# GREENHOUSE GAS EMISSIONS REDUCTION FUND Quarterly Progress Report Form

Organization Name: Lakes Region Community College

**Program Title:** Efficiency Training Program

**Program Contact:** Andy Duncan

Reporting Period: Calendar Year 2013, Quarter 1, January – March 2013

# 1) Summary of Work Completed During This Reporting Period

## 1a) Narrative Summary of Activities

# 1. BUILDING ANALYST TRAINING COURSES

In January 2013 a Building Analyst class was held in Berlin as part of a weatherization boot camp. See the Boot Camp section for more details

Another Building Analyst class was held in Laconia starting in late February and continuing into March 2013. Despite this being one of many Building Analyst classes over the past three and a half years, demand for the class was reasonably strong with eleven students in the class, including a number of building contractors. An important piece in the energy efficiency jigsaw puzzle is getting building contractors to understand and implement energy performance into their contracting work.

Building Performance Institute (BPI) Building Analyst Fast-Track certification testing also took place March 2013. There was also an online and in-the-field review session in March. BPI Fast-Track certification testing is a service that helps primarily experienced energy professionals maintain their credentials, and therefore is being counted under mentoring services. Please see the Mentoring section for more details.

#### 2. AIR SEALING AND INSULATION INSTALLER CLASSES

Also as part of a boot camp series, a Weatherization Installer Technician class was held in Berlin in late January and February 2013. See the Boot Camp section for more details.

Another Button Up 201 workshop was held in January 2013 at the NH Public Utilities Commission in Concord, following a previous one in December 2012. As with three previous Button Up workshops, this workshop was for State of New Hampshire agency employees with coordination by New Hampshire Department of Environmental Services staff. These successful workshops were held shortly after the work day ended. The more advanced Button Up 201 emphasizes do-it-yourself air sealing and insulation activities, as well as advice on working with an energy professional.

See below for descriptions of workshops and other activities to increase weatherization installer skills.

#### 3. BOOT CAMP TRAININGS

Following the spring 2012 training, another boot camp training with both Building Analyst energy auditor and Weatherization Installer classes was held in January and February in Berlin. Both Berlin Better Buildings and White Mountains Community College were instrumental in both publicizing the trainings, and providing additional funding to keep the cost to students as low as possible. The training series was combined with an initial non-LRCC workshop in December. Despite the frigid conditions, the boot camp series went well. The Weatherization Installer course was held at the Enriched Learning Center, an alternative high school in Berlin. Enriched Learning students assisted with setting up the props, and both a graduate and a teacher from their school took the course. LRCC assisted the Enriched Learning Center with exploring the potential for offering a weatherization installer module as part of their current carpentry program.

As noted in previous reports, ETP staff has worked with community organizations in order to offer hands-on community air sealing and insulation workshops as a boot camp alternative for do-it-yourselfers and others not wanting an intensive professional course. These trainings fall somewhere in between Installer / Boot Camp trainings and Short-Term trainings. They are listed in this report under Short-Term trainings.

See other sections for descriptions of Button Up and similar presentations to increase assessment and weatherization skills among a diverse population.

#### 4. SHORT-TERM ENERGY EFFICIENCY TRAININGS

There were a number of Button Up and weatherization workshops held this quarter that were short-term in nature. In January, there was a Button Up 201 and mini weatherization fair co-sponsored by the Town of Meredith Energy Committee. This highly successful event combined the Button Up 201 workshop with follow-up demonstrations by a local building supply store, NH Electric Cooperative, and others. This is a great example of a collaborative event with a local energy committee.

A Saturday blower door how-to workshop was held in partnership with the Berlin Area Renewable Energy Initiative (BAREI) in early February in Berlin. It is best to learn how to use a blower door by experiencing one in operation, which was the focus of this hands-on workshop. The volunteer homeowners also received useful information about the performance of their home. BAREI used this workshop as the springboard for making LRCC's ETP-funded LRCC energy diagnostic equipment available to trained professionals and volunteers.

Also this past quarter were two hands-on weatherization trainings at the Grapevine Center in Antrim. Following up on an ETP-PAREI-sponsored energy audit in February, the goals of these weatherization days were to provide hands-on experiential learning in weatherization, and to make an impact on the high heating bill of this community-based social service agency in Antrim. The weatherization events were very successful, demonstrating and doing air sealing, densepack cellulose insulation, and other weatherization work. The Monadnock Energy Resources Initiative (MERI) partnered with LRCC's Efficiency Training Program to host and publicize these successful workshops.

Outside of the ETP grant, both PAREI and LRCC were involved with providing Button Up workshops that were sponsored by Liberty Utilities. These are similar to the other Button Ups, but are set up as a single 1 1/2 hour workshop rather than the 101 workshop and 201 workshop structure. LRCC

personnel presented a Liberty Utilities Button Up on March 27 in Concord. It is worth noting that although Liberty Utilities customers were targeted for this workshop, most of the workshop is relevant to all heating fuel and electricity customers. Indeed, the vast majority of the March 27 attendees were not Liberty Utilities customers. This may be influenced by the fact that heating oil and propane are on the order of 80+% more expensive as a heating fuel compared to natural gas, and these non-gas customers are feeling the pain of high heating bills more acutely.

A building supply store workshop at Belletetes in Jaffrey was planned for Saturday, February 9 but was delayed until April due to a snow storm. Also during this quarter, planning activities took place for a Sustainable Energy Forum to take place at LRCC on April 27.

In late March LRCC ETP staff also provided guest instruction in the LRCC Energy Services and Technology degree program "Residential Energy." LRCC ETP staff continue to work with EST faculty to further integrate BPI certification testing into the EST curriculum.

Although officially classified as an "Other Trainings," LRCC ETP staff have been closely involved in the "Energy Issues in Existing Homes: What Real Estate Professionals Need to Know" workshop. LRCC ETP staff and the Sustainable Energy Resource Group (SERG) have jointly produced this successful workshop. See additional discussion under (8) Other Trainings for details.

#### 5. ENERGY SERVICES & TECHNOLOGY EFFICIENCY INTENSIVE CERTIFICATE

With the establishment of the Building Operator Certification (BOC) Approved Provider program at LRCC in the previous quarter, the focus has turned to recruiting students and offering classes. The 8-day program is primarily aimed towards commercial and institutional building operators and managers. Participants are expected to do homework exercises using the building they manage. By the conclusion of the BOC program, students will have a plan for reducing their building's operating expenses and improving indoor comfort. The BOC program has well-documented energy savings from program participants.

The initial BOC certificate program was scheduled to start in late January 2013. Because of the compressed schedule for recruitment, not enough students were enrolled to make the class viable. Instead LRCC developed a customized 8-day program for State of New Hampshire facility managers and related personnel. This training program builds on LRCC's BOC Approved Provider program as well as the Energy Services and Technology degree programs to provide a customized training that fits the needs of the State of New Hampshire. LRCC ETP staff were active during this quarter with the development and coordination of this program, which will start in April.

Another set of BOC classes was scheduled to start in August 2013. ETP grant funding was essential in getting LRCC's BOC Approved Provider initiated, and the expectation is that the BOC program will continue after the grant has been completed.

#### 6. MENTORING SITE VISITS

Informal mentoring continues with ETP staff assisting via e-mail and telephone with energy professionals, most whom are ETP training alumni. Informal mentoring is also taking place through the Housewarming workshops, and through interaction with homeowners who have volunteered their houses for BPI certification testing.

As noted above, the Fast-Track recertification program continues as a means for experienced energy professionals to easily become BPI recertified through Lakes Region Community College. A total of 9 students and 19 Fast-Track BPI Building Analyst segments (written test, field test and/or review session) were conducted during the 2013 1st quarter. To date there have been 16 mentorings and 78 BPI Fast-Track segments under the LRCC Efficiency Training Program, far exceeding the contracted amount of 35. The Building Performance Institute (BPI) announced changes in the recertification procedures for existing BPI certified professionals. As one of the largest BPI Testing Centers in northern New England, LRCC continues to provide services and advice on navigating through the BPI certification and recertification process.

# 7. EQUIPMENT PURCHASE AND RENTAL USE

With all the grant-related energy equipment purchased in 2012, the LRCC ETP program made efforts during the 2013 1st quarter to make this equipment available to qualified energy professionals. An Equipment Practicum course was set up the quarter for energy professionals and other qualified individuals to use the equipment for week-long periods at low cost. Available equipment includes a blower door, infrared thermal imager, combustion analyzer, and densepack insulation blower. To be a qualified user of this equipment, an individual needs to document sufficient training in its use, either from LRCC or through other sources.

There were three individuals who participated in the Equipment Practicum this quarter, some for multiple pieces of equipment. Two used the equipment to practice for the BPI Building Analyst field test. One used a LRCC blower door as a second blower door, in addition to his own, to provide sufficient depressurization to measure air leakage in a commercial building.

In addition, LRCC loaned ETP energy diagnostic equipment to the Berlin Area Renewable Energy Initiative (BAREI) for use both through LRCC's Equipment Practicum program as well as being available to BAREI members. The same level of professional qualifications also applies to this equipment, and having it available in the North Country extends the reach of the equipment program. During the 1st quarter of 2013, this equipment was used in the February blower door workshop mentioned above, as well as three additional BAREI energy house-warming demonstrations, and two times by individuals. The equipment has been instrumental in helping BAREI spread the word about the importance of energy conservation

#### 8. SUPPORT FOR OTHER PROFESSIONAL ENERGY EFFICIENCY TRAININGS

The real estate sector training project picked up momentum this quarter. Project leadership came from the Sustainable Energy Resource Group (SERG) with assistance from LRCC ETP staff. A number of workshops were scheduled for the 2013 2nd quarter, as was another review by the New Hampshire Real Estate Commission (NHREC). Because of the extensive content in the presentation, SERG and LRCC proposed to the NHREC to increase the number of continuing education credits from two to three. A decision is expected in April.

With publicity assistance from the ETP program, the second "Heating Systems for Energy Auditors" at Manchester Community College was scheduled to run in March 2013. It did not reach sufficient registrants to run, and MCC is considering offering it at another time.

# **OVERALL PROGRAM ACTIVITIES**

Overall the Efficiency Training Program grant continues forge ahead in many areas. Preparations are under way for winding down grant activities, but the 2nd quarter of 2013 will still be relatively busy with a number of activities. The Building Performance Institute continues to evolve its repertoire of certifications and promotion of qualified building science professionals, and LRCC continues to implement BPI certification procedures throughout New Hampshire. The Program Summary table below summarizes quarterly activities.

# **1b) Activity Summary Table**

Table 1: Activity Summary Table									
			#	# Contact					
Course / Event	Location	Date	<b>Participants</b>	Hours					
Building Analyst Course	Berlin	Jan-13	9	405					
BPI Building Analyst Written Exam	Berlin	Jan-13	9	18					
BPI Building Analyst Field Exam	Berlin	Jan-13	9	18					
Button Up 201 for State Agencies	Concord	Jan-13	15	30					
Button Up 201 and Demos	Meredith	Jan-13	30	90					
Blower Door Hands-On Workshop	Berlin	Feb-13	12	48					
Weatherization Installer Course	Berlin	Jan/Feb-13	10	280					
BPI Air Leakage Control Installer Certification Exam	Berlin	Feb-13	10	70					
Building Analyst Course	Laconia	Feb/Mar-13	11	495					
BPI Building Analyst Written Exam (with course)	Laconia	Mar-13	11	22					
BPI Building Analyst Field Exam (with course)	Central NH	Mar-13	10	20					
Fast-Track Building Analyst Review Only - Mar.	Online / Henniker	Mar-13	5	50					
Fast-Track BPI Building Analyst Written Exam - Mar.	Laconia	Mar-13	6	12					
Fast-Track BPI Building Analyst Field Exam - Mar.	Central NH	Mar-13	7	14					
Hands-on Weatherization Workshop - Grapevine I	Antrim	Mar-13	5	30					
Hands-on Weatherization Workshop - Grapevine II	Antrim	Mar-13	7	49					
Equipment Practicum Program	Laconia & Berlin	Jan - Mar-13	10	20					
Combustion Safety Class	Laconia	Mar-13	7	17.5					

# 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

Table 3: Labor Hour Reporting (calendar year)										
2011 Q3	2011 Q4	2012 Q1	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2			
						806				

LRCC ETP paid staff: 594 hours

LRCC ETP paid contractors (estimated): 51 hours

LRCC other staff (unbilled cost-share estimated): 161 hours

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

## 4) Obstacles, Problems and Delays

The biggest "obstacle" at this point with LRCC's ETP program is a "hurry up to slow down" approach to ending of the grant. Program activities are in the process of getting finished in anticipation of the June 30, 2013 grant ending date. It comes as no surprise that, for many programs, a level of momentum developed with the wide variety of ETP grant-related training and educational programs will be lost after the grant ends.

# 5) Summary of Work to be Completed Next Quarter

The second quarter of 2013 will be the final quarter of the grant. A final report for the entire grant period will explore the future of the Efficiency Training Program beyond the grant period. Approximately 92% of LRCC's ETP activities have been completed, with 8% remaining activities. This is reflected on the "Deliverables Tables" that is included as an attachment to this report.

There are relatively few grant activities that remain to be completed in the second quarter (April – June) of 2013. These include:

- Additional "Energy Issues in Existing Homes: What Real Estate Professionals Need to Know" workshops at local Realtor boards, and at one location available to a wider audience.
- The April 27 Sustainable Energy Forum, featuring a presentation on the future of large-scale wind energy in New Hampshire, along with a Button Up workshop.

- Energy Operations, Maintenance and Assessment trainings for State of New Hampshire facilities personnel in April and May.
- A final Weatherization Installer course, and BPI Air Leakage Control Installer certification testing, tentatively scheduled for May June 2013.
- A Residential Energy Performance Association (REPA) blower door and air sealing training, in June conducted by an outside party as an Other Training, with coordination from LRCC ETP.
- Additional BPI Building Analyst and Envelope Professional certification testing in May.

ETP staff at both LRCC and PAREI are working on approaches for continuing ETP programs beyond the end of the grant.

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

LRCC and PAREI staff continue to work with a wide variety of partners to produce a stronger network trained energy professionals and homeowners. As in previous quarters, these strong working relationships are the backbone of the ETP program. We continue our partnership activities with the Monadnock Energy Resources Initiative, the New Hampshire BetterBuildings program, the Sustainable Energy Resource Group, and numerous other groups in New Hampshire. Collaborative activities with other NH community colleges continue, particularly White Mountains Community College and Manchester Community College. During this quarter LRCC ETP also participated in several meetings to further increase energy efficiency in New Hampshire.

#### 7) Brochures, Announcements and Other Promotional Materials

Constant Contact e-mail, LRCC web site, and other promotional efforts continue.

During this quarter LRCC ETP staff Andy Duncan was featured in a February 25 article in the Monadnock Ledger-Transcript. Both the Efficiency Training Program as well as LRCC's Energy Services and Technology program were featured in the February-March 2013 issue of the Green Energy Times. Governor Maggie Hassan also mentioned LRCC's energy programs in her February 14 budget address to the New Hampshire legislature.

#### 8) Invoicing Form and Budget vs. Actual Expenditures

(Included with invoicing.)