

GREENHOUSE GAS EMISSIONS REDUCTION FUND
Quarterly Progress Report - PAREI

The first quarter grant report is due November 30, 2009.

1. Program Title:

PAREI Solar Energy Raiser Expansion & Weatherization Pilot Program

2. Program Type:

1. Energy audits;
2. Weatherization of NH residential housing stock;
3. Energy efficiency work force training and development;
8. Improve the electric and thermal energy efficiency of existing residences;
9. Programs to foster the retrofitting of highly efficient and affordable housing;
10. Education, outreach and information programs that promote energy efficiency and conservation to reduce greenhouse gas emissions generated within NH.

3. Summary of work completed during this reporting period **July 15, 2009 – Sept 30, 2009**

Task 1: Solar Energy Raiser Expansion – Three NH Communities

1. Completed one on-site Energy Raiser Training at a Portsmouth home for SEAREI – the Seacoast Area Renewable Energy Initiative.
2. Completed one off-site Energy Raiser Training in Durham, NH for the SEAREI group. (SEAREI has gone on to complete two more energy raisers without our assistance since the end of August.)

Task 2: Solar Energy Raiser Expansion – A Non Profit Organization

1. Conducted two site visits and one Energy Raiser Planning Session at the Appalachian Mtn Club in Alexandria NH. Prepared NHEC rebate application and got approval.
2. Recruited NH certified plumber to volunteer on the AMC project.
3. PAREI and AMC will conduct an Energy Raiser on November 7th to install a 60 evacuated tube solar collector and 105 gallon Superstor Stainless Steel tank.

Task 3: Solar Energy Raiser Expansion – A Low Income Home

1. Conducted two site visits to prepare for a solar water heating installation at a Habitat for Humanity home.
2. Met and communicated with contractors to make plans for the solar installation.
3. Prepared Solar Pathfinder Report for the site.

Task 4: Solar Energy Raiser Expansion: Conduct five energy raisers above and beyond those planned for 2009/2010

1. Completed one “extra” Energy Raiser (which wouldn’t have happened without REGGI support) for the Town of Plymouth’s Riverside Park. With donations from Sundance Solar of Warner, NH and Meredith Village Savings Bank we installed a 160 watt photovoltaic panel on the park’s pavilion. This net-metered panel, (the first solar pv panel installed on town property) will supply enough power to light the pavilion and run about 20 small concerts/events in the park.

Task 5: Solar Energy Raiser Expansion: Conduct 12 Solar Information Sessions (six outside the Plymouth community)

1. Conducted two solar information sessions at the Plymouth Rotary's Energy Fair on September 26, 2009.

Task 7. Weatherization Skill Development/Training – Weatherization Equipment & Infrared Camera – Staff and Contractors

1. Three PAREI employees and five volunteers attended a four day Building Performance Institutes (BPI) Energy Analyst Certification class conducted here in Plymouth, NH by Paul Button of Energy Audits Unlimited. Five attendees took and passed the BPI written portion of the BPI Certification test. These five have begun preparing for the BPI field test.
2. Prepared for and conducted onsite group trainings at two homes. Determined insulation and air sealing requirements and lighting/appliance upgrade options.

Task 8. Weatherization Training – Whole House System & Blower Door - Public

1. Preparing for and scheduling one group classroom training for homeowners in mid-January 2010 on Whole House System and the use of the Blower Door.

Task 12. Monitoring and Evaluation

1. Review data collection and reporting requirement. Began design of data tracking systems. Met with Matt from NH Carbon Challenge (while working together on an Energy Raiser) to discuss reporting data.

Task 13. Project Management and Administration

1. Finalized contract details and schedules with the NH PUC and partners. Added additional partners including NH Electric Co-op for audit training and Cool Air – Clean Planet for Button-Up community education sessions.
2. Purchased weatherization test equipment and related equipment.
3. Produced spreadsheet to track REGGI grant expenditures
4. Created plan for internal staff and contractor meetings concerning REGGI tasks and implemented meeting schedule.

a. Discuss any benefit your activities may have had for low income residents.

One of our PAREI members and former Energy Raiser Hosts is the General Contractor for a Habitat for Humanity Home currently being built in Rumney, NH. PAREI has wanted to install a solar water heating system in a Habitat for Humanity home in the past but has been unable to complete this goal due to a shortage of funds for equipment. Combined with the money and donated equipment previously raised by PAREI members (Valuing \$2000) and the \$1500 in the REGGI grant for a low income home solar installation we are now able to install a complete solar water heating system at no cost to the the Habitat project. The equipment includes a 60 gallon Superstor Contender water tank. So far PAREI has completed the pipe run from roof to basement and the plumber on site has installed the tank. Come Spring, this Habitat House will be the location of an Energy Raiser. The Habitat homeowners are very excited about the solar installation and the economic and environmental benefits that it will provide.

This same Habitat home will be the recipient of the \$500 provided in the REGGI grant for materials for weatherization materials for a low income home. While on site working on the solar project, Craig Cadieux, (newly trained on Energy Audits thanks to the BPI

training sponsored by the REGGI grant and NHEC) gave some advice on how to improve upon the plan to insulate the home. Ben Stephenson from the NH Electric Coop met with the PAREI crew on site to give his recommendations on insulating. Due to the REGGI Grant this low income home will now have a higher R value. This insulation work will be done by PAREI volunteers in December.

b. Note any problems or delays. None at this time.

c. Note any deviation from the work-plan. The only deviation to our plan was concerning training the crew and volunteers on the use of the thermal scanner and blower door tester. With a financial contribution from NHEC of \$3600 we were able to hold a four day BPI training here in Plymouth for PAREI employees, contractors and volunteers (7 total). This training consisted of three days in the classroom, one field day and one day to take the BPI written exam. During the next quarter the crew will take part in several more field training days on both the thermal scanner and blower door tester and complete the BPI field exam.

The second deviation to our proposal is one of language. We have decided that calling our volunteer weatherization program a Weatherization Energy Raiser doesn't describe what is actually taking place. It's actually an Energy Reducer! We are now calling the program the PAREI Home Weatherization Program and within this program we will coordinate "Housewarmings" for homeowners interested in taking part in a neighbor helping neighbor effort.

The Housewarmings will be coordinated by a PAREI staff, contractor or volunteer and will consist of three or more families helping each other with a weatherization project deemed appropriate for volunteer labor. Volunteers at Housewarmings may also include people looking to learn the skill for a DIY project on their own home. Recently, the NH Electric Coop has donated \$8500 to PAREI to go toward the cost of weatherization materials needed at our first 10 REGGI Housewarmings. This financial assistance will serve as an incentive to encourage homeowners to weatherize their homes and to take part as volunteers in our Housewarming model. (We're not sure if finding volunteers for foaming basements will be as easy as it is for installing solar! Our plan is to group homeowners by three so they know their commitment will be shortlived.)

d. Attachments and other documentation are appreciated. With our next quarterly report we plan to send press articles, photos, energy audit checklist, educational handouts, signage and more as examples of the work the grant has produced during the first two quarters.

4. Summarize work to be completed next quarter: **October 1, 2009 – January 31, 2010**

Task 2: Solar Energy Raiser Expansion – A Non Profit Organization

1. Complete one Energy Raiser for a Non Profit Organization (Appalachian Mtn. Club) on November 7, 2009 including a Set Up Night on October 26, 2009.
2. Conduct one Solar Water Information Session for AMC members staying at the lodge on the Energy Raiser day.

3. Complete educational signage and labeling for the AMC solar water heating installation. The tank is located in a public area of the lodge and will be boxed in with Plexi glass.

Task 3: Solar Energy Raiser Expansion – A Low Income Home

1. Complete first phase of solar water heating installation at Habitat for Humanity home: pipe run from Roof to basement and tank installation.

Task 5: Solar Energy Raiser Expansion: Conduct 12 Solar Information Sessions (six outside the Plymouth community)

1. Conduct Solar Water Information Session in Tilton, NH on Oct 3, 2009

Task 7. Weatherization Training – Weatherization Equipment & Infrared Camera

1. Five PAREI employees & volunteers will have taken the BPI field test and become certified BPI Energy Analysts.
2. Schedule two group classroom trainings on the use of the thermal imaging infrared video camera.
3. Conduct onsite group trainings at five homes. Determine insulation and air sealing requirements and lighting/appliance upgrade options. Identify inefficient refrigerators that qualify for replacement.

Task 8. Weatherization Training – Whole House System & Blower Door - Public

1. Prepare for and implement one group classroom training for mid-January 2010 on Whole House System and the use of the Blower Door.
2. Train five or more volunteers on Whole House System and the use of the Blower Door. Prepare for a repeat class for five or more additional volunteers later in 2010.
3. Prepare for and conduct onsite group trainings at five homes. Determine insulation and air sealing requirements of homes.

Task 9. Weatherization Energy Raisers

1. Prepare budgets and schedules for at least three of our ten Weatherization Housewarmings in collaboration with homeowners.
2. Order insulation and air sealing materials and equipment.
3. Organize Weatherization Housewarmings for those in January and test installations.
4. Begin to identify and coordinate replacement of five inefficient refrigerators.
5. Tabulate collected information and report results. Process payment of financial incentives to participants. Process other invoices and payments.

Task 12. Monitoring and Evaluation

1. Continue design of data tracking systems.

4. Budget vs. Actual Expenditures (if you have included this with your invoicing, there is no need to repeat this 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.)

6. Explain any obstacles encountered or any milestones not reached. We have not experienced any obstacles to date. We feel like we are right on track with the completion goals of our proposed tasks.

