

## **Quarterly Report: Walpole Building Retrofits**

Greenhouse Gas Emissions Reduction Fund

Andrew Dey, for the TriVillage Energy Committee

June 1, 2010

1. Program Title: **Weatherizing and Insulating Two Walpole Town Buildings**
2. Program Type: **Weatherization of New Hampshire commercial building stock**
3. **Summary of Work Completed** from 1Feb10 through 30Apr10:

### **Task 1. Initial Project Planning**

Percentage complete: 100%

The planning work is essentially complete, although we anticipate making minor tweaks to the specifications and details as work progresses.

Tasks Completed:

- Development of plan to upgrade HVAC system in town hall, working with mechanical engineer and HVAC subcontractor
- Continued refinement of plans for insulating and air sealing both buildings, in collaboration with relevant contractors

### **Task 2: Retrofit the Walpole Town Hall**

Percentage complete: 35%

Tasks Completed:

- Air-sealed and insulated attic and walls of town hall

Notes:

The existing cellulose insulation in the attic was relocated to allow the ceiling to be air-sealed. The air-sealing was achieved by spraying a +/- 1" layer of closed cell polyurethane foam on top of the plaster and lath ceiling, and around all penetrations. Thermal bypasses such as chimneys were also air-sealed.

Cellulose insulation was dense-packed in the exterior walls as far as was feasible from the attic space. The cellulose that had been in the attic was reallocated, and additional cellulose was added. The finished attic installation has an R-value of approximately R-50.

**Task 3: Retrofit the North Walpole Municipal Building**

Percentage complete: 20%

**Tasks Completed:**

- Installation of exterior foam insulation has begun

**Notes:**

The exterior of this concrete block building is being enclosed in an insulating skin of extruded polystyrene foam insulation. Strapping is being installed vertically over the foam to help hold it in place, to allow for ventilation behind the siding, and to provide nailers for the siding. This work is well underway.

**Task 4: Site visits to Monitor Progress**

The project manager, Andrew Dey, is in steady communication with town officials and the contractors to ensure that the work is being done with minimal disruption to town services, and to a high level of quality.

**Task 5: Build Community Awareness**

Updates about the progress of these energy upgrades are part of each monthly meeting of the TriVillage Energy Committee, and the minutes from these meetings are posted in several places in town.

The town-wide presentation about the work is now being planned for September. At that time, most of the work will be complete, and townspeople are more likely to be focused on making their own homes more energy efficient for the coming heating season.

**4. Work to be Completed 1May10 – 31Jul10****Task 1. Initial Project Planning**

The project planning phase is complete.

**Task 2: Retrofit the Walpole Town Hall**

Insulation and air sealing of the entire building (including the basement) will likely be completed during this period. Upgrades to the mechanical system should be well along.

**Task 3: Retrofit the North Walpole Municipal Building**

Installation of the exterior insulation and siding, as well as several new windows, will be completed during this period.

**Task 4: Site visits to Monitor Progress**

Site visits by the project manager will be ongoing as work progresses.

**Task 5: Build Community Awareness**

The TriVillage energy committee will continue to keep townspeople apprised of progress.

**5. Jobs Created**

A considerable amount of work is being funded by this grant. A spreadsheet accompanying this report summarizes hours of work for the various completed tasks.

**6. Obstacles Encountered and Milestones Not Reached**

Scheduling the air-sealing and insulation of the town hall has been challenging due to the other activities that take place in the town hall, including meetings, plays, celebrations and other events. With facilitation by the project manager, the contractors have been able to schedule their work to minimize inconveniences to the town, but this accommodation of the town's needs has slowed the work.

Cladding the exterior of the North Walpole building with insulation has required addressing all of the penetrations (pipes, wires, etc.) into the building, as well as those items such as lighting and signage that are attached to the outside of the building. While not complicated, dealing with these items has required additional coordination.

**7. Beyond the Contract**

In the last report, we indicated that the TriVillage Energy Committee, inspired by the RGGI grant, had applied for EECBG funds to conduct energy audits of the three schools in town. The TriVillage Energy Committee is pleased to report that the Town of Walpole has been awarded the requested EECBG funds for energy audits of the schools.

**8. Brochures, Announcements, etc.**

The TriVillage Energy Committee has not yet created announcements or brochures relating to the retrofit work.

## 9. Budget vs. Actual Expenditures

See the attached Budget dated 1Jun10, "Actual vs Estimated."

This budget contains the following minor adjustments:

- A line item for Mechanical Engineering is added to "Pre-construction Planning." This additional cost is covered by excess funds from the planning budgets for Energy Auditor and Retrofit Specialist, and by \$430 from the HVAC budget for the Town Hall. The total project cost remains the same.
- The categories and budgeted amounts for "air sealing" and "insulation" have been combined for the Town Hall and the North Walpole Building. The air sealing and insulation is being done by the same contractors, and it is difficult to separate for billing. This change does not affect the total funds allocated to these categories.

We anticipate submitting a revised budget once the air sealing and insulation are complete at the Town Hall and North Walpole Building. The revised budget will propose to shift the allocation of some funds from mechanical system upgrades to air sealing and insulation. These adjustments are being recommended by the project consultants.