$337	\$53,670	\$0	\$16,831	\$55,377	\$60,892	\$79,478	\$31,983	\$38,663	\$0
ENERGY STAR Lighting *1	\$405	\$16,635	\$0	\$5,785	\$19,033	\$105,555	\$136,059	\$55,471	\$66,674	\$0
ENERGY STAR Appliances	\$396	\$18,414	\$0	\$5,953	\$19,586	\$59,366	\$77,453	\$32,447	\$38,104	\$144,663
Home Energy Assistance	\$477	\$14,086	\$0	\$3,962	\$13,036	\$14,612	\$19,069	\$7,676	\$9,288	\$395,405
High Efficiency Heat Pump	<u>\$657</u>	<u>\$11,485</u>	<u>\$0</u>	<u>\$1,871</u>	<u>\$6,155</u>	<u>\$206,492</u>	<u>\$402,307</u>	<u>\$15,790</u>	<u>\$13,252</u>	<u>\$0</u>
Subtotal Residential	\$3,580	\$138,557	\$0	\$39,380	\$129,568	\$460,932	\$732,366	\$156,557	\$176,894	\$1,745,741
Commercial/Industrial Programs										
New Construction / Major Renovation	\$480	\$66,604	\$0	\$14,835	\$48,811	\$98,094	\$91,379	\$91,362	\$69,036	\$0
Large C&I Retrofit	\$477	\$57,742	\$0	\$14,825	\$48,778	\$115,321	\$100,486	\$82,651	\$57,595	\$0
Small C&I Retrofit	\$391	\$49,901	\$0	\$12,812	\$42,154	\$103,461	\$81,063	\$59,766	\$41,434	\$0
Other (Education)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Smart Start	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Subtotal C&I	\$1,348	\$174,246	\$0	\$42,472	\$139,743	\$316,876	\$272,928	\$233,779	\$168,065	\$0
Total	\$4,928	\$312,803	\$0	\$81,852	\$269,310	\$777,808	\$1,005,294	\$390,336	\$344,959	\$1,745,741

## Shareholder Incentive Calculation 2012

	<u>Planned</u>	<u>Actual</u>
<b>Commercial/Industrial Incentive</b>		
1. Benefit/Cost Ratio	<b>1.13</b>	<b>0.00</b>
2. Threshold Benefit / Cost Ratio <sup>1</sup>	1.00	
3. Lifetime kWh Savings	<b>16,623,664</b>	<b>0</b>
4. Threshold Lifetime kWh Savings (65%) <sup>2</sup>	10,805,382	
5. Budget	\$410,918	\$0
6. Benefit / Cost Percentage of Budget	4.00%	
7. Lifetime kWh Percentage of Budget	4.00%	
<b>8. C/I Member Incentive</b>	\$32,873	<input type="text"/>
<b>9. Cap (12%)</b>	\$49,310	
<b>Residential Incentive</b>		
10. Benefit / Cost Ratio	<b>2.46</b>	<b>0.00</b>
11. Threshold Benefit / Cost Ratio <sup>1</sup>	1.00	
12. Lifetime kWh Savings	<b>26,208,198</b>	<b>0</b>
13. Threshold Lifetime kWh Savings (65%) <sup>2</sup>	17,035,329	
14. Budget	\$826,387	
15. Benefit / Cost Percentage of Budget	4.00%	
16. Lifetime kWh Percentage of Budget	4.00%	
<b>17. Residential Incentive</b>	\$66,111	<input type="text"/>
<b>18. Cap (12%)</b>	\$99,166	
<b>19. TOTAL INCENTIVE EARNED</b>		<input type="text"/>

**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.

**Planned Versus Actual Benefit / Cost Ratio by Sector**  
2012

	<u><b>Planned</b></u>	<u><b>Actual</b></u>
<b>Commercial &amp; Industrial:</b>		
1. Benefits (Value) From Eligible Programs	\$ 1,348,109	\$ -
2. Implementation Expenses <sup>1</sup>	\$ 410,918	\$ -
3. Customer Contribution	<u>\$ 786,265</u>	<u>\$ -</u>
4. Total Costs Excluding Member Incentive	\$ 1,197,183	\$ -
5. Benefit/Cost Ratio - C&I Sector	<b>1.13</b>	<b>0.00</b>
<b>Residential:</b>		
6. Benefits (Value) From Eligible Programs	\$ 3,579,996	\$ -
7. Implementation Expenses <sup>1</sup>	\$ 826,387	\$ -
8. Customer Contribution	<u>\$ 630,793</u>	<u>\$ -</u>
9. Total Costs Excluding Member Incentive	\$ 1,457,180	\$ -
10. Benefit/Cost Ratio - Residential Sector	<b>2.46</b>	<b>0.00</b>

1. \$119,563 residential and \$80,437 commercial carryover excluded from budget for purposes of the incentive calculation.

## Actual Lifetime Energy Savings by Sector and Program 2012

	Lifetime kWh Savings	
	<u>Planned</u>	<u>Actual</u>
<b>Commercial &amp; Industrial:</b>		
New Equipment & Construction	5,803,325	0
Large C&I Retrofit	6,004,825	0
Small Business Energy Solutions	4,815,514	0
Education	0	0
Other	<u>0</u>	<u>0</u>
Total Commercial & Industrial Included for Incentive Calculation	<b>16,623,664</b>	<b>0</b>
<b>Residential:</b>		
Home Energy Assistance Program	883,391	0
Home Energy Solutions Program	3,729,410	0
ENERGY STAR Homes Program	915,068	0
ENERGY STAR Appliance Program	3,674,464	0
ENERGY STAR Lighting Program	6,791,203	0
High Efficiency Heat Pump Program	<u>10,214,662</u>	<u>0</u>
Total Residential Included for Incentive Calculation	<b>26,208,198</b>	<b>0</b>

**Program Cost-Effectiveness - 2012 PLAN**

	Total Resource Benefit/Cos t Ratio	Present Value				Annual MWh Savings	Lifetime MWh Savings	Winter kW Savings	Summer kW Savings	Number of Customers Served
		Benefit (\$000)	Utility Costs (\$000)	Customer Costs (\$000)						
Residential Programs										
Home Energy Assistance	2.22	\$ 4,838.6	\$ 2,182.3	\$ -	767.4	10,469.5	88.4	81.3	760	
Home Performance w/Energy Star	2.38	\$ 4,933.4	\$ 1,660.1	\$ 413.9	204.2	1,319.2	58.9	13.4	929	
ENERGY STAR Homes	5.24	\$ 6,770.1	\$ 1,033.4	\$ 257.7	534.8	9,627.6	142.6	101.1	384	
ENERGY STAR Appliances	1.42	\$ 2,280.2	\$ 779.3	\$ 827.7	2,012.7	20,632.0	285.3	269.2	13,783	
ENERGY STAR Lighting	2.37	\$ 2,291.1	\$ 762.5	\$ 204.1	7,204.7	38,397.0	1,659.6	441.0	64,826	
EnergyStar Homes (Geothermal)	3.09	\$ 2,076.6	\$ 385.6	\$ 285.7	1,317.6	32,939.2	354.4	7.1	66	
Behavior Based Software	1.01	\$ 251.4	\$ 250.0	\$ -	4,050.0	4,050.0	425.3	462.3	25,000	
Other		\$ -	\$ -	\$ -	0.0	-	-	-	-	
Subtotal Residential	2.59	\$ 23,441.4	\$ 7,053.1	\$ 1,989.1	16,091.4	117,434.6	3,014.5	1,375.5	105,749	
Commercial/Industrial Programs										
New Construction / Major Renovation	3.39	\$ 7,421.2	\$ 1,704.4	\$ 482.6	5,450.6	85,348.1	778.9	1,230.2	94	
Large C&I Retrofit	1.51	\$ 8,197.3	\$ 2,260.1	\$ 3,173.4	7,884.4	101,484.6	1,018.8	1,588.2	101	
Small Business Energy Solutions	1.48	\$ 7,803.7	\$ 2,816.6	\$ 2,467.6	7,300.4	94,040.7	906.2	1,570.1	1,047	
C&I RFP Pilot	2.49	\$ 2,370.8	\$ 544.8	\$ 407.3	2,538.7	30,184.8	332.2	491.4	10	
Other (Education)	0.00	\$ -	\$ 103.8	\$ -	-	-	-	-	-	
CI Partnerships		\$ -	\$ 30.7	\$ -	0.0	-	-	-	3	
Subtotal C&I	1.84	25,793.0	\$ 7,460.4	\$ 6,530.8	23,174.1	311,058.2	3,036.1	4,880.0	1,255	
Smart Start		\$ -	\$ 35.0	\$ -	0.0	-	-	0	-	
		\$ -	\$ 35.0	\$ -	0.0	-	-	0	-	
Total	2.13	49,234.4	\$ 14,548.4	\$ 8,519.9	39,265.4	428,492.8	6,050.6	6,255.5	107,004	

Note 1: Energy Star Lighting Program plan includes 64,826 customers purchasing a total 222,352 lighting products.



**Present Value Benefits - 2012 PLAN**

	Total Benefits	CAPACITY				ENERGY				Non Electric Resource
		Summer Generation	Winter Generation	Transmission	Distribution	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak	
Residential Programs										
Home Energy Assistance	\$4,838,587	\$57,483	\$0	\$14,338	\$47,176	\$178,464	\$246,298	\$83,808	\$101,671	\$4,109,348
Home Performance w/Energy Star	\$4,933,405	\$2,543	\$0	\$925	\$3,043	\$21,897	\$34,741	\$7,013	\$8,413	\$4,854,831
ENERGY STAR Homes	\$6,770,103	\$167,693	\$0	\$28,188	\$92,745	\$174,011	\$222,958	\$88,497	\$110,134	\$5,885,877
ENERGY STAR Appliances	\$2,280,168	\$111,364	\$0	\$35,926	\$118,205	\$328,372	\$428,376	\$194,338	\$215,787	\$847,799
ENERGY STAR Lighting	\$2,291,085	\$93,591	\$0	\$32,379	\$106,534	\$597,357	\$770,015	\$313,872	\$377,337	\$0
EnergyStar Homes (Geothermal)	\$2,076,583	\$13,564	\$0	\$2,209	\$7,270	\$673,825	\$1,333,919	\$24,972	\$20,823	\$0
Behavior Based Software	\$251,448	\$20,722	\$0	\$6,556	\$21,571	\$58,887	\$74,783	\$31,948	\$36,982	\$0
Other	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Subtotal Residential	\$23,441,380	\$466,960	\$0	\$120,523	\$396,544	\$2,032,813	\$3,111,090	\$744,447	\$871,147	\$15,697,855
Commercial/Industrial Programs										
New Construction / Major Renovation	\$7,421,238	\$1,168,422	\$0	\$250,922	\$825,586	\$739,445	\$941,715	\$1,909,241	\$1,585,906	\$0
Large C&I Retrofit	\$8,197,250	\$1,031,069	\$0	\$268,816	\$884,457	\$1,577,380	\$1,492,539	\$1,677,276	\$1,265,713	\$0
Small Business Energy Solutions	\$7,803,739	\$1,048,697	\$0	\$267,660	\$880,657	\$2,159,132	\$1,489,340	\$1,207,163	\$751,089	\$0
C&I RFP Pilot	\$2,370,756	\$273,155	\$0	\$77,287	\$254,290	\$405,466	\$437,707	\$518,577	\$404,275	\$0
Other (Education)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
CI Partnerships	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Subtotal C&I	\$25,792,984	\$3,521,343	\$0	\$864,686	\$2,844,990	\$4,881,424	\$4,361,302	\$5,312,257	\$4,006,983	\$0
Total	\$49,234,363	\$3,988,303	\$0	\$985,208	\$3,241,534	\$6,914,237	\$7,472,392	\$6,056,704	\$4,878,130	\$15,697,855

## Shareholder Incentive Calculation 2012

	<u>Planned</u>	<u>Actual</u>
<b>Commercial/Industrial Incentive</b>		
1. Benefit/Cost Ratio	1.77	0.00
2. Threshold Benefit / Cost Ratio <sup>1</sup>	1.00	
3. Lifetime kWh Savings	311,058,212	0
4. Threshold Lifetime kWh Savings (65%) <sup>2</sup>	202,187,838	
5. Budget	\$7,460,377	\$0
6. Benefit / Cost Percentage of Budget	4.00%	
7. Lifetime kWh Percentage of Budget	4.00%	
<b>8. C/I Shareholder Incentive</b>	\$596,830	
<b>9. Cap (12%)</b>	\$895,245	
<b>Residential Incentive</b>		
10. Benefit / Cost Ratio	2.44	0.00
11. Threshold Benefit / Cost Ratio <sup>1</sup>	1.00	
12. Lifetime kWh Savings	117,434,566	0
13. Threshold Lifetime kWh Savings (65%) <sup>2</sup>	76,332,468	
14. Budget <sup>3</sup>	\$7,053,069	\$0
15. Benefit / Cost Percentage of Budget	4.00%	
16. Lifetime kWh Percentage of Budget	4.00%	
<b>17. Residential Incentive</b>	\$564,246	
<b>18. Cap (12%)</b>	\$846,368	
<b>19. TOTAL INCENTIVE EARNED</b>		

### 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.

**Planned Versus Actual Benefit / Cost Ratio by Sector**  
2012

	<b><u>Planned</u></b>	<b><u>Actual</u></b>
<b>Commercial &amp; Industrial:</b>		
1. Benefits (Value) From Eligible Programs	\$ 25,792,984	\$ -
2. Implementation Expenses	\$ 7,460,377	\$ -
3. Customer Contribution	\$ 6,530,815	\$ -
4. Estimated Shareholder Incentive	<u>\$ 596,830</u>	<u>\$ -</u>
5. Total Costs (including shareholder incentive)	\$ 14,588,022	\$ -
6. Benefit/Cost Ratio - C&I Sector	<b>1.77</b>	<b>0.00</b>
<b>Residential:</b>		
7. Benefits (Value) From Eligible Programs	\$ 23,441,380	\$ -
8. Implementation Expenses	\$ 7,053,069	\$ -
9. Customer Contribution	\$ 1,989,051	\$ -
10. Estimated Shareholder Incentive	<u>\$ 564,246</u>	<u>\$ -</u>
11. Total Costs (including shareholder incentive)	\$ 9,606,366	\$ -
12. Benefit/Cost Ratio - Residential Sector	<b>2.44</b>	<b>0.00</b>

**Actual Lifetime Energy Savings by Sector and Program**  
2012

	<b>Lifetime kWh Savings</b>	
	<b><u>Planned</u></b>	<b><u>Actual</u></b>
<b>Commercial &amp; Industrial:</b>		
New Construction / Major Renovation	85,348,090	0
Large C&I Retrofit	101,484,572	0
Small Business Energy Solutions	94,040,728	0
C&I RFP Pilot	30,184,822	0
Other (Education)	0	0
CI Partnerships	<u>0</u>	<u>0</u>
Total Commercial & Industrial Included for Incentive Calculat	<b>311,058,212</b>	<b>0</b>
<b>Residential:</b>		
Home Energy Assistance	10,469,536	0
Home Performance w/Energy Star	1,319,216	0
ENERGY STAR Homes	9,627,607	0
ENERGY STAR Appliances	20,632,001	0
ENERGY STAR Lighting	38,397,028	0
EnergyStar Homes (Geothermal)	32,939,179	0
Behavior Based Software	4,050,000	0
Other	<u>0</u>	0
Total Residential Included for Incentive Calculation	<b>117,434,566</b>	<b>0</b>

### Program Cost-Effectiveness - 2012 PLAN

	Total Resource Benefit/Cost Ratio	Present Value Benefit (\$000)	Present Value Utility Costs <sup>(1)</sup> (\$000)	Present Value Customer Costs (\$000)	Annual MWh Savings	Lifetime MWh Savings	Winter kW Savings	Summer kW Savings	Number of Customers Served
<b>Residential Programs</b>									
ENERGY STAR Homes	3.7	\$ 1,037.3	\$ 216.8	\$ 67.3	111.4	2,481.6	73.9	2.1	39
Home Performance with Energy Star	1.1	\$ 431.8	\$ 271.1	\$ 111.6	39.4	631.0	11.1	0.9	46
ENERGY STAR Lighting <sup>(2)</sup>	2.9	\$ 722.2	\$ 179.1	\$ 66.4	2,120.0	10,730.4	631.8	167.9	66,737
ENERGY STAR Appliances <sup>(2)</sup>	1.4	\$ 429.8	\$ 134.6	\$ 181.1	329.7	3,401.9	46.0	56.0	1,617
Home Energy Assistance	2.9	\$ 1,127.8	\$ 388.2	\$ -	77.3	1,261.9	16.7	1.5	73
Res/K-12 Education	0.0	\$ -	\$ 33.0	\$ -	-	-	-	-	-
ISO-Related Expenses Res/LI	0.0	\$ -	\$ 5.0	\$ -	-	-	-	-	-
<b>Subtotal Residential</b>	<b>2.3</b>	<b>\$ 3,748.8</b>	<b>\$ 1,227.9</b>	<b>\$ 426.4</b>	<b>2,677.8</b>	<b>18,506.8</b>	<b>779.5</b>	<b>228.3</b>	<b>68,512</b>
<b>Commercial/Industrial Programs</b>									
New Construction / Major Renovation	2.7	\$ 826.7	\$ 257.1	\$ 53.1	613.2	9,197.6	139.2	169.7	14
Large C&I Retrofit	1.9	\$ 2,216.4	\$ 562.5	\$ 628.1	2,172.7	28,244.5	313.0	432.6	26
Small C&I Retrofit	1.7	\$ 1,255.3	\$ 452.8	\$ 266.4	1,203.1	15,640.1	152.0	272.1	58
C&I Education	0.0	\$ -	\$ 24.5	\$ -	-	-	-	-	-
ISO-Related Expenses C&I	0.0	\$ -	\$ 7.5	\$ -	-	-	-	-	-
<b>Subtotal C&amp;I</b>	<b>1.9</b>	<b>4,298.4</b>	<b>1,304.5</b>	<b>947.6</b>	<b>3,988.9</b>	<b>53,082.3</b>	<b>604.2</b>	<b>874.4</b>	<b>98</b>
<b>Total</b>		<b>\$ 8,047.2</b>	<b>\$ 2,532.4</b>	<b>\$ 1,374.0</b>	<b>6,666.7</b>	<b>71,589.1</b>	<b>1,383.7</b>	<b>1,102.7</b>	<b>68,610</b>

(1) Utility Costs include direct program costs plus projected Shareholder Incentive.

(2) Target number of products purchased.

**Present Value Benefits - 2012 PLAN**

	<b>Total Benefits (\$000)</b>	<b>CAPACITY</b>				<b>ENERGY</b>				<b>Non Electric Resource</b>
		<b>Summer Generation</b>	<b>Winter Generation</b>	<b>Transmission</b>	<b>Distribution</b>	<b>Winter Peak</b>	<b>Winter Off Peak</b>	<b>Summer Peak</b>	<b>Summer Off Peak</b>	
<b>Residential Programs</b>										
ENERGY STAR Homes	\$1,037,260	\$1,593	\$0	\$11,190	\$36,818	\$50,034	\$98,703	\$2,768	\$2,104	\$834,050
Home Performance w/Energy Star	\$431,835	\$245	\$0	\$997	\$3,279	\$12,219	\$23,432	\$929	\$1,120	\$389,611
ENERGY STAR Lighting <sup>*1</sup>	\$722,199	\$32,306	\$0	\$27,948	\$91,954	\$165,394	\$213,121	\$87,038	\$104,439	\$0
ENERGY STAR Appliances	\$429,789	\$23,612	\$0	\$6,882	\$22,642	\$54,996	\$71,761	\$29,954	\$35,267	\$184,676
Home Energy Assistance	<u>\$1,127,756</u>	<u>\$618</u>	<u>\$0</u>	<u>\$1,845</u>	<u>\$6,070</u>	<u>\$22,658</u>	<u>\$33,881</u>	<u>\$8,520</u>	<u>\$10,455</u>	<u>\$1,043,711</u>
<b>Subtotal Residential</b>	<b>\$3,748,839</b>	<b>\$58,374</b>	<b>\$0</b>	<b>\$48,861</b>	<b>\$160,763</b>	<b>\$305,301</b>	<b>\$440,898</b>	<b>\$129,210</b>	<b>\$153,384</b>	<b>\$2,452,048</b>
<b>Commercial/Industrial Programs</b>										
New Construction / Major Renovation	\$826,688	\$149,550	\$0	\$30,313	\$99,735	\$133,699	\$183,809	\$119,780	\$109,801	\$0
Large C&I Retrofit	\$2,216,395	\$289,819	\$0	\$64,128	\$210,994	\$403,024	\$555,180	\$362,549	\$330,700	\$0
Small C&I Retrofit	<u>\$1,255,327</u>	<u>\$182,291</u>	<u>\$0</u>	<u>\$36,477</u>	<u>\$120,017</u>	<u>\$300,795</u>	<u>\$307,426</u>	<u>\$158,493</u>	<u>\$149,827</u>	<u>\$0</u>
<b>Subtotal C&amp;I</b>	<b>\$4,298,410</b>	<b>\$621,660</b>	<b>\$0</b>	<b>\$130,918</b>	<b>\$430,747</b>	<b>\$837,518</b>	<b>\$1,046,416</b>	<b>\$640,823</b>	<b>\$590,328</b>	<b>\$0</b>
<b>Total</b>	<b>\$8,047,249</b>	<b>\$680,034</b>	<b>\$0</b>	<b>\$179,779</b>	<b>\$591,510</b>	<b>\$1,142,818</b>	<b>\$1,487,313</b>	<b>\$770,033</b>	<b>\$743,713</b>	<b>\$2,452,048</b>

### Shareholder Incentive Calculation 2012

	<u>Planned</u>	<u>Actual</u>
<b>Commercial/Industrial Incentive</b>		
1. Benefit/Cost Ratio	1.9	0.0
2. Threshold Benefit / Cost Ratio <sup>1</sup>	1.0	
3. Lifetime kWh Savings	53,082,260	0
4. Threshold Lifetime kWh Savings (65%) <sup>2</sup>	34,503,469	
5. Budget	\$1,205,318	\$0
6. Benefit / Cost Percentage of Budget	4.00%	
7. Lifetime kWh Percentage of Budget	4.00%	
<b>8. C/I Shareholder Incentive</b>	\$96,425	
<b>9. Cap (12%)</b>	\$144,638	
<b>Residential Incentive</b>		
10. Benefit / Cost Ratio	2.3	0.0
11. Threshold Benefit / Cost Ratio <sup>1</sup>	1.0	
12. Lifetime kWh Savings	18,506,824	0
13. Threshold Lifetime kWh Savings (65%) <sup>2</sup>	12,029,436	
14. Budget	\$1,139,507	
15. Benefit / Cost Percentage of Budget	4.00%	
16. Lifetime kWh Percentage of Budget	4.00%	
<b>17. Residential Incentive</b>	\$91,161	
<b>18. Cap (12%)</b>	\$136,741	
<b>19. TOTAL PLANNED / EARNED INCENTIVE</b>	<b>\$ 187,586</b>	

**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.

**Planned Versus Actual Benefit / Cost Ratio by Sector  
 2012**

	<u>Planned</u>	<u>Actual</u>
<b>Commercial &amp; Industrial:</b>		
1. Benefits (Value) From Eligible Programs	\$ 4,298,410	\$ -
2. Implementation Expenses	\$ 1,208,100	\$ -
3. Customer Contribution	\$ 947,641	\$ -
4. Shareholder Incentive	\$ 96,425	\$ -
5. Total Costs	\$ 2,252,166	\$ -
6. Benefit/Cost Ratio - C&I Sector	<b>1.9</b>	<b>0.0</b>
<b>Residential:</b>		
6. Benefits (Value) From Eligible Programs	\$ 3,748,839	\$ -
7. Implementation Expenses	\$ 1,136,723	\$ -
8. Customer Contribution	\$ 426,399	\$ -
9. Shareholder Incentive	\$ 91,161	\$ -
10. Total Costs	\$ 1,654,282	\$ -
11. Benefit/Cost Ratio - Residential Sector	<b>2.3</b>	<b>0.0</b>



**Actual Lifetime Energy Savings by Sector and Program  
 2012**

	Lifetime kWh Savings	
	<u>Planned</u>	<u>Actual</u>
<b>Commercial &amp; Industrial:</b>		
New Equipment & Construction	9,197,573	0
Large C&I Retrofit	28,244,540	0
Small Business Energy Solutions	15,640,147	0
Total Commercial & Industrial Included for Incentive Calculation	<b>53,082,260</b>	<b>0</b>
<b>Residential:</b>		
Home Energy Assistance Program	1,261,874	0
Home Energy Solutions Program	631,009	0
ENERGY STAR Homes Program	2,481,582	0
ENERGY STAR Appliance Program	3,401,933	0
ENERGY STAR Lighting Program	10,730,425	0
Total Residential Included for Incentive Calculation	<b>18,506,824</b>	<b>0</b>

**NH CORE Energy Efficiency Program - 2012 Budget Details**

(Revised 9-30-2011)

RESIDENTIAL PROGRAMS		Internal Adm	External Adm	Cust Rebts/Services	Internal Impl.	Marketing	(see Note 1) Evaluation	Total
	National Grid	\$3,542	\$11,642	\$81,692	\$5,247	\$1,637	\$846	\$104,606
	NHEC	\$11,606	\$1,667	\$102,727	\$37,537	\$1,150	\$6,222	\$160,909
	PSNH	\$25,960	\$0	\$875,412	\$80,000	\$10,384	\$41,636	\$1,033,392
	Unitil	\$11,571	\$2,500	\$123,163	\$42,267	\$6,000	\$14,500	\$200,000
<b>ENERGY STAR Homes</b>		<b>\$52,679</b>	<b>\$15,809</b>	<b>\$1,182,994</b>	<b>\$165,050</b>	<b>\$19,171</b>	<b>\$63,204</b>	<b>\$1,498,907</b>
	National Grid	\$1,858	\$15,786	\$110,348	\$2,753	\$1,277	\$9,212	\$141,234
	NHEC	\$11,606	\$1,667	\$115,232	\$44,895	\$1,150	\$6,223	\$180,773
	PSNH	\$44,503	\$37,000	\$1,299,420	\$190,000	\$17,801	\$71,377	\$1,660,101
	Unitil	\$14,456	\$3,281	\$148,094	\$52,794	\$12,625	\$18,750	\$250,000
<b>Home Performance w/ Energy Star</b>		<b>\$72,424</b>	<b>\$57,735</b>	<b>\$1,673,093</b>	<b>\$290,441</b>	<b>\$32,853</b>	<b>\$105,562</b>	<b>\$2,232,108</b>
	National Grid	\$8,811	\$11,796	\$40,531	\$13,051	\$3,921	\$2,367	\$80,477
	NHEC	\$11,606	\$1,667	\$93,794	\$24,159	\$4,650	\$6,223	\$142,099
	PSNH	\$19,732	\$0	\$685,005	\$35,000	\$7,893	\$31,647	\$779,277
	Unitil	\$6,944	\$4,341	\$72,736	\$25,743	\$6,525	\$7,753	\$124,042
<b>Energy Star Appliances</b>		<b>\$47,094</b>	<b>\$17,804</b>	<b>\$892,066</b>	<b>\$97,953</b>	<b>\$22,988</b>	<b>\$47,989</b>	<b>\$1,125,895</b>
	National Grid	\$6,456	\$9,964	\$190,636	\$9,563	\$912	\$4,511	\$222,043
	NHEC	\$11,606	\$1,667	\$163,668	\$31,432	\$1,000	\$6,223	\$215,596
	PSNH	\$54,557	\$22,000	\$1,842,208	\$160,000	\$16,000	\$87,502	\$2,182,267
	Unitil	\$17,964	\$8,312	\$236,106	\$63,825	\$10,784	\$22,466	\$359,456
<b>Home Energy Assistance</b>		<b>\$90,583</b>	<b>\$41,943</b>	<b>\$2,432,618</b>	<b>\$264,820</b>	<b>\$28,696</b>	<b>\$120,702</b>	<b>\$2,979,362</b>
	National Grid	\$10,396	\$19,749	\$28,947	\$15,398	\$3,314	\$3,089	\$80,893
	NHEC	\$11,606	\$1,667	\$54,490	\$24,159	\$10,000	\$6,223	\$108,145
	PSNH	\$21,186	\$0	\$468,792	\$55,000	\$183,496	\$33,980	\$762,454
	Unitil	\$9,330	\$5,633	\$91,227	\$34,426	\$14,475	\$10,339	\$165,431
<b>ENERGY STAR Lighting</b>		<b>\$52,518</b>	<b>\$27,049</b>	<b>\$643,456</b>	<b>\$128,984</b>	<b>\$211,285</b>	<b>\$53,631</b>	<b>\$1,116,923</b>
	National Grid	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	NHEC	\$11,606	\$1,667	\$80,395	\$37,537	\$1,000	\$6,223	\$138,428
	PSNH	\$9,889	\$6,000	\$525,655	\$75,000	\$3,172	\$15,862	\$635,578
	Unitil (Res. Website, ISO Expenses)	\$2,400	\$28,000	\$0	\$7,600	\$0	\$0	\$38,000
<b>Other Residential Programs</b>		<b>\$23,895</b>	<b>\$35,667</b>	<b>\$606,050</b>	<b>\$120,137</b>	<b>\$4,172</b>	<b>\$22,085</b>	<b>\$812,006</b>
<b>Total Residential Programs</b>		<b>\$339,192</b>	<b>\$196,006</b>	<b>\$7,430,278</b>	<b>\$1,067,385</b>	<b>\$319,166</b>	<b>\$413,174</b>	<b>\$9,765,201</b>
<b>COMMERCIAL, INDUSTRIAL AND MUNICIPAL PROGRAMS</b>								
	National Grid	\$28,021	\$5,743	\$146,704	\$53,324	\$573	\$15,601	\$249,966
	NHEC	\$11,606	\$1,667	\$80,645	\$28,090	\$1,150	\$6,223	\$129,381
	PSNH	\$43,124	\$0	\$1,277,557	\$289,500	\$8,000	\$86,248	\$1,704,429
	Unitil	\$12,899	\$1,189	\$159,425	\$48,836	\$1,784	\$13,674	\$237,805
<b>New Equipment &amp; Construction</b>		<b>\$95,650</b>	<b>\$8,599</b>	<b>\$1,664,331</b>	<b>\$419,749</b>	<b>\$11,506</b>	<b>\$121,746</b>	<b>\$2,321,581</b>
	National Grid	\$25,200	\$5,165	\$324,684	\$35,285	\$2,291	\$13,001	\$405,626
	NHEC	\$11,606	\$1,667	\$99,255	\$28,090	\$1,150	\$6,223	\$147,991
	PSNH	\$56,951	\$0	\$1,656,979	\$424,500	\$8,000	\$113,628	\$2,260,058
	Unitil	\$29,827	\$9,100	\$338,208	\$110,573	\$1,092	\$31,200	\$520,000
<b>Large C&amp;I Retrofit</b>		<b>\$123,584</b>	<b>\$15,932</b>	<b>\$2,419,126</b>	<b>\$598,448</b>	<b>\$12,533</b>	<b>\$164,052</b>	<b>\$3,333,675</b>
	National Grid	\$8,157	\$1,672	\$195,606	\$2,306	\$1,787	\$6,582	\$216,109
	NHEC	\$11,606	\$1,666	\$99,256	\$45,046	\$1,152	\$6,223	\$164,949
	PSNH	\$70,586	\$0	\$2,057,058	\$520,000	\$28,166	\$140,832	\$2,816,642
	Unitil	\$22,933	\$8,277	\$266,399	\$85,951	\$10,451	\$24,038	\$418,049
<b>Small Business Energy Solutions</b>		<b>\$113,282</b>	<b>\$11,615</b>	<b>\$2,618,318</b>	<b>\$653,303</b>	<b>\$41,556</b>	<b>\$177,675</b>	<b>\$3,615,749</b>
	National Grid	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	NHEC	\$4,352	\$0	\$31,017	\$13,664	\$0	\$0	\$49,033
	PSNH (Education, RFP, Smart Start)	\$16,896	\$0	\$558,896	\$98,000	\$6,743	\$33,713	\$714,248
	Unitil (Education, C&I Web, ISO Expenses)	\$3,600	\$17,040	\$0	\$11,400	\$0	\$0	\$32,040
<b>Other C&amp;I Programs</b>		<b>\$24,848</b>	<b>\$17,040</b>	<b>\$589,913</b>	<b>\$123,064</b>	<b>\$6,743</b>	<b>\$33,713</b>	<b>\$795,321</b>
<b>Total Non-Residential Programs</b>		<b>\$357,364</b>	<b>\$53,185</b>	<b>\$7,291,688</b>	<b>\$1,794,564</b>	<b>\$72,338</b>	<b>\$497,187</b>	<b>\$10,066,326</b>
<b>TOTAL (Both Sectors)</b>		<b>\$696,556</b>	<b>\$249,191</b>	<b>\$14,721,966</b>	<b>\$2,861,949</b>	<b>\$391,504</b>	<b>\$910,361</b>	<b>\$19,831,527</b>

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 - 2012**

	National Grid		NHEC		PSNH		UNITIL		TOTALS	
PROGRAMS										
Energy Star Homes										
Number of Homes / Lifetime kWh Savings	25	340,042	57	915,068	384	9,627,607	39	2,481,582	505	13,364,299
B/C Ratio / Planned Budget	4.37	\$104,606	4.56	\$160,909	5.24	\$1,033,392	3.70	\$200,000		\$1,498,907
NH Home Performance with Energy Star										
Number of Units / Lifetime kWh Savings	145	4,227,348	59	3,729,410	929	1,319,216	46	631,009	1,179	9,906,984
B/C Ratio / Planned Budget	2.30	\$141,234	1.58	\$180,773	2.38	\$1,660,101	1.10	\$250,000		\$2,232,108
Energy Star Appliances										
Number of Rebates / Lifetime kWh Savings	875	1,259,794	1,914	3,674,464	13,783	20,632,001	1,617	3,401,933	18,189	28,968,192
B/C Ratio / Planned Budget	1.90	\$80,477	1.40	\$142,099	1.42	\$779,277	1.40	\$124,042		\$1,125,895
Home Energy Assistance										
Number of Units / Lifetime kWh Savings	54	1,324,252	61	883,391	760	10,469,536	73	1,261,874	948	13,939,053
B/C Ratio / Planned Budget	2.23	\$222,043	2.21	\$215,596	2.22	\$2,182,267	2.90	\$359,456		\$2,979,362
Energy Star Lighting										
Number of Rebates / Lifetime kWh Savings	14,507	2,519,006	39,467	6,791,203	222,353	38,397,028	66,737	10,730,425	343,064	58,437,662
B/C Ratio / Planned Budget	1.37	\$80,893	2.35	\$108,145	2.37	\$762,454	2.90	\$165,431		\$1,116,923
C&I New Equipment & Construction										
Number of Participants / Lifetime kWh Savings	13	9,104,728	14	5,803,325	94	85,348,090	14	9,197,573	135	109,453,715
B/C Ratio / Planned Budget	2.66	\$249,966	1.22	\$129,381	3.39	\$1,704,429	2.70	\$237,805		\$2,321,581
Large C&I Retrofit										
Number of Participants / Lifetime kWh Savings	26	39,536,529	23	6,004,825	101	101,484,572	26	28,244,540	176	175,270,465
B/C Ratio / Planned Budget	3.32	\$405,626	1.04	\$147,991	1.51	\$2,260,058	1.90	\$520,000		\$3,333,675
Small Business Energy Solutions										
Number of Participants / Lifetime kWh Savings	33	7,842,891	31	4,815,514	1,047	94,040,728	58	15,640,147	1169	122,339,281
B/C Ratio / Planned Budget	2.01	\$216,109	1.33	\$164,949	1.48	\$2,816,642	1.70	\$418,049		\$3,615,749
Educational Programs (see Note 1)										
B/C Ratio / Planned Budget		\$9,496		\$35,609		\$103,793		\$0		\$139,402
Company Specific Programs										
Number of Participants / Lifetime kWh Savings			20	10,214,662	25,079	67,174,001				77,388,663
B/C Ratio / Planned Budget		\$0	2.29	\$138,428		\$1,211,033		\$70,040		\$1,419,501
Smart Start Program										
Number of Participants / Planned Budget		\$0		\$13,424		\$35,000		\$0		\$48,424
Utility Incentive										
B/C Ratio / Planned Budget		\$120,076		\$98,984		\$1,161,076		\$187,586		\$1,567,721
TOTAL PLANNED BUDGET		\$1,621,030		\$1,536,288		\$15,709,522		\$2,532,409		\$21,399,249

**NOTES:**

(1) National Grid's Educational Program budget is included within other program budgets and therefore is not included in the total to avoid double counting.

### NH CORE Energy Efficiency Program Goals (January 1 - December 31, 2012)

NH CORE ENERGY EFFICIENCY PROGRAMS	EXPENSES (\$)	SAVINGS (Lifetime kWh)	NUMBER OF CUSTOMERS
<b>RESIDENTIAL (nhsaves@home)</b>			
ENERGY STAR Homes	\$1,498,907	13,364,300	505
NH Home Performance w/Energy Star	\$2,232,108	9,906,983	1,179
Home Energy Assistance	\$2,979,362	13,939,053	948
ENERGY STAR Lighting <sup>1</sup>	\$1,116,923	58,437,662	343,064
ENERGY STAR Appliances	<u>\$1,125,895</u>	<u>28,968,192</u>	<u>18,189</u>
<b>TOTAL RESIDENTIAL</b>	<b>\$8,953,195</b>	<b>124,616,190</b>	<b>363,885</b>
<b>COMMERCIAL &amp; INDUSTRIAL (nhsaves@work)</b>			
Educational Programs	\$139,402		
Small Business Energy Solutions	\$3,615,749	122,339,281	1,169
Large Business Energy Solutions	\$3,333,675	175,270,465	176
New Equipment & Construction	<u>\$2,321,581</u>	<u>109,453,715</u>	<u>135</u>
<b>TOTAL COMMERCIAL &amp; INDUSTRIAL</b>	<b>\$9,410,407</b>	<b>407,063,461</b>	<b>1,481</b>
<b>TOTAL</b>	<b>\$18,363,602</b>	<b>531,679,651</b>	<b>365,366</b>

<sup>1</sup> "Number of customers" is actually number of lighting products purchased.

## Exhibit A: Projected Program Expenses

National Grid NH Gas Energy Efficiency Planned Budget

New Hampshire Program Year TWO (January 1, 2012 - December 31, 2012)

		Internal Admin	External Admin	Rebates/ Services	Internal Impl	Marketing	Evaluation	Budget Total	Participant Goal	Lifetime MMBTU Savings	Annual MMBTU Savings
Sector	BCR Activity										
<b>Residential</b>											
	Low Income	\$17,240	\$269,193	\$511,444	\$34,536	\$3,486	\$0	<b>\$835,899</b>	297	81,051	4,053
	Residential High-Efficiency Heating, Water-Heating, Controls Program	\$15,119	\$164,621	\$492,054	\$30,284	\$29,847	\$874	<b>\$732,798</b>	1,487	292,719	16,290
	New Home Construction with Energy Star	\$1,824	\$29,998	\$49,850	\$3,661	\$3,213	\$0	<b>\$88,546</b>	34	23,120	925
	Res Building Practices and Demo	\$471	\$4,181	\$14,662	\$942	\$2,191	\$307	<b>\$22,754</b>	10	-	-
	Energy Audit with Home Performance and Weatherization	\$34,655	\$137,912	\$1,408,202	\$69,420	\$21,981	\$8,363	<b>\$1,680,533</b>	1,400	386,904	19,345
	<b>Residential Total</b>	<b>\$69,309</b>	<b>\$605,905</b>	<b>\$2,476,211</b>	<b>\$138,843</b>	<b>\$60,717</b>	<b>\$9,544</b>	<b>\$3,360,530</b>	<b>3,228</b>	<b>783,794</b>	<b>40,613</b>
<b>Commercial &amp; Industrial</b>											
	Large C & I Retrofit Program	\$61,672	\$101,701	\$1,472,589	123543.3	\$22,413	\$25,161	<b>\$1,807,079</b>	270	769,785	52,316
	New Equipment and Construction Program	\$103,868	\$152,552	\$790,548	208072.8	\$37,676	\$42,296	<b>\$1,335,013</b>	374	420,056	22,022
	Small Business Energy Solutions Program	\$19,027	\$44,712	\$238,953	38115.16	\$6,008	\$7,665	<b>\$354,480</b>	29	141,071	9,405
	<b>Commercial &amp; Industrial Total</b>	<b>\$184,567</b>	<b>\$298,965</b>	<b>\$2,502,090</b>	<b>\$369,731</b>	<b>\$66,097</b>	<b>\$75,122</b>	<b>\$3,496,571</b>	<b>673</b>	<b>1,330,911</b>	<b>83,743</b>
<b>Grand Total</b>		<b>\$253,876</b>	<b>\$904,869</b>	<b>\$4,978,301</b>	<b>\$508,574</b>	<b>\$126,814</b>	<b>\$84,666</b>	<b>\$6,857,101</b>	<b>3,901</b>	<b>2,114,706</b>	<b>124,356</b>

## Exhibit B Total Resource Benefit Cost Analysis

January 1, 2012 - December 31, 2012 TRC BENEFIT COST TEST

National Grid NH

Gas Energy Efficiency Programs

Summary of Benefit, Costs Program Year 2012 (January 1, 2012 - December 31, 2012)

### Total Resource Cost Test

BCR Activity	TRC Benefit/ Cost	TRC Net Benefits	Total Benefits (\$000)	Total Costs (\$000)	PA Costs (\$000)	Participant Costs (\$000)	Participant Goal	Lifetime MMBTU Savings
<b>Residential</b>								
Low Income	0.82	(\$150)	\$686	\$836	\$836	\$0	297	81,051
Energy Audit with Home Performance and Weatherization	1.30	\$756	\$3,276	\$2,521	\$1,681	\$840	1,400	386,904
Residential High-Efficiency Heating, Water-Heating, Controls Program	1.18	\$356	\$2,368	\$2,013	\$733	\$1,280	1,487	292,719
New Home Construction with Energy Star	1.39	\$55	\$197	\$142	\$89	\$53	34	23,120
Res Building Practices and Demo	NA	(\$23)	\$0	\$23	\$23	\$0	10	-
Shareholder Incentive					\$269			
<b>Subtotal: Residential</b>	<b>1.13</b>	<b>\$994</b>	<b>\$6,528</b>	<b>\$5,802</b>	<b>\$3,629</b>	<b>\$2,173</b>	<b>3,228</b>	<b>783,794</b>
<b>Commercial &amp; Industrial</b>								
Large C & I Retrofit Program	1.26	\$1,250	\$6,089	\$4,839	\$1,807	\$3,032	270	769,785
New Equipment and Construction Program	1.53	\$1,185	\$3,419	\$2,234	\$1,335	\$899	374	420,056
Small Business Energy Solutions Program	1.84	\$511	\$1,117	\$606	\$354	\$251	29	141,071
Shareholder Incentive					\$280			
<b>Subtotal: Commercial &amp; Industrial</b>	<b>1.34</b>	<b>\$2,946</b>	<b>\$10,625</b>	<b>\$7,959</b>	<b>\$3,776</b>	<b>\$4,182</b>	<b>673</b>	<b>1,330,911</b>
<b>Grand Total</b>	<b>1.25</b>	<b>\$3,940</b>	<b>\$17,153</b>	<b>\$13,761</b>	<b>\$7,406</b>	<b>\$6,355</b>	<b>3,901</b>	<b>2,114,706</b>

## Exhibit D - Shareholder Incentive Page 1 of 2

### National Grid NH Energy Efficiency

Target Shareholder Incentive Year TWO- January 1, 2012 - December 31, 2012

#### Commercial/Industrial Incentive

1. Target Benefit/Cost Ratio	1.34
2. Threshold Benefit/Cost Ratio	1.00
3. Target lifetime MMBTU	1,330,911
4. Threshold MMBTU	865,092
5. Budget	\$3,496,571
6. CE Percentage	4.00%
7. Lifetime MMBTU Percentage	4.00%
<b>8. Target C/I Incentive</b>	<b>\$279,726</b>
<b>9. Cap</b>	<b>\$419,589</b>

#### Residential Incentive

10. Target Benefit/Cost Ratio	1.13
11. Threshold Benefit/Cost Ratio	1.00
12. Target lifetime MMBTU	783,794
13. Threshold MMBTU	509,466
\$5.49/therm based on 50% of project cost	\$3,360,530
\$3.08/therm based on 50% of project cost.	4.00%
16. Lifetime MMBTU Percentage	4.00%
<b>17. Target Residential Incentive</b>	<b>\$268,842</b>
<b>18. Cap</b>	<b>\$403,264</b>
<b>19. TOTAL TARGET INCENTIVE</b>	<b>\$548,568</b>

#### 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.

update hehe

update HPWes 98% realization

## Exhibit D - Shareholder Incentive Page 2 of 2

### National Grid NH Energy Efficiency Target Benefit-Cost Ratio by Sector Year TWO- January 1, 2012 - December 31, 2012

#### Commercial & Industrial:

	<u>Planned</u>
1. Benefits (Value) From Eligible Programs	\$10,624,736
2. Implementation Expenses	\$3,496,571
3. Customer Contribution	\$4,182,231
4. Shareholder Incentive	\$279,726
5. Total Costs Including Shareholder Incentive	<b>\$7,958,528</b>
6. Benefit/Cost Ratio - C&I Sector	<b>1.34</b>

#### Residential:

7. Benefits (Value) From Eligible Programs	\$6,528,024
8. Implementation Expenses	\$3,360,530
9. Customer Contribution	\$2,173,008
10. Shareholder Incentive	\$268,842
11. Total Costs Including Shareholder Incentive	<b>\$5,802,380</b>
12. Benefit/Cost Ratio - Residential Sector	<b>1.13</b>

#### 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 incen

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.



## Exhibit A: Projected Program Expenses & Savings

Northern

Unitil Gas Energy Efficiency Planned Budget, Participation, Savings  
New Hampshire Program Year TWO (January 1, 2012 - December 31, 2012)

Sector	BCR Activity	Internal Admin	External Admin	Rebates/ Services	Internal Impl	Marketing	Evaluation	Budget Total	Participant Goal	Lifetime MMBTU	Annual MMBTU
<b>Residential</b>											
	Low Income	\$7,602	\$2,096	\$102,495	\$8,382	\$1,625	\$7,800	<b>\$130,000</b>	25	963	19,301
	Residential High-Efficiency Heating, Water-Heating, Controls Program	\$13,532	\$5,527	\$202,296	\$22,109	\$9,976	\$16,177	<b>\$269,617</b>	375	6,140	110,622
	New Home Construction with ENERGY STAR	\$4,409	\$1,672	\$58,831	\$6,688	\$3,200	\$5,200	<b>\$80,000</b>	19	782	14,593
	Home Performance with ENERGY STAR	\$7,043	\$2,843	\$101,592	\$11,372	\$3,375	\$8,775	<b>\$135,000</b>	42	1,438	32,177
	<b>Residential Total</b>	<b>\$32,586</b>	<b>\$12,138</b>	<b>\$465,214</b>	<b>\$48,551</b>	<b>\$18,176</b>	<b>\$37,952</b>	<b>\$614,617</b>	<b>461</b>	<b>9,323</b>	<b>176,693</b>
<b>Commercial &amp; Industrial</b>											
	Large C & I Retrofit Program	\$7,069	\$0	\$77,081	\$0	\$900	\$4,950	<b>\$90,000</b>	8	5,209	93,755
	Small Business Energy Solutions Program	\$8,230	\$1,827	\$87,169	\$7,307	\$1,118	\$6,149	<b>\$111,800</b>	8	4,737	85,274
	C&I High Efficiency Heating, Water-Heating, Controls Program	\$5,244	\$995	\$80,316	\$3,980	\$475	\$3,990	<b>\$95,000</b>	67	2,336	44,969
	Multi-Family Program	\$10,446	\$2,449	\$102,386	\$9,795	\$1,338	\$7,357	<b>\$133,771</b>	6	3,820	66,856
	<b>Commercial &amp; Industrial Total</b>	<b>\$30,988</b>	<b>\$5,271</b>	<b>\$346,953</b>	<b>\$21,082</b>	<b>\$3,831</b>	<b>\$22,446</b>	<b>\$430,571</b>	<b>89</b>	<b>16,102</b>	<b>290,854</b>
<b>Grand Total</b>		<b>\$63,574</b>	<b>\$17,408</b>	<b>\$812,166</b>	<b>\$69,634</b>	<b>\$22,007</b>	<b>\$60,398</b>	<b>\$1,045,188</b>	<b>550</b>	<b>25,425</b>	<b>467,547</b>

## Exhibit B: Summary of Benefits

Northern

New Hampshire Program Year TWO (January 1, 2012- December 31, 2012)

Sector	Program	TRC Benefit / Cost	Total Benefits (\$000)	Total Costs (\$000)	Program Implementation (\$000)	Customer Contribution (\$000)	Evaluation (\$000)	Shareholder Incentive (\$000)
<b>A - Residential</b>		<b>1.3</b>	<b>\$1,375</b>	<b>\$1,072</b>	<b>\$454</b>	<b>\$549</b>	<b>\$30</b>	<b>\$39</b>
	A02a ENERGY STAR Homes	1.3	\$177	\$132	\$75	\$45	\$5	\$6
	A03a Home Performance w/ES	1.2	\$273	\$221	\$126	\$75	\$9	\$11
	A04a Res GasNetworks	1.3	\$925	\$719	\$253	\$428	\$16	\$22
<b>B - Low Income</b>		<b>1.2</b>	<b>\$164</b>	<b>\$140</b>	<b>\$122</b>	<b>\$0</b>	<b>\$8</b>	<b>\$10</b>
	B03a Low Income Retrofit 1-4	1.2	\$164	\$140	\$122	\$0	\$8	\$10
<b>C - Commercial &amp; Industrial</b>		<b>2.9</b>	<b>\$2,440</b>	<b>\$853</b>	<b>\$408</b>	<b>\$388</b>	<b>\$22</b>	<b>\$34</b>
	C03a Large C&I Custom	4.6	\$792	\$173	\$85	\$77	\$5	\$6
	C03b Small C&I Custom	3.5	\$721	\$208	\$106	\$87	\$6	\$9
	C03C Multifamily	2.2	\$565	\$252	\$126	\$102	\$7	\$16
	C04a C&I GasNetworks	1.7	\$362	\$219	\$91	\$121	\$4	\$3
<b>Grand Total</b>		<b>1.9</b>	<b>\$3,979</b>	<b>\$2,065</b>	<b>\$985</b>	<b>\$936</b>	<b>\$60.398</b>	<b>\$84</b>

## Exhibit D - Shareholder Incentive Page 1 of 2

Northern

### Unitil Gas Energy Efficiency

Target Shareholder Incentive Year TWO- January 1, 2012 - December 31, 2012

#### Commercial/Industrial Incentive

1. Target Benefit/Cost Ratio	2.86
2. Threshold Benefit/Cost Ratio	1.00
3. Target lifetime MMBTU	290,854
4. Threshold MMBTU	189,055
5. Budget	\$430,571
6. CE Percentage	4.00%
7. Lifetime MMBTU Percentage	4.00%

**8. Target C/I Incentive** **\$34,446**

**9. Cap** **\$51,669**

#### Residential Incentive

10. Target Benefit/Cost Ratio	1.27
11. Threshold Benefit/Cost Ratio	1.00
12. Target lifetime MMBTU	176,693
13. Threshold MMBTU	114,850
14. Budget	\$614,617
15. CE Percentage	4.00%
16. Lifetime MMBTU Percentage	4.00%

**17. Target Residential Incentive** **\$49,169**

**18. Cap** **\$73,754**

**19. TOTAL TARGET INCENTIVE** **\$83,615**

#### 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.

**Exhibit D - Shareholder Incentive Page 2 of 2**

Northern

**Unitil Gas Energy Efficiency  
Target Benefit-Cost Ratio by Sector  
Year TWO- January 1, 2012 - December 31, 2012**

**Commercial & Industrial:****Planned**

1. Benefits (Value) From Eligible Programs	\$2,440,280
2. Implementation Expenses	\$408,125
3. Customer Contribution	\$387,649
4. Evaluation Expense	\$22,446
5. Shareholder Incentive	\$34,446
6. Total Costs Including Shareholder Incentive	<b>\$852,666</b>
7. Benefit/Cost Ratio - C&I Sector	<b>2.86</b>
8. Implementation Plus Evaluation Expense - C&I Sector	<b>\$430,571</b>

**Residential:**

9. Benefits (Value) From Eligible Programs	\$1,538,731
10. Implementation Expenses	\$576,666
11. Customer Contribution	\$548,563
12. Evaluation Expense	\$37,952
13. Shareholder Incentive	\$49,169
14. Total Costs Including Shareholder Incentive	<b>\$1,212,350</b>
15. Benefit/Cost Ratio - Residential Sector	<b>1.27</b>
16. Implementation Plus Evaluation Expense - Residential Sector	<b>\$614,618</b>

**Line No. Notes:**

1 - 5 and 9-13. See Exhibit B.

5. Sum of lines 2-5.

6. Line 1 divided by line 6. 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.

7. Sum of lines 2 and 5. These are the C&I sector funds on which the Company may calculate its earned shareholder incentive.

14. Sum of lines 10 - 13.

15. Line 9 divided by line 14. 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.

16. Sum of lines 10 and 13. These are the Residential sector funds on which the Company may calculate its earned shareholder incentive.

National Grid Home Energy Assistance Program

Measure	Quantity			Annual Savings per Unit (kWh)			Measure Life			Installation or Realization Rate		Total Lifetime Savings (kWh)			Total Annual MMBTU Savings			Total Lifetime MMBTU Savings		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan
HEA Baseload	45	50	54	206	206	206	13	13	13	100%	100%	20	133,900	144,612						
Electric Weatherization	2	2	2	595	595	595	20	20	20	100%	100%	24	23,800	23,800						
CFLs	260	252	312	63	63	63	8	8	8	100%	100%	131	127,008	157,248						
Fixtures	41	11	49	126	126	126	20	20	20	100%	100%	103	27,720	123,480						
Replacement Refrigerator	28	33	33	1,016	1,016	1,016	19	19	19	100%	100%	541	637,032	637,032						
DHWater Measure (elec)	20	27	25	419	419	419	15	15	15	100%	100%	126	169,695	157,125						
DHWater Measure (OIL)	11	51	13	0		0	15	15	15	100%	100%	0	0		80	187	96	1,200	2,800	1,440
Tstats	7	16	8	288	288	288	10	10	10	100%	100%	20	46,080	23,040	0					
HEA Oil Wx	23	46	27	143	143	143	20	20	15	100%	100%	66	131,560		805	1,610	945	16,100	24,150	14,175
Refrigerator Removal		35			136			5		100%	100%		23,800							
Freezers		1			726			19		100%	100%		13,794							

National Grid Home Performance w/Energy Star

Measure	Quantity			Annual Savings per Unit (kWh)			Measure Life			Installation or Realization Rate		Total Lifetime Savings (kWh)			Total Annual MMBTU Savings			Total Lifetime MMBTU Savings		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan
HPw/ES SF Elec	9	18	11	1,737	1,680	880	12	18	12	104%	104%	199,435	566,034	120,806						
HPw/ES SF Non Elec	47	16	56	880	858	514	9	8	8	104%	104%	386,471	114,240	239,483						
HPw/ES Multi Electric Heat CFL	132		566	26		64	8		5	104%	104%	28,504	0	188,365						
HPw/ES Multi Electric Heat DHWs	7		32	76		80	15		15	104%	104%	8,770	0	39,936						
HPw/ES Multi Electric Heat FIXTURES	74	216	317	334	212	334	20	20	20	104%	104%	511,314	951,933	2,202,262						
HPw/ES Multi Electric Heat REFRIG	6		24	834		319	13		13	104%	104%	62,245		103,444						

National Grid ENERGY STAR® Homes Program

Measure	Quantity			Annual Savings per Unit (kWh)			Measure Life			In-Service / Realization Rate		Total Lifetime Savings (kWh)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
RNC ES Homes (Heating), All Elec, Oil	69		25	106		286	25	25	25	100.00%	100.00%	181,993	523,581	178,563
RNC ES Homes (Cooling), All units	69		25	0		20	25	25	25	100.00%	100.00%	0	165,559	12,550
RNC ES Homes (Water Heating), All E	69		25	7		32	15	15	15	100.00%	100.00%	7,133	40,368	12,026
Refrigerators	69	38	25	107	107	107	13	13	12	100.00%	100.00%	95,979	52,858	32,100
Dishwashers	4	26	3	25	25	33	12	12	10	100.00%	100.00%	1,202	7,800	1,003
Indoor Fixture	138	717	50	107	107	106	20	20	8	104.40%	100.00%	308,318	1,601,911	42,360
Screw-in Bulb	598	253	300	51	51	39	8	8	5	83.83%	100.00%	204,540	86,536	58,635
Clothes Washer	46	8	17	27	27	15	14	14	11	100.00%	100.00%	17,169	3,024	2,805

National Grid Energy Star Lighting Program

Measure	Quantity			Annual Savings per Unit (kWh)			Measure Life			In-Service & Realization Rate		Total Lifetime Savings (kWh)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
Catalog Sales: CFLs	184	104	51	51	51	40	5	5	5	84%	84%	39,335	22,233	8,413
Catalog Sales: Interior Fixtures	69	33	29	107	107	107	20	20	8	104%	104%	154,159	73,728	25,941
Catalog Sales: Exterior Fixtures	14	1	29	107	107	107	6	6	5	109%	109%	9,622	697	16,865
Catalog Sales: Torchieres	14	6	15	215	215	120	8	8	8	108%	108%	25,677	11,164	15,059
Retail Sales: CFLs	8,280	16,036	14,210	51	51	39	5	5	5	84%	84%	1,770,054	3,428,090	2,328,337
Retail Sales: Interior Fixture	322	113	73	106	106	106	20	20	8	104%	104%	712,684	250,104	64,125
Retail Sales: Exterior Fixture	28	3	73	106	106	106	6	6	5	109%	109%	19,063	2,072	41,690
Retail Sales: Torchieres	23	0	15	215	215	104	8	8	8	108%	108%	42,796	0	13,101
Retail Sales: LEDs		0	15			47			8	95%	100%	0	0	5,475
												0	0	0
												0	0	0
												0	0	0

Planning Assumptions

In Service & Realization Rate includes spillover from Process and Impact Evaluation of the New Hampshire Residential Lighting Program, 11/9/2003, Nexus Market Research, Inc. and RLW Analytics, Inc.  
Measure life was reduced to 5 years on CFLs.  
Exterior Fixture measure life reduced from 15 to 5 years.



National Grid ENERGY STAR® Appliance Program

Measure	Quantity			Annual Savings per Unit (kWh)			Measure Life			In-Service / Realization Rate		Total Lifetime Savings (kWh)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
Clothes Washer Tier 1 Electric DHW	31	32	19	98	126	126	14	14	11	100%	100%	42,887	56,448	26,334
Clothes Washer Tier 1 Gas DHW	10	10	7				14	14	11	100%	100%	0	0	0
Clothes Washer Tier 1 Oil DHW	51	53	24				14	14	11	100%	100%	0	0	0
Clothes Washer Tier 1 Electric Dryer	84	78	49	94	63	63	14	14	11	100%	100%	110,340	68,796	33,957
Clothes Washer Tier 1 Other Dryer	9	17	2				14	14	11	100%	100%	0	0	0
Clothes Washer Tier 2 Electric DHW	24	7	12	124	141	141	14	14	11	100%	100%	41,459	13,818	18,612
Clothes Washer Tier 2 Gas DHW	8	1	4				14	14	11	100%	100%	0	0	0
Clothes Washer Tier 2 Oil DHW	39	17	15				14	14	11	100%	100%	0	0	0
Clothes Washer Tier 2 Electric Dryer	64	23	31	103	84	84	14	14	11	100%	100%	92,860	27,048	28,644
Clothes Washer Tier 2 Other Dryer	6	2	1				14	14	11	100%	100%	0	0	0
Clothes Washer Tier 3 Electric DHW	126	140	84	172	200	200	14	14	11	100%	100%	303,587	392,000	184,800
Clothes Washer Tier 3 Gas DHW	41	45	30				14	14	11	100%	100%	0	0	0
Clothes Washer Tier 3 Oil DHW	203	349	105				14	14	11	100%	100%	0	0	0
Clothes Washer Tier 3 Electric Dryer	335	458	210	135	115	115	14	14	11	100%	100%	632,094	737,380	265,650
Clothes Washer Tier 3 Other Dryer	35	76	7				14	14	11	100%	100%	0	0	0
Room AC	46	165	85	26	18	20	13	13	9	100%	100%	15,548	39,275	15,002
Smart Strip	46	88	85	175	175	57	5	5	5	75%	100%	30,188	57,750	24,225
Ref Frez recycle			80			413			8		100%			264,320
Air Cleaner			25			58			9		100%			13,050
Refrigerator Rebate			300			107			12		100%			385,200

**Planning Assumptions**

CW savings assumptions based on actual CWs rebated in 2010 for savings over federal standard.

Room AC savings based on actual 2010 room Acs rebated for savings over federal standard.

Smart strip savings based on ECOS consulting presentation.

C&I New Equipment & Construction Program  
National Grid  
2012 Plan

National Grid C&I New Equipment & Construction Program

										2010 plan values		2012 plan values		
	Total Lifetime Savings (MWh)			Rebate Split (\$)			Incentive (\$)			Plan cost based on two-year average of costs		Plan cost based on two-year average of costs		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	\$/kW Yr	\$/LMWh	\$/kW Yr	\$/LMWh	
CAIR	754	1,648	1,576	15.3%		18.3%	\$11,459	\$26,466	\$26,833	\$59	\$14.69	\$61.73	\$17.14	
Cool Choice	240	871	517	6.4%		7.0%	\$4,828	\$15,345	\$10,271	\$36	\$20.08	\$36.16	\$19.49	
CUSTA	2,578	1,250	4,773	58.2%		51.7%	\$43,653	53218.25	\$75,860	\$84	\$16.21	\$80.31	\$15.77	
LIGHT	743	11,930	1,658	16.6%		18.8%	\$12,429	\$68,455	\$27,530	\$61	\$16.35	\$63.74	\$17.17	
VSD	273		581	3.5%		3.5%	\$2,632		\$5,183	\$43	\$8.56	\$45.14	\$8.99	
Motors		340							\$2,757					
TOTAL	4,588		9,105	100.0%		100.0%	\$75,000	\$163,484	\$145,676					

National Grid Large C&I Retrofit Program

										2010 plan values		2012 plan values	
Total Lifetime Savings (MWh)			Rebate Split (\$)			Incentive (\$)				Plan cost based on two-year average of costs		Plan cost based on two-year average of costs	
2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan		\$/kW Yr	\$/LMWh	\$/kW Yr	\$/LMWh
CAIR	1,400	515	5.3%		3.0%	\$21,256	\$9,725	\$9,854		\$101.05	\$15.19	\$111.58	\$19.12
CUSTA	9,648	1,035	36.9%		31.6%	\$147,177		\$102,496		\$175.62	\$15.62	\$173.49	\$15.87
LIGHT	36,753	38,693	56.0%		64.0%	\$223,527	284,575	\$207,678		\$31.91	\$6.30	\$35.78	\$6.77
VSD	2,525	3,099	1.8%		1.4%	\$7,039	\$17,050	\$4,657		\$23.71	\$2.79	\$24.90	\$5.85
TOTAL	50,325	42,827	39,537	100.0%	100.0%	\$398,999	\$311,350	\$324,684					

National Grid  
Small Business Energy Solutions Program  
2012 Plan

National Grid Small Business Energy Solutions Program

Small Business Energy Solutions

	Total Incentives			Total Lifetime Savings (MWh)			2010 plan values		2012 plan values	
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	Plan cost based on two-year average of		Plan cost based on two-year average of	
							\$/kW Yr	\$/LMWh	\$/kW Yr	\$/LMWh
SBS	\$200,000	\$131,321	\$195,606	5,992	2,983	7,843	\$151.26	\$34.57	\$137.87	\$31.06

Measure	Quantity			Annual Savings per Unit (kWh)			Measure Life			Installation or Realization Rate		Total Lifetime Savings (kWh)			Total Annual MMBTU Savings			Total Lifetime MMBTU Savings		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan
	Plan	Actual	Plan	Plan	Actual	Plan	Plan	Actual	Plan	2010	2012	2010 Plan	Actual	2012 Plan	Plan	Actual	Plan	Plan	Actual	Plan
<u>HEA - ELECTRIC</u>																				
Airsealing	25	21		462.0	151.0		25	25		88.80%	88.80%	256,410	70,396	0						
Insulation	22	17		442.0	296.0		25	25		88.80%	88.80%	215,873	111,710	0						
Hot Water	21	54		335.0	356.0		7	7		88.80%	88.80%	43,730	119,496	0						
Refrigerators	15	43		830.0	794.0		19	19		88.80%	88.80%	210,056	576,044	0						
CFL	25	60		296.0	428.0		8	8		88.80%	88.80%	52,570	182,431	0						
Fixtures	10	14		203.0	253.0		6	6				0	0	0						
Thermostats	10	7		474.0	292.0		10	10		88.80%	88.80%	42,091	18,151	0						
<u>Baseload</u>																				
Hot Water	37			166.0			7.0	7.0		88.80%	88.80%	38,179	0	0						
CFL	35			384.0			8.0	8.0		88.80%	88.80%	95,478	0	0						
Fixtures	2			105.0			6.0	6.0		88.80%	88.80%	1,119	0	0						
Refrigerators	21			760.0			17.0	17.0		88.80%	88.80%	240,932	0	0						
Fossil Fuel Savings	37	70					25.0	25.0		88.80%	88.80%				24.24	27.17		19,911	42,222	
Average Home			61			1,360.0			12.0	88.80%	88.80%	0	0	884,022			22.87	0	0	14,866

Measure	Quantity			Annual Savings per Unit (kWh)			Measure Life			Installation or Realization Rate		Total Lifetime Savings (kWh)			Total Annual MMBTU Savings			Total Lifetime MMBTU Savings		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan
	Plan	Actual	Plan	Plan	Actual	Plan	Plan	Actual	Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan	Plan	Actual	Plan	Plan	Actual	Plan
<b>HES - ELECTRIC</b>																				
Airsealing	26			1,661			15.0			100.00%	100.00%	647,790	0	0						
Insulation	25			3,300			25.0			100.00%	100.00%	2,062,500	0	0						
Hot Water	26			1,135			7.0			100.00%	100.00%	206,570	0	0						
Thermostats	8			1,946			10.0			100.00%	100.00%	155,680	0	0						
CFLs	22			365			8.0			100.00%	100.00%	64,240	0	0						
Fossil Fuel Savings	31	27								100.00%	100.00%				7.21	0.00		224	0	
Average Electric Home		27	59		5,808	5,787		16	11	100.00%	100.00%	0	2,509,056	3,721,620						

NHEC  
ENERGY STAR® Homes Program  
2012 Plan

Measure	Quantity			Annual Savings per Unit (kWh)			Measure Life			In-Service / Realization Rate		Total Lifetime Savings (kWh)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
Heating	31	29		41.00	487.86		25.0	25.0		100.00%	100.00%	31,775	353,700	0
Cooling	31	29		106.90	81.03		12.0	12.0		100.00%	100.00%	39,767	28,200	0
Liquid Propane Heated Homes			34			506.00	25	25	25	100.00%	100.00%	0	0	430,100
GSHP Heated Homes			23			0.00	25	25	25	100.00%	100.00%	0	0	0
ES Thermostats	31			0.00	0.00	0.00	12	12	12	100.00%	100.00%	0	0	0
ES Central AC			34	0.00	0.00	263.00	14	14	14	100.00%	100.00%	0	0	125,188
ES Clothes Washer	24	17	40	119.00	119.00	223.00	14	14	11	100.00%	100.00%	39,984	28,322	98,120
ES Dishwasher	31	27	57	43.00	43.00	33.00	11	11	10	100.00%	100.00%	14,663	12,771	18,810
ES Refrigerator	27	28	49	85.00	85.00	107.00	13	13	12	100.00%	100.00%	29,835	30,940	62,916
ES Light Fixture	31	148	57	106.00	106.00	105.86	20	20	20	100.00%	100.00%	65,720	313,760	120,677
ES CFL Lights	183	56	343	50.80	50.80	39.09	8	8	5	80.30%	80.30%	59,720	18,275	53,835

Measure	Quantity			Annual Savings per Unit (kWh)			Measure Life			In-Service & Realization Rate		Total Lifetime Savings (kWh)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
Catalog Sales: CFLs	505	711	908	51.61	51.61	39.55	8	8	5	80.30%	80.30%	167,413	235,705	144,189
Retail Sales: CFLs	23,723	3,898	4,499	50.63	50.63	39.09	5	5	5	80.30%	80.30%	4,822,665	792,427	706,129
Retail Sales: CFL Multipacks		13,846	33,152		50.63	39.09		5	5	80.30%	80.30%	0	2,814,763	5,203,285
Retail Sales: Interior Fixture	757	221	395	107.10	107.10	105.86	8	8	8	96.40%	96.40%	625,248	182,536	322,467
Retail Sales: Exterior Fixture	252	10	118	107.10	107.10	105.86	15	15	5	100.00%	100.00%	404,838	16,065	62,456
Retail Sales: Torchieres		4			104.37			8		93.50%	93.50%	0	3,123	0
Retail Sales: LEDs			395			47.03			20	95.00%	95.00%	0	0	352,989



Measure	Quantity			Annual Savings per Unit (kWh)			Measure Life			In-Service / Realization Rate		Total Lifetime Savings (kWh)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
Energy Star Clothes Washer	719	723	823	151.00	151.00	223.00	14	14	11	100.00%	100.00%	1,519,966	1,528,422	2,018,828
Energy Star Room A/C	300	278	191	26.00	26.00	16.16	9	9	9	100.00%	100.00%	70,200	65,052	27,773
Smartstrip Power Strip	180	31	57	175.20	175.20	75.04	5	5	5	100.00%	100.00%	157,680	27,156	21,386
Energy Star Refrigerator			574			107.00			12	100.00%	100.00%	0	0	737,016
Energy Star Room Air Cleaners & Purifiers			19			268.00			9	100.00%	100.00%	0	0	45,828
2nd Refrigerator/Freezer Pickup			249			413.00			8	100.00%	100.00%	0	0	822,696

NHEC  
High Efficiency Heat Pump Program  
2012 Plan

Measure	Quantity			Annual Savings per Unit (kWh)			Measure Life			In-Service or Realization Rate		Total Lifetime Savings (kWh)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
GSHP (Heating)	14	8	20	20,554	20,895	18,232	25	25	25	100.00%	100.00%	7,193,900	4,179,000	9,116,000
GSHP (Cooling)	14	8	20	458	122	286	25	25	25	100.00%	100.00%	160,300	24,400	143,000
GSHP (Hot Water)	14	8	20	2,238	929	1,811	25	25	25	100.00%	100.00%	783,300	185,800	905,500

NHEC  
C&I New Equipment & Construction Program  
2012 Plan

Measure	Quantity			Annual Savings per Unit (kWh)			Measure Life			In-Service or Realization Rate		Total Lifetime Savings (kWh)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
Snowmaking	5			187,585			15			100.0%		14,068,875	0	0
HVAC		1	10		384	3,432		15		100.0%	100.0%	0	5,760	34,320
Lighting	9	3	14	29,460	3,739	16,349	15	15		100.0%	100.0%	3,977,100	168,255	228,886
VFD		1	5		32,407	19,807		15	15	100.0%	100.0%	0	486,105	99,035
Compressed Air			3			5,992			15		100.0%	0	0	269,640

NHEC  
Large C&I Retrofit Program  
2012 Plan

Measure	Quantity			Annual Savings per Unit (kWh)			Measure Life			In-Service or Realization Rate		Total Lifetime Savings (kWh)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
Lighting	12	3	17	29,702	42,727	21,720	13	13	13	89.0%	89.0%	4,123,826	1,483,054	4,272,107
Motors		1			64,912			13		89.0%	89.0%	0	751,032	0
VFD	4			44,780			13			89.0%	89.0%	2,072,418	0	0
Process			5			20,677			13	89.0%	89.0%			1,196,164
Snowmaking		1	1		500,000	321,194		13	13	89.0%	89.0%	0	5,785,000	3,716,215

NHEC  
Small Business Energy Solutions  
2012 Plan

Measure	Quantity			Annual Savings per Unit (kWh)			Measure Life			In-Service or Installation Rate		Total Lifetime Savings (kWh)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
Lighting	22	5	28	4,273	12,505	11,042	13	13	13	98.70%	98.70%	1,206,191	802,258	3,967,037
Refrigeration	5	1	2	22,555	20,569	20,357	13	13	13	98.70%	98.70%	1,447,016	263,921	522,401
Lighting Catalog		5			2,122		8	8	8	98.70%	98.70%	0	83,777	0
Insulation		1			4,303		13	13	13	98.70%	98.70%	0	55,212	0
VFD		1	1		35,870	20,677	13	13	13	98.70%	98.70%	0	0	0

PSNH Home Energy Assistance Program

Measure	Quantity			Annual Savings per Unit (kWh)			Measure Life			Installation or Realization Rate		Total Lifetime Savings (kWh)			Total Annual MMBTU Savings			Total Lifetime MMBTU Savings		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan
	Plan	Actual	Plan	Plan	Actual	Plan	Plan	Actual	Plan											
Weatherization - Kerosene Heated		144	111.0					20.88	20.88	86.20%	86.20%	0	0	0		25.26	15.00	0	65,849	29,967
Weatherization - LP Heated	179.1	73	59.2				18.0	19.33	19.33	86.20%	86.20%	0	0	0	8.62	21.82	15.00	23,948	26,090	14,796
Weatherization - NG Heated	286.7	289	229.4				14.0	17.20	17.20	86.20%	86.20%	0	0	0	14.65	26.26	15.00	50,703	111,199	51,017
Weatherization - Oil Heated	350.4	418	325.6				19.0	18.91	18.91	86.20%	86.20%	0	0	0	18.96	28.24	15.00	108,838	193,339	79,610
Weatherization - Wood Heated		15	14.8					20.33	20.30	86.20%	86.20%	0	0	0		29.61	15.00	0	7,657	3,885
Weatherization - Baseload		74			1,530.5			14.82	14.82	86.20%	86.20%	0	1,446,460	0		-0.02		0	-20	0
Weatherization - Electric Heat		21	20.0		3,187.2	3,187.0		17.43	17.43	86.20%	86.20%	0	1,005,566	957,672				0	0	0
Electric Savings for Fossil Heated Homes	816.2	939	740.0	1,250.0	1,117.1	1,117.0	13.0	13.35	13.35	86.20%	86.20%	11,432,655	12,075,923	9,511,865						

**Planning Assumptions**

1. MMBTU savings for 2012 only include savings resulting from SBC funded weatherization, projected to be 15 MMBTUs per home (WAP/ARRA collaboration funding is expected to pay for other additional MMBTU Savings).

PSNH Home Performance with ENERGY STAR®

Measure	Quantity			Annual Savings per Unit (kWh)			Measure Life			Installation or Realization Rate		Total Lifetime Savings (kWh)			Total Annual MMBTU Savings			Total Lifetime MMBTU Savings		
	2010 2012			2010 2012			2010 2012			2010 2012		2010 Plan 2010 Actual 2012 Plan			2010 Plan 2010 Actual 2012 Plan			2010 Plan 2010 Actual 2012 Plan		
	2010 Plan	Actual	2012 Plan	2010 Plan	Actual	2012 Plan	2010 Plan	Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan
<b>HES - ELECTRIC</b>																				
Weatherization-Baseload: Electric Heat/Lighting		7			7,024.2			14.4		96.67%	100.00%	0	683,348	0				0	0	0
Weatherization-Baseload: LP Heat/Lighting		1			9,681.3			15.2		96.67%	100.00%	0	142,525	0				0	0	0
Weatherization-Baseload: Oil Heat/Lighting	114.2	1		1,056.0	420.6		13.7	8.0		96.67%	100.00%	1,597,248	3,253	0	4.10			6,201	0	0
Weatherization-Baseload: Electric Savings	1,717.6	1,404		268.1	512.4		7.0	12.3		96.67%	100.00%	3,115,596	8,567,727	0				0	0	0
Weatherization-HVAC: Electric/Wood Heat		7						18.6		96.67%	100.00%	0	0	0		10.63		0	1,367	0
Weatherization-HVAC: LP Heat		1						15.5		96.67%	100.00%	0	0	0		13.70		0	199	0
Weatherization-HVAC: Oil Heat		1						23.9		96.67%	100.00%	0	0	0		93.50		0	2,169	0
Weatherization-HVAC: Elec/LP Backup		1,404						4.0		96.67%	100.00%	0	0	0		0.02				
Electric Baseload: Single Family			51.3			186.3			5.0	96.67%	100.00%	0	0	47,773						
Electric Baseload: Multi-Family			402.7			186.3			5.0	96.67%	100.00%	0	0	375,000						
												0	0	0						
												0	0	0						
<b>FUEL-NEUTRAL PILOT ELECTRIC SAVINGS</b>																				
Pilot Wxn - Electric Heat Savings		4			9,638.0			14.6		96.67%	100.00%	0	545,857	0				0	0	0
Fuel Neutral Pilot (Kerosene)		1			315.5			8.0		96.67%	100.00%	0	2,440	0				0	0	0
Fuel Neutral Pilot (LP)		36			578.9			11.6		96.67%	100.00%	0	233,598	0				0	0	0
Fuel Neutral Pilot (Gas)		6			177.3			9.8		96.67%	100.00%	0	10,072	0				0	0	0
Fuel Neutral Pilot (Oil)		208			443.0			8.9		96.67%	100.00%	0	795,098	0				0	0	0
Fuel Neutral Pilot (Wood)		1			5,216.3			16.3		96.67%	100.00%	0	82,428	0				0	0	0
Fuel Neutral Pilot (ElecBaseload)		43			946.0			12.6		96.67%	100.00%	0	495,855	0				0	0	0
												0	0	0				0	0	0
												0	0	0				0	0	0
<b>FUEL NEUTRAL HPwES</b>																				
SF, Electric, CFLs			475.506			186.3			5.0	96.67%	100.00%	0	0	442,837						
Wxn Electrically Heated Homes			4.76			6,533.8			14.6	96.67%	100.00%	0	0	453,605						
Wxn Kerosene Heated Homes		1	9.51011		0.0			16.91	16.9	96.67%	100.00%	0	0	0		8.89	22.30	0	146	3,585
Wxn LP Heated Homes		36	95.1011		0.0			21.15	21.2	96.67%	100.00%	0	0	0		25.18	22.30	0	18,401	44,854
Wxn Gas Heated Homes		6	14.2652		0.0			20.19	20.2	96.67%	100.00%	0	0	0		30.16	22.30	0	3,499	6,424
Wxn Oil Heated Homes	287.9657	208	266.283	373.8	0.0		13.7	20.97	21.0	96.67%	100.00%	1,425,582	0	0	17.03	36.09	22.30	64,965	152,406	124,536
Wxn Wood Heated Homes		299	85.591		0.0			21.62	21.6	96.67%	100.00%	0	0	0		4.55	22.30	0	28,923	41,270
Pilot - Fossil - Audits & CFLs	200.0	0		268.1			8.0			96.67%	100.00%	414,614	0	0				0	0	0
Pilot - Heating System Replacements	20.0	0	20			0.0	20.0	20.0	20.0	96.67%	100.00%	0	0	0			11.36	0	0	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 51 SF and 403 MF homes, and provide weatherization & electric measures at 475 fuel neutral homes. Used average energy savings from the 2011 Cadmus Impact Evaluation, Table 16, page 30.

Measure	Quantity			Annual Savings per Unit (kWh)			Measure Life			In-Service / Realization Rate		Total Lifetime Savings (kWh)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
Oil Heated Homes	87.5	6.0	19.2	40.0	136.0	519.8	25	25	25	100.00%	100.00%	87,475	20,400	249,747
Natural Gas Heated Homes	192.4	92.0	211.4	40.0	347.5	481.5	25	25	25	100.00%	100.00%	192,445	799,250	2,544,606
Liquid Propane Heated Homes	70.0	111.0	134.5	40.0	682.0	506.0	25	25	25	100.00%	100.00%	69,980	1,892,550	1,701,754
Wood Heated Homes		4.0			694.5		25	25	25	100.00%	100.00%	0	69,450	0
Electric Baseboard Heated Home		114.0	19.2		4,857.5	3,077.0	25	25	25	100.00%	100.00%	0	13,843,875	1,478,345
ASHP Heated Home		41.0			5,375.2	1,600.0	25	25	25	100.00%	100.00%	0	5,509,580	0
GSHP Heated Homes		41.0			5,311.8		25	25	25	100.00%	100.00%	0	5,444,595	0
GSHP/NG Heated Homes		34.0			2,203.5		25	25	25	100.00%	100.00%	0	1,872,975	0
ES Thermostats	87.5	304.0	288.3		0.0	0.0	12	12	12	100.00%	100.00%	0	0	0
ES Room AC		0.0	0.0	37.0	0.0	16.2	12	12	9	100.00%	100.00%	0	0	0
ES Central AC			0.0	1,108.0	0.0	263.0	14	14	14	100.00%	100.00%	0	0	0
ES Clothes Washer	52.5	94.0	57.7	118.7	118.7	223.0	14	14	11	100.00%	100.00%	87,197	156,170	141,426
ES Dishwasher	140.0	358.0	230.6	43.1	43.1	33.0	12	12	10	100.00%	100.00%	72,387	185,158	76,103
ES Refrigerator	209.9	393.0	307.5	84.9	84.9	106.0	13	13	12	100.00%	100.00%	231,602	433,550	391,125
ES Light Fixture	1,050	2,400	1,153	105.9	105.9	105.9	20	20	20	100.00%	100.00%	2,222,367	5,081,150	2,441,239
ES CFL Lights	3,499	5,594	3,844	50.6	50.6	39.1	8	8	5	80.30%	80.30%	1,138,102	1,819,533	603,262

Planning Assumptions

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 from 12 to 10 years.
  - > Clothes Washer reduced from 14 to 11 years.
  - > Refrigerator reduced from 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.



PSNH ENERGY STAR® Lighting Program

Measure	Quantity			Annual Savings per Unit (kWh)			Measure Life			In-Service & Realization Rate		Total Lifetime Savings (kWh)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
Catalog Sales: CFLs	3,651	4,996	3,851	51.6	51.61	39.55	8	8	5	80.30%	80.30%	1,210,455	1,656,232	611,479
Catalog Sales: Interior Fixtures	340	2,159	1,685	107.1	107.10	107.10	8	8	8	96.40%	96.40%	280,549	1,783,282	1,392,158
Catalog Sales: Exterior Fixtures	170	256	194	107.1	107.10	107.10	15	15	5	100.00%	100.00%	272,837	411,274	104,145
Catalog Sales: Torchieres	42	46	39	120.0	119.98	119.98	8	8	8	93.50%	93.50%	38,102	41,281	34,905
Catalog Sales: LED Fixtures			65			47.03			20	95.00%	95.00%			57,931
Catalog Sales: LEDs	42	0	648	47.2	47.16	47.03	22	22	20	95.00%	95.00%	41,846	0	579,312
Retail Sales: CFLs	95,408	3,804	3,355	50.6	50.63	39.09	5	5	5	80.30%	80.30%	19,395,647	773,318	526,534
Retail Sales: CFL Multipacks	137,278	295,623	210,036	50.6	50.63	39.09	5	5	5	80.30%	80.30%	27,907,405	60,097,404	32,965,588
Retail Sales: Interior Fixture	4,118	993	583	105.9	105.86	105.86	8	8	8	96.40%	96.40%	3,362,103	810,657	476,298
Retail Sales: Exterior Fixture	1,373	176	117	105.9	105.86	105.86	15	15	5	100.00%	100.00%	2,179,787	279,463	61,761
Retail Sales: Torchieres	1,373	6	29	104.4	104.37	104.37	8	8	8	93.50%	93.50%	1,071,733	4,684	22,774
Retail Sales: LED Fixtures			583			47.03			20	95.00%	95.00%			521,381
Retail Sales: LEDs	686	0	1,167	47.2	47.16	47.03	22	22	20	95.00%	95.00%	676,509	0	1,042,762

Planning Assumptions

1. Assumed the Energy Independence and Security Act of 2007 was fully in place in 2012 (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. Measure life was reduced to 5 years on CFLs and Exterior Fixtures, further reducing the savings.

Measure	Quantity			Annual Savings per Unit (kWh)			Measure Life			In-Service / Realization Rate		Total Lifetime Savings (kWh)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
Energy Star Clothes Washer	4,131.2	10,270.0	4,824.2	223.01	223.01	223.00	14	14	11	100.00%	100.00%	12,897,846	32,063,659	11,833,821
Energy Star Room A/C	5,651.6	2,662.0	3,308.0	26.00	26.00	16.16	9	9	9	100.00%	100.00%	1,322,472	622,908	481,014
Smartstrip Power Strip	407.6	820.0	1,102.7	175.20	175.20	75.04	5	5	5	100.00%	100.00%	357,071	718,320	413,746
Energy Star Dishwasher			0.0			33.00			10	100.00%	100.00%	0	0	0
Energy Star Refrigerator			3,445.9			106.00			12	100.00%	100.00%	0	0	4,383,133
Energy Star Room Air Cleaners & Purifiers			137.8			268.00			9	100.00%	100.00%	0	0	332,456
2nd Refrigerator/Freezer Pickup			964.8			413.00			8	100.00%	100.00%	0	0	3,187,831
Energy Star Dehumidifiers						213.00			12	100.00%	100.00%	0	0	0
Energy Star Water Coolers						361.00			10	100.00%	100.00%	0	0	0
												0	0	0
												0	0	0
												0	0	0

**Planning Assumptions**

1. Measure lives for clothes washers and room air conditioner has been lowered by more than 20% per EnergyStar calculators.
2. Rebate level for clothes washers reduced from \$50 to \$30 is expected to result in a lower number of rebates processed.
3. Room air conditioner annual energy savings was reduced per a recent evaluation.
4. Smart Power Strips annual energy savings were reduced as well.
5. Will include rebates for these 3 appliances (Refrigerators, Room Air Cleaners, 2nd Refrigerator/Freezer pickup).

PSNH C&I New Equipment & Construction Program

Measure	Quantity			Annual Savings per Unit (kWh)			Measure Life			In-Service or Realization Rate		Total Lifetime Savings (kWh)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
Lighting	48.8	22.0	21.8	42,000.0	59,614.5	59,615.0	13.0	15.0	15.0	92.5%	92.5%	24,633,875	18,197,326	18,001,326
Process	86.2	40.0	29.0	35,000.0	78,123.5	78,123.0	13.0	15.9	15.9	92.5%	92.5%	36,266,538	45,951,360	33,346,123
Cooling	38.5	60.0	43.6	24,000.0	53,314.5	53,314.5	15.0	15.8	15.8	92.5%	92.5%	12,825,058	46,763,321	34,000,641
Heating		3.0			95,819.3	48,790.0		11.9	15.0	92.5%	92.5%	0	3,161,535	0
Other		4.0			105,100.0			16.2		92.5%	92.5%	0	6,281,028	0
										92.5%	92.5%	0	0	0
										92.5%	92.5%	0	0	0

Planning Assumptions

PSNH Large C&I Retrofit Program

Measure	Quantity			Annual Savings per Unit (kWh)			Measure Life			In-Service or Realization Rate		Total Lifetime Savings (kWh)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
						0.85								
Lighting	121.2	65.0	46.5	70,000	108,354	91,962	12.2	12.7	12.7	94.0%	94.0%	97,294,529	83,751,080	51,030,709
Process	49.5	35.0	29.5	60,000	154,416	85,195	13.0	13.4	13.4	94.0%	94.0%	36,259,577	68,259,744	31,725,812
Cooling	12.7	18.0	15.4	50,000	74,299	74,299	12.3	12.8	12.8	94.0%	94.0%	7,300,786	16,082,832	13,727,971
Lighting - LED	28.3	6.0	4.0	17,400	72,862	72,862	13.0	13.0	13.0	94.0%	94.0%	6,016,984	5,342,242	3,564,701
Lighting - Occ Sensors only		4.0	5.9		28,951	28,951		10.0	9.0	94.0%	94.0%	0	1,088,558	1,435,380
Heating		3.0			97,761	0		13.1	13.0	94.0%	94.0%	0	3,618,793	0
Other		3.0			38,205			14.3	13.0	94.0%	94.0%	0	1,545,341	0

Planning Assumptions

Process Annual Savings in 2010 had 4 outlier projects that drove the average higher. Corrected for this in the 2012 Plan.

Lighting savings adjusted for more T8 -> HPT8 retrofits (resulting in lower savings)

Need to explain why total savings is going down for 2012 (increase in Audit \$, more INIMP)

1. From prior Staff Response (Q-STAFF-042): The lower planned lifetime kWh savings are the result of lower assumed savings associated with cooling and process measures, and an increase in the average lighting rebate which results in fewer projects.

2. The 2009 GDS Technical Potential Study highlighted the following Maximum Achievable/Cost Effective measures by enduse: lighting, refrigeration, HVAC controls, lighting controls, and ventilation. All of these non lighting measures, while cost effective, will be more expensive to implement and yield less savings than the typical lighting measures.

3. In 2009, PSNH reallocated technical assistance funds and applied it to rebates for additional customer projects.

4. The Lifetime kWh Savings per Lighting Project for 2011 Plan is planned to be between 2009 Plan and 2009 Actuals, higher than 2009 Actuals despite the measure life going down.

5. Lower annual energy savings are being seen in Cooling and Process projects and has incorporated for this in the plan.

PSNH Small Business Energy Solutions

Measure	Quantity			Annual Savings per Unit (kWh)			Measure Life			In-Service or Installation Rate		Total Lifetime Savings (kWh)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2011	2010 Plan	2010 Actual	2012 Plan
Lighting	464.9	530.0	448.0	14,550	14,704	17,000	13.5	12.8	13.1	92.90%	92.90%	84,843,464	92,769,481	92,827,665
Lighting - Catalog Sales		134.0	534.2		440	440		5.4	5.4	92.90%	92.90%	0	297,986	1,179,172
SmartStrips		14.0	64.6		113	113		5.0	5.0	92.90%	92.90%	0	7,320	33,891

2012 Planning Assumptions

1. PSNH has seen the annual kWhs per job going down in recent years. For 2012, we expect this to be offset by larger projects associated with expanding this program to customers in the in the 100-200 kW range.
2. 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.
3. The utilities will be watching the impact the increased cost of Phosphurs has on customer projects.

PSNH  
ENERGY STAR® Homes - Heat Pump Program and C&I Energy Rewards RFP Program  
2012 Plan

PSNH Company Specific Programs

- A. Energy Star Homes - Geothermal
- B. Energy Rewards RFP Program

Measure	Quantity			Annual Savings per Unit (kWh)			Measure Life			In-Service or Realization Rate		Total Lifetime Savings (kWh)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
A. GSHP (Heating)			52			21,499	25	25	25	100.00%	100.00%	0	0	27,772,054
A. GSHP (Cooling)			52			158	25	25	25	100.00%	100.00%	0	0	204,356
A. GSHP (Hot Water)			52			1,155	25	25	25	100.00%	100.00%	0	0	1,491,458
A. GSHP (Lights & Appliances)			52			-177	25	25	25	100.00%	100.00%	0	0	-228,065
A. GSHP (HVAC: All-in-1)	31	53		21,135	25,510		25	25	25	100.00%	100.00%	16,431,406	33,800,300	0
A. ASHP (Heating)			15			9,671	25	25	25	100.00%	100.00%	0	0	3,513,615
A. ASHP (Cooling)			15			71	25	25	25	100.00%	100.00%	0	0	25,864
A. ASHP (Hot Water)			15			520	25	25	25	100.00%	100.00%	0	0	188,763
A. ASHP (Lights & Appliances)			15			-79	25	25	25	100.00%	100.00%	0	0	-28,865
A. ASHP (HVAC: All-in-1)	17	1		9,511	18,344		25	25	25	100.00%	100.00%	4,159,200	458,600	0
A. Split Sys HP (Heating)			0			9,671	25	25	25	100.00%	100.00%	0	0	0
A. Split Sys HP (Cooling)			0			71	25	25	25	100.00%	100.00%	0	0	0
A. Split Sys HP (Hot Water)			0			520	25	25	25	100.00%	100.00%	0	0	0
A. Split Sys HP (Lights & Appliances)			0			-79	25	25	25	100.00%	100.00%	0	0	0
B. C&I RFP: Lighting	2	1	2.5	400,000	769,917	392,000	13	13	13.0	100.00%	100.00%	10,400,000	10,008,921	12,623,686
B. C&I RFP: Process	5	6	5.2	280,000	143,841	212,000	12	13	11.5	100.00%	100.00%	16,800,000	11,219,611	12,663,160
B. C&I RFP: Cooling	3	1	2.4	28,000	224,527	197,000	10	10	10.5	100.00%	100.00%	840,000	2,245,270	4,897,976
B. C&I RFP: Heating		3	0.0		74,513			10		100.00%	100.00%	0	2,232,407	0
B. C&I RFP: Lighting (Occ Sensors Only)	1		0.0		107,001	30,767		10	10	100.00%	100.00%	0	1,070,010	0

Planning Assumptions

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

- GSHP = Ground Source (Geothermal) Heat Pump; ASHP = Air Source Heat Pump; Split System Heat Pump (ex. Mitsubishi "Mr. Slim")
- Home Energy Raters incorporating a new Heat Pump COP calculation for the rated home to more accurately account for pumping power requirements. This will reduce savings by 8%.
- 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.
- 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.)

**B. C&I RFP Program**

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

Low Income Retrofit (HEA)

Measure	Quantity			Annual Savings per Unit (kWh)			Annual Savings per Unit (mmbtu)			Measure Life			In-Service / Realization Rate		Total Lifetime Savings (kWh)			Total Lifetime Savings (mmbtu)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan
HEA Insulation, Gas	32	-	8	-	-	-	17	-	22	25	-	20	91%	91%	-	-	0	12,102	-	3,513
HEA Insulation, Oil	32	-	32	-	-	-	21	-	29	25	-	20	91%	91%	-	-	0	-	-	18,310
HEA Hot Water, Gas	16	-	7	-	-	-	11	-	11	7	-	7	91%	91%	-	-	0	1,276.76	-	540
HEA Hot Water, Oil	16	-	26	-	-	-	2	-	2	7	-	7	91%	91%	-	-	0	259	-	423
HEA Refrigerator	6	-	58	781	-	781	-	-	-	19	-	19	91%	91%	87,068	-	787,648	-	-	-
HEA Lighting	643	-	437	51	-	51	-	-	-	8	-	8	91%	91%	238,455	-	161,787	-	-	-
HEA Insulation, Electric	21	-	7	2,355	-	2,355	-	-	-	25	-	20	91%	91%	1,151,251	-	312,440	-	-	-
HEA Wx, Propane	-	-	25	-	-	-	-	-	33	20	-	20	91%	91%	-	-	-	-	-	16,704
HEA HVAC, Air Sealing	-	1	-	-	4,142	-	-	898	-	-	15	-	91%	91%	-	56,663	-	-	13,467.59	-
HEA HVAC, Insulation	-	1	-	-	8,320	-	-	1,767	-	-	25	-	91%	91%	-	189,690	-	-	44,168.43	-
HEA Hot Water	-	1	-	-	11,791	-	-	66	-	-	7	-	91%	91%	-	75,272	-	-	461.59	-
HEA Thermostats (21 total)	-	1	-	-	1,508	-	-	42	-	-	10	-	91%	91%	-	13,753	-	-	422.15	-
HEA Refrigerator	-	54	-	-	917	-	-	-	-	-	19	-	91%	91%	-	858,446	-	-	-	-
HEA Lighting	-	420	-	-	75	-	-	-	-	-	8	-	91%	91%	-	230,487	-	-	-	-
HEA HVAC Distribution	-	1	-	-	-	-	-	20	-	-	20	-	91%	91%	-	-	-	-	401.30	-

Measure	Quantity			Annual Savings per Unit (kwh)			Annual Savings per Unit (mmbtu)			Measure Life			In-Service / Realization Rate		Total Lifetime Savings (kwh)			Total Lifetime Savings (mmbtu)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan
HES Air Sealing, Electric	-	-	4	-	-	3,062	-	-	-	15	15	15	100%	100%	-	-	177,862	-	-	-
HES Insulation, Electric	-	-	4	-	-	3,533	-	-	-	25	25	25	100%	100%	-	-	342,051	-	-	-
HES Air Sealing, Non-electric	-	-	35	-	-	-	-	-	10	15	15	15	100%	100%	-	-	-	-	-	5,463.39
HES Insulation, Non-electric	-	-	35	-	-	-	-	-	12	25	25	25	100%	100%	-	-	-	-	-	10,506.79
HES Program T-Stats	-	-	10	-	-	-	-	-	4	10	10	10	100%	100%	-	-	-	-	-	397.34
HES DHW Pipe Wrap	-	-	5	-	-	-	-	-	0	7	7	7	100%	100%	-	-	-	-	-	9.15
HES DHW ISMs package	-	-	5	-	-	-	-	-	2	7	7	7	100%	100%	-	-	-	-	-	71.00
HES CFL's (direct install)	-	-	232	-	-	51	-	-	-	8	8	8	100%	100%	-	-	94,432	-	-	-
HES Baseload (lights & audit)	-	-	7	-	-	305	-	-	-	8	8	8	100%	100%	-	-	16,664	-	-	-
HES Insulation, Electric	10	1	0	1,702	1,702	1,702	-	-	-	25	25	-	100%	100%	413,520	42,550	-	-	-	-
HES Air Sealing, Electric	10	1	-	971	971	971	-	-	-	15	15	-	100%	100%	141,549	14,565	-	-	-	-
HES DHW, Electric	5	1	-	500	9,538	9,538	-	-	-	7	7	-	100%	100%	17,007	66,763	-	-	-	-
HES Thermostats, Electric	24	1	-	251	244	244	-	-	-	10	10	-	100%	100%	60,983	2,440	-	-	-	-
HES Lighting	583	155	-	51	51	51	-	-	-	8	8	-	100%	100%	236,975	62,992	-	-	-	-
HES Insulation, Non-Electric	51	32	-	-	-	-	17	66	-	25	25	-	100%	100%	-	-	-	21,723	52,511	-
HES Air Sealing, Non-Electric	-	37	-	-	-	-	-	12	-	15	15	-	100%	100%	-	-	-	-	6,894	-
HES DHW, Non-Electric	15	32	-	-	-	-	-	3	-	7	7	-	100%	100%	-	-	-	-	595	-
HES Thermostats, Non-Electric	51	10	-	-	-	-	8	17	-	10	10	-	100%	100%	-	-	-	3,929	1,742	-
HES Interior Fixtures	-	8	-	-	106	-	-	-	-	20	20	-	100%	100%	-	16,944	-	-	-	-
HES HES HE Boiler FHW 85 AFUE	-	1	-	-	-	-	-	8	-	20	20	-	100%	100%	-	-	-	-	160	-
HES On-demand Water Heater	-	1	-	-	-	-	-	7	-	15	15	-	100%	100%	-	-	-	-	103	-
HES Duct Sealing, Non-electric	-	12	-	-	-	-	-	12	-	18	18	-	100%	100%	-	-	-	-	2,554	-
HES Pipe Wrap, Non-Electric	-	1	-	-	-	-	-	41	-	15	15	-	100%	100%	-	-	-	-	609	-



Measure	Quantity			Annual Savings per Unit (kWh)			Measure Life			In-Service / Realization Rate		Total Lifetime Savings (kWh)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
E-STAR Homes - Heating	67	35	35	-	1,785	1,200	25	25	25	100%	100%	-	1,561,678	1,046,098
E-STAR Homes - Cooling	-	19	9	-	214	131	25	25	25	100%	100%	-	101,825	28,550
E-STAR Homes - Water Heating	67	38	35	-	392	-	15	15	15	100%	100%	-	223,455	-
E-STAR Homes - CFLs	1,007	1,122	299	51	51	39	8	8	7	100%	100%	409,087	455,594	81,836
E-STAR Homes - Fixtures	-	773	35	-	106	-	20	20	20	100%	100%	-	1,636,554	-
E-STAR Homes - Dishwashers, elec	-	-	30	-	-	74	10	10	10	100%	100%	-	-	22,313
E-STAR Homes - Dishwashers, non-elec	34	86	9	25	25	33	10	10	10	100%	100%	8,538	21,864	2,877
E-STAR Homes - Refrigerators	34	100	39	107	107	107	12	12	12	100%	100%	43,120	128,400	49,909
E-STAR Homes - Clotheswashers	-	30	-	146	146	223	14	14	11	100%	100%	-	61,320	-
E-STAR Homes - Thermostats	-	39	35	-	11	-	10	10	10	100%	100%	-	4,255	-
E-STAR Homes - Geothermal	-	5	4	-	20,363	12,500	25	25	25	100%	100%	-	2,545,400	1,250,000
E-STAR Homes - MF Heating	-	46	-	-	328	-	-	25	-	100%	100%	-	377,024	-
E-STAR Homes - MF Cooling	-	33	-	-	80	-	-	25	-	100%	100%	-	66,390	-
E-STAR Homes - MF Water Heating	-	46	-	-	224	-	-	15	-	100%	100%	-	154,800	-

ENERGY STAR® Lighting Program

Measure	Quantity			Annual Savings per Unit (kWh)			Measure Life			In-Service & Realizatrion Rate		Total Lifetime Savings (kWh)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
E-STAR Light Retail CFLs	22,428	45,039	15,049	50.8	50.8	39.1	5	5	5	80.3%	80.3%	4,570,493	9,178,451	2,361,992
E-STAR Light Catalog Sales	2,691	0	0	51.6	51.6	51.6	8	8	7	80.3%	80.3%	892,200	-	-
E-STAR Light Interior Fixtures	3,398	157	349	105.9	105.9	105.9	9	9	8	96.4%	96.4%	3,120,892	144,192	284,918
E-STAR Light Exterior Fixtures	2,039	4	0	105.9	105.9	105.9	5	5	5	100.0%	100.0%	1,079,147	2,117	-
E-STAR Light Torchieres	680	2	0	104.4	104.4	104.4	8	8	8	93.5%	93.5%	530,583	1,561	-
E-STAR Light LEDs	680	9	35	65.8	65.8	47.2	22	22	20	95.0%	95.0%	934,248	12,372	31,271
E-STAR Light Multi-Packs	30,583	0	51,304	50.8	50.8	39.1	5	5	5	80.3%	80.3%	6,232,490	-	8,052,245

ENERGY STAR® Appliance Program

Measure	Quantity			Annual Savings per Unit (kWh)			Measure Life			In-Service / Realization Rate		Total Lifetime Savings (kWh)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
E-STAR Appl. Clothes Washer	1,983	1,634	1,051	146	146	223	14	14	11	100%	100%	4,040,553	3,329,831	2,577,804
E-STAR Appl. Room A/C	397	470	162	26	26	16	9	9	9	100%	100%	92,793	109,980	23,508
E-STAR Appl Smart Strips	132	30	65	175	175	75	5	5	5	100%	100%	115,793	26,280	24,250
E-STAR Appl Refrigerator Rebate	-	-	162	-	-	107	-	-	12	100%	100%	-	-	207,584
E-STAR Appl Room Air Cleaners	-	-	16	-	-	238	-	-	9	100%	100%	-	-	34,630
E-STAR Appl Second RF Pickup	-	-	162	-	-	413	-	-	8	100%	100%	-	-	534,157

Large Business New Construction

Measure	Quantity			Annual Savings per Unit (kWh)			Measure Life			In-Service or Installation Rate		Total Lifetime Savings (kWh)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
LCI NC - Custom	-	-	14	-	-	43,798	15	-	15	100%	100%	-	-	9,197,573
LCI NC - Custom	13	-	-	52,382.31	-	-	13	-	15	100%	100%	8,852,610	-	0
LCI NC - HVAC	-	4	-	-	46,352	-	-	15	-	100%	100%	-	2,781,105	-
LCI NC - Lighting	-	5	-	-	48,984	-	-	15	-	100%	100%	-	3,673,800	-
LCI NC - Motors/Drives	-	3	-	-	84,052	-	-	20	-	100%	100%	-	5,043,140	-

Large Business Energy Solutions Program

Measure	Quantity			Annual Savings per Unit (kWh)			Measure Life			In-Service or Installation Rate		Total Lifetime Savings (kWh)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
LCI Retrofit - Lighting	-	-	16	-	-	118,930	13	-	13	89%	89%	-	-	21,465,850
LCI Retrofit - Non-Lighting	-	-	10	-	-	56,335	13	-	13	89%	89%	-	-	6,778,689
LCI Retrofit - Custom	19	-	-	102,233	-	-	13	13	-	89%	89%	22,473,855	-	-
LCI Retrofit - Compressed Air	-	2	-	-	331,382	-	-	13	-	89%	89%	-	7,668,179	-
LCI Retrofit - HVAC	-	1	-	-	62,816	-	-	13	-	89%	89%	-	726,781	-
LCI Retrofit - Lighting	-	7	-	-	704,442	-	-	13	-	89%	89%	-	57,052,758	-
LCI Retrofit - Motors/Drives	-	4	-	-	147,499	-	-	20	-	89%	89%	-	10,501,929	-
LCI Retrofit - Process	-	1	-	-	288,186	-	-	13	-	89%	89%	-	3,334,312	-

Small Business Energy Solutions Program

Measure	Quantity			Annual Savings per Unit (kWh)			Measure Life			In-Service or Installation Rate		Total Lifetime Savings (kWh)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
SCI Retrofit - Lighting	50	-	46	21,404	-	18,520	13	-	13	112%	112%	15,706,452	-	12,512,118
SCI Retrofit - Non-Lighting	6	-	6	42,807	-	37,041	13	-	13	112%	112%	3,926,613	-	3,128,029
SCI Retrofit - ComprAir	-	4	-	-	10,325	-	-	13	-	100%	100%	-	536,887	-
SCI Retrofit - HVAC	-	5	-	-	9,982	-	-	13	-	100%	100%	-	648,843	-
SCI Retrofit - Lighting	-	42	-	-	22,819	-	-	13	-	112%	112%	-	13,954,377	-
SCI Retrofit - Motors/Drives	-	1	-	-	4,467	-	-	13	-	100%	100%	-	58,071	-
SCI Retrofit - Process	-	1	-	-	51,840	-	-	13	-	100%	100%	-	673,920	-

National Grid NH  
Income Eligible Program  
2012 Plan

National Grid Income Eligible Program

Measure	Quantity			Annual Savings per Unit (mmbtu)			Measure Life			Installation or Realization Rate		Total Lifetime Savings (mmbtu)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
Low Income	260	336	297	32	12	14	20	20	20	100%	100%	165,360	81,600	81,051

National Grid Building Operator Certification Program

Measure	Quantity			Annual Savings per Unit (mmbtu)			Measure Life			Installation or Realization Rate		Total Lifetime Savings (mmbtu)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010		
												2010 Plan	Actual	2012 Plan
Building Operator Certification	60	0		0	0		1	1		100%		0	0	



National Grid NH  
Commercial Energy Analysis: Internet Audit Program  
2012 Plan

National Grid Commercial Energy Analysis: Internet Audit Program

Measure	Quantity			Annual Savings per Unit (mmbtu)			Measure Life			Installation or Realization Rate		Total Lifetime Savings (mmbtu)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
Low Income	60	68		0	0		1	1		100%		0	0	

National Grid Commercial Building Practices and Demo Program

Measure	Quantity			Annual Savings per Unit (mmbtu)			Measure Life			Installation or Realization Rate		Total Lifetime Savings (mmbtu)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
Low Income	3	0		1,770			15			100%		79,633		

National Grid New Equipment and Construction Program  
National Grid Commercial High Efficiency Heating Program

Measure	Quantity			Annual Savings per Unit (mmbtu)			Measure Life			Installation or Realization Rate		Total Lifetime Savings (mmbtu)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
Comm High Efficiency Heating	160	129		106	77		20	20		100%		340,348	199,415	
Furnace 95+ AFUE (<150) w/ECM Motor			46			18			18		100%			14,904
New Equipment Custom			8			634			18		100%			91,315
Condensing boiler <= 300 mbh			48			22			25		100%			26,520
Infrared			70			74			17		100%			88,536
On demand, Tankless Water Heater >=.82,			15			7			20		100%			2,130
Indirect Water Heaters (Combined appliance efficiency rating >=85% (EF=.82)			57			30			15		100%			25,992
Condensing Stand Alone >95% TE, >75000 btu			10			25			15		100%			3,750
Integrated water heater/condensing boiler (0.9 EF, 0.9 AFUE)			7			25			20		100%			3,438
Boiler >=96% AFUE, <= 300 mbh			7			22			25		100%			3,868
Condensing boiler 301-499 mbh			48			42			25		100%			50,760
Condensing boiler 500-999 mbh			14			77			25		100%			26,985
Condensing boiler 1000-1700 mbh			9			143			25		100%			32,085
Condensing boiler 1701+ mbh			4			249			25		100%			24,900
Condensing Unit Heaters			5			41			18		100%			3,683
Fryers			12			59			12		100%			8,438
High Efficiency Gas Steamer (Energy Star >=38% efficiency)			3			154			10		100%			4,608
High Efficiency Gas Convection Oven (>=40% efficiency)			3			25			12		100%			893
High Efficiency Gas Combination Oven (>=40% efficiency)			3			40			12		100%			1,451
High Efficiency Gas Conveyor Oven (>=40% efficiency)			3			85			12		100%			3,042
High Efficiency Gas Rack Oven (>=50% efficiency)			1			211			12		100%			2,536
High Efficiency Gas Griddle			1			19			12		100%			222

National Grid Large C&I Retrofit Program  
National Grid Commercial Energy Efficiency Program

Measure	Quantity			Annual Savings per Unit (mmbtu)			Measure Life			Installation or Realization Rate		Total Lifetime Savings (mmbtu)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
Comm Energy Efficiency Program	227			177			15			100%		602,932		
Multifamily Housing Program	20			446			15			100%		133,878		
Economic Redevelopment	10			531			15			100%		79,612		
CEEP		83			304			19		100%			478,730	
Large C & I Retrofit Program Custom			191			266			15		100%			762,541
Pre Rinse Spray Valve			15			34			5		100%			2,520
Boiler Reset Controls (retrofit only)			4			36			20		100%			2,840
Steam Traps			30			25			1		100%			759
Thermostat			30			3			15		100%			1,125

Residential High-Efficiency Heating, Water-Heating, Controls Program  
National Grid NH  
2012 Plan

National Grid Residential High-Efficiency Heating, Water-Heating, Controls Program ENERGY STAR® Appliance Program

Measure	Quantity			Annual Savings per Unit (mmbtu)			Measure Life			In-Service / Realization Rate		Total Lifetime Savings (mmbtu)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
High Efficiency Gas Furnace (AFUE >= 92%)	331	124		21	22		18	18		100%		125,562	48,994	
High Efficiency Gas Hot Water Boiler	55	55		9	9		20	20		100%		9,808	9,790	
Condensing Boiler	28	133		11	11		20	20		100%		6,281	30,324	
High Efficiency Gas Steam Boiler	28	26		13	13		25	20		100%		8,885	8,385	
ECM 92%	110	257		20	20		18	18		100%		38,879	90,670	
Indirect Water Heater	86	175		8	8		20	20		100%		13,535	27,300	
Tankless Natural Gas Water Heater	171	84		8	8		20	20		100%		26,728	13,272	
ES Thermostats	650	505		8	8		10	10		100%		48,738	37,875	
Boiler Reset Controls	54	2		8	8		15	15		100%		6,417	237	
Tank WH		21			2			13		100%			519	
Tankless Water Heaters (EF 0.82)			114			10			20		100%			22,116
Indirect Water Heater (attached to gas Energy Star FHW boiler)			209			8			20		100%			33,440
Stand Alone Storage Water Heater (EF 0.67)			3			4			13		100%			144
Combo condensing boiler w/ On-Demand DWH 90%			43			21			20		100%			18,146
Furnace (forced hot air) 95% AFUE w/ECM			209			18			18		100%			67,716
Furnace (forced hot air) 96% AFUE w/ECM			21			21			18		100%			7,825
Boiler (forced hot water) 96% AFUE			10			21			20		100%			4,260
Boiler (forced hot water) 90% AFUE			229			14			20		100%			62,746
7-Day Programmable Thermostats			629			8			15		100%			72,650
Boiler Reset Controls			7			8			15		100%			830
Tankless Water Heater (EF 0.95)			12			10.30			20		100%			2,472
Condensing Gas Water Heater (EF 0.94)			1			25.00			15		100%			375

National Grid NH  
New Home Construction with Energy Star  
2012 Plan

National Grid New Home Construction with Energy Star

Measure	Quantity			Annual Savings per Unit (mmbtu)			Measure Life			In-Service / Realization Rate		Total Lifetime Savings (mmbtu)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
ES Homes	30	9	34	22	22	27	25	25	25	100%	100.00%	16,594	4,978	23,120

National Grid Residential Building Practices and Demo

Measure	Quantity			Annual Savings per Unit (mmbtu)			Measure Life			In-Service & Realization Rate		Total Lifetime Savings (mmbtu)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
Res Building Practices and Demo	20	0	10	0		0	1			100%		0		0

National Grid Energy Audit with Home Performance and Weatherization

Measure	Quantity			Annual Savings per Unit (mmbtu)			Measure Life			Installation or Realization Rate		Total Lifetime Savings (mmbtu)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
Single Family (1-4 Units)	733	1,224	1,400	19	19	14	20	20	20	100%	98%	280,218	467,568	386,904
Multi-Family (5+ Units)	367			19			20	20		100%		140,109		
Res Energy Analysis: Internet Audit	1,053			0			1	1		100%		0		



National Grid NH  
Small Business Energy Solutions Program  
2012 Plan

National Grid Small Business Energy Solutions Program

Measure	Quantity			Annual Savings per Unit (mmbtu)			Measure Life			In-Service & Realization Rate		Total Lifetime Savings (mmbtu)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
Small Business Custom			29			324			15		100%	0		141,071

Low Income Retrofit

Low Income Retrofit  
Unitil Gas  
2012 Plan

Measure	Quantity			Annual Savings per Unit (mmbtu)			Measure Life			In-Service / Realization Rate		Total Lifetime Savings (mmbtu)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
Air Sealing	-	-	24.9	-	-	19.2	15	15	15	100%	100%	-	-	7,175
Insulation	-	-	24.9	-	-	19.5	25	25	25	100%	100%	-	-	12,126
Weatherization	80	-	-	26	-	-	15	25	25	100%	100%	31,567	-	-
SF Air Sealing	-	4	-	-	19.2	-	-	15	-	100%	100%	-	1,151	-
SF Insulation	-	4	-	-	19.5	-	-	25	-	100%	100%	-	1,946	-
SF Condensing Boiler	-	1	-	-	45.7	-	-	20	-	100%	100%	-	914	-
SF Furnace	-	2	-	-	31.0	-	-	18	-	100%	100%	-	1,116	-
SF Thermostats	-	1	-	-	1.3	-	-	10	-	100%	100%	-	13	-
SF Water Measures	-	3	-	-	3.3	-	-	7	-	100%	100%	-	68	-
MF Air Sealing (Sunset Arms 24 units)	-	1	-	-	185.4	-	-	15	-	100%	100%	-	2,780	-
MF Insulation	-	1	-	-	163.0	-	-	25	-	100%	100%	-	4,076	-
MF Boiler	-	2	-	-	101.0	-	-	20	-	100%	100%	-	4,040	-
MF Indirect Water Heat	-	2	-	-	34.2	-	-	15	-	100%	100%	-	1,025	-
MF Thermostats	-	1	-	-	41.0	-	-	10	-	100%	100%	-	410	-
MF DHW	-	1	-	-	80.1	-	-	7	-	100%	100%	-	560	-

Home Performance w/ Energy Star

Measure	Quantity			Annual Savings per Unit (mmbtu)			Measure Life			In-Service / Realization Rate		Total Lifetime Savings (mmbtu)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
Weatherization	27	-	-	36.6	-	-	20	20	20	100%	100%	19,764	-	-
Air Sealing	-	20	36	-	16.1	10.5	15	15	15	100%	100%	-	4,835	5,661.87
Attic Insulation	-	19	36	-	16.5	8.8	25	25	25	100%	100%	-	7,857	7,946.48
Basement Insulation	-	18	14	-	10.1	9.6	25	25	25	100%	100%	-	4,523	3,467.55
Wall Insulation	-	11	25	-	56.7	23.7	25	25	25	100%	100%	-	15,597	14,993.56
Rim & Joist	-	-	2	-	-	2.4	25	25	25	100%	100%	-	-	107.91
Duct Sealing	-	9	-	-	5.8	-	20	20	20	100%	100%	-	1,035	-
DHW Pipe Wrap	-	1	-	-	3.0	-	7	7	7	100%	100%	-	21	-
Gas Furnace	-	1	-	-	9.7	-	20	20	20	100%	100%	-	194	-
Thermostats	-	3	-	-	5.9	-	10	10	10	100%	100%	-	178	-

## ENERGY STAR® Homes Program

Measure	Quantity			Annual Savings per Unit (mmbtu)			Measure Life			In-Service / Realization Rate		Total Lifetime Savings (mmbtu)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
ES Homes SF Heating	25.0	2.0	19.4	22.5	13.1	22.5	25	25	25	100%	100%	14,245	654	10,890
ES Homes SF Water Heating	25.0	3.0	19.4	2.5	3.1	2.5	15	15	15	100%	100%	950	141	726
ES Homes Dishwashers	-	3.0	19.4	-	0.2	1.9	11	11	10	100%	100%	-	5	368
ES Homes Thermostats	13.0	5.0	33.9	7.7	7.7	7.7	10	10	10	100%	100%	975	385	2,609
ES Homes MF Heating	-	32.0	-	-	149.3	-	25	25	25	100%	100%		119,472	-

## Res High Efficiency, Water Heating and Controls

Measure	Quantity			Annual Savings per Unit (mmbtu)			Measure Life			In-Service / Realization Rate		Total Lifetime Savings (mmbtu)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
On-Demand Tankless Water Heaters (EF 0.82)	-	53.0	11.2	-	7.9	9.7	-	13	20	100.00%	100.00%	0	5,443	2,182
Indirect Water Heater (attached to gas Energy Star FHW boiler) 2010	-	4.0	11.2	-	4.0	8.0	-	20	20	100.00%	100.00%	0	320	1,800
Stand Alone Storage Water Heater (EF 0.67)	-	-	-	-	-	3.7	-	-	13	100.00%	100.00%	0	0	0
Combo condensing boiler w/ On-Demand DWH 90%	-	-	-	-	-	21.1	-	-	20	100.00%	100.00%	0	0	0
Furnace (forced hot air) 95% AFUE w/ECM	-	-	225.0	-	-	18.0	-	-	18	100.00%	100.00%	0	0	72,894
Furnace (forced hot air) 96% AFUE w/ECM	-	-	37.5	-	-	20.7	-	-	18	100.00%	100.00%	0	0	13,971
Boiler (forced hot water) 96% AFUE	-	-	7.5	-	-	21.3	-	-	20	100.00%	100.00%	0	0	3,195
Boiler (forced hot water) 90% AFUE	-	-	30.0	-	-	13.7	-	-	20	100.00%	100.00%	0	0	8,219
7-Day Programmable Thermostats	61.9	211.0	37.5	7.7	7.7	7.7	10	10	15	100.00%	100.00%	4,763	16,247	4,331
Boiler Reset Controls	-	1.0	3.7	-	7.9	7.9	-	15	15	100.00%	100.00%	0	119	444
On-Demand Tankless Water Heater (EF 0.95)	-	-	3.7	-	-	10.3	-	-	20	100.00%	100.00%	0	0	772
Condensing Gas Water Heater (EF 0.94)	-	-	7.5	-	-	25.0	-	-	15	100.00%	100.00%	0	0	2,812
Boiler (forced hot water) 90% AFUE	-	122.0	-	-	11.4	14.2	-	20	20	100.00%	100.00%	0	27,816	0
Furnace (forced hot air) 92% AFUE w/ECM	6.1	72.0	-	19.6	19.6	11.8	18	18	18	100.00%	100.00%	2,146	25,337	0
Furnace (forced hot air) 94% AFUE w/ECM	-	4.0	-	-	23.6	14.2	-	18	18	100.00%	100.00%	0	1,699	0
Integrated water heating/condensing boiler	-	3.0	-	-	21.1	21.1	-	20	20	100.00%	100.00%	0	1,266	0
Stand Alone Storage Water Heater (EF 0.62)	-	5.0	-	-	1.9	1.9	-	13	13	100.00%	100.00%	0	124	0
Boiler HW >=85% AFUE	11.3	17.0	-	11.4	11.4	-	20	20	-	100.00%	100.00%	2,582	3,876	0
Steam Boiler >= 82% AFUE	0.9	9.0	-	12.9	12.3	-	20	25	-	100.00%	100.00%	225	2,768	0
Warm Air Furnace 90% or > AFUE	22.7	-	-	21.5	-	-	18	-	-	100.00%	100.00%	8,767	0	0
Windows	104.6	212.0	-	0.2	0.2	-	20	20	-	100.00%	100.00%	481	975	0
HE Gas Water Heater	4.4	-	-	1.0	-	-	13	-	-	100.00%	100.00%	55	0	0
Instantaneous Wall Mounted Boiler	47.9	-	-	12.9	-	-	15	-	-	100.00%	100.00%	9,272	0	0
Furnace (forced hot air) 92% or > AFUE	-	34.0	-	-	21.1	-	-	18	-	100.00%	100.00%	0	12,883	0
Water Heater On-demand	-	1.0	-	-	7.8	-	-	20.0	-	100.00%	100.00%	0	156	0
Integrated water heating/non-condensing boiler	-	16.0	-	-	21.1	-	-	20.0	-	100.00%	100.00%	0	6,752	0
Indirect Water Heater	27.0	57.0	-	7.9	7.9	-	15	15.0	-	100.00%	100.00%	3,200	6,755	0
Warm Air Furnace w/out ECM 92%>	-	5.0	-	-	21.1	-	-	18.0	-	100.00%	100.00%	0	1,899	0

Large C&I Retrofit

Large C&I Retrofit  
Unitil Gas  
2012 Plan

Measure	Quantity			Annual Savings per Unit (Therms)			Measure Life			In-Service / Realization Rate		Total Lifetime Savings (Therms)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
Large C&I Custom Boilers	4	-	5	84,532	-	10,417	13	-	18	100%	100%	1,115,818	-	937,545
Burners & Controls	-	1	-	-	31,117	-	-	20	-	100%	100%	-	622,340	-
	-	2	-	-	34,255	-	-	15	-	100%	100%	-	1,027,650	-

Small C&I Retrofit

Small C&I Retrofit  
Unitil Gas  
2012 Plan

Measure	Quantity			Annual Savings per Unit (Therms)			Measure Life			In-Service / Realization Rate		Total Lifetime Savings (Therms)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
Small C&I Custom	15	-	11	55,131	-	4,307	16	-	18	100%	100%	865,557	-	852,744
SCI Boiler	-	1	-	-	1,583	-	-	20	-	100%	100%	-	31,660	-
SCI Insulation	-	1	-	-	1,589	-	-	25	-	100%	100%	-	39,725	-
SCI Windows	-	1	-	-	136	-	-	20	-	100%	100%	-	2,720	-
Custom Boiler	-	1	-	-	8,500	-	-	20	-	100%	100%	-	170,000	-

## C&amp;I Multi-Family Retrofit

C&I Multi-Family Retrofit  
 Unitil Gas  
 2012 Plan

Measure	Quantity			Annual Savings per Unit (Therms)			Measure Life			In-Service / Realization Rate		Total Lifetime Savings (Therms)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
MF Custom	29		7	2,966	-	5,458	18	-	18	100%	100%	1,505,447	-	668,564
MF Water Heaters	-	3	-	-	880	-	-	15	-	100%	100%	-	39,600	-
MF Boilers	-	3	-	-	4,119	-	-	20	-	100%	100%	-	247,160	-



## C&amp;I High Efficiency Heating, Water Heating and Controls

Measure	Quantity			Annual Savings per Unit (mmbtu)			Measure Life			In-Service / Realization Rate		Total Lifetime Savings (mmbtu)		
	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010 Plan	2010 Actual	2012 Plan	2010	2012	2010 Plan	2010 Actual	2012 Plan
Furnace 92+ AFUE (<150) w/ECM Motor (DROP)	-	-	-	-	-	19.6	-	-	18	100%	100%	-	-	-
Furnace 94+ AFUE (<150) w/ECM Motor (DROP)	-	-	-	-	-	23.6	-	-	18	100%	100%	-	-	-
Furnace 95+ AFUE (<150) w/ECM Motor	-	-	3.7	-	-	18.0	-	-	18	100%	100%	-	-	1,210
Furnace 96% AFUE w/ ECM Motor	-	-	-	-	-	20.7	-	-	18	100%	100%	-	-	-
Free Standing Water Heater (EF 0.62) (DROP)	-	-	-	-	-	1.9	-	-	10	100%	100%	-	-	-
Free Standing Water Heater (EF 0.67)	-	-	-	-	-	3.0	-	-	10	100%	100%	-	-	-
On demand, Tankless Water Heater >=.95	-	-	14.9	-	-	9.6	-	-	20	100%	100%	-	-	2,866
On demand, Tankless Water Heater >=.82	-	-	3.7	-	-	7.1	-	-	20	100%	100%	-	-	530
Indirect Water Heaters	-	-	7.5	-	-	30.4	-	-	15	100%	100%	-	-	3,407
Condensing Stand Alone Water Heater (75-300 mbh) =>95%	-	-	3.7	-	-	25.0	-	-	15	100%	100%	-	-	1,401
Integrated water heater/condensing boiler (0.9 EF, 0.9 AFUE)	-	-	-	-	-	24.6	-	-	25	100%	100%	-	-	-
Integrated water heater/condensing boiler (0.86 EF, 0.85 AFUE) (DROP)	-	-	-	-	-	20.0	-	-	20	100%	100%	-	-	-
Condensing boiler 301-499 mbh	-	-	7.5	-	-	42.3	-	-	25	100%	100%	-	-	7,901
Condensing boiler 500-999 mbh	-	-	3.7	-	-	77.1	-	-	25	100%	100%	-	-	7,200
Condensing boiler 1000-1700 mbh	-	-	-	-	-	142.6	-	-	25	100%	100%	-	-	-
Condensing boiler 1701+ mbh	-	-	-	-	-	249.0	-	-	25	100%	100%	-	-	-
Condensing boiler <=300 mbh >90% AFUE	-	-	-	-	-	22.1	-	-	25	100%	100%	-	-	-
Condensing boiler <=300 mbh >96% AFUE	-	-	-	-	-	22.1	-	-	25	100%	100%	-	-	-
Condensing Unit Heater <=300 mbh 90%	-	-	11.2	-	-	40.9	-	-	18	100%	100%	-	-	8,251
Infrared Heater	-	-	3.7	-	-	74.4	-	-	25	100%	100%	-	-	6,948
Boiler Reset Controls	-	-	-	-	-	35.5	-	-	20	100%	100%	-	-	-
Food Service Fryers	-	-	7.5	-	-	58.6	-	-	12	100%	100%	-	-	5,254
Food Service High Efficiency Gas Steamer (Energy Star >=38% efficiency)	-	-	-	-	-	51.2	-	-	10	100%	100%	-	-	-
Food Service High Efficiency Gas Convection Oven (>=40% efficiency)	-	-	-	-	-	110.3	-	-	12	100%	100%	-	-	-
Food Service High Efficiency Gas Combination Oven (>=40% efficiency)	-	-	-	-	-	24.8	-	-	12	100%	100%	-	-	-
Food Service High Efficiency Gas Conveyor Oven (>=40% efficiency)	-	-	-	-	-	84.5	-	-	12	100%	100%	-	-	-
Food Service High Efficiency Gas Rack Oven (>=50% efficiency)	-	-	-	-	-	211.3	-	-	12	100%	100%	-	-	-
Food Service High Efficiency Gas Griddle	-	-	-	-	-	18.5	-	-	12	100%	100%	-	-	-
Furnace w/ ECM	3	4.0	-	19.6	19.6	-	18	18.0	-	100%	100%	961	1408	-
Infrared Heaters	2	2.0	-	61.2	61.2	-	17	17.0	-	100%	100%	2130	2081	-
Programmable Thermostats	27	15.0	-	7.7	7.7	-	10	10.0	-	100%	100%	2102	1,155.0	-
Food Services Equipment	4	5.0	-	55.9	54.5	-	10	10.0	-	100%	100%	2236	2724	-
Boiler - HW >=85	3	9.0	-	8.0	8.0	-	20	20.0	-	100%	100%	546	1,440.0	-
Boiler - HW >=90	25	28.0	-	12.9	12.9	-	20	20.0	-	100%	100%	6536	7,246.4	-
Boiler/WH Combo>=90 AFUE	10	15.0	-	11.4	11.4	-	20.0	20.0	-	100%	100%	2334	3420	-
Indirect Water Heaters	-	5.0	-	-	7.9	-	15.0	15.0	-	100%	100%	-	592.5	-
Furnace 92+ AFUE (<150) w/ECM Motor (DROP)	-	1.0	-	-	21.5	-	-	18.0	-	100%	100%	-	387.0	-
Water Heater On Demand	-	2.0	-	-	1.0	-	-	13.0	-	100%	100%	-	25.2	-