

GREENHOUSE GAS EMISSIONS REDUCTION FUND
Quarterly Progress Report Form
Calendar Year 2011, Quarter 4 – ETP Program DRED/LRCC/PAREI

Organization Name:	NH Department of Resources & Economic Development / Lakes Region Community College (DRED/LRCC) and supporting partner, Plymouth Area Renewable Energy Initiative (PAREI)
Program Title:	Efficiency Training Program (ETP)
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Reporting Period	10/01/2011 - 12 /31/2011 - Calendar Year 2011, Quarter 4

1) Summary of Work Completed During This Reporting Period
1a) Narrative Summary of Activities

DRED in partnership with LRCC and supporting partner PAREI provide job training classes to prepare New Hampshire’s workforce for green energy jobs in the energy efficiency sector. Classes are supported by a Mentoring Program to give qualified candidates supervised hands-on experience with both energy audits and installations. This program helps to educate locally-based contractors and businesses who can deliver weatherization installations in a safe and sound manner. To meet the market demand trainings are offered to students at different skill levels (from do-it-yourself homeowners to experienced professionals) throughout the state.

1. BUILDING ANALYST TRAINING COURSES

There were no Building Analyst courses during this time period, but there were three people during this quarter who finished in the Fast-Track Building Analyst certification option. The Fast-Track option provides a streamlined way for experienced energy auditors to become certified or recertified as a BPI (Building Performance Institute) Building Analysts. Another two former students during this quarter were able to retake BPI Building Analyst field examinations which they were originally unsuccessful at. Both the Fast-Track program and the opportunity of retesting are good examples how the Efficiency Training Program (ETP) enables busy energy professionals to get training and certifications they need while staying productive with their work.

2. AIR SEALING AND INSULATION INSTALLER CLASSES

There was significant work this quarter in setting up and offering a Weatherization Installer class with BPI Air Leakage Control Installer (RBE-WH-ALCI) certification testing. As a follow-up to a pilot April class, this Weatherization Installer class was offered in Plymouth in November with assistance from PAREI. Both LRCC and PAREI program staff worked to set up a warehouse space to house the training and certification props for this hands-on class. This Installer class is fundamentally different from ETP’s energy auditor classes. The emphasis with Weatherization Installer is hands-on air sealing and insulation installer skills, compared to building assessment skills with Building Analyst. There are still relatively few skilled air sealing installers in New Hampshire, despite the tremendous amount of energy waste from air leakage in New Hampshire’s buildings.

PAREI assisted with the publicity and worked with the Lakes Region Community College on the logistics for the implementation of a Weatherization Installer Technician (November 10, 11, 17, 18) training course that prepared students for the installation of basic air sealing and insulation measures in residential homes. Primarily designed for contractors, the students learned building science-based energy efficiency retrofit techniques, including blower door-guided air sealing, duct sealing, dense

pack and loose-fill insulation, as well as overviews of insulation and air sealing, standard and specialized diagnostic tests, and safety considerations.

BPI requires Affiliates that want to offer Air Leakage Control Installer certification to build a number of props built to exact specifications. These props must then be submitted to and approved by BPI. In addition, BPI staff must train and test potential ALCI proctors prior to their first proctoring. A total of five LRCC-affiliated proctors participated in this proctoring orientation by BPI staff. The ETP program enlisted the Building Construction program at the J. Oliva Huot Technical Center of Laconia High School to build prop bases to BPI specifications. Two classes of Huot Center students also visited the LRCC campus in October to get an air sealing and blower door demonstration, and learn how their props will be used. ETP staff also plan to bring the air sealing props to Huot Center classes this spring to give students a hands-on learning experience with these props.

BPI Manufactured Housing certification testing took place in October. Again BPI staff came to New Hampshire to orient and certify two of LRCC's BPI proctors in Manufactured Housing Professional. These proctors in turn offered BPI certification testing to those who took the Manufactured Housing Weatherization course in September.

In addition to ALCI certification, "Manufactured Housing Professional" brings the total to four BPI certifications that LRCC offers. LRCC probably has the most breadth of BPI certifications and associated of any BPI affiliate in Maine, Vermont and New Hampshire. This is important because the Building Performance Institute has become the de-facto standard for residential building energy performance professionals in existing homes.

Over several days, PAREI conducted a number of weatherization lessons at the Habitat for Humanity House in Ashland, New Hampshire, for Habitat volunteers and building staff. Focused on building in weatherization measures during new residential construction, the lessons included extensive air sealing and insulation instruction. The purpose of this instruction was to accomplish the goal of building a Habitat for Humanity energy-star rated home. To this goal, six inches of dense pack insulation were blown into the walls, and 18-inches of loose fill insulation were blown in the attic.

3. BOOT CAMP PERFORMANCE CONTRACTOR BPI TRAININGS

Preparations for boot camps continue, with an emphasis on trainings that will reach a broader number of people. A two-week long training, even with discounted tuition, is a significant time commitment for busy energy professionals. Thus "boot camp" trainings will not be as intensive as originally envisioned, targeting populations and available in chunks of time that will make participation easier. For example, one type training under this category will be intensive air sealing workshops for do-it-yourself homeowners.

4. SHORT-TERM ENERGY EFFICIENCY TRAININGS

As noted above, LRCC ETP staff continued their collaboration with the Building Construction program at the Huot Technical Center, Laconia High School. LRCC also participated in the Weatherization Fair held on the New Hampshire State House lawn in late October. A "House of Pressure," blower door stand, air sealing prop and other materials were exhibited, courtesy of transport provided by Belknap-Merrimack Community Action Program. The props enabled participants to get a clearer picture of how's and why's of weatherization.

The Efficiency Training Program has a new logo thanks to the creative work of students in LRCC Professor Audrey Garretson Graphic Design class. After being briefed on the goals of ETP, the students worked diligently to interpret these goals into a professional logo. Their efforts were impressive, with many high quality proposals. The finalist logos are included as an attachment.

LRCC and PAREI are supporting partners in the University of New Hampshire's Button Up 2012 program, which received a grant from the New Hampshire Office of Energy and Planning in December 2011. This additional grant funding will enable LRCC to help revise and expand the Button Up curriculum, recruit additional presenters, produce new props, and provide presenter trainings. The Button Up program and the Efficiency Training Program share many common goals, with Button Up focusing more on short presentations for homeowners. Increasing homeowner education and skills in energy efficiency not only saves energy directly, but it also increases the demand for the energy professionals that are trained in LRCC's ETP program.

Towards the end of the fourth quarter 2011, LRCC and PAREI ETP staff worked to develop more workshops, housewarmings, short courses, and other events that will be held throughout 2012. This includes efforts to educate with building supply stores about the materials and techniques associated with home energy performance retrofit work.

PAREI conducted two (2) informational sessions at the Plymouth Village Water and Sewer District (PVWSD) building where interested individuals – contractors, energy professionals, property managers, DIY-homeowners – were able to witness a deep energy retrofit project including a 9.2KW solar PV installation. Attendees were able to witness certain on-going energy efficient construction techniques including basement, wall and attic air sealing and insulation, window replacement, and the initial steps of a solar PV system. The second of the two sessions focused on the end result of these measures.

PAREI also put on a Warmer Windows event with a specialist from Brown Dog Woodworking who worked with individuals to provide a homeowner with a set of indoor window inserts used during cold months to increase residential efficiency by reducing air leakage through window penetrations.

5. ENERGY SERVICES & TECHNOLOGY EFFICIENCY INTENSIVE CERTIFICATE

Through initial planning work, the early frameworks of a commercial building certificate program are emerging. Two potential target audiences have been identified: commercial building managers who need foundational skills in energy management and energy professionals seeking to increase their commercial energy auditing skills. Discussions are ongoing whether to target both audiences or just one audience, with the goal of offering a program starting in late summer or fall 2012 that would include student participation in LRCC Energy Services and Technology program 2012 Fall semester classes. The ETP program intends to work with partners such as the Retail Merchants Association to help ensure the success of this certificate program.

6. MENTORING SITE VISITS

The mentoring program continued during this period with three LRCC mentors participating in either a Level II or Level III mentoring. In a Level II mentoring, the mentor spends approximately three hours helping the student achieve specific goals, and the Level III mentoring is an intensive six-hour experience. The three mentoring experiences included extra one-on-one preparation for the BPI Building Analyst field exam, specific problem solving using TREAT energy modeling software, and a comprehensive (Level III) coaching covering the site-visit diagnostics as well as work scope development and report writing components of an energy audit. A total of seven mentors are available through LRCC, with a wide geographic range and broad capabilities in energy auditing and energy performance contracting. It is very helpful being able to offer these mentoring experiences to extend the practical education process beyond courses and workshops.

LRCC and PAREI also provide informal mentoring at numerous points throughout the quarter, as this November 2011 e-mail quote from a former LRCC Building Analyst student shows:

Thank you very much for your insight and quick response. I feel with the information you have given me I can confidently put together a workscope that will help to make this home, with its unusual set-up, more energy efficient. Also, I can better inform the homeowner on the pro's and con's of this work. Once again Andy, the information and help you have provided me with during and after my training at LRCC has proven to be extremely valuable.

In preparation for ramping up the program in the next quarter we prepared a press release (attached) and created the Field Experience Sign Up Sheet (attached) to be released in January. We met with Plymouth State University to explore how students could take advantage of this program and how it could enhance their classroom learning for those majoring in environmental studies. We also created a data base to be used for future ETP announcements. This list includes all individuals who have asked to be on the e-mail list in response to requests made through PAREI newsletters and it includes all those who have attended past ETP trainings and the March 2011 Air Sealing and Insulating Training in Plymouth.

7. EQUIPMENT PURCHASE AND RENTAL USE

PAREI continued to purchase pieces of specialized energy efficient and weatherization equipment that would be available to rent at Rand's Hardware. Equipment included AccuOne Insulation Blowing Machine and accessories primarily for dense pack insulation, specialty Bostitch stapler and accessories for net-and-blow insulation, and IR camera for thermal scanning. All equipment has been inventoried at Rand's Hardware and is currently being rented.

Considering the Energy Equipment Rental Program is based out of Rand's Hardware, PAREI has been working with the Rental Desk Manager - Terry Lawson - to provide him more familiarity with each piece of equipment. Being the face of the Rental Program and wanting to supply Rand's clients with the best service and understanding of the equipment, Terry will attend the Energy Rental Equipment Demo Day on January 12, 2012 administered by PAREI. Also, to provide Terry with more hands-on knowledge of the equipment and its real-world applicability he is planning on participating in PAREI's Energy Services Field Experience, where he will observe and/or assist two PAREI Energy Auditors during a residential energy audit. The Field Experience is scheduled for Tuesday, January 31, 2012. Through PAREI's work with Rand's Hardware, primarily Terry, it seems that the Rental Program has a strong advocate and representative.

The Weatherization Installer Technician course, taught in Plymouth, was able to use the insulation blower that PAREI purchased. The PAREI program will be used as a model for helping LRCC determine the most effective implementation of its equipment program.

8. SUPPORT FOR OTHER PROFESSIONAL ENERGY EFFICIENCY TRAININGS

Work is ongoing to support other energy efficiency trainings. The "Adding Home Value through Energy Improvements" workshop for Realtors[®] is near the point of being submitted to the New Hampshire Association of Realtors for approval as continuing education credits. The workshops will start in the first quarter of 2012. Planning has advanced for a heating systems course at Manchester Community College, and possibly a "women and weatherization" course aimed to help inform women about weatherization options. LRCC will host a Home Energy Rating System (HERS) training in late spring at its Laconia campus. And a variety of other trainings are being planned.

OVERALL PROGRAM ACTIVITIES

Louis Karno & Company completed its strategic marketing plan for the Efficiency Training Program during this quarter. It also assisted LRCC with tactical implementation of marketing efforts for weatherization installer trainings. LRCC is in the process of implementing the recommendations from their plan.

1b) Activity Summary Table

Course / Event	Location	Date		# Contact Hours
Weatherization Fair	Concord	Oct 2011	300 visitors	0.25
Energy Equipment Rentals	Regional	Oct/Nov 11	6 rentals	24 +
			# Students	
Huot Technical Center Air Sealing Project	Laconia	Oct-Nov 2011	18	6
BPI Manufactured Housing Exams	Plymouth	Oct-Nov 2011	5	4
BPI Building Analyst Field Exams	Varies	Nov-Dec 2011	2	2
BPI Fast-Track Building Analyst Certification	Varies	Oct-Nov 2011	3	6
Weatherization Installer Technician - LRCC with PAREI	Plymouth	Nov 2011	4	28
BPI Air Leakage Control Installer Exams	Plymouth	Dec 2011	7	6
Mentoring Program - LRCC	Varies	Oct - Dec 2011	3	4
Warmer Windows	Plymouth	Nov. 19, 2011	5	3
Muddy Boots Tour @ PVWSD pt.1	Plymouth	Nov. 15, 2011	19	1.5
Muddy Boots Tour @ PVWSD pt.2	Plymouth	Dec. 13, 2011	9	1.5
Habitat House Insulation Training, Demo and Installation	Ashland	Fridays Nov/Dec 2011	6	14
		Total	81	457 hours

2) Projected Annual Energy Savings

ETP is a training program. Direct energy savings cannot be measured as part of the training. Therefore, there is no "Table 2: Projected Energy Savings Summary." ETP participants will use the knowledge they gain through ETP trainings to recommend and install energy efficiency improvements in homes and businesses throughout New Hampshire.

3) Labor Hour Reporting

Table 3: Labor Hour Reporting

'11 Q1 est.	2011 Q2	2011 Q3	2011 Q4	2012 Q1	2012 Q2	2012 Q3	2012 Q4
LRCC 60	719	751	697				
PAREI 100	165	116	310				
DRED 40	30	60	72				
Totals 200	914	927	1,079				

These numbers are total labor hours associated with the project per quarter (calendar year), including ETP full-time and temporary employees, estimated hours of ETP independent contractors, and estimated unbilled hours of staff conducting ETP tasks. It does not include the hours of homeowner volunteers or other volunteers.

4) Obstacles, Problems and Delays

The Building Performance Institute announced in December 2011 significant changes in their process for certifying energy professionals. As a key BPI affiliate in New Hampshire, these changes will affect LRCC. In 2012 BPI affiliates will transition to “testing centers” with new fees and requirements. All BPI exams, whether in the classroom or in the field, will need to be videoed. And BPI has significantly increased its exam administrative fee. In many ways ETP staff applaud BPI’s efforts to increase the professionalization of this field, but the added costs and new procedures are a burden to ETP as well as the candidates undergoing certification testing.

The slow-down in the economy and particularly in federal government stimulus support for energy efficiency is becoming more acute. While some companies are still hiring selectively, other agencies and companies are starting to reduce their number of employees. This adds a negative tone to the field, and is in large part responsible for low attendance at professional trainings. On the other hand, free workshops and demonstrations have been well attended. This fact necessarily affects what programs are to be offered, and the ETP program will redouble its efforts to reach people – energy professionals, affiliated professionals, homeowners and others – where they are.

The situation underscores the importance of generating inherent demand for energy efficiency services. Therefore increasing the education and awareness of home owners and building managers, as well as affiliated professionals, has emerged as an important goal for the Efficiency Training Program in addition to developing the skills of energy professionals. Those within this field recognize that there are many New Hampshire buildings that need energy performance retrofit work. We all wish that building owners would also recognize the inherent economic and other benefits of energy efficiency retrofits without the need for a nudge or incentives, but the irrationality of this market continues. The more people in New Hampshire who become energy efficiency converts, the better the State will be with more jobs, less money spent on fossil fuels, and the environmental benefits of not wasting energy.

The Efficiency Training Program takes seriously its role in helping to develop the energy efficiency infrastructure in New Hampshire. Although less tangible than the poles and power lines that make up the electrical grid, the “energy performance grid” consists of trained professionals, informed building owners and access to tools and materials. Just as the electrical grid needs to be constructed and maintained, it is important for this energy performance infrastructure be supported and nourished in order for the energy efficiency field to become a vital part of the New Hampshire economy.

5) Summary of Work to be Completed Next Quarter

With LRCC’s ability to offer four different BPI certifications, LRCC has completed much of the foundational work for expanded energy efficiency trainings and certifications. There will be a number of BPI certification courses offered in the first quarter of calendar year 2012, with keen eye to offering courses and workshops that are most in demand. As noted previously, this may mean shifting towards lower cost format for training. A number of different short courses and other trainings will also be offered during the first quarter, with more work to ramp up these offerings in 2012. There will be continuing efforts to provide mentorings, equipment programs, and other ongoing programs and support for the energy performance infrastructure in New Hampshire.

INSTALLER TRAININGS

PAREI will conduct a hands-on training class on attic and wall air sealing and insulation while using the specialized weatherization equipment purchased for the Energy Equipment Rental Program. We will work using an area home, business, or commercial building to demonstrate the real world applicability of the tools and techniques in the course. PAREI began renting warehouse space that will be used to conduct part of the training, and is currently storing the props for training purposes. This training will be one day in the classroom and at least a half day of hands on experience.

SHORT TERM COURSES/HOUSEWARMINGS

PAREI is planning on conducting at least one hands-on Housewarming in February, with plans for a second in late-February or early-March. Site visits have occurred at two homes in Campton, New Hampshire and work scopes and material budget will be developed.

Together with Lakes Region Community College (LRCC), curriculum development will take place throughout the quarter with hopes of conducting one building supply and/or hardware store in-house training in March. We have identified a need for this training through conversations with customers, store managers and employees. As contractors in the area are becoming more knowledgeable about green home building and energy retrofits, store employees are finding they must increase their understanding of building science terminology and the application of many weatherization products sold in the store or lumber yard. It's becoming clear that these front line employees are some of the most important people to receive training since they are sought out for advice on a daily basis. Store owners at Rands Hardware and Ashland Lumber have both expressed interest in working with ETP to develop a training to be conducted specifically for their employees.

MENTORING PROGRAM

For marketing purposes, PAREI has adopted the title of "Energy Services Field Experience" to replace Mentoring Program, so as to portray a hands-on real-world opportunity. Further curriculum development, a contact list, and a streamlined sign-up process will help simplify the process to appeal to contractors. A press release (attached) will be sent to local newspapers at the end of January to increase the program's visibility in the community.

ENERGY EQUIPMENT RENTAL PROGRAM

In mid-January, PAREI will conduct an Energy Rental Equipment Demo Day to display and demonstrate all equipment purchased for the Rental Program as a way to spread the word to contractors and energy professionals. PAREI will work with the Rental Program to create a monthly read out on equipment rental and to develop an equipment maintenance and replacement fund by setting aside 30% of all receipts acquired through renting the equipment. PAREI will set up an account for these reserved funds so the equipment rental program can remain active beyond the grant program. Continued marketing of the program will take place through newsletters, announcements and in-store displays.

MARKETING

PAREI will have a special tab on their website called Special Programs with a link to ETP announcements and forms. This link will be utilized in all future press releases and announcements. Anticipated completion date is February 1, 2012.

6) Beyond the Contract -- Activities, Partnerships, Funding or Other Synergies

LRCC and PAREI staff continues to work with a wide variety of partners to produce a stronger network trained energy professionals and homeowners. A sampling of some of the organizations and program that ETP works closely with include BetterBuildings New Hampshire, Retail Merchants

Association, New Hampshire Job Training Fund, Public Service of New Hampshire, community action programs in several counties, New Hampshire Electric Cooperative, and University of New Hampshire. LRCC's work with UNH's Button Up program provides synergies for both organizations.

New partnerships continue to emerge as ETP programs are implemented. One demographic that is coming to light that is especially interested in ETP activities are the young new homeowners. They appear to have an above average energy level for tackling DIY weatherization tasks and are motivated by being new homeowners struggling to meet their high energy bills.

Churches in the community continue to seek out information on how to better insulate their buildings. People who sit on building committees for churches, non-profits and office buildings are showing interest in the need to learn more about weatherizing their buildings and deserve more attention in energy efficiency training outreach.

7) Brochures, Announcements and Other Promotional Materials

(See attachment.)

8) Invoicing Form and Budget vs. Actual Expenditures

(Included with invoicing.)