

RGGI Expansion of the CORE NH Energy Efficiency Programs

August 19 – November 30, 2009
First Quarter Report



New Hampshire Electric Utilities

Granite State Electric Company d/b/a National Grid
New Hampshire Electric Cooperative, Inc.
Public Service Company of New Hampshire
Unitil Energy Systems, Inc.



GREENHOUSE GAS EMISSIONS REDUCTION FUND

Quarterly Progress Report

August 19 – November 30, 2009

1. **Program Title:** RGGI Expansion of the CORE Energy Efficiency Programs (RE-CORE)
These programs have resulted in an annual Carbon Dioxide reduction of 488 metric tons through the first quarter, or a lifetime reduction of 21,670 towards the planned 116,126 metric tons.

2. **Program Type:** RE-CORE is a portfolio of programs for residential, low-income, and business customers. It is based on the CORE Energy Efficiency Programs approved by the New Hampshire Public Utilities Commission in Docket DE 08-120.
 - a. **Energy Star Lighting Program:** Increase spending for energy efficient residential lighting.
 - ✓ Achievement to Date: 10% Complete
 - ✓ NGRID, NHEC, Unutil used these funds to provide rebates for customers purchasing Energy Star lighting products.

 - b. **Energy Star Appliance / Products Program:** Develop the Energy Star Appliance Program to include a turn in/recycle component for room air conditioners and second refrigerators and freezers.
 - ✓ Achievement to Date: 10% Complete for turn-in events to date. The program has also provided a number of rebates for clothes washers and room air conditioners.
 - ✓ Room AC Turn-in / Refrigerator Recycling: The electric utilities talked with three major appliance recycling companies (JACO, ARCA and Interstate Refrigerant Recovery, Inc.) about our requirements. Since JACO has set up a facility to handle appliance recycling in a bordering state (Milford, MA), they are able to cost-effectively process appliances that are picked up in New Hampshire. JACO also stated that they would offer the same terms and conditions and pricing that is being used in the other states in the Northeast. The NH Utilities will work with JACO to further develop the program by the end of February 2010.

 - c. **Energy Star Homes (Green Building Certification):** Expand the Energy Star Homes Program to give homeowners the option of participating in the National Green Building Program developed by the National Association of Home Builders. The Program will certify homes as meeting the nationally recognized ANSI approved National Green Building Standard.
 - ✓ Achievement to Date: 0% Complete
 - ✓ Approximately 10 homes are in process of being Build Green Certified.

 - d. **HES (Fuel Neutral Multi-Family Program):** fuel neutral home weatherization services through the Home Energy Solutions Program for multi-family facilities larger than 4 units.
 - ✓ Achievement to Date: 0% Complete
 - ✓ There have been two single-family homes (no multi-family yet) completed to date.



- e. **Home Energy Assistance Program:** Increase spending for weatherization in low income homes.
 - ✓ Achievement to Date: 20% Complete
 - ✓ 102 low income homes or apartment units were completed by November 30, 2009.

- f. **Small Business Retrofit:** Increase spending for small business energy efficiency projects.
 - ✓ Achievement to Date: 35% Complete
 - ✓ 20 projects were completed by November 30, 2009.

- g. **Large Business Retrofit Program:** Increase spending in the Large Business Retrofit Program to support retro-commissioning projects as well as traditional energy saving measures.
 - ✓ Achievement to Date: 10% Complete
 - ✓ 11 projects were completed by November 30, 2009.

- h. **New Equipment & Construction Program:** Increase spending for new equipment and new construction energy efficiency projects.
 - ✓ Achievement to Date: 25% Complete
 - ✓ 8 projects were completed by November 30, 2009.

- i. **Education:** Advance educational training efforts in three areas: Energy Code Training, Building Operator Certification (BOC), and BPI Building Analyst training course development. A fourth will be a new self-directed educational component that will allow customers to better understand their energy usage by borrowing a watt-monitor from their local library.
 - ✓ Achievement to Date: 20% Complete
 - ✓ **Energy Code Training:** A total of four energy code training sessions have been scheduled for December 2009 and January 2010.
 - Dec 2: Residential Energy Code Training, at PSNH, with 41 attendees
 - Jan 13: Commercial Energy Code Training, at PSNH, 53 registered (rescheduled from Dec 9th due to storm)
 - Jan 12: Commercial Energy Code Training, at Plymouth State University, 51 registered
 - Jan 14: Residential Energy Code Training at Plymouth State University, 83 registered.
 - ✓ **BOC Level 2:** Currently under review and the utilities are considering putting on a Commercial Energy Auditing Class instead of a BOC Level 2 class.
 - ✓ **Watt Meter:** In December, 760 kill-a-watt monitors were distributed from the State Library to 235 city and town libraries around the state as part of a “Cut the Carbon” kit. This program is designed for any resident of the state to be able check out a meter free of charge to help them identify how much power is consumed by a variety of appliances used in their home or office. This meter allows people to discover the true cost to operate a toaster, TV, computer, microwave, dehumidifier, primary or secondary refrigerator, etc. The meter also identifies any “phantom loads” which are items that consume power even while turned off (yet still energized). Armed with the information provided through the use of this meter, homeowners and renters should be able to identify opportunities to save energy and reduce electric bills. This program benefits all residential sectors including low income.



- j. **PSNH Energy Rewards RFP:** Increase spending for new RFP energy efficiency projects.
 - ✓ Achievement to Date: 0% Complete
 - ✓ Training held in December, customer projects to be submitted in January and February.
 - k. **PSNH Energy Star Homes – Geothermal:** Increase spending for new geothermal homes.
 - ✓ Achievement to Date: 5% Complete
 - ✓ Seven projects to be completed in Q2 report
 - l. **RGGI Funds for Revolving Loan Fund:**
 - ✓ Achievement to Date: 0% Complete
 - ✓ Each utility is working to get their billing systems ready to handle on-bill financing.
3. Summarize work to be completed next quarter: **December 1, 2009 – February 28, 2010.**
 - a. NH Homebuilders are holding a Build Green 2-day seminar on January 27th and 28th for industry professionals that would like to learn more about the Build Green process.
 4. Please document any jobs created.
 - a. We are not aware of any new jobs created directly via these RGGI funds.
 5. Explain any obstacles encountered or any milestones not reached.
 - a. not applicable.
 6. If applicable, in a section labeled *Beyond the Contract* (or some other well defined title), please report other activities, partnerships, funding or other synergies that have occurred as a result of this funding.
 - a. RGGI funding has allowed the utilities to partner with the NH State Library on the Cut the Carbon Kill-A-Watt library loan program. The synergies associated with having a library loan out this new technology benefits consumers (they have free and easy access to the kill-a-watt meters) and it benefits the libraries as they may get new customers to serve. The libraries are also fully equipped to loan these out and the provide access to the meters to EVERY town in New Hampshire.
 7. If applicable, please include brochures, workshop announcements, or other materials developed to promote your grant activities. Attachments (and other documentation) are appreciated.
 - a. Mr. Ruderman was given a “Cut the Carbon” package at the unloading even. If the NHPUC requires more kits, please let us know.
 - b. Attached is a copy of the brochure for the Commercial and Residential Energy Code Training.
 8. Budget vs. Actual Expenditures: (if you have included this with your invoicing, there is no need to repeat for the quarterly report.) *Using the budget you submitted for the final approved grant proposal, please add a column and provide actual expenditures as well as match dollars for this quarter. (Save this worksheet for future reporting as we will want to see your quarterly expenditures as the project continues.)*
 - a. See Attachment 1 for a summary of the Statewide budgets/expenses and Annual and Lifetime CO₂ savings.



Regional Greenhouse Gas Initiative
RGGI Expansion - CORE Energy Efficiency Programs
Q1 (August 19, 2009 - November 30, 2009 Reporting Period)

Program	Total RGGI Budget	Q1 Actual Expenditures	Matching Funds (Customer Contributions)
CORE EE Programs (additional funds)			
Energy Star Lighting	\$162,007	\$19,581	\$6,527
Energy Star Appliances / Products (Room AC Turn-in, 2nd Ref pickup)	\$250,443	\$23,826	\$51,882
Energy Star Homes (+ Build Green NH Certification)	\$251,509	\$0	\$0
HES (Fuel Neutral Multi-Family Weatherization)	\$1,055,071	\$6,194	\$2,064
HEA (approximate 50% increase in homes/units for each utility) ¹	\$1,100,702	\$227,170	\$151,905
Small Business Retrofit	\$481,414	\$169,444	\$121,109
Large Business Retrofit (more rebates + \$ for Retro-commissioning)	\$1,218,857	\$139,343	\$407,864
New Equipment & Construction	\$193,584	\$54,727	\$23,852
Education (Energy Code Training, BOC 2, Tech College BPI Training)	\$163,394	\$0	\$0
Utility Specific Programs (additional funding)			
Energy Rewards RFP	\$315,000	\$0	\$0
High Efficiency Heat Pump Program	\$0	\$0	\$0
Smart Start Program	\$0	\$0	\$0
ESHomes Geothermal	\$50,000	\$0	\$0
EE Website & Home Energy Audit	\$0	\$0	\$0
SmartStart - RGGI \$ for revolving loan fund	\$0	\$0	\$0
Funds for Loan Fund Capital (RLF)			
RGGI Funds for Revolving Loan Fund	\$1,775,000	\$0	\$0
TOTAL (not including RGGI Funds for Revolving Loan Fund)	\$ 5,241,981	\$ 640,285	\$ 765,203
Performance Incentive ²	\$ 419,360		
PROJECTED GRAND TOTAL (including performance incentive)	\$ 5,661,341		

Note 1: Customer Contribution for HEA is actually other funding such as WAP, ARRA, Gas Utility EE Funding, etc.

Note 2: At Risk Performance Incentive, 0-12%, shown at 8% incentive level.



Regional Greenhouse Gas Initiative
 RGGI Expansion - CORE Energy Efficiency Programs
 Q1 2009

Method # 2, using MWH & MMBtu (million Btus)					
Reductions from	Enter Reductions in Units shown in next Column (Annual MMBtu savings)	Units	CO2 Emission Factors in lbs/unit	Estimated CO2 Emission Reductions in pounds (lbs.)	Estimated CO2 Emission Reductions in Metric Tons
Electricity	687	MWH	1,087	746,804	338.69
Natural Gas	682	MMBtu	117.1	79,820	36.20
Distillate Fuel Oil (#1, 2 & 4)	1,380	MMBtu	161.4	222,807	101.05
Residual Fuel Oil (#5 & 6)	0	MMBtu	173	0	0.00
Kerosene	190	MMBtu	159.5	0	0.00
LPG	0	MMBtu	139	0	0.00
Propane	197	MMBtu	139.2	27,470	12.46
Wood or Wood Pellet	146	MMBtu			
Other	0	MMBtu			
TOTAL					488.39

Electric Line Loss 1.08

Source of CO2 Emission Factors in lbs/unit: <http://www.eia.doe.gov/cneaf/electricity/epa/epata3.html>



Regional Greenhouse Gas Initiative
 RGGI Expansion - CORE Energy Efficiency Programs
 Q1 2009

Method # 2, using MWH & MMBtu (million Btus)					
Reductions from	Enter Reductions in Units shown in next Column (Lifetime MMBtu savings)	Units	CO2 Emission Factors in lbs/unit	Estimated CO2 Emission Reductions in pounds (lbs.)	Estimated CO2 Emission Reductions in Metric Tons
Electricity	38,523	MWH	1,087	41,874,230	18,990.58
Natural Gas	11,132	MMBtu	117.1	1,303,557	591.18
Distillate Fuel Oil (#1, 2 & 4)	25,710	MMBtu	161.4	4,149,513	1,881.87
Residual Fuel Oil (#5 & 6)	0	MMBtu	173	0	0.00
Kerosene	0	MMBtu	159.5	0	0.00
LPG	0	MMBtu	139	0	0.00
Propane	3,262	MMBtu	139.2	454,001	205.90
Wood or Wood Pellet	127	MMBtu			
	0				
TOTAL					21,669.52

Electric Line Loss 1.08

Source of CO2 Emission Factors in lbs/unit: <http://www.eia.doe.gov/cneaf/electricity/epa/epata3.html>

