GREENHOUSE GAS EMISSIONS REDUCTION FUND Final Project Report Form Plymouth Area Renewable Energy Initiative January 7, 2010

1. Program Title:

PAREI Solar Energy Raiser Expansion & Weatherization Pilot Program

2. Program Type:

1. Energy audits; (Weatherization Pilot)

2. Weatherization of NH residential housing stock; (Weatherization Pilot)

3. Energy efficiency work force training and development; (Weatherization Pilot)

8. Improve the electric and thermal energy efficiency of existing residences;

(Solar hot water (with existing electric hot water) and Weatherization Pilot)

9. Programs to foster the retrofitting of highly efficient and affordable housing; (Solar hot water and Weatherization Pilot)

10. Education, outreach and information programs that promote energy efficiency and conservation to reduce greenhouse gas emissions generated within NH. (Solar hot water and Weatherization Pilot)

3. Summary of work completed through the duration of the grant.

Provide a summary of activities relevant to this grant using Exhibit A of your contract as an outline.

<u>1) Solar Energy Raiser Expansion</u>: Conduct at least three Energy Raiser Trainings for NH communities outside the Plymouth Region. 100% Completed

A. For each task, please explain the work performed.

The RGGI Funded Solar Energy Raiser Expansion project allowed PAREI to respond to three communities in Portsmouth, Canterbury and Conway seeking to start up an Energy Raiser team in their community. PAREI staff worked with volunteers in each community to coordinate and conduct five Energy Raisers resulting in a solar thermal installation on five NH homes totaling an energy reduction of 78 million BTUs or more per year. Homeowners paid for \$23,500 in equipment for these installations – all of which would not have been undertaken if it wasn't for the assistance received from this RGGI funded grant.

The work performed for each Energy Raiser included a site assessment, project estimate, rebate applications, energy raiser planning session, set up session and the day of Energy Raiser on – site training as well as many hours spent communicating with homeowners and ER team leaders.

- *B. Discuss any benefit your activities may have had for low income residents.* All PAREI events are free and open to the public so all residents have the opportunity to participate and learn from each Solar Energy Raiser.
- C. Note any problems or delays. None
- D. Note any deviation from the work-plan. The original plan was to assist the Laconia community with developing an Energy Raiser team but their volunteer group fizzled. Conway area volunteers put together an Energy Raiser team with several plumbers, contractors and administrative help from the Tin Mtn Conservation Center. The Conway team was better positioned to start an Energy Raiser team. They have organized themselves as the Tin Mtn Renewable Energy Initiative and are currently holding winter meetings to prepare for their upcoming Spring Energy Raisers.

2) Solar Energy Raiser Expansion: Conduct at least one Energy Raiser Training for a non-profit organization utilizing a mixture of PAREI volunteers and the organization's volunteers. 100% Completed (AMC Lodge in Alexandria, NH)

A. For each task, please explain the work performed.

The RGGI Funded Solar Energy Raiser Expansion project allowed PAREI to respond to the Appalachian Mountain Club's desire to pursue a solar thermal energy installation at the Cardigan Mtn Lodge in Alexandria, NH for the purpose of on-going public education and to reduce their carbon footprint. PAREI worked with AMC staff to conduct a Solar Energy Raiser and public information session resulting in two solar thermal collectors installed on the Lodge saving over 21 million BTUs a year. The AMC invested over \$13,000 into this installation purchasing supplies from the local plumbing warehouse in Bristol. Due to the success of this project and the experience gained by AMC facility staff, the AMC went on to install four solar collectors on the Joe Dodge Lodge in Pinkham Notch resulting in a saving of over 42 million BTUs a year.

The work performed for each Energy Raiser included a site assessment, project estimate, rebate application preparation, energy raiser planning session, set up session and the day of Energy Raiser on – site training as well as many hours spent communicating with AMC staff and ER team leaders.

- *B. Discuss any benefit your activities may have had for low income residents.* All PAREI events are free and open to the public so all residents have the opportunity to participate and learn from each solar energy raiser.
- C. Note any problems or delays. None
- D. Note any deviation from the work-plan None

<u>3) Solar Energy Raiser Expansion</u>: Conduct one energy raiser at the home of a low income family covering the majority of the equipment costs. (*Habitat Home in Rumney*) 100% completed

A. For each task, please explain the work performed. The RGGI Funded Solar Energy Raiser Expansion project allowed PAREI to complete their existing goal of working with a Habitat for Humanity Homeowner and volunteers to conduct a Solar Water Heating Energy Raiser. Due to the added assistance from this grant, on April 17, 2010, we completed our goal of installing an Evacuated Tube Solar Water Heating Collector on a Habitat Home in Rumney, NH. Equipment costs were covered in part through this grant, a NH Charitable Foundation grant, NH Electric Coop rebate and through financial donations by PAREI members and suppliers. Fifteen volunteers participated in the Energy Raiser and eight community members attended the on-site Solar Information Session*. Inspired by this information session, one attendee completed a professional solar installation in July of 2010 in Alexandria. These two solar installations resulted in a savings of 10 million BTUS. (*Offering noon time public information sessions at PAREI Energy Raisers allows the public to see first hand how solar energy can be incorporated into anyone's home energy plan. These Info Sessions, that include an educational component about Peak Oil, have played an instrumental part in building momentum for solar energy in our community.)

- *B.* Discuss any benefit your activities may have had for low income residents. PAREI embraced the Habitat for Humanity effort in the Plymouth area and included two new Habitat builds in their GHGER goals. (See above)
- C. Note any problems or delays. None
- D. Note any deviation from the work-plan None

4) Solar Energy Raiser Expansion: Conduct five energy raisers above and beyond the planned raisers for 2009 within NH 100% completed

- A. For each task, please explain the work performed. The RGGI Funded Solar Energy Raiser Expansion project allowed PAREI to respond to the increasing need to conduct more Solar Energy Raisers around the Central NH community and to conduct them at facilities we don't normally have the resources to undertake. Through the use of \$6000 of RGGI grant money we were able to coordinate <u>five additional Energy Raisers</u> over the course of one year. These five projects/installations resulted in local equipment purchasing of over \$33,000 and savings of 89 million BTUs a year. **The following solar installations would not have happened without the support from this grant**:
 - *a.* A Residential Ground Mount 30 tube Solar Installation in Tilton, NH where we had the added support from a grant from 3M;
 - *b.* A Residential Wall Mounted 90 tube solar installation in Sandwich, NH organized specifically to give plumbers and contractors hands on experience with a solar installation that is integrated into a radiant floor heating system;
 - c. A Solar PV panel at the Plymouth Riverside Park Pavilion specifically organized to spark interest among town officials and employees about the benefits of budget savings from solar installations. This panel was the first to be installed on municipal property and serves as a visible reminder to the public that the town believes in solar energy. The equipment costs for this project were partially funded by the Meredith Village Savings Bank.

- A Private School Roof Mounted 60 tube solar installation in New Hampton, NH used as a semester long project by the Science Department specifically organized by interested faculty to introduce students, faculty, facility service crew and the Board of Trustees to the benefits solar energy could have for their campus. A video taken of this project was publicized and available on the schools websites for months following the installation;
- *e.* A State University Roof Mounted 60 tube solar installation in Plymouth, NH used as a semester long project by the Center for the Environment staff and faculty to teach students how to design and install a solar water heating system. The equipment costs for this project totaled \$7758.
- *B. Discuss any benefit your activities may have had for low income residents.* All PAREI events are free and open to the public so all residents have the opportunity to participate and learn from each solar energy
- C. Note any problems or delays. None
- D. Note any deviation from the work-plan None

5) Solar Energy Raiser Expansion: Conduct at least six solar water heating info sessions outside the Plymouth Region and six more within the Plymouth, Sandwich and Laconia area (12 total) 100% completed

- A. For each task, please explain the work performed. The RGGI Funded Solar Energy Raiser Expansion project allowed PAREI to increase the number of solar information session conducted around the state for the public. The Solar information sessions were held in the following communities in New Hampshire: Tilton, Tamworth, Conway, PSU campus, New Hampton School Campus, AMC Lodge in Alexandria, Habitat Home in Rumney, Sandwich, Thornton, Bridgewater, Portsmouth and Canterbury. Solar information sessions consist of a 45 minute presentation on how solar water heating works, its components, types of collectors and tanks, environmental and economic benefits, peak oil primer and rebates/incentives for installing a solar system. The session includes a tour of an existing solar installation or one that is currently being installed at an Energy Raiser. The session also includes a detailed question and answer period so homeowners can explore what it would take to undertake an installation on their own home.
- *B. Discuss any benefit your activities may have had for low income residents.* A solar water information session was conducted at the site of a Habitat for Humanity build in Rumney, NH. All solar information sessions are free and open to the public.
- C. Note any problems or delays. None
- D. Note any deviation from the work-plan None

<u>6) Solar Energy Raiser Expansion</u>: Promote the use of the PAREI Tool Kit via conference attendance, special presentations, advertisements, media 100% completed

A. For each task, please explain the work performed. The RGGI Funded Solar Energy Raiser Expansion project allowed PAREI to spend more time "on the road" promoting the PAREI model and the benefits of solar energy to the general public. We spoke to residents interested in PAREI and its work in Bedford, Bethlehem, Canterbury, Conway, Henniker, Plymouth and New Hampton. We had a display at the NHSEA Home Energy Conference in 2009 as well as the Plymouth Elementary School Green Fair. We produced two print and video press releases for the Plymouth State University Energy Raiser and the New Hampton School Energy Raiser resulting in two articles in the <u>Laconia Evening Citizen</u>.

- B. Note any problems or delays. None
- C. Note any deviation from the work-plan None

7) Weatherization Services Skill Development – Staff & Contractors: Purchase thermal scanner and blower door tester. Attend certifiable training and/or classroom training with certified instructors hired by PAREI. Media recorded. 100% completed

- A. For each task, please explain the work performed. The RGGI Funded Solar Energy Raiser Expansion and Weatherization Skills Development project allowed PAREI to train new employees and area contractors to become BPI Building Anaylsts improving the community's ability to respond to the new energy economy and assisting NH workers with re-tooling their services. Seven individuals including a certified plumber, attended a week-long classroom training and one full day of field demonstrations conducted by BPI certified instructors. Careful research was conducted by these individuals on which equipment to purchase. The RGGI funded project allowed us to purchase energy audit equipment including a blower door tester and infrared camera.
- B. Discuss any benefit your activities may have had for low income residents. Students in this training committed to participating in two air sealing and insulating Housewarmings to be conducted at the two Habitat for Humanity builds in Rumney, NH. Prior to that happening, PAREI consulted with Habitat early on introducing them to the concepts of Energy Star certified home building.
- *C. Note any problems or delays.* One thing we learned was careful screening and references should be obtained prior to hiring a BPI certified instructor. Lack of experience by the instructor chosen reduced the quality of the week-long training program. PAREI recommends entities and individuals seeking energy training utilize programs and instructors through NH's community college system.
- D. Note any deviation from the work-plan: None

<u>8) Weatherization Services Skill Development – Public</u>: Conduct at least five Classroom and on-site trainings for volunteers and Housewarming participants by PAREI staff and contractors with media recording. Develop WER volunteer training materials. 100% completed

A. For each task, please explain the work performed. The RGGI Funded Solar Energy Raiser Expansion and Weatherization Skills Development project allowed PAREI to conduct six on-site trainings (42 people in total attended) that educated homeowners and contractors on the following areas:

- 1. Chimney Balloon Demonstration and Installation
- 2. Air sealing attic space prior to insulating
- 3. Window weight removal, air sealing and re-framing
- 4. Basement air sealing including two part foam application and insulating rim boxes with rigid foam
- 5. Heating and domestic water pipe insulating
- 6. Air to water heat exchanger for domestic water systems

B. Discuss any benefit your activities may have had for low income residents. The attic air sealing training and demonstration took place at a Habitat for Humanity house and these same volunteers went on to take part in volunteering for Habitat at several

additional work sessions to help them to complete the air sealing and insulating portion of their work.

C. Note any problems or delays. 1) We were able to use a small amount of funds from this grant for media recording but did not include enough funding to film consistently or edit and create training videos from this footage. 2) The amount of volunteers eager to participate in weatherization trainings and installations did not match up with the high numbers interested in learning about and participating in solar installations. It took more personal outreach (vs. a simple e-mail blast) to get folks to sign up and attend a weatherization skill on-site training/hands-on demonstration.

D. Note any deviation from the work-plan. None

<u>9) Weatherization Energy Raiser (Housewarming) Pilot Program</u>: PAREI staff and/or contractors conduct weatherization testing and produce reports for no fewer than ten homes. Estimate project costs for homeowners. 100% completed

- A. For each task, please explain the work performed. The RGGI Funded Solar Energy Raiser Expansion and Weatherization Skills Development project allowed the Plymouth area community to partake in 33 (the goal was 10) complimentary energy audits while PAREI's new employees and contractors got up to speed on conducting energy audits. These audits generated the homeowners for PAREI's 10 Housewarmings (formerly called Weatherization Energy Raisers) as well as six participants in NHEC's Home Performance with Energy Star program. These audits also spurred on the completion of dozens of do-it-yourself weatherization measures.
- *B. Discuss any benefit your activities may have had for low income residents.* Several low income homes took part in the complimentary Auditor in Training house audits.
- *C. Note any problems or delays.* Estimating project costs for weatherization measures, we learned, is an on-going challenge for the building science field. PAREI examined several auditing software options exploring the best route to take to complete this task.
- D. Note any deviation from the work-plan None

<u>10) Weatherization Energy Raiser (Housewarming) Pilot Program</u>: Once ten families are recruited for the WER program – Begin and complete weatherization work via the volunteer WER on at least ten homes. 100% completed

- A. For each task, please explain the work performed. The RGGI Funded Solar Energy Raiser Expansion and Weatherization Skills Development project allowed PAREI to transfer the concepts of our volunteer Solar Raisers to weatherizing homes. We named these events Housewarmings and conducted energy saving measures ranging from Chimney Balloon installation to insulating walls with dense packed cellulose at 10 New Hampshire homes over the course of less than one year. Several homeowners who participated in the Housewarming and the Energy Audits while our crew was in training pursued the NH Electric Coop's Home Performance with Energy Star program as well. The 10 Housewarmings coordinated by PAREI were:
 - Installation of two Chimney Balloons in Ashland Home
 - Installation of Astrofoil and two part foam in Campton Home
 - Installation of insulation in the Window Weight Cavities in five windows in old home in Plymouth

- Installation of Extruded Polystyrene and two part foam in Rim Boxes in the basement of an Holderness Home
- Installation of Extruded Polystytrene in Knee Walls in old Holderness Farmhouse
- Installation of cellulose insulation increasing the planned attic insulation from R25 to R60 in a Habitat for Humanity Home in Rumney, NH
- Installation of a <u>Air to Water Heat Pump</u> and pipe wrap on basement pipes at home in Meredith, NH. One week following the installation of the AirTap, the electricity draw dropped from 26KWH (a Kill-0-Watt was used on site) to 12.6KWH.
- Chimney Balloon Installation, Ellsworth, NH and Ashland NH –PAREI volunteers and interested tradespeople assisted with air sealing windows and installing chimney balloons in two farmhouses with several unused chimneys.
- Dense Pack Cellulose Insulation, Plymouth, NH Several contractors and interested homeowners assisted with blowing in 12 bails of cellulose into the wall sections of a newly renovated room. The new exterior walls which included a layer of 1" rigid foam will have an R value of 39. The wall framing used an isolated stud framing to prevent thermal bridging.
- <u>NH Made Interior Storm Windows, Wentworth, NH</u>
 Installation of 16 Warmer Windows in a Farmhouse built in 1762, coordinated by Brown Dog Woodworking in Wentworth NH
- B. The work performed to conduct a Housewarming includes an 1) Energy Audit, 2) Homeowner Follow Up Session to discuss prioritizing measures, 2) Recruit contractor to plan for and oversee the measure's implementation, 3) Recruit volunteers, 4) Train volunteers on the measure being installed, 5) Conducting the housewarming in one, two or three sessions depending on the task, and 6) following up with homeowner on the results of the project.
- *C. Discuss any benefit your activities may have had for low income residents.* See Housewarming project specifically organized for a Habitat for Humanity home.
- *D. Note any problems or delays.* It was challenging to get participants to fill out and return their Fuel release forms -- some due to forgetting and others not being comfortable with giving permission to an entity they were not familiar with.
- *E. Note any deviation from the work-plan* We changed the term Weatherization Energy Raiser to Housewarming. A significant change in the plan was NHEC grant for \$10,000 to cover material costs for the Housewarmings. This is a crucial component in order to get homeowners to sign on to the Housewarming

concept that includes not only hosting volunteers and trainees in your home but also volunteering on other homeowners' projects.

<u>11) Weatherization Energy Raiser (WER) Pilot Program</u>: Conduct one WER low income household including covering material costs 100% completed

- A. For each task, please explain the work performed. The RGGI Funded Solar Energy Raiser Expansion and Weatherization Skills Development project allowed PAREI to assist Habitat Builders and volunteers with an air sealing and insulating project on two Habitat for Humanity homes.
 - <u>Habitat House #1</u>: Successfully conducted one Housewarming at one low income household. Over ten people spent over 140 hours planning for and implementing the weatherization of a Habitat for Humanity home. PAREI's recently trained Energy Analysts coordinated the Whole House as a System approach to weatherization.
 - □ In addition to the above the team installed a Heat Recovery Ventilator (HRV). This HRV exhausts stale air from the house and exchanges it with fresh air from outside. During the exchange process 70% of the heat is transferred to the incoming air. Details of this overall project are explained in an attached case study.
 - b. <u>Habitat Home #2</u> Cellulose Insulation Installation on July, 2, 2010. PAREI volunteers assisted with installing cellulose insulation increasing the planned attic insulation from R25 to R60. PAREI consulted with Habitat Contractors in the design stage of the building project helping them decide on the plan for air and thermal barriers, improving site and construction details that historically are weak areas in traditional construction, review Energy Star requirements and made recommendations on air exhaust fans and energy efficient appliances. This consultation resulted in not only the increased attic insulation but an increased outside wall insulation from R19 to R24 and the addition of 2" foam insulation under the concrete slab.

B Discuss any benefit your activities may have had for low income residents. This project was designed to specifically assist two low income families. See above. C Note any problems or delays. None D. Note any deviation from the work-plan None

1. Summarize the overall project completed.

With the support of a \$99,250 grant from the GHGER Fund, the Plymouth Area Renewable Energy Initiative coordinated 12 Solar Energy Raisers across the state of New Hampshire saving 251 million BTUs annually leveraging over \$72,000 in private solar and plumbing equipment sales. This same grant also funded a training opportunity for new employees and contractors resulting in 7 BPI trained building analysts, 33 subsidized energy audits for the public and 10 Housewarmings where over \$45,000 in weatherization measures were implemented by homeowners, volunteers and NH Electric Coop's Home Performance with Energy Star program. More specifically this grant made the following possible:

- Installed solar collectors at 12 different sites across New Hampshire through a volunteer Energy Raiser process (where equipment costs were covered by the homeowner or facility) producing over 251 million BTUS annually from the sun.
- Responded to three communities in Portsmouth, Canterbury and Conway seeking training so they could start up an Energy Raiser team in their community resulting in five Community Volunteer Energy Raisers.
- Transferred the concepts of installing solar through a volunteer Solar Energy Raiser process to weatherizing homes through a volunteer Housewarming event resulting in 10 Housewarmings that took place in 2009 in homes ranging from Wentworth to Ashland to Meredith, NH.
- Responded to the Appalachian Mountain Club's desire to pursue a solar thermal energy installation at the Cardigan Mtn Lodge in Alexandria, NH for the purpose of on-going public education and to reduce their carbon footprint. This effort resulted in the installation of six evacuated tube solar thermal collectors at two AMC facilities.
- Completed the existing goal of working with a Habitat for Humanity Homeowner and volunteers to conduct a Solar Water Heating Energy Raiser on a Habitat Home.
- Responded to the increasing need to conduct more Solar Energy Raisers around the Central NH community and to conduct them at facilities where PAREI wouldn't normally have the resources to undertake resulting in five solar installations in two schools, one public park and two homes.
- Conducted 12 public solar information sessions around the state increasing the public's familiarity with the benefits of solar energy.
- Spent more time "on the road" promoting the PAREI model and the benefits of solar energy to the general public at school events, energy fairs and conferences.
- Trained new employees and area contractors (7) to become BPI Building Anaylsts improving the Plymouth area community's ability to respond to the new energy economy and assisting NH workers with re-tooling their services.
- Hired one part-time Energy Solutions Manager and three as-needed Energy Auditors.
- Conducted six on-site trainings (42 people in total attended) that educated homeowners and contractors on weatherization measures
- Conducted two Button Up presentations for the general public (24 attended).
- Offered the Plymouth area community 33 (the goal was 10) subsidized energy audits while PAREI's new employees and contractors got up to speed on conducting energy audits resulting in the implementation of countless professional and do-it-yourself weatherization measures.
- Assisted Habitat for Humanity Builders and volunteers with construction design consultation and air sealing and insulating projects at two Habitat for Humanity homes in Rumney, NH.

2. Please document any jobs created.

The RGGI Funded Solar Energy Raiser Expansion and Weatherization Skills Development project allowed PAREI to hire one 20 hour a week Energy Solutions Manager as well as three energy auditors that worked on an "as needed" basis. All these positions are still in tact following the completion of this funding. Several local tradespeople including an electrician, builder, woodworker, solar entrepreneur were hired to participate in this project on several occasions. One contractor that received training through this program said, "If it wasn't for taking part in this housewarming project, I would have never realized the market there is for producing wooden hand-built interior 'storm' windows in my woodshop."

3. Explain any obstacles encountered or any milestones not reached.

<u>We successfully reached each of our goals.</u> Our goals were embraced by hundreds of people in the Plymouth area community and throughout the state of NH. Never did we have a problem identifying entities to participate in our trainings, audits, energy raisers or housewarmings. The work accomplished through this grant has created unstoppable momentum. We have discovered that many people have a sincere and thriving interest in their energy use and how to use it wisely. This momentum is created when one person shares their actions and their results with another person. We urge the Public Utilities Commission to use GHGER funds to run community level energy initiatives. They are contagious, they support local economic and job development and build community in a way that people yearn to be part of. Thank you for offering us this opportunity to improve our energy related services and we look forward to the continuation of the concepts developed through this grant.

Concerning obstacles encountered, through this work it became apparent that it requires more education and real life examples of benefits to motivate homeowners to undertake weatherization measures. We also found that stable oil and energy prices slows the public's motivation to address their home's energy consumption issues. We anticipate, now with gas over \$3.00 a gallon, we will see an increased interest in the coming months.

Another obstacle we encountered was engaging young families with children. The majority of homeowners interested in taking part in energy audits and weatherization measures through our project were: Couples with no children, Soon to retire couples or families in retirement. We found that families with children were harder to engage due to a tighter family budget and their already busy schedules and the disruption that weatherization projects create in one's home schedule.

4. If applicable, in a section labeled *Beyond the Contract* (or some other well defined title), please report other activities, partnerships, funding or other synergies that have occurred as a result of this funding.

The RGGI Funded Solar Energy Raiser Expansion and Weatherization Skills Development project allowed PAREI to begin or strengthen partnerships with:

- 1) Appalachian Mtn Club in Alexandria, NH
- 2) The Tin Mtn Conservation Center in Conway, NH
- 3) Energy Action NH in Canterbury, NH
- 4) Lakes Region Community College in Laconia, NH
- 5) Habitat for Humanity. The lead builder from Habitat for Humanity attended PAREI's 2010 annual meeting this past November and spoke to the membership about how much their chapter of Habitat for Humanity learned from PAREI's participation in their two builds over the course of the last year. He praised PAREI for teaching them about how to build an energy efficient home and thanked PAREI for all of their consultation and hands on volunteerism. One of the Habitat's lead

builders went on to become a BPI Building Analyst via LRCC's energy auditor training that took place in Plymouth this past September and October.

- 6) NH Public Utilities Commission. Until our partnership on this RGGI funded project, from our limited perspective, NHPUC had always been a regulatory agency with few arms into the community. This project helped PAREI gain a better understanding of the PUC's role in the energy community, the behind the scene work it does for consumers and overall the importance of their work for NH residents.
- 5. If applicable, please include brochures, pictures, announcements, or other materials developed to promote your grant activities. Attachments (and other documentation) are appreciated.

Throughout this project we have shared photos and press coverage with folks at NH PUC.

PAREI is preparing a PowerPoint presentation for the EESE Board's meeting in February summarizing the work completed through our RGGI grant. This will include video snippets, photos and data on each of the grant tasks. We will make it available to the PUC following the presentation.

- 6. Budget vs. Actual Expenditures: Using the budget you submitted for the final approved grant proposal, please add a column and provide actual expenditures as well as match dollars to show how funding was spent. Submitted earlier
- 7. Based on the results of your project, what additional steps are you now taking that you would have not otherwise taken had you not received the grant? Please be specific and provide details.
 - We have trained staff of energy auditors able to respond to the community's need for these services and to provide experienced mentors to help train new auditors. Due to the auditing equipment purchase, we are able to rent or loan the equipment to auditors outside of PAREI in need of equipment.
 - Heating, Electrical and Building Contractors are more educated on solar energy and green building boosting their employability in the new energy economy.
 - We now have a structure and process for conducting housewarming. We had one the week after our grant ended and plan to continue them with the support of our project with Lakes Region Community College Efficiency Training Program.
 - New working relationship with three new communities who we will continue to provide support to to insure their success with future Energy Raisers.
 - □ With 12 more solar installations across the state there are more solar and energy conservation ambassadors spreading the word of their successful effort.
 - □ Due to this grant we now have a system in place to work with non-profits and schools to conduct energy raisers where before we only offered it to

residential settings. It's a different process because you have a ready volunteer force within the school or organization.

- More people in NH are familiar with our activities and have a new resource to refer to for learning about solar energy and energy conservation and to attend hands – on related events.
- Due to the above exposure we now offer Out of Area site visits for any NH homeowner who wants to explore the feasibility of solar on their home and wants assistance with generating a solar feasibility report for their home.
- Due to the activities of this grant we have a working relationship with the Appalachian Mountain Club and hope to take part in future solar installations with them as well as Plymouth State University and the New Hampton School. The New Hampton School has already expressed interest in wanting to host another Solar Energy Raiser on campus in 2011.
- 8. If you plan any press activities to announce your project, we would greatly appreciate the opportunity to attend.

We conducted press activities throughout the project but do not have plans for an end of project press activity.