

**GREEN HOUSE GAS EMISSIONS REDUCTION FUND
QUARTERLY PROGRESS REPORT
LIGHTEC, INC.**

August 19, 2009 through November 30, 2009

- 1. Program Title:** Energy, Carbon Savings, and Education for Schools, Municipalities, and Business

- 2. Program Type:** Our program includes energy-efficiency project implementation and education. It falls into the following program categories:
 1. Energy Audits.

 8. Programs to improve the electric and thermal energy efficiency of new and existing residences and commercial buildings.

 10. Education, outreach and information programs that promote energy efficiency, conservation and demand response.

- 3. Summary of Work Completed During This Reporting Period:**

Task 1: Perform investment-grade energy audits in three projects, analyzing all major energy-using equipment and systems and provide engineered recommendations to clients.

Percentage Complete: 50%

- Project 1: The Town of Wolfeboro. Activities included:
 - Conducted interviews with key building operational personnel and contracted maintenance personnel.
 - Collected and reviewed electrical and mechanical construction drawings to establish the HVAC control sequences.
 - Collected and reviewed the Town's past three years energy bill history.
 - Conducted the mechanical systems and building envelope surveys for the Public Safety Building, the DPW Garage, Library, and Ice Arena. Thermal Infra-Red scans were conducted in all buildings except the Ice Arena.
 - Analyzed and began work on the E-Quest schematic and design development simulations for the public works garages.

- Project 2: Holy Cross Hall Condo Association. Activities included:
 - Conducted Interviews with key operational personnel.
 - Collected and reviewed building plans.
 - Conducted 2 Audit site visits to collect building documentation and preliminary inspection. The second visit included a review of the HVAC systems with Mr. Mark Vincello, P.E. with WV Engineering in Keene, New Hampshire.

- Project 3: Town of Merrimack. Activities included:
 - Conducted interviews with department heads
 - Began Level I Field Surveys of the Fire and Police Headquarters Facilities
 - Wrote a technical specification for Mini-Split System Heat Pump system for the Police Facility

- Miscellaneous activities:
 - Drafted the Fuel Blind Energy Audit Report template.

Task 2: Increase the energy efficiency of 13 educational facilities, 3 municipalities and 2 industrial corporations in New Hampshire.

Percentage Complete: 33%

Educational Facilities

- Project 1: The New Hampton School. Activities included:
 - Obtained the Service & Installation Agreement from client.
 - Completed project engineering for high efficiency lighting and controls.
 - Completed pre-build measurement and verification (M&V).
 - Completed project installation.
 - Completed post installation M&V (report attached).

- Project 2: Mt. Saint Mary Academy. Activities included:
 - Obtained the Service & Installation Agreement from client.
 - Completed project engineering for high efficiency lighting and controls.
 - Obtained Completed pre-build M&V (Note: LighTec did not charge this work to THE GHGERF because it was completed prior to G&C award.)
 - Completed project installation.
 - Completed post installation M&V (report attached).

Municipalities

- Project 1: Town of Wolfeboro (includes the Library, Public Works Garage, Pop Warner Ice Arena, Water Treatment Plant and Public Safety buildings) Activities included:
 - Obtained Service & Installation Agreement from client.
 - Completed project engineering for high efficiency lighting and controls.
 - Conducted pre-installation measurement and verification.

- Completed the installation of lighting energy efficiency installations.

Industrial Corporations

- Project 1: PCC Solutions. Activities included:
 - Obtained Service & Installation Agreement from client.
 - Completed project engineering for high efficiency lighting and controls.
 - Completed pre-build M&V.
 - Completed project installation.
 - Completed post installation M&V (report attached).

Task 3: Provide education and training to students, faculty and maintenance employees regarding the energy-efficiency projects taking place in their buildings. The training will help to empower individuals so they can make similar efficiency improvements in their homes.

Percentage Complete: 20%

- Project Manager's conducted project reviews with maintenance staff as a result of the commissioning process. We included a binder of product specification sheets so that the energy savings can be sustained.
- Researched existing energy efficiency curriculums and materials available through the U.S. Department of Energy and the U.S. Environmental Protection Agency.
- Began to develop training presentation for the Town of Wolfeboro. The training presentations are being developed as modules so that they are easily modified for each client.

4. Activities Anticipated for Next Reporting Period (December 1, 2009 – February 28, 2010):

Task 1: Perform investment-grade energy audits in three projects, analyzing all major energy-using equipment and systems and provide engineered recommendations to clients.

- Continue the Town of Merrimack building audits and begin writing the fuel blind energy audit report/s.
- Complete and deliver the final draft of the fuel blind energy audit reports for the Town of Wolfeboro and determine next steps toward implementation. The work track includes working with the Wolfeboro Local Energy Committee (LEC) towards ARRA funding for the THE GHGERF developed projects.
- Start developing the fuel blind energy audit report for Holy Cross Hall.

Task 2: Increase the energy efficiency of 13 educational facilities, 3 municipalities and 2 industrial corporations in New Hampshire

- Completion of post M&V for the Wolfeboro Water Treatment Plant.
- Issue GHGER fund payments to The New Hampton School, Mt. Saint Mary Academy, Town of Wolfeboro, and PCC Solutions Inc.
- Work on obtaining Service & Installation Agreements. Once obtained, conduct and/or review lighting audit and engineering specification/s; conduct pre-installation measurement and verification for the following projects:

- Educational
 - White Mountain Regional High School
 - Francistown Elementary School
 - Dublin Consolidated School
 - Greenfield Elementary School
 - Lancaster Elementary School
 - Moultonborough Academy
 - Moultonborough Central School
 - New England College
- Municipal
 - Wadleigh Library, Milford
 - Town of Tilton
- Industrial Corporations
 - North Star Direct Inc.
 - Excalibur Shelving motor efficiency project

Table 1: Energy Efficiency Projects¹

New Hampshire Client	Program Cost	GHGER Funds Requested	Program Participant Contribution	Estimated SBC Utility Rebate	Avg Monthly Demand Reductior (kW)	Annual Energy savings (kWh)	Tons of CO2 Reduced	% Carbon Reduction Goal
New Hampton School	\$ 33,725	\$ 13,750	\$ 19,975	\$ -	14	104,607	51.69	
Mount Saint Mary Academy	\$ 49,108	\$ 11,000	\$ 27,148	\$ 10,960	27	56,545	27.94	
Town of Wolfeboro	\$ 51,770	\$ 12,000	\$ 39,770	\$ -	27	69,756	34.47	
PCC Solutions Inc.	\$ 184,028	\$ 28,711	\$ 110,227	\$ 45,090	84	538,953	266.29	
Subtotal from Aug 19-Nov 30	\$ 318,630	\$ 65,461	\$ 197,119	\$ 56,050	152	769,861	380.38	
North Star Direct	\$ 32,727	\$ 6,103	\$ 17,594	\$ 9,030	23	90,669	44.80	
Excalibur	\$ 5,281	\$ 3,436	\$ 1,845	\$ -	-	5,772	2.85	
Subtotal from Dec1-Dec 31 20	\$ 38,008	\$ 9,539	\$ 19,439	\$ 9,030	23	96,441	47.65	
Grand Total	\$ 356,639	\$ 75,000	\$ 216,559	\$ 65,080	175	866,302	428.03	

¹ Please note that our program was divided into 2 phases, per Exhibit B. The first phase ends December 31st 2009 and reflects one third of the full scope proposed. The % Carbon reduction is based on a target of 274.75 tons of carbon.

Task 3: Provide education and training to students, faculty and maintenance employees regarding the energy-efficiency projects taking place in their buildings. The training will help to empower individuals so they can make similar efficiency improvements in their homes.

- Complete power point presentations and take home materials for adult and student audiences.
- Deliver presentations to The Town of Wolfeboro , The New Hampton School, Mt. Saint Mary Academy, and PCC Solutions.

5. Jobs Created:

- LighTec, Inc. hired Joe Corrone, full time, as a project manager.
- LighTec, Inc. hired Eric Doberstein, part time, as an outside technical sales person.

6. Obstacles Encountered or Milestones Not Reached:

- Core Utility SBC funds became unavailable during August of 2009. GHGER funds were intended to leverage these projects. The loss of SBC funding prevented projects from going forward. Projects affected include: White Mountain Regional HS, Lancaster, Dublin Consolidated, Francistown, Greenfield elementary Schools and New England College. We intend to continue working to close these projects as soon as SBC funds are re-instated in 2010.
- The effects of the world wide recession caused Segway Corporation to cancel their planned GHGERF Project. LighTec, Inc. pursued and sold PCC, avoiding more carbon in the process.
- The Wadleigh Library directors decided not to pursue energy efficiency this year. LighTec Inc. will approach the Wadleigh Library directors again in the new year if rejected we will pursue an alternative project.
- The following projects were listed in our original grant application, but sold prior to G&C grant award approval: Wilton Lyndeboro Middle High School, Town of Gorham, Town of Moultonborough, and the Excalibur Shelving Lighting efficiency project. LighTec replaced Excalibur lighting project with a motor project currently in process. There are several schools and towns that we are developing to replace the Wilton Lyndeboro Middle High School and the towns of Gorham and Moultonborough.

7. Beyond the Contract:

1. Please report other activities, partnerships, funding or other synergies that have occurred as a result of this funding.

- LighTec, Inc. developed a partnership with Paul Callahan, President of Lakes Region ThermalScan. Paul performs our building shell assessments and measures heat loss with blower door tests and thermal imaging. Paul performed the thermal scans for Wolfeboro, and we were very satisfied with his work.
- LighTec, Inc. also developed a partnership with George St. Amand, owner of Industrial Controls. George performs detailed audits for the HVAC and controls component of our fuel blind audits outlining energy efficient and practical "go to" measures for existing conditions.
- We are working closely with the Local Energy Committees in Wolfeboro, Tamworth, New London and Hollis as well as municipalities such as Grantham, Merrimack, Bedford and

Gilmanon to perform fuel blind audits and promote GHGER funding either through their own grant application or using our grant to offset costs.

2. *If applicable, please include brochures, workshop announcements, or other materials developed to promote your grant activities. Attachments (and other documentation) are appreciated.*

- See attached .pdf Files.

3. *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.)*

- See attached spreadsheet.

Date: _____

Initials: _____