



March 23, 2009

Jack Ruderman
Director, Sustainable Energy Division, Public Utilities Commission
21 South Fruit Street, Suite 10
Concord, NH 03301

Dear Mr. Ruderman:

Plymouth Area Renewable Energy Initiative (PAREI) is pleased to respond to the New Hampshire Public Utilities Commission's GHGER RFP with our proposal for "PAREI Solar Energy Raiser Expansion & Weatherization Pilot Program". We are confident our program, when implemented, will contribute to the success of many of the goals outlined in the RFP.

Our proposal is based on our successful Energy Raiser events. In communities throughout central NH, volunteers have come together to install renewable energy systems on each others homes. This proposal will help us provide Energy Raiser training to three more communities in New Hampshire that are currently working on starting their own effort as well as seven additional energy raiser in the Plymouth region. We also propose to develop a new Weatherization Energy Raiser to introduce NH residents to the benefits of professional home energy audits and insulation and air sealing techniques as well as the benefits that come from working together as neighbors to accomplish energy goals. The scope of our proposal fits well with our organizations capabilities and those of our partners. If funded we are prepared to begin our Pilot program immediately and to complete it within ten to sixteen months.

The details of our proposal are contained in the attached documents. Once completed, the program will have reduced greenhouse gas emissions in NH. We will have installed ten solar hot water systems, weatherized ten homes, educated over 30 volunteers and trades people, and spread the word to hundreds more who attend information sessions conducted at each Energy Raiser.

Please feel free to contact me if you have any questions regarding our proposal. I look forward to hearing from you in the near future.

Sincerely,
Sandra Jones
Sandra Jones
Co-Director

PAREI & Weatherization Pilot Program

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March 22, 2009

1) Cover Pages

1.1 Title: PAREI Solar Energy Raiser Expansion & Weatherization Pilot Program

1.2 Our proposed program expands PAREI's successful offerings that promote energy conservation, efficiency and renewable energies in the Plymouth region through education, community building and an increased accessibility to renewable energy. We take a pragmatic approach by encouraging people to actively prepare for their energy future. With the funding of this proposal PAREI would expand our current Solar Hot Water Energy Raiser installations and begin a full range of Weatherization Energy Raiser services. This expansion and addition includes the key component of educating the public on the benefits of solar hot water systems and weatherization testing and improvements. (Energy Raiser: description in the Additional Information section.)

Our proposed program fits into the follow categories. (As numbered in the RFP.)

- 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)

1.3 Program Summary

PAREI Solar Energy Raiser Expansion & Weatherization Pilot Program expands our current offerings and adds the whole house weatherization component to our Energy Raiser options. The expansion of PAREI's existing Solar Energy Raiser program is accomplished by doubling our planned installations. Three of these Energy Raisers will take place in new communities currently seeking to start their own groups. The new weatherization component of our Program includes planning how to best conduct Weatherization Energy Raisers, the purchase and use of a Blower Door, an Infrared camera, and related equipment and services. The key component of our new Program is to further educate the public on the benefits of solar hot water systems and weatherization testing and improvements. It has been our experience that this hands on education helps transform the market demand for energy saving and renewable energy services.

1.4 Low Income Residential Customer Qualification.

Our program will, in part, serve low income residential homeowners pursuant to PUC 2603.1. Ten percent of our solar hot water and weatherization installations are planned for low income residences. PAREI has a track record of attracting low income residents. Recently we completed a professional installation of a solar hot water system at The Bridge House homeless shelter and will be organizing a Solar Energy Raiser for a Habitat for Humanity home this Spring.

1.5 Identification of Applicant Organization

Plymouth Area Renewable Energy Initiative (PAREI) is a Non-Profit 501C(3) Corporation. We were incorporated on February 26, 2004 and assigned business ID: 465591 and Federal EIN: 20-0789969. Our main office is at 69 Main Street Plymouth, NH 03264. Our mailing address is P.O. Box 753 Plymouth, NH 03264. Our main contact information is: Co-Director Sandra Jones (603) 536-5030 sandra@plymouthenergy.org www.plymouthenergy.org

1.6 Identification of Subcontractors and Partners

In addition to PAREI staff and volunteers we intend to subcontract or partner with the following people and organizations.

- a. GDS Associates 1181 Elm Street, Suite 205 Manchester, NH 03101 800-437-4495 Contact: Scott Albert, Principal scott.albert@gdsassociates.com
- b. Building Energy Technologies, LLC 10 Dunklee Rd., Suite 36 Bow, NH 03304 603-724-7849 Don LaTourette and 603-724-4977 Andy Duncan owners contact@buildingenergytechnologies.com

1.7 Authorized Negotiators

PAREI's Co-Director Sandra Jones, at sandra@plymouthenergy.org, or Bob Reals, at reals48@msn.com, or another PAREI designee, all (603) 536-5030, are the primary persons authorized to negotiate all aspects of the proposed grant.

1.8 Projected Energy Savings

-Ten Solar Water Heating installations, each saving 175 gallons of oil a year, will save 1,750 gallons of oil annually. With a 20 year projected life of installation the projected lifetime savings will be 35,000 gallons of oil.

-Ten Home Weatherization (Shell Measures) of oil heated homes, each saving 200 gallons of oil a year, will save 2,000 gallons annually. (20% savings on average use of 1,000 gallons per year.) With a 25 year projected life of installation the projected lifetime savings will be 40,000 gallons of oil.

-Five refrigerator replacements @ 440 kWh a year = 2,200 kWh saved annually. When applicable, additional oil/electric savings will be generated from electric heat and/or hot water savings and upgrades to lighting and other appliances. Indirect savings are expected from the 30+ newly educated consumers who may take actions to reduce their homes' energy use based on weatherization training.

1.9 Projected Greenhouse Gas Emissions Reductions

75,000 gallons of oil savings and 2.2 MWh of electricity savings equal 1,682,391 lbs of greenhouse gas reductions.

1.10 Length of Program

The proposed PAREI Solar Energy Raiser Expansion & Weatherization Pilot Program would begin as soon as funding is made available. This Program will last from ten to sixteen months.

1.11 Total Program Costs are \$149,200.

1.12 GHGER Funds Requested are \$99,250.

2) Executive Summary

PAREI's proposed program expands our successful offerings that promote energy conservation, efficiency and renewable energies in the Plymouth region. PAREI takes a pragmatic approach by encouraging people to actively prepare for their energy future. PAREI helps members reach their energy goals by offering: A Volunteer Energy Advisor Network, Energy Audits, Solar Site Visits, Community Energy Raisers, Professional Solar Installations, Membership Networking Meetings & Educational Breakout Sessions, and Renewable Energy Info Sessions. (plymouthenergy.org)

With the funding of this proposal PAREI would expand current Solar Hot Water Energy Raiser installations and add a full range of Weatherization Energy Raiser services. This expansion and addition includes the key component of educating the public on the benefits of solar hot water systems and weatherization testing and improvements. This education helps reduce problems caused by market barriers. Every successful Energy Raiser becomes a testimonial to others in the community and the State. In these times of volatile energy prices and increase greenhouse gas emissions it is critical that consumers become educated on what actions they can take to improve their carbon footprint and their energy future.

The doubling of PAREI's planned 2009 Solar Hot Water Energy Raiser program will be accomplished with the addition of expanded outreach services. PAREI currently supports Energy Initiatives operating in the Plymouth area (PAREI), the Sandwich, Tamworth, and Moultonborough areas (STAMREI), and the Laconia/Tilton areas. We also have groups just getting started in Salem, Concord/Canterbury, Portsmouth and North Conway. We know these community partners will benefit from the additional Energy Raiser training assistance as well as more general support and guidance to help them get their new groups off the ground.

PAREI has recently produced a DVD/CD Tool Kit to assist communities with the development of Energy Initiatives in their areas. Details of this Kit and related support services are found at www.plymouthenergy.org/tool_kit.htm.

The new Weatherization component of our Program includes the purchase and use of a Blower Door, an Infrared camera, and related equipment and services. An important component this Program is educating the public on the benefits of weatherization testing and improvements. It has been our experience that this hands on education helps transform the market demand for energy saving services. With prior Solar Energy Raisers we have found that for every three homeowners that choose to install solar, two select a professional installation. This in turn creates local jobs for skilled contractors. In this Pilot program we will evaluate the effectiveness of using PAREI's Energy Raiser model for the education of consumers and the delivery of residential weatherization services.

After conducting classroom weatherization trainings we will conduct Weatherization Energy Raisers at ten NH homes. These homes will be selected based on a number of criteria including potential energy savings and homeowner commitment to the “pay it forward” concept. Selected homeowners will open their home to neighbors for the Energy Raiser education/installation process. (Help with equipment costs for one low income home in both the Weatherization Energy Raisers and Solar Energy Raisers will be part of the project.)

Our PAREI Solar Energy Raiser Expansion & Weatherization Pilot Program would begin as soon as funding is made available. This Program will last from 10 to 16 months. The total Program costs are \$149,200. The GHGER Funds requested are \$99,250. The remaining \$49,950 includes the following: We estimate that the 20 program participants will contribute approximately \$2,500 for their individual installations. (In-kind volunteer labor helps reduce the installation cost when compared to contractor installation prices). This volunteer Energy Raiser labor is provided in exchange for the volunteers receiving hands on training. The value of this labor is therefore not included in the budget.)

Key program partners, in addition to PAREI’s volunteers, include people from two organizations. These partners include professionally certified residential weatherization staff from GDS Associates and Building Energy Technologies. The planned scope of work for these consultants includes the following:

1. Weatherization Training

- a. Blower door & Whole house system classroom training for two days. This includes preparation time for two six hour training session held on Saturdays.
- b. Blower door & Whole house system onsite training at five homes. This would be day long training for each home on a Saturday. It would also include providing guidance on the installation of appropriate air sealing and insulation measures.

2. Measurement and Verification

- a. A review and analysis of energy savings data measurements collected from each of the ten solar water heating and weatherization installations.
- b. Verification of the life cycle savings calculations, upon completion of the PAREI & Weatherization Pilot Program.

At the completion of the PAREI Solar Energy Raiser Expansion & Weatherization Pilot program a detailed report will be prepared to document the results. The strengths and weaknesses of the trainings and Energy Raisers, as they relate to the Pilot program, will be analyzed. If the Weatherization Pilot program is determined to be successful it can be expanded to other communities in New Hampshire.

3) Proposed Work Scope and Schedule

The plan for accomplishing PAREI Solar Energy Raiser Expansion & Weatherization Pilot Program is as follows:

Project Management and Administration (Provide oversight throughout program.)
(Staff: Sandra Jones, and Bob Reals and/or Craig Cadieux for 100 hours)

1. Finalize contract details and schedules with the NH PUC and partners.
2. Purchase weatherization test equipment and related equipment. (Budget item B.) PAREI, in collaboration with our partners, has determined the appropriate make and model of each piece of equipment. (For example the video camera version of the Thermal Imaging Camera was determined to be the most practical for classroom and field training sessions.)
3. Finalize data tracking and reporting systems. These include data collection, form design, and database system.
4. Finalize and implement outreach plan. Conduct site visits with PAREI members seeking to make energy saving changes and discuss Solar and Weatherization Energy Raiser options. Prepare Energy Raiser schedules.
5. Provide on-going program oversight, quality assurance measures, and financial management. Oversight includes weekly meetings to discuss the status of each task as compared to schedule. Quality assurance measures include a weekly review of all Program tracking information. Financial management includes a weekly review of budget to actual expenditures. Monthly summary reports will be produced regarding the status of all these items.

A. Solar Energy Raiser Program Coordination (May through Dec 2009)
(Staff: Sandra Jones and Bob Reals and/or Craig Cadieux for 200 hours)

1. Finalize installation schedules.
2. Order selected solar hot water systems.
3. Coordinate Solar Hot Water Energy Raisers. Prepare for, complete, and test installations.
4. Tabulate collected information and report results. Process payment of equipment costs to two low income households. Process other invoices and payments.

C. Weatherization Training – Thermal Imaging Camera (May through Sept '09)
(Staff: Bob Reals and/or Craig Cadieux for 150 hours)

1. PAREI employees attend a four day thermal imaging camera class.
2. Schedule two group classroom trainings on the use of the thermal imaging infrared video camera.
3. Train three or more volunteers on the use of the thermal imaging infrared video camera. Repeat the class for three or more additional volunteers.

4. Prepare for and conduct onsite group trainings at five homes. Determine insulation and air sealing requirements and lighting/appliance upgrade options. Identify inefficient refrigerators that qualify for replacement.

D. Weatherization Training – Whole House System & Blower Door (May – Sept)
(Partners: GDS Associates and/or Building Energy Technologies for 30 hours)

1. Prepare for and schedule two group classroom trainings on Whole House System and the use of the Blower Door.
2. Train five or more volunteers on Whole House System and the use of the Blower Door. Repeat the class for five or more additional volunteers.
3. Prepare for and conduct onsite group trainings at five homes. Determine insulation and air sealing requirements of homes.

E. Weatherization Energy Raisers (June through Dec '09)
(Staff: Sandra Jones and Bob Reals and/or Craig Cadieux for 200 hours)
(Partners: GDS Associates and/or Building Energy Technologies for 80 hours)

1. Prepare budgets and schedules for Weatherization Energy Raisers. Review with homeowners and get approvals.
2. Order insulation and air sealing materials and equipment.
3. Coordinate Weatherization Energy Raisers. Complete, and test installations. Coordinate replacement of five inefficient refrigerators.
4. Tabulate collected information and report results. Process payment of financial incentives to participants. Process other invoices and payments.

F. Monitoring and Evaluation (May through Dec '09)
(Staff: Bob Reals and/or Craig Cadieux for 40 hours)
(Partners: GDS Associates for 40 hours)

1. Review data collection and reporting systems.
2. Touchbase with homeowners to check up on performance results.
3. Analyze data and reports and present findings and recommendations.

PAREI & Weatherization Pilot Program Schedule

	2009	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	7/2010
A. Solar Energy Raisers (10)											-----
B. Weatherization (Wxn) Equipment		-----									
C. Wxn Training - Thermal Imaging Camera								-----			
D. Wxn Training - House & Blower Door								-----			
E. Weatherization Energy Raisers (10)										-----	
F. Monitoring and Evaluation											-----

4) Project Benefits

PAREI & Weatherization Pilot Program can be expected to:

4.1 Reduce greenhouse gas emissions from all fuels used to provide electricity, heating and cooling in New Hampshire; 75,000 gallons of oil savings and 2.2 MWh of electricity savings equal 976.6 short tons of greenhouse gas reductions.

4.2 Be cost-effective; Cost-effective as calculated in GHGER spreadsheet.

Benefit/Cost Ratio for Full Program Costs, reg. TRC	1.01
B/C ratio with GHGER Fund Costs only, reg. TRC	1.51
B/C ratio, Full Program Cost, \$60/ton CO2 value	1.24
B/C ratio, GHGERF share only, \$60/ton CO2 value	1.86

4.3 Reduce New Hampshire's peak electric load; Only a minimal amount.

4.4 Promote market transformation; Increase the adoption rate of high efficiency products and practices. Educate homeowners on the benefits of high efficiency. Develop a market demand for solar hot water and weatherization installations. Increase demand for NHSaves utility residential energy efficiency programs.

4.5 Promote innovative technologies; Educate homeowners and trades people on usefulness of Thermal Imaging Camera, Blower Door, Whole House as a system, and Solar Hot Water. Encourage people to further their education.

4.6 Promote economic development; Pilot program will train trades people on various Weatherization and Solar Hot Water installation techniques. If the Energy Raiser Weatherization Program proves successful it will be expanded across NH. This expansion creates jobs through increased demand for trained trades people and maintains jobs at local weatherization supply retailers. When people invest in energy savings they in turn invest in their community.

4.7 Promote energy cost savings; Provide practical instruction on saving energy.

4.8 Promote collaboration and provide useful information for future program evaluation and improvement; PAREI has 300+ members and distributes a regular newsletter to over 600 people. These people are very supportive of energy efficiency and renewable energy initiatives. Many of these people also serve on their towns' energy committees. PAREI will offer the use of the weatherization testing equipment and related expertise to these town energy committees. Some town energy committees have expressed interest in using this equipment to conduct energy audits on municipal buildings and residential buildings. PAREI is also working with the Lakes Region Community College and their Energy Services and Technology Associate Degree Program. We have collaborated with them on a NHCF Express Grant application submitted February 2009 on our Thermal Imaging Camera project. If that grant is awarded we will have a second camera for joint training and weatherization testing. This is another area where PAREI's regional collaboration adds real value to NH's energy future.

4.9 Be consistent with the public interest and the purposes of RSA 125-O:19.12: Solar Hot Water Energy Raisers have become successful events that allow neighbors to come together and improve each others energy future. We welcome the opportunity to expand these events into other NH towns. It is our hope that the new Weatherization Energy Raisers, developed through this Pilot program, will achieve similar results. In both case PAREI's proposed Pilot Program is consistent with and supportive of the weatherization, renewables, and education goals outlined in Draft New Hampshire Climate Action Plan.

5) Measurement and Verification

Program staff will work with GDS Associates to implement an appropriate measurement and verification plan. This plan will include a review data collection and reporting systems, periodic inspections of installations and related reports, and analysis of data and reports. Installation completion surveys will be completed at all 20 Energy Raisers. Training class evaluations will be completed by participates at all training sessions. A Pilot Program summary report will present findings and recommendations.

6) Budget (GHGER spreadsheets as attachments)

The PAREI Solar Energy Raiser Expansion & Weatherization Pilot Program Budget is outlined on the following page. The GHGER Fund Budget Worksheet for PAREI, by quarter and calendar year, is attached. (GHGER Cost Effectiveness Analysis worksheet for PAREI is also attached.) PAREI's proposed budget is reasonable and achievable within the timeframe proposed. No minimum and maximum scale program budget is proposed at this time.

The PAREI Solar Energy Raiser Expansion & Weatherization Pilot Program Budget is comprised of eight parts. These parts include: A. Solar Energy Raisers, B. Weatherization Equipment, C. Weatherization Training - Thermal Imaging Camera, D. Weatherization Training - House & Blower Door, E. Weatherization Energy Raisers, F. Monitoring and Evaluation, G. Homeowner Contributions - Solar Energy Raiser, and H. Homeowner Contributions - Weatherization Energy Raiser. A narrative explanation of the budget for each part is as follows.

A. Solar Energy Raisers for \$21,500: Provide management, administration, program coordination, and reporting for ten (10) Solar Hot Water Energy Raisers. Provide materials for one Low Income installation.

B. Weatherization Equipment for \$16,500: Purchase weatherization test equipment and related equipment for conducting whole house weatherization testing. Equipment includes a Blower Door (For a description and manufacture listings see http://en.wikipedia.org/wiki/Blower_Door.), a Thermal Imaging Infrared Video Camera (See <http://us.fluke.com/usen/products/Fluke+TiR2.htm> for camera information), a Combustion Analyzer/Carbon Monoxide Tester, a Laptop Computer, a Printer, and a Digital Camera.

C. Weatherization Training - Thermal Imaging Camera for \$14,250: This budget includes the training of ten or more people on the Thermal Camera. A PAREI employee will attend a four day class titled Level I: Thermographic Applications (See <http://us.fluke.com/usen/new/events/Thermal+Imager+Training.htm>). The information learned at this class will be then presented to two classrooms of three or more weatherization volunteers. Onsite training will also be held at five Energy Raiser homes.

D. Weatherization Training - House & Blower Door for \$16,500: PAREI's Partner(s) will conduct two classroom trainings for five or more volunteers on Whole House System and the use of the Blower Door. They will also conduct onsite trainings as part of five home Weatherization Energy Raisers.

E. Weatherization Energy Raisers for \$20,500: Provide management, administration, program coordination, and reporting for ten (10) Weatherization Energy Raisers. Provide materials for one Low Income installation.

F. Monitoring and Evaluation for \$10,000: PAREI staff and GDS Associates will conduct planned monitoring and evaluation. Analysis, findings, and recommendations will be presented in a final report. Also included in this budget section is reimbursement for NH-based travel and mileage expense incurred during the implementation of this PAREI & Weatherization Pilot Program.

G. Homeowner Contributions - Solar Energy Raiser for \$27,000: Solar hot water equipment and materials purchase by homeowners for nine (9) Energy Raisers. (These expenditures may qualify for other available rebates and tax credits.)

H. Homeowner Contributions - Weatherization Energy Raiser \$22,950: Weatherization, air sealing and insulation, materials and equipment purchase by homeowners for nine (9) Energy Raisers. (These expenditures may also qualify for other available rebates and tax credits.)

Additional details on personnel, in terms of position, rates, and hours include the following:

PAREI Co-Director (program management): Sandra Jones, 100 hours at \$100/hr.

PAREI Program Coordinators: Bob Reals & Craig Cadieux, 590 hours at \$75/hr.

Partners: GDS Associates (Bruce Bennett) and/or Building Energy Technologies (Don LaTourette and/or Andy Duncan) base on scheduling, 150 hours at \$150/hr.

This Pilot program plans to leverage \$99,250 in GHGER funds with contributions totaling \$49,950 in participant funds. PAREI does not expect to leverage additional funds in this Pilot Program. If this Pilot Program is determined to be successful this Program may be expanded statewide. With this expansion the use of Federal Stimulus funds and other financing options may become an important part of future program funding.

7) Applicant Qualifications (Resumes as attachments)

PAREI Co-Director Sandra Jones is responsible for program management. Sandra has years of project oversight experience. She co-founded PAREI in 2004 and has managed PAREI and Energy Raisers for the past five years.

PAREI Program Coordinators, Bob Reals and Craig Cadieux, are responsible for program coordination and training. Both men have years of energy efficiency and project management experience. From early on, they have both been very active in PAREI's organization and Energy Raisers.

To the best of our knowledge no PAREI staff, officers, directors, partners or other principals have had any criminal violations within the past 5 years.

Subcontractor:

1. GDS Associates

1181 Elm Street, Suite 205 Manchester, NH 03101

800-437-4495 603-656-0336 Contacts: Scott Albert, Principal

scott.albert@gdsassociates.com and Bruce Bennett, Residential Energy Efficiency Project Manager bruce.bennett@gdsassociates.com

Work description: - Classroom training on the Whole House System and the use of the Blower Door. They will also conduct onsite trainings as part of five home Weatherization Energy Raisers. -GDS Associates, with the assistance of PAREI staff, will conduct planned monitoring and evaluation. Analysis, findings, and recommendations will be presented in a final report. Relevant abilities include professionally certified weatherization training and evaluation work. Residential energy services, listed at www.gdsassociates.com/services/rees.html include Home Energy Ratings, Energy Assessments, and ENERGY STAR certification.

2. Building Energy Technologies, LLC

10 Dunklee Rd., Suite 36 Bow, NH 03304

603-724-7849 Don LaTourette and 603-724-4977 Andy Duncan owners

contact@buildingenergytechnologies.com

Work description: - Classroom training on the Whole House System and the use of the Blower Door. They will also conduct onsite trainings as part of five home Weatherization Energy Raisers. Relevant abilities include technical training and professionally certified residential energy services, as listed at www.buildingenergytechnologies.com.

8) Additional Information (Energy Raiser Newspaper Article)

Many hands make light work of saving energy - Neighbors gather to install solar power

By Sarah Schweitzer, Boston Globe Staff | May 8, 2008 ([Front Page Article](#))

http://www.boston.com/news/local/articles/2008/05/08/many_hands_make_light_work_of_saving_energy/

SANDWICH, N.H. - Last weekend, some 30 men and women arrived at a neighbor's home in this mountainside community, prepared for a day of hard labor. Their pay would be a pot of coffee, slabs of cornbread, and a spread of roast turkey sandwiches.

In days past, the end result might have been a barn. But in a twist on the traditional mutual aid event of a barn raising, the neighbors put up a solar-heated water system.

As the price of oil rises and the pressure to go green mounts, neighbors in this and other New England communities are coming together for daylong "energy raisers," installing solar collectors that can reduce a home's hot water bill by as much as 80 percent.

The volunteers, in North Face jackets and weatherized boots, wasted little time on Saturday. Shortly before 9 a.m., like a hive of bees, workers descended on the house and set about a variety of tasks, such as cutting pipes and assembling the solar collector. Others milled about, sipping coffee and sharing their concerns about the fossil fuel burned shipping goods from China to the United States.

Andrew White, attending his first energy raiser, did more observing than hands-on work, hoping to learn the ins and outs of environmental plumbing.

"It's going to feel good to step into a hot shower and know that it's coming from the sun," said White, who hopes to have the crew install a system at his house.

The energy raisers so far have been concentrated in New Hampshire, where neighbors in Sandwich, Plymouth, and a handful of surrounding towns have equipped 23 homes with solar and other alternative energy systems in the past three years; the group has scheduled 12 energy raisers for this summer. Another group held Massachusetts' first energy raiser last month in Buckland, and a Cambridge group is hoping to begin hosting energy raisers soon.

Nationally, interest in solar hot water systems is growing. After a brief period of popularity during the energy crises of the 1970s, the systems faded as an alternative to oil and natural gas, partly because they tended to be expensive. By eliminating labor costs, the New Hampshire group has been able to reduce the price from more than \$10,000 for a conventionally installed system to as little as \$3,000, organizers of the group say. Federal tax credits and local company rebates - such as those available in New Hampshire - can reduce the price even further, to as low as about \$1,500, they say.

The idea of bringing a community together to install the systems was the brainchild of two longtime friends, Sandra Jones, a onetime welfare-to-work program director, and Peter Adams, a digital media company owner. Five years ago, as oil prices were rising, the pair became increasingly concerned about energy consumption and wanted to do something to offset the trend.

"We didn't want to put out magazines or organize conferences," Jones said. "We wanted to have a real practical application."

Solar hot water systems, with their relative simplicity and immediate results, fit the bill. The pair wanted installation of the systems to be community events, like the barn raisings Adams had seen as a boy growing up near Pennsylvania's Amish country.

Jones and Adams immersed themselves in the instruction manuals of solar hot water collectors. They recruited a plumber and several area contractors with technical know-how to volunteer their help and came up with these rules for the projects: Neighbors who donated their labor at three energy raisers were eligible to have the technology installed at their own homes. Afterward, the neighbors would be expected to provide labor at additional energy raisers, to repay the favor.

"We thought early on that it would just be a bunch of friends getting together, but it's turned into this," said Adams, as he waved a hand at the dozen workers soldering pipes, while others craned necks to watch the work in the hope of learning the craft.

The systems that the group installs are sleeker and more efficient than the typical solar panels of old. Sturdy glass tubes in a metal frame absorb energy from the sun, heating antifreeze that circulates in copper pipes. The heated antifreeze is pumped to a hot water tank in the house. Conventional water heating systems are retained as back-ups for prolonged periods of cloudiness, when solar systems can't produce enough heat.

Today, the group, a nonprofit called the Plymouth Area Renewable Energy Initiative, has 229 members. The group estimates that it has saved homeowners more than 10,000 gallons of oil annually that would have gone toward heating hot water.

On Saturday in Sandwich, as a light drizzle fell at 3 p.m., workers adjusted copper pipes and prepared to pop in the last of the glass tubes that function as the heart of the collector.

The honor, everyone agreed, should go to the home's owner, Ann Burghardt, a retired newspaper owner.

"You energy radical, you!" said Rich Benton, a local builder and volunteer, as Burghardt put the tube in place, marking the end of the energy raiser.

The volunteers clapped and shook hands. One handed Burghardt a small box.

"A bar of soap," said Carl McNall, a retired computer marketing executive who had held an energy raiser at his home in October, "for your first solar shower."

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9) Letters of Interest (As attachments)

Letters of interest from PAREI's partners are attached. These partners include GDS Associates and Building Energy Technologies.

PAREI & Weatherization Pilot Program

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Sandra Jones
Co-Director, Plymouth Area Renewable Energy Initiative
PO Box 753 Plymouth, NH 03264

Sandra holds a BS in Elementary Education from Plymouth State College and a Masters in Education from the University of New Hampshire. Sandra has extensive experience in program startup and coordination and campaign management. From 1988 – 1996, Sandra ran both local and statewide electoral and public education campaigns. From 1998-2003, Sandra was the Director of a statewide career guidance program contracted by NH's Dept of Health and Human Services. In the span of four years, she grew the program from one part-time office (where she first served as a counselor since 1993) at Second Start in Concord, NH, to a statewide program with 15 offices from Colebrook to Salem, NH -- serving over 600 clients.

Sandra has been involved in a number of environmental projects in NH ranging from setting up local conservation easements, to organizing river clean ups to leading community meetings about the Northern Forest Lands Project. She has served as a spokesperson for the Land and Community Heritage Investment Program in its infancy, authored a fifty-page booklet on "Campaign Tips for Conservation Activists" for the Society for the Protection of NH Forests and was a featured interviewee on a national Audubon Society television broadcast. In 2002, Sandra was awarded the Lakes Region Planning Commission's "Social Capital Award" for her work on the Ashland Conservation Commission and the Ashland Historical Society.

From 1987-2002, Sandra was the co-owner of Riverside Cycles bicycle shop with her husband, Tim. In 1989, along with friends, she founded the White Mountain Wheelwomen cycling club, who still ride together today.

In 2004, Sandra paired up with long time friend Peter Adams to create a local energy initiative that would actively address the growing concern about the overuse of fossil fuels. Frustrated by the lack of governmental attention, (at that time) and a desire to prepare their families and community for the coming energy and economic crisis, Sandra and Peter created the **Plymouth Area Renewable Energy Initiative (PAREI)** -- a 501 C-3 non-profit organization designed to promote energy conservation, energy efficiency and renewable energy in the Plymouth region.

With less than \$55,000 in grant money over the last five years, PAREI's strong community connections and committed volunteers grew the membership organization to over 300 families and businesses. PAREI now offers a full slate of educational opportunities and services designed to provide members with the information and resources to reduce their energy consumption and produce renewable energy. In 2008, the organization grew by 50% and has a gross budget of over \$230,000.

Since the spring of 2005, PAREI created and conducted 33 volunteer solar Energy Raisers, coordinated over 30 professional solar water and solar electric installations and assisted with over 30 do-it-yourself renewable energy installations. They have conducted dozens of Energy Exchange membership networking meetings, expanded their Energy Raiser crews to include the Sandwich and Laconia area, created a year-round local foods on-line marketplace, conducted over 200 site visits to help members plan for their energy future and recruited a list of volunteer Energy Advisors willing to meet one on one with others in the community about their energy conservation and renewable energy projects.

Over the last two years, PAREI has received an enormous amount of attention from national and statewide press including front page coverage in the Boston Globe, a back cover story in a national recycling magazine and special features on several National Public Radio broadcasts on both the Energy Raiser concept and their local foods on-line website. Recently, PAREI completed the "**PAREI Tool Kit**" -- a video and cd-rom package for the purpose of sharing the PAREI model to other communities around the country.

BOB REALS, JR.

(603) 254-7924
reals48@msn.com

48 Merrill Street
Plymouth NH 03264

SUMMARY

Business and Energy Professional experienced in the marketing, implementation, and evaluation of residential and commercial energy efficiency programs. Managed millions of dollars of construction and energy related projects. Advise clients regarding energy efficiency and sustainable energy issues. Project Manager with extensive technical, financial, operational, community organizing, grant writing, and project implementation experience related to the delivery of sustainable affordable housing development.

EXPERIENCE

BUSINESS & ENERGY SERVICES, Plymouth, NH 2001 – 2005 and Current
Senior Consultant, d.b.a. Business & Energy Services

Deliver services for sustainable development, construction management, energy efficiency, and renewables.

- Prepared an Energy Benchmarking Analysis Study for Plymouth State University's VP for Financial Affairs. Conducted Energy Star Profile Manager analysis along with a number of other energy use comparisons. Former member of University's Environmental Committee.
- Assisted with the preparation of the NH Low-Income (Energy Efficiency) Retrofit Program process review. Interviewed Community Action Agency (CAA) staff and vendors to improve the program.
- Analyzed and documented Unitil Energy Services' office procedures and database system related to their C&LM compliance reporting system. Designed procedures to process energy efficiency data.
- Other projects include assisting New York State Energy Research & Development Authority with the marketing of NYSERDA's energy efficiency services to NY's 48 Municipal Electric Utilities and Co-ops.

LACONIA AREA COMMUNITY LAND TRUST, INC, Laconia, NH 2005 – 2008
Housing Development Director

- Planned and set parameters for real estate development projects, both rental and home ownership. Identified and procured building sites. Assembled the development teams. Lead building design team to incorporate Leadership in Energy and Environmental Design (LEED) building design planning.
- Procured funding through various sources including NHHFA's LIHTC, FHLB-Boston's AHP, CDFA's CDBG, USDA Rural Development, NeighborWorks America, Rural LISC, banks, and others.
- Managed bid and RFP processes. Managed and clerked construction process. Satisfied funder and investor expectations. Managed punch list process and project close out. Closed out an 18 unit project. Managed a six unit \$1.3 million gut-rehab project from bidding and value engineering to occupancy.
- Clerk of the Works responsibilities included daily on-site inspections and invoice management. Implemented change orders to ensure building achieved 5 star+ Energy Star rating. Coordinated the fund raising and installation of 1 kW of solar electric panels for net metering. Also managed the design, government approvals, and construction funding of a new 32 unit townhouse style development.

NEW HAMPSHIRE ELECTRIC COOPERATIVE (NHEC), Plymouth, NH 1995 – 2001

Non-profit electric utility serving the needs of 80,000 member/owners in 115 NH towns.

Manager, Energy Services

Directed the design and implementation of for-profit technical field installation services along with non-profit NH Public Utilities Commission mandated statewide energy efficiency programs.

- Supervised staff and contractors for the delivery of \$12 million in energy efficiency products and services to over 10,000 residential and business consumers. Achieved annual goals while reducing yearly expenditures by approximately 20% of budget. Encouraged team work and focus on objectives.
- Collaborated with electric utilities, CAAs, and other organizations to develop a statewide program to maximize the utilities' energy efficiency outreach and the federal weatherization funds to consumers.
- Developed innovative marketing outreach programs to identify income-qualified consumers and interest them in energy efficiency services. Outreach included school free lunch program, fuel assistance, utility collections, Habitat For Humanity, food pantries, and utility funded Energy Assistance Program.
- Reviewed the technical specifications of hundreds of energy efficiency projects. These projects included lighting, HVAC, insulation, air sealing, carpentry, electrical, power quality, water heating, heat pump water heating, remote metering, refrigeration, process equipment, and other technologies.

HEC, INC., ENERGY SERVICES, Natick, MA (Acquired by AMERESCO, Framingham MA) 1992 – 1995

Northeast Utilities' Select Energy - Energy & Design Services subsidiary of 60 consultants and engineers.

Senior Manager, Utility Consulting

Developed and implemented marketing services, program design services, program evaluation services, and data services for clients. Identified business leads, prepared proposals, and delivered timely results.

- Directed the design of a business-to-business marketing program for American Electric Power / Ohio Power. Lead a utility and business efficiency work group in developing energy audit / financing services.
- Managed the design and delivery of program impact and process evaluations for Long Island Lighting Company, NEPSCO (now National GRID), and Northeast Utilities. Inspections include 477 businesses.

MASS-SAVE, INC., (Acquired by Conservation Services Group) Waltham, MA 1987 – 1991

Manager of Information Services (Energy efficiency non-profit business sponsored by 30 energy utilities)

Directed data processing operations for 120,000 residential and 6,000 commercial energy audits via a mini-computer and networked microcomputers. Developed and managed department's \$700,000 budget.

EDUCATION

Master of Business Administration, Major: Management Information Systems; University at Albany

BA, Major: Political Science; Minor: Environmental Studies; University at Albany, State University of NY

PROFESSIONAL DEVELOPMENT

Numerous Finance, Construction Management, and Green Building Design trainings. Certified Demand-Side Services and Energy Procurement Professional training by the Association of Energy Engineers. Energy efficiency training associated with building systems, engineering, and energy audit processes.

MEMBERSHIPS

New Hampshire Electric Cooperative (nhec.com) Board of Director, Town of Plymouth Energy Committee, Plymouth Area Renewable Energy Initiative - DOE Million Solar Roofs Partnership (plymouthenergy.org)

CRAIG A. CADIEUX
2 Woodside Drive, Bridgewater, NH 03222
Phone 603-744-6773 – Fax 603-744-6752 – Cell 603-254-8700
ccadieux@123mail.net

Summary of Experience

OVERVIEW

Well-qualified Real Estate Asset and Facilities Manager with 20+ years of experience. Couple in-depth understanding of building technology and direct construction experience with strong financial planning, general management, and administrative skills. Successful in directing large construction and renovation projects. Proven ability to resolve challenging problems using excellent communication, negotiation, and analytical skills. Advanced computer skills and record of initiative in the application of technologies to optimize organizational efficiency, performance, and planning.

AREAS OF STRENGTH & EXPERIENCE

- | | | |
|-------------------------------------|------------------------------------|------------------------------|
| ▪ Public Relations | ▪ Home Owner Association Mgt | ▪ Contract Administration |
| ▪ Financial Management | ▪ General & Operations Management | ▪ Real Estate & Business Law |
| ▪ Construction Project Management | ▪ Information Systems & Operations | ▪ Staffing & Leadership |
| ▪ Preventative Maintenance Planning | ▪ Regulatory & Code Compliance | ▪ Capital Planning |
-

PROFESSIONAL EXPERIENCE

Harvard Management Solutions, Inc., Merrimack, NH

2002-Present

REGIONAL MANAGER

Responsible for the management of properties in Harvard's portfolio in Central and Northern NH.

Craig A. Cadieux, LLC – Bridgewater, NH 2000–2005

CONSULTING / OWNER'S REPRESENTATION/ PROJECT MANAGEMENT – Fenway Studios, Inc. and Friends of Fenway Studios, Inc. 2000-2005

Represent the owners and provide project and financial management services for their \$3.7 million restoration of their 100 year old National Historic Landmark in Boston, MA.

Project Highlights:

- Facilitated a Facilities Audit and Assessment and developed a 20-year Major Maintenance, Repair, and Capital Replacement Plan.
- Brokered three loans for more than \$3.1 million.
- Worked successfully with owners, architect, engineers, contractors, city officials, and supporting organizations to keep the projects on budget, all parties informed, and completed with minimal delays.

OKM ASSOCIATES, INC., BOSTON, MA**1984 –1986; 1990 –1999****FACILITIES AND PROPERTY MANAGEMENT CONSULTANT** (1995 – 1999)

Collaborated as a team leader and member on a broad range of property and facilities management projects for government agencies throughout the United States and internationally. Planned and executed assignments involving property assessment, long-range capital and preventative maintenance planning, staff development, and organizational evaluation and re-engineering.

Project Highlights:

- Headed restructuring of an 80-person maintenance department and implemented a preventative maintenance program for the Housing Authority of New Orleans. Decreased work order average response times from 40 to 9 days and increased same day completion of work orders to 70%. Elevated living unit inspection pass rates to 85%. Reduced overall work orders 30% after two years.
- Overhauled the Inspection Services Department of the Housing Authority's Section 8 Division in Cleveland, Ohio. Identified problems and developed procedural and technical solutions to expedite completion of 20,000+ inspection visits annually. Conferred with MIS staff to design and integrate technologies for cost-effective performance monitoring and tracking.
- Assisted U.S. Aid for International Development in efforts to privatize centrally owned residential property in Prague, Czechoslovakia. Traveled on-site to collect and compile baseline data.
- Evaluated existing processes and recommended procedural and organizational improvements to enhance maintenance department performance and efficiency for the Chicopee Housing Authority in Chicopee, MA. Designed and developed a computerized database for preventative maintenance.

DIRECTOR OF PROPERTY MANAGEMENT (1997 –1999)

Promoted to oversee and manage the company's condominium and cooperative portfolio including 1200 housing units and 13 associations. Guided and supervised a team of 5 property managers and 16 support staff. Held full authority for policies and procedures, staff training and development, budgeting and financial affairs, long-range capital planning, and special projects management.

Selected Achievements:

- Renewed staff performance levels and improved technical knowledge by implementing training.
- Slashed outstanding account receivables by assisting property managers in establishing policies that improved their ability to enforce collection procedures.

PROPERTY MANAGER (1984 –1986; 1990 –1995)

Managed up to 7 condominium associations and 440 housing units. Developed and controlled budgets exceeding \$1 million. Proactively identified areas for improvement and instituted initiatives to address the root of problems.

Selected Achievements:

- Managed large construction projects up to \$1.6 million. Served as liaison to owners and coordinated architects, engineers, general contractors, and various trades. Secured funding and monitored progress to ensure quality standards were met and projects were completed on time and in budget.
- Achieved successful turnaround of several troubled properties; cleared outstanding receivables and clouded unit deeds, resolved building mechanical systems problems, and negotiated resolutions to long-term policy conflicts and residents' legal disputes.

DEERING CONFERENCE CENTER, DEERING, NH**1986 –1990****FACILITIES MANAGER / ASSOCIATE DIRECTOR**

Additional experience includes owning, developing, and managing investment property, held real estate sales licenses in Massachusetts and New Hampshire, and extensive hands-on construction and trade knowledge and experience obtained through part-time and volunteer work, self-education, direct facilities work, and major home improvement projects.

EDUCATION**B.S., BUSINESS ADMINISTRATION, Concentration in Management, Minor in Geography**

Plymouth State College, Plymouth, NH



GDS Associates, Inc.
Engineers and Consultants

Ph: 603.656.0336

Fax: 603.656.0301

Scott Albert

Principal & Northeast Region Manager

scott.albert@gdsassociates.com

March 19, 2009

Ms. Sandra Jones
Co-Director
Plymouth Area Renewable Energy Initiative
PO Box 753 Plymouth, NH 03264

Dear Ms. Jones:

I am pleased to submit this letter of intent for providing the following services in support of your upcoming efforts. Staff from GDS Associates' Manchester, NH office will be made available and look forward to providing the following services and support:

1. Weatherization Training

a. Blower door & whole house system classroom training for one to two days. This would be a six hour training session held on a Saturday in the Plymouth area.

b. Blower door & whole house system onsite training at two to five homes. This would be day long training for each home on a Saturday. It would also include providing guidance on the installation of appropriate air sealing and insulation measures.

2. Measurement and Verification

a. A review of energy savings data measurements collected from each of the ten weatherization jobs.

b. A verification of the life cycle savings calculations, upon completion of the Weatherization Pilot project.

Attached is a resume of Bruce Bennett, our Residential Energy Efficiency group manager. Other experienced GDS staff can be made available on an as-needed basis.

Should you have any questions or require additional information, please don't hesitate to call.

Thanks for your consideration and interest in using our local and skilled resources here at GDS.

Sincerely,

Scott M. Albert
Principal and Region Manager

Attachment

EDUCATION:

Master of Regional Planning, University of Massachusetts at Amherst, 1994
Bachelor of Science, Environmental Design, University of Mass at Amherst, 1988

PROFESSIONAL MEMBERSHIPS, CERTIFICATIONS/AFFILIATIONS:

Accredited Home Energy Rating System (HERS) Provider, RESNET
NH Residential Energy Performance Association – Past-President and Board of Director
Northeast Home Energy Rating System Alliance - Member
Association of Energy Service Professionals - Member
Certified Housing Development Specialist, National Development Council

EXPERIENCE:

Mr. Bennett is a Project Manager with GDS Associates. Bruce joined GDS Associates as a Project Analyst in December, 2000 and is based in the firm's northeast regional office located in Manchester, New Hampshire. In addition to his experiences with GDS he has seven years of experience in regional planning and analysis, and project management.

Specific Experience Includes:

Energy Efficiency Program Implementation

- Managing the field service work for residential new construction energy efficiency programs (ENERGY STAR Homes, EPACK 2005) in New Hampshire, Massachusetts and Maine. Managing a staff of four and a network of subcontractors to provide home energy rating services to support these programs;
- Providing consultation to residential developers, builders and architects to ensure that efficient, safe and durable homes are constructed and comply with the applicable energy efficiency programs;
- Performing on-site construction inspections and diagnostic testing for air infiltration and duct leakage in new and existing homes.
- On-site inspections and for residential energy efficiency programs and for home owners seeking energy performance from their existing and new homes;
- Performing third party home energy ratings (HERS) for utility new construction programs and Federal Energy Policy Act (EPA 2005) new home tax credit compliance;
- Providing professional service for commercial and industrial energy efficiency programs

Energy Efficiency Program Design and Evaluation

- Benefit/cost analysis of energy efficiency programs
- Conducting benefit/cost analyses, identifying major assumptions and developing models for assessing cost effectiveness (Total Resource Cost Test, Utility Test and Societal)
- Analyzing and developing program theory and program logics for various DSM programs
- Conducting process and impact evaluations for gas and electric DSM programs

- Conducting implementation and cost evaluations of residential new construction programs (interviews, site visits and building component analysis)
- Using home energy rating software for estimating basic energy savings from DSM measures (for use in program design, evaluation and technical potential assessments)

Renewable Resources, Distributed Generation and Combined Heat and Power (DG/CHP)

- Technical potential assessment of distributed generation and combined heat and power (DG/CHP) programs (renewable and non-renewable resources)
- Analyzing and developing program theory and program logics for DG/CHP programs

Other Employment Experiences:

- Maintaining and routinely updating **Utility Cost Allowances** for all **HUD** programs (e.g. Section 8 tenant based assistance) requiring their use in the State of NH.
- Conducting and producing rental housing cost studies
- Directing housing development process including finance approval, loan closing, construction loan requisitions, and lease-up for projects in excess of \$1 million
- Assisting real estate developers to formulate and refine development proposals
- Promoting innovative financing mechanisms using: tax-exempt bonds, conventional debt, housing tax credits, and other state and federal housing finance programs
- Evaluating project compliance with state and federal finance programs
- Producing state and county level population projections
- Maintaining several electronic databases relative to housing, population and economics
- Providing technical assistance to municipal officials, regional planning agencies, state agencies and the general public
- Preparing bid specifications and professional services contracts
- Creating Request for Proposals for large-scale commercial development
- Preparing federal grant applications (Land and Water Conservation Funds)
- Preparing press releases and public announcements
- Providing recommendations to local Planning and Zoning Boards
- Updating zoning maps to reflect amendments to the local zoning code
- Managing on-time construction project scheduling and operations
- Preparing residential scale site designs, proposals and cost estimates.
- Managing construction crews and conducted all phases of design implementation ensuring timely and quality construction completion

EMPLOYMENT HISTORY:

GDS Associates, Inc. – various positions leading to Project Manager	2000 to Present
NH Housing Finance Authority – various positions leading to Development Officer	1994 to 2000
New Hampshire Office of State Planning – Planning Analyst	1994 to 1996
City of Chicopee Planning Department and Office of Comm. Dev. – Planner	1991 to 1994
Forest Landscape, Inc. – Sales Representative/Designer	1990 to 1991
Goddard Bros. Landscape Construction – Construction Superintendent	1986 to 1990

BUILDING ENERGY TECHNOLOGIES, LLC

10 Dunklee Rd., Suite #36
Voice 603-724-4977 or 724-7849

Bow, NH 03304
Fax 603-369-6468

March 20, 2009

Ms. Sandra Jones
Co-Director
Plymouth Area Renewable Energy Initiative
P.O. Box 753
Plymouth, NH 03264

Dear Ms. Jones:

This letter is in support of the grant application by the Plymouth Area Renewable Energy Initiative (PAREI) to the Greenhouse Gas Emissions Reduction Fund managed by the New Hampshire Public Utilities Commission.

As advocates of cost-effective solutions to reduce greenhouse gas emissions, we are very supportive of PAREI's ongoing efforts to combine volunteer and professional labor to install solar domestic hot water systems at PAREI members' homes. We also have helped PAREI members assess energy efficiency (weatherization) opportunities in their homes.

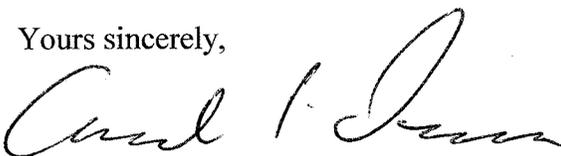
We understand that this grant application would expand on the successful solar hot water model to include weatherization efforts in members' homes. As a leading weatherization contractor and consultant in New Hampshire, Building Energy Technologies, LLC (BET) is prepared to work with PAREI to train key volunteers in specific energy assessment and energy efficiency measures.

More specifically, under this grant we envision BET providing:

- A one to two day classroom training in house-as-a-system theory, blower door air leakage testing, and air sealing techniques.
- Two to five day-long field trainings, each in a different home, covering blower door use, air sealing techniques, and briefly insulation techniques.

We look forward to working with PAREI directors and volunteers to advance the field of sustainable energy in New Hampshire.

Yours sincerely,



Andy Duncan, Principal
aduncan@bldenergytech.com

Andrew P. Duncan

16 Kimball Street

Concord, NH 03301

603-227-9374-h andyduncan@comcast.net / aduncan@bldenergytech.com 603-724-4977-w

EXPERIENCE

Principal, Building Energy Technologies, LLC, Bow, NH 2006 - Present

- Co-created a preeminent energy performance business providing energy efficiency services in residential & commercial buildings.
- Developed and managed systems for a growing business.
- Created strategic links with energy utilities.
- Provided a high value-added service with excellent customer relations.

Vice-President of Operations, A+ Energy Services, Hampstead, NH 2003 - 2006

- Managed private and utility-funded energy efficiency projects serving over 2,000 households.
- Built constructive relationships with customers, employees, suppliers and subcontractors.
- Leveraged intensive use of technology to grow the business.

*Assistant Professor of Environmental Science, New England College
Henniker, NH* 1997 - 2003

- Teaching responsibilities in a wide range of environmental topics: introductory science, policy, economics, ethics, impact assessment, geographic information systems, behavior, and forest management.
- Practical experience in service learning, internship placement, career preparation, online education, and laboratory/field methods.

*Lecturer, Research Assistant and Teaching Assistant,
University of Michigan, Ann Arbor, MI* 1989 - 1996

- Research assistance affiliated with Environmental Extension Network and National Pollution Prevention Center for Higher Education.
- Lecturer for Greening the Maize & Blue and Ecological Issues courses.
- Teaching assistant for environmental and psychology courses.

*Program Coordinator, Association of New Jersey Recyclers,
Bridgewater, NJ* 1987 - 1989

- Managed a recycling trade organization -- prepared communications, organized events, interfaced with media, managed a member database, etc.

EDUCATION

*University of Michigan, School of Natural Resources
& Environment, Ann Arbor, MI* 1989 - 1997

Ph.D., Resource Behavior, 1997 Dissertation title: "Source Reduction in Context: A Conceptual Framework and Field Study of Waste Prevention Behavior"

M.S., Resource Policy and Behavior, 1991

Coursework in environmental psychology, environmental policy, applied economics, research methods, and social change.

Macalester College, St. Paul, MN 1983 - 1985
Majors in Environmental Studies (Economics Core) & Geology,
minor in Philosophy, B.A., 1985, magna cum laude.

ADDITIONAL TRAINING, CERTIFICATIONS, AND PROFICIENCIES

<i>Certified Building Analyst</i> , Building Performance Institute	2008
Professional education from Residential Energy Performance Association, Affordable Comfort, Efficiency Vermont, State of New Hampshire Energy Code Office, and National Grid.	Ongoing
<i>Home Energy Rating System (HERS)</i> , successful completion of training and written test.	2006
<i>New Hampshire Community Tree Steward and Earth Team Volunteer</i> Volunteer certification from a 10-week training course in environmental management and outreach coordinated by UNH Cooperative Extension.	2002
<i>Community Mapping 1999</i> , University of New Hampshire Cooperative Extension, Durham, NH Two-week intensive course combining instruction in natural resource planning with practical training in ArcView GIS mapping and analysis.	1999
<i>Computer proficiencies:</i> Microsoft Office suite (Word, Excel, PowerPoint, Access, Publisher and Outlook). TREAT & REM/Rate energy modeling. FileMaker, ACT! & Customer Manager database/CRM. QuickBooks & Quicken accounting. ArcView GIS. Blackboard online education. SPSS statistics.	

COMMUNITY SERVICE AND OTHER ACTIVITIES

- Energy efficiency presentations to numerous groups, 2005 - present
New Hampshire Sustainable Energy Assn. state conference, United Church of Christ state conference and regional workshops, Going Green Expo, Town of Salisbury, Town of Lee, Unitarian Universalist Church Green Sanctuary regional workshop, etc.
- Board of Directors, Concord, NH Cooperative Market, 2005 - present
- Merrimack County Cooperative Extension Advisory Committee, 2005 - present
Chair of NH Extension Energy Advisory Team, 2006 - 2007.
- Residential Energy Performance Association, 2003 - present
Current board member and secretary in 2003-2004.
- Concord-area Coordinator, Green Buildings Open House, Northeast Sustainable Energy Association, 2003 - 2005.
- New Hampshire Tree Steward & Earth Team Volunteer, 2002 - present.
- Concord Tree Volunteers, Concord, NH, 2001 - 2006.
- DowBrands Environmental Advisory Committee, 1991 - 1993.

DONALD S. LATOURETTE, JR.

EXPERIENCE

2006-Present Building Energy Technologies, LLC Bow, NH
Principal

- Created a preeminent energy improvement business evaluating & transforming commercial and residential buildings, new and old, into excellent energy performers.
- Grew company to be a leader in the field including emphasis on quality, customer relations, & sound business development systems.
- Thermal building shell and energy systems scientist.

2005-2006 A+ Energy Services Hampstead, NH
V.P. of Sales

- Sold Over \$200K in the First Six Months
- Performing Commercial & Residential Energy Audits using Blower Door & Infra-red Technology
- Developing Numerous Building Energy Efficiency Sales Tools and Business Strategies

2002-2005 Donald Stuart Construction LLC Concord, NH
Owner/President, Residential Remodeling Business

- Design and Build House Additions, Kitchens, Baths, and Specialty Projects
- Create Building & Remodeling Plans for Homeowners with CAD Software
- Expertise Communicating at All Levels—Builders, Building Inspectors, Construction and Energy Subcontractors, Homeowners and Architects
- Energy Conservation Design Expertise Emphasizing Air Sealing & Various Insulating Materials and Returns, and Expertise in Illumination and Lighting

2000-2002 LaTourette Residence Concord, NH
Stay Home Dad

- Raised two boys, aged 3 & 5 and all that entails.
- Toughest and most rewarding position I've ever had.

1997-2000 NH Dept of Environmental Services Concord, NH
Global Climate Change Specialist

- Managed federal grants of over \$400K including all aspects of energy efficiency outreach speaking frequently at public/private outreach events.
- Developed State Greenhouse Gas Mitigation Plan
- Created & managed greenhouse gas plan working group with leaders in business, education, government, and non-profit sectors

1994-1998 Earth Tech Concord, MA__
Project Scientist, Permitting and Regulation

- Coordination and preparation of Final and Draft EIRs (MEPA process) for a range of projects from small wetland restoration to multimillion dollar gas fired electrical generation facilities.
- Knowledge and application of numerous State and Federal air, water resource, hazardous, and solid waste regulations, laws and policies.
- Direct field experience with water resource projects:
 - pond, bog, and other surface water sampling.
 - groundwater quality well sampling.
 - tracking of contaminated groundwater plume.
 - delineation of wetlands.
 - terrestrial ecology river studies
 - hydrogeologic work including installation of seepage meters.

Air Quality Modeling Scientist

- Application of various EPA air quality models.
- Installed and managed operation of Continuous Emissions Monitoring System at large industrial power plant including preparation and filing of required annual and quarterly reports.
- Title V reporting
- Numerous engineering spreadsheet tasks.
- Conducted emission inventories and tracked total facility emissions.
- Conducted noise sampling, utilized noise model, prepared noise reports.

1992-1994 Toxic Use Reduction Institute Lowell MA
Research Assistant/Research Fellow

- Used database to analyze and interpret EPA TRI data and Massachusetts Toxic Use Reduction Act data.
- Prepared draft report on findings for public consumption.
- Prepared reports and presentation suggesting to senior management where TURI research should focus its resources.

1989-1992 We Remodel Inc. Manchester, NH
Owner/President of Residential Home Remodeling Company

1986-1989 Lakeside Builders Amherst, NH
Lead Carpenter for Residential Remodeling Company

1978-1983 H.J. Stablile & Other Framing/Building Companies, Framers

EDUCATION

M.S. Environmental Studies, Civil Engineering Dept., University of Massachusetts, Lowell.
B.S. Business Administration Whittemore School. University of New Hampshire.

AFFILIATIONS/CERTIFICATIONS

-*Certified Building Analyst, Building Performance Institute (BPI) Home Energy Rating Systems (HERS)*, successful completion of training and final exam
-*Certified Energy Auditor I Training*, State of Maine, Recognized in N.H. Residential Energy Performance Association, Affordable Comfort, Efficiency Vermont, State of NH Energy Code , National Grid...ongoing professional education.
-Phillips Lighting Specialist I Certification
-Home Builders and Remodelers Association of New Hampshire, National Association of Home Builders 2002-2005
-*40 HOUR OSHA HAZMAT AND CONFINED SPACE TRAINING*
-Formerly Air and Waste Management Association (AWMA).
-Massachusetts Toxic Use Reduction Planner (TURP)..

COMMUNITY SERVICE

-Energy & Environment Committee, City of Concord, NH, 2008 - present
-Carsey Institute Fellow, University of New Hampshire, 2008
-Board of Directors, Residential Energy Performance Association, 2008-2009
-Board of Directors, V.P. of Minors, Concord, NH Northeast Cal Ripken Youth Baseball
-Board of Directors, Mountain Green Homeowners Assoc. 2001-2004, Concord, NH

INTERESTS

Golf, road and mountain biking, kayaking, historic architecture.