

RGGI Expansion of the CORE NH Energy Efficiency Programs

“RE-CORE”

August 19, 2009 – August 31, 2010
Fourth 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, 2009 – August 31, 2010

1. **Program Title:** RGGI Expansion of the CORE Energy Efficiency Programs (RE-CORE).
These programs have resulted in an annual Carbon Dioxide reduction of 8,822 metric tons through August 31, 2010, or a lifetime reduction of 114,723 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: 76% Complete based on budget.
 - ✓ NGRID, NHEC, Unutil used these funds to provide rebates for customers purchasing 61,187 Energy Star lighting products (mostly CFLs).

 - b. **Energy Star Appliance / Products Program:** Expand the Energy Star Appliance Program to include a turn in/recycle component for room air conditioners and second refrigerators and freezers.
 - ✓ Achievement to Date: 71% Complete based on budget, which includes rebates for clothes washers and room air conditioners in addition to the following two programs.
 - ✓ Room AC Turn-in Event: As of August 31, 2010, 47 room air conditioners have been turned in during the air conditioner turn-in events (28) or as part of the refrigerator pick up program (19). The Air Conditioner Turn In event was available from May to the end of July at these 9 retail locations:
 - 5 Barron's Appliance Stores (Manchester, Laconia, Concord, Salem and Plaistow)
 - Bay Street Discount in Ossipee,
 - Strafford Appliance in Dover,
 - Top Furniture in Gorham, and
 - State Street in Portsmouth.Customers could turn in old working air conditioners for recycling at no cost, plus they were given \$30 rebates that could be used toward the purchase of new ENERGY STAR air conditioners.
 - ✓ Refrigerator/Freezer Pickup/Recycling: The initial schedule for the refrigerator/freezer pickup/recycling program was between April 15th and June 30th. NH residents called 877.545.4113 to arrange to have their old, working refrigerators/freezers picked up free of charge to be recycled by JACO. Customers received a \$30 incentive check for participating. Savings of up to \$200 in energy costs are expected for customers removing older working refrigerators or freezers. As a value added service, JACO also picked up any older operating room air conditioners at the same time they picked up any refrigerators/freezers. The program was very successful and was closed on May 14, 2010, just a month from the start of the program. The total number of working appliances picked up for recycling was 693, of which 17 were room air conditioners. Customers continued calling in and a wait list was created. By August this list grew to 345 customers. Unspent RGGI funds allowed the utilities to re-start the



refrigerator pick up program to serve the remaining waitlist.

- 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. The utilities are using the RGGI funds to pay for the NH Build Green verification while also providing a \$500 builder incentive for their efforts to do both the site work required and the paperwork.
 - ✓ Achievement to Date: 56% Complete based on budget.
 - ✓ 56 homes/units have been certified with the Build Green standard (nine single family / two multi-family projects totaling 53 units).
 - ✓ A total of 32 new affordable housing units were also certified as Energy Star Homes.

- d. **HES (Fuel Neutral Single and Multi-Family Program):** fuel neutral home weatherization services through the Home Energy Solutions Program for multi-family facilities larger than 4 units and some single family homes.
 - ✓ Achievement to Date: 68% Complete based on budget.
 - ✓ There have been 587 single and multi-family homes completed to date.
 - ✓ Currently there are 130 single and multi-family units in various stages of completion.

- e. **Home Energy Assistance Program:** Increase spending for weatherization in low income homes.
 - ✓ Achievement to Date: 97% Complete based on budget.
 - ✓ 627 low income homes or apartment units were completed by August 31, 2010.
 - ✓ 12 additional low income homes are in various stages of weatherization.
 - ✓ Note: National Grid installed approximately \$63k in electric measures as part of the Home Energy Solutions Program. After identifying that the buildings were serving low income customers, the funds were adjusted to be paid out of the Home Energy Assistance Program, and a request was made to transfer \$63k from HES to HEA to properly account for these projects as serving income eligible customers.

- f. **Small Business Retrofit:** Increase spending for small business energy efficiency projects.
 - ✓ Achievement to Date: 94% Complete based on budget.
 - ✓ 91 projects were completed by August 31, 2010.

- 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: 82% Complete based on budget.
 - ✓ 92 projects were completed by August 31, 2010.

- h. **New Equipment & Construction Program:** Increase spending for new equipment and new construction energy efficiency projects.
 - ✓ Achievement to Date: 81% Complete based on budget.
 - ✓ 20 projects were completed by August 31, 2010.



- 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: 73% Complete based on budget.
 - ✓ **Energy Code Training:** A total of four energy code training sessions have been held in December 2009 and January 2010. Task Complete.
 - Residential Energy Code Training
 - (a) Dec 2: in Manchester 42 attendees
 - (b) Jan 14: in Plymouth 62 attendees
 - Commercial Energy Code Training
 - (a) Jan 12: in Plymouth 28 attendees
 - (b) Jan 13, in Manchester 63 attendees
 - ✓ **BOC Level 2 or Commercial Energy Auditing Class:** In lieu of a BOC Level 2 class, a separate Commercial Energy Auditing Class is being offered this Fall, with 25 attendees including a few energy consultants, several employees from retail merchants association, and the rest are facility managers from business and towns around the state. The utilities were also considering a Retro-commissioning class for the Fall/Winter. A copy of the brochure for this program is shown on pages 8-9.
 - ✓ **Watt Meter:** In December 2009, 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” or 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.

In addition to the 235 public libraries, 19 small communities that do not have public libraries are being served by the NH State Library. Newspaper ads promoting these meters were run in April to coincide with the 40th Anniversary of Earth Day 2010. A copy of the ad is shown on page 7.

- j. **PSNH Energy Rewards RFP:** Increase spending for new RFP energy efficiency projects.
- ✓ Achievement to Date: 10% Complete based on budget.
 - ✓ Training held in December, customer projects submitted in January and February. Selection of the projects was completed in March and customers have been granted \$300,000 through RFP Agreements to do the energy efficiency work.
 - ✓ Expect about 80% of the projects to be completed by October 31, 2010.
- k. **PSNH Energy Star Homes – Geothermal:** Increase spending for new geothermal homes.
- ✓ Achievement to Date: 79% Complete based on budget.



✓ Thirteen projects were completed through August 31, 2010.

I. RGGI Funds for Revolving Loan Fund:

- ✓ Achievement to Date: 100% Complete based on budget.
- ✓ Utility billing systems have been modified and are ready to handle on-bill financing. Twenty customers had received on-bill financing as of August 31, 2010 via the weatherization program.

3. Summarize work to be completed next quarter: **September 1, 2010 – December 31, 2010. Plan to serve as many customers as the budget allows while closing down the programs for final billing by year end.**

- a. Energy Star Appliance Program: The Refrigerator/Freezer pickup/recycle program will close down after the wait list has been served.
- b. Energy Star Lighting Program: Finish processing remaining lighting rebates.
- c. Energy Star Homes Program: Finish certifying the 32 enrolled Build Green homes while also certifying remaining homes as Energy Star.
- d. Home Performance with Energy Star Program: Finish the remaining 130 weatherization projects.
- e. Home Energy Assistance Program: Finish the 12 remaining weatherization projects.
- f. Energy Star Homes Geothermal Homes: Finish the 2-3 remaining projects.
- g. Small Business Program: Process the 17 remaining rebates.
- h. Large C&I Retrofit Program: Process the 7-12 remaining rebates.
- i. C&I New Equipment & Construction Program: Process the 7 remaining projects.
- j. C&I Education Program: Process bills for the Commercial Energy Code Training program which is currently scheduled to end on December 1, 2010.

4. Please document any jobs created.

- a. We have not tracked any new jobs created directly via these RGGI funds. However, using preliminary numbers of 3.5 FTEs per \$1,000,000 spent on Energy Efficiency for the Commercial & Industrial Sector, and 7.0 FTEs per \$1,000,000 spent in the Residential Sector, the \$7.96M spent (RGGI funds plus matching customer funds) translates into 40 **Full Time Equivalents (FTEs)** or **83,229 hours worked** (using 2,080 hours per year for each FTE).

| | Res | C&I | Total |
|----------------------------------|--------------------|--------------------|--------------------|
| RGGI \$ Spent | \$2,275,625 | \$1,780,101 | \$4,055,725 |
| Customer \$ Spent | <u>\$1,195,319</u> | <u>\$2,710,523</u> | <u>\$3,905,842</u> |
| Total \$ Spent | \$3,470,943 | \$4,490,624 | \$7,961,567 |
| FTEs / \$1M Spent | 7.00 | 3.50 | |
| Estimated FTEs | 24.30 | 15.72 | 40.01 |
| Work Hours per Year | 2,080 | 2,080 | |
| Total Annual Hours Worked | 50,537 | 32,692 | 83,229 |

- b. The 3.5 FTEs / \$1M spent on C&I customer projects and 7.0 FTEs / \$1M spent by Residential customer projects is a rough estimate of direct labor costs. This estimate does not include any numbers for indirect labor or induced labor.



5. Explain any obstacles encountered or any milestones not reached.
 - a. The room AC turn-in numbers were lower than expected in May-June. The utilities and retailers worked to increase the numbers turned-in during July and August, expecting that the hot weather and retailer advertising would help.

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. The New Hampshire Electric Utilities continue working with NH Homebuilders & Remodelers Association on the NH Build Green program. The Homebuilders are providing seminars and outreach while the utilities are focused on certification of homes.
 - b. 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 also 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. Library visitors have been very receptive to this program.

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 event.
 - b. A copy of the brochure for the Commercial and Residential Energy Code Training was provided in the Q1 Report.
 - c. Attached are copies of the ads for the Library Program and the Room Air Conditioner Turn in Program.
 - d. Attached is a copy of the Commercial Energy Auditing Class brochure.

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 the next 10-12 pages for a summary of:
 - ✓ the Statewide budgets/expenses
 - ✓ Annual energy and CO₂ savings
 - ✓ Lifetime energy CO₂ savings



For lower electric bills and a cleaner New Hampshire,
**make tracks to
 your local library!**

Take the first step to lower electric bills and a smaller carbon footprint. Check out our **CUT the CARBON** Kit for FREE from your local library today! Use the Kill a Watt Energy Detector to find out just how much electricity each device in your home is using.



Our **CUT the CARBON** Kit is not only informative and fun; it could also save you real money on your next electric bill by following any of the ten simple energy-saving tips provided.

For more information, visit
nhsaves.com
 energy solutions for New Hampshire
 In partnership with the New Hampshire State Library

You may also purchase a Kill A Watt Energy Detector online at **nhsaves.com**



**Room Air Conditioner
 Turn In Event**



BE COOL!

♻️ This program is available to all New Hampshire residents until funding runs out.

Bring in your old working room air conditioner to recycle for free and receive a **\$30 Mail in Rebate** toward the purchase of a new ENERGY STAR®. See sales associate for details. Brought to you by:

nhsaves.com
 energy solutions for New Hampshire



Locations of the participating retailers are:

- Baron's Major Brands Appliance
- Strafford Appliance Company
- Bay Street Discount, Inc.
- Top Furniture, Inc.
-
- State Street Discount



Registration

Three ways to Register

Fax the application on this form to
(603) 634-2449

Mail—Mail this application into PSNH, 780
North Commercial St., Manchester, NH
03105

Online—Go to www.PSNH.com, click on
Business, Trade Shows and Seminars, Events
and Commercial Energy Audit Course II.
The direct link is
[http://www.psnh.com/Business/Commercial/
Workshop_frame.asp](http://www.psnh.com/Business/Commercial/Workshop_frame.asp)

Directions

PSNH Corporate Offices are located in Manches-
ter at 780 North Commercial Street. From I-293
take to Exit 6 (Amoskeag Bridge), go by the
Comfort Inn and head over the Amoskeag
Bridge. Cross over the bridge and exit right
down the ramp onto Canal Street. At the first set
of lights turn right onto North Commercial Street
and take first right into PSNH Energy Park.

Rev. 9/28/10

Registration

NH Commercial Energy Audit Course Level II

Space is limited!

Please complete the form below and return it to:

K'LaRae Nolin
PSNH ENERGY PARK
PO Box 330 - 780 No. Commercial Street
Manchester, NH 03105-0330
Telephone: 603-634-3303
(toll free: 888-224-4300, ext. 3303
FAX: 603-634-2449
Email: nolinka@psnh.com

Name: _____

Company: _____

Address: _____

Telephone: _____

E-Mail: _____

Check Enclosed (Payable to PSNH) _____

Please send me an invoice _____

*Registration will be on a first come first
served basis. Please register by
October 12, 2010. Fill out one form
for each course attendee.*

New Hampshire Fall Commercial Energy Audit Course Level II

Sponsored by:



**Public Service
of New Hampshire**

The Northeast Utilities System



nationalgrid



Course

Level II Class examines the details and best practices for an effective energy management plan for your facility including Retro-Commissioning (RCx).

This seven day course builds on skills learned in Level I (recommended but not required) and is designed to teach you to :

- *Approach your Facility Assessment systematically*
- *Identify /Evaluate Energy-Efficiency Opportunities for your Facility*
- *Monitor/Track your Energy Use*
- *Develop baseline data and graphs specific to your facility*
- *Communicate benefits to Management*
- *Classes cover lighting and controls, motors, variable frequency drives, compressed air systems, building shell, HVAC, Indoor air quality , utility energy efficient programs, utility rates and tools of the trade to conduct effective energy audits*

Who Should Attend:

Facility Operators, Energy Managers & Building Managers. Course will require some working knowledge of facilities and the energy they consume (oil, gas, water & electric). The course compliments the Building Operator Certification Course (BOC) and builds on Level I classes.

Schedule & Fees

The estimated value of the course is \$1,200. The New Hampshire Electric Utilities are offering this to you for only \$275.

The course material is successive in nature. Students are encouraged to attend all classes.

When: classes will be held on
October 18, 19 & 27
November 1, 2, 19 & 30

from 8:30 AM to 2:30 PM

Where: PSNH's Energy Park Office building, 780 North Commercial St, Manchester, NH:

Continental Breakfast & Lunch will be provided.

Student's Comments

"I want to thank you for the excellent energy audit course that we just completed. We both learned a lot and we walk around our mill now looking at things differently"

Instructors

Speakers will include Professional Engineers, Utility Engineers, Consultants and guest speakers with extensive experience in the field of Energy Efficiency.

Instructors include:

Alan Mulak - P.E., Mulak Consulting Services

Bill Turner - P.E., HL Turner Building Science, LLC of The H.L. Turner Group Inc.

Gas and Electric Utility Representatives

Plus many other qualified speakers

Syllabus

- Day 1 **Commercial Audit Update**
- Day 2 **Retro Commissioning (RCX)**
- Day 3 **Oil, Gas, & Propane Energy Conservation Techniques**
- Day 4 **Building Shell Fundamentals**
- Day 5 **Energy Auditing Heating Systems**
- Day 6 **Advanced Lighting & Controls**
- Day 7 **Oral Presentations**

Classes may qualify for CEU's and PDH credits



Regional Greenhouse Gas Initiative
RGGI Expansion - CORE Energy Efficiency Programs
Q4 (August 19, 2009 - August 31, 2010 Reporting Period)

Program

| Program | RGGI BUDGET | | | | | Q1 - Q4 Actual Expenditures | | | | | Matching Funds (Customer Contributions) | | | | |
|---|-------------------|-------------------|---------------------|---------------------|---------------------|-----------------------------|-------------------|---------------------|-------------------|---------------------------|---|-------------------|---------------------|-------------------|---|
| | National Grid | NHEC | PSNH | UNITIL | Total RGGI Budget | National Grid | NHEC | PSNH | UNITIL | Total Actual Expenditures | National Grid | NHEC | PSNH | UNITIL | Matching Funds (Customer Contributions) |
| CORE EE Programs (additional funds) | | | | | | | | | | | | | | | |
| Energy Star Lighting | \$40,826 | \$66,886 | \$0 | \$54,295 | \$162,007 | \$40,826 | \$28,590 | \$0 | \$54,156 | \$123,572 | \$13,508 | \$36,186 | \$0 | \$92,110 | \$141,804 |
| Energy Star Appliances / Products (Room AC Turn-in, 2nd Ref pickup) | \$24,307 | \$60,136 | \$100,000 | \$46,000 | \$230,443 | \$24,307 | \$70,299 | \$17,676 | \$50,362 | \$162,644 | \$0 | \$102,450 | \$0 | \$64,140 | \$166,590 |
| Energy Star Homes (+ Build Green NH Certification) | \$56,313 | \$47,196 | \$50,000 | \$48,000 | \$201,509 | \$42,900 | \$46,802 | \$1,035 | \$22,811 | \$113,548 | \$0 | \$57,651 | \$0 | \$0 | \$57,651 |
| HES (Fuel Neutral Multi-Family Weatherization) | \$376,908 | \$251,111 | \$250,000 | \$113,935 | \$991,954 | \$337,103 | \$218,249 | \$25,821 | \$90,473 | \$671,646 | \$112,368 | \$7,904 | \$19,199 | \$24,646 | \$164,117 |
| HEA (approximate 50% increase in homes/units for each utility) ¹ | \$113,117 | \$110,354 | \$800,000 | \$140,348 | \$1,163,819 | \$108,833 | \$104,547 | \$797,328 | \$114,175 | \$1,124,884 | \$0 | \$0 | \$634,012 | \$0 | \$634,012 |
| Small Business Retrofit | \$182,037 | \$112,910 | \$0 | \$245,127 | \$540,074 | \$174,369 | \$85,433 | \$0 | \$245,675 | \$505,477 | \$39,563 | \$43,862 | \$0 | \$234,246 | \$317,671 |
| Large Business Retrofit (more rebates + \$ for Retro-commissioning) | \$20,000 | \$115,188 | \$800,000 | \$275,102 | \$1,210,290 | \$0 | \$51,046 | \$772,600 | \$169,726 | \$993,372 | \$0 | \$72,860 | \$1,706,914 | \$194,064 | \$1,973,838 |
| New Equipment & Construction | \$0 | \$63,491 | \$100,000 | \$0 | \$163,491 | \$0 | \$26,012 | \$105,680 | \$0 | \$131,692 | \$0 | \$42,772 | \$56,735 | \$0 | \$99,507 |
| Education (Energy Code Training, BOC 2, Tech College BPI Training) | \$6,099 | \$21,700 | \$100,595 | \$35,000 | \$163,394 | \$0 | \$8,562 | \$86,807 | \$23,442 | \$118,811 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Utility Specific Programs (additional funding) | | | \$0 | | | | | | | | | | | | |
| Energy Rewards RFP | \$0 | \$0 | \$315,000 | \$0 | \$315,000 | \$0 | \$0 | \$30,749 | \$0 | \$30,749 | \$0 | \$0 | \$319,507 | \$0 | \$319,507 |
| High Efficiency Heat Pump Program | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Smart Start Program | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| ESHomes Geothermal | \$0 | \$0 | \$100,000 | \$0 | \$100,000 | \$0 | \$0 | \$79,330 | \$0 | \$79,330 | \$0 | \$0 | \$31,145 | \$0 | \$31,145 |
| EE Website & Home Energy Audit | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| SmartStart - RGGI \$ for revolving loan fund | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Funds for Loan Fund Capital (RLF) | | | | | | | | | | | | | | | |
| RGGI Funds for Revolving Loan Fund | \$350,000 | \$200,000 | \$500,000 | \$725,000 | \$1,775,000 | \$350,000 | \$200,000 | \$500,000 | \$725,000 | \$1,775,000 | \$0 | \$0 | \$0 | \$0 | \$0 |
| TOTAL (not including RGGI Funds for Revolving Loan Fund) | \$ 819,607 | \$ 848,972 | \$ 2,615,595 | \$ 957,807 | \$ 5,241,981 | \$ 728,338 | \$ 639,541 | \$ 1,917,026 | \$ 770,820 | \$ 4,055,725 | \$ 165,439 | \$ 363,685 | \$ 2,767,512 | \$ 609,206 | \$ 3,905,842 |
| Performance Incentive ² | \$ 65,569 | \$ 67,918 | \$ 209,248 | \$ 76,625 | \$419,360 | | | | | | | | | | |
| PROJECTED GRAND TOTAL (including performance incentive) | \$ 885,176 | \$ 916,890 | \$ 2,824,843 | \$ 1,034,432 | \$ 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
Q4 (August 19, 2009 - August 31, 2010 Reporting Period)

Method # 2, using MWH & MMBtu (million Btus)

| Reductions from | Enter Reductions in Units shown in next Column (Annual MMBtu savings) - NGRID | Enter Reductions in Units shown in next Column (Annual MMBtu savings) - NHEC | Enter Reductions in Units shown in next Column (Annual MMBtu savings) - PSNH | Enter Reductions in Units shown in next Column (Annual MMBtu savings) - UNITIL | Enter Reductions in Units shown in next Column (Annual MMBtu savings) - TOTAL | Units | CO2 Emission Factors in lbs/unit | Estimated CO2 Emission Reductions in pounds (lbs.) | Estimated CO2 Emission Reductions in Metric Tons |
|---------------------------------|---|--|--|--|---|-------|----------------------------------|--|--|
| Electricity | 829 | 1,983 | 8,183 | 4,775 | 15,770 | MWH | 1,087 | 17,141,796 | 7,774.06 |
| Natural Gas | 0 | 0 | 2,016 | 146 | 2,162 | MMBtu | 117.1 | 253,169 | 114.82 |
| Distillate Fuel Oil (#1, 2 & 4) | 675 | 91 | 3,987 | 418 | 5,172 | MMBtu | 161.4 | 834,818 | 378.60 |
| Residual Fuel Oil (#5 & 6) | 0 | 0 | 0 | 0 | 0 | MMBtu | 173 | 0 | 0.00 |
| Kerosene | 7 | 0 | 564 | 156 | 727 | MMBtu | 159.5 | 0 | 0.00 |
| LPG | 0 | 0 | 0 | 0 | 0 | MMBtu | 139 | 0 | 0.00 |
| Propane | 1,756 | 5,413 | 1,561 | 58 | 8,788 | MMBtu | 139.2 | 1,223,285 | 554.78 |
| Wood or Wood Pellet | 7 | 0 | 403 | 12 | 423 | MMBtu | | | |
| Other | 0 | 0 | 0 | 0 | 0 | MMBtu | | | |
| TOTAL | | | | | | | | | 8,822.25 |

Electric Line Loss

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
Q4 (August 19, 2009 - August 31, 2010 Reporting Period)

Method # 2, using MWH & MMBtu (million Btus)

| Reductions from | Enter Reductions in Units shown in next Column (Lifetime MMBtu savings) - NGRID | Enter Reductions in Units shown in next Column (Lifetime MMBtu savings) - NHEC | Enter Reductions in Units shown in next Column (Lifetime MMBtu savings) - PSNH | Enter Reductions in Units shown in next Column (Lifetime MMBtu savings) - UNITIL | Enter Reductions in Units shown in next Column (Lifetime MMBtu savings) - TOTAL | Units | CO2 Emission Factors in lbs/unit | Estimated CO2 Emission Reductions in pounds (lbs.) | Estimated CO2 Emission Reductions in Metric Tons |
|---------------------------------|---|--|--|--|---|-------|----------------------------------|--|--|
| Electricity | 7,610 | 20,780 | 106,291 | 56,240 | 190,920 | MWH | 1,087 | 207,530,530 | 94,118.15 |
| Natural Gas | 0 | 0 | 34,426 | 2,424 | 36,849 | MMBtu | 117.1 | 4,315,064 | 1,956.94 |
| Distillate Fuel Oil (#1, 2 & 4) | 12,159 | 1,279 | 78,982 | 8,019 | 100,439 | MMBtu | 161.4 | 16,210,806 | 7,351.84 |
| Residual Fuel Oil (#5 & 6) | 0 | 0 | 0 | 0 | 0 | MMBtu | 173 | 0 | 0.00 |
| Kerosene | 133 | 0 | 11,869 | 3,124 | 15,126 | MMBtu | 159.5 | 0 | 0.00 |
| LPG | 0 | 0 | 0 | 0 | 0 | MMBtu | 139 | 0 | 0.00 |
| Propane | 39,585 | 113,610 | 24,733 | 1,007 | 178,935 | MMBtu | 139.2 | 24,907,726 | 11,296.02 |
| Wood or Wood Pellet | 133 | 0 | 7,572 | 247 | 7,952 | MMBtu | | | |
| Other | 0 | 0 | 0 | 0 | 0 | MMBtu | | | |
| TOTAL | | | | | | | | | 114,722.96 |

Electric Line Loss

Source of CO2 Emission Factors in lbs/unit:

<http://www.eia.doe.gov/cneaf/electricity/epa/epata3.html>

