RESNET
Residential Energy Services Network
Setting the STANDARD for QUALITY

Draft Minutes

RESNET Board of Directors Meeting
ICF International Office, Washington D.C
September 26, 2008

Members Attending
Ben Adams
Steve Byers
Richard Faesy
Philip Fairey
David Goldstein
Andy Gordon
Tom Hamilton
Bruce Harley
Michael Holtz
Mark Jansen
C.T. Loyd
Lee O'Neal
Greg Nahn
Kelly Parker
Bill Prindle
Robert Scott
Daran Wastchak
Erin Wiggins
Barb Yankie

Members Absent
Dennis Creech
David Wilson

Staff Attending
Steve Baden
Claudia Brovick

Guests
Lane Burt – NRDC
Laverne Dalgliesh - BPI
Cliff Majersik - Institute for Market Transformation
Ed Pollock – U. S. Department of Energy
Larry Zarker - BPI

Call to Order / Roll Call

Board President Philip Fairey called the meeting to order at 8:54 A.M. (eastern). Steve Baden took the roll call.

Approval of Agenda

Lee O'Neal made a motion to approve the proposed agenda. Kelly Parker seconded the motion. The motion passed.

Approval of July 12, 2008 Board Minutes

Greg Nahn and Kelly Parker requested that the draft minutes be amended to reflect that they did not participate in the teleconference.

Lee O'Neal made a motion to approve the amended minutes of the September 17, 2008, board meeting. Ben Adams seconded the motion. The motion passed. Michael Holtz abstained.

President's Report

Proposed letter to Barbara Collins

Philip Fairey updated the board on the status of the review involving Barbara Collins. Philip presented a draft letter to Ms. Collins for the board's review. After lengthy discussion of the letter, Daran Wastchak made a motion with a second from Kelly Parker that the letter be changed to include a statement that the matter will be referred to RESNET's Ethics and Appeals Subcommittee. Greg Nahn proposed as a friendly amendment that letter then be reviewed by legal counsel before release. The friendly amendment was accepted by Daran and Kelly. The motion passed.

Proposed Initiative on Retrofitting Foreclosed Homes

Philip Fairey discussed the September 25, 2008 draft white paper on his proposal to create an energy retrofit program for foreclosed homes that the federal government ends up owning (Attachment A). Philip requested the board's approval to pursue this initiative and create a small committee of board members to prepare and distribute information on the initiative for legislators and advocacy groups.

Kelly Parker moved to accept the initiative spelled out in the September 25, 2008 white paper and convene a board steering committee. Lee O'Neal seconded the motion. The motion passed. Daran Wastchak abstained.

Philip Fairey appointed Bill Prindle to chair the drafting committee. The following board members volunteered to serve on the committee: Ben Adams, Richard Faesy, Philip Fairey , Andy Gordon, Tom Hamilton, Greg Nahn and Robert Scott. Steve Baden will serve as staff to the committee.

Executive Director's Report

Steve Baden highlighted the status of achieving the 2008 RESNET Priorities adopted by the RESNET Board (Attachment B). He pointed out the accomplishments of RESNET adopting the National Energy Audit Standard and development of the joint RESNET/BPI Comprehensive Energy Audit Standard.

Steve Baden then explained three key initiatives that he was working on:

Fannie Mae Energy Efficient Mortgage Initiative

As part of the Fannie Mae and Freddie Mac bail out legislation Congress included language that stated, "Energy efficient mortgages could play an important role in a national effort to make homes more energy efficient." The legislation set the requirement that Fannie Mae and Freddie Mac identify barriers that have prevented widespread adoption of energy efficient mortgages; give recommendations to Congress to alleviate the obstacles; and authorize a public education and marketing campaign for these mortgages.

Steve reported that shortly after the legislation was signed into law the production department of Fannie Mae began a dialogue with RESNET. The results of the talks to date have identified the following priorities for Fannie Mae in crafting a usable energy efficient mortgage:

- A focus on improving the energy performance of existing homes
- Tying the financing to a home energy ratings
- Demonstrate that homes that have been rated as energy efficient decreases the risk of foreclosure and improves the loan's performance

To meet the later goal RESNET is working with Fannie Mae in a national analysis of homes that were energy rated. The findings of this analysis will drive what types of loan products they would be willing to offer for energy efficient building. RESNET is in the process of gathering data from providers to assist Fannie Mae in their analysis.

Software for Existing Homes

Steve reported on the work of the Existing Homes Rating Software Task Force. He referred to the summary of the September 8, 2008 meeting of the task force (Attachment C). Once committee has completed its work Steve reported that he

will proposed an amendment to the RESNET standards to require both an asset and an operation rating score on the rating report for existing homes..

Web Based Networking Program

Steve Baden explained the plan for creating a RESNET Web Based Networking Program as described in his handout (Attachment D). Michael Holtz made a motion that RESNET staff proceed with the plan. Daran Wastchak seconded the motion. The motion passed.

RESNET Financial Update

Treasurer Lee O'Neal reported that RESNET's finances are in good shape. As of September 20, 2008, RESNET has $660,164.47 and the expenses are tracking the budget approved by the RESNET Board.

Proposed 2009 RESNET Budget

Lee O'Neal presented RESNET staff's recommendation for the 2009 RESNET budget (Attachment E).

C.T. Loyd moved that $5,000 be added to the budget for legal support and that the RESNET Board adopt the following budget for 2009:

Professional Services **$480,000**
- Steve Baden
- Claudia Brovick
- Kathy Spigarelli
- R.L. Martin & Associates
- RESNET Standard ANSI/ISO Review
- National Building Registry Development
- Legal Support
- Other Professional Services as Needed

Accounting **$30,000**

Travel **$90,000**

Supplies **$12,000**

Other/RESNET Conference **$260,000**
- Banking Service Charge
- Rater Member Home Energy Subscriptions
- Internet Services

- Postage & Delivery
- Telephone
- Insurance
- Copying & Printing
- Conference Food & Beverages

Total Proposed Budget **$872,000**

Bill Prindle seconded the motion.

The motion passed.

The board requested that for the 2010 budget analysis RESNET staff will provide a three year expense comparison as well as a budget comparison.

RESNET/BPI Standards Development

Phillip Fairey updated the board on his work on the ISO 169 Committee. He and Steve Baden will be attending the next meeting in Holland in October.

Laverne Dalgliesh made a presentation about the options available to RESNET and BPI on becoming an ANSI standards development organization. The RESNET Board committed to Laverne to make a decision regarding the way in which RESNET wishes to proceed regarding a standards development organization within 30 days.

In addition, the board requested that RESNET staff write a white paper on implementing the certification of individuals to the proposed RESNET/BPI joint Comprehensive Audit Standard after which a Board teleconference will be held.

Consideration of Adopting Set of RESNET Residential Energy Efficiency Initiatives to Advocate to the New President and Congress

Steve Baden presented a set of initiatives for the new President and Congress that the RESNET Board should consider adopting (Attachment F).

Mark Jansen moved that the RESNET Board adopt the following residential energy efficiency initiatives to be advocated to the new President and Congress:

- Time of Sale Energy Assessments
- Financing of Energy Improvements of Existing Homes
- Utility Energy Efficiency Portfolio Standards with a Building Energy Efficiency “Carve Out”
- Performance-Based Federal Tax Incentives
- Energy Retrofit Emergency Fund
- Building Codes to be based on total cost over 30 year period

- Adopt Policy that Sets the Goal of Having Net Zero Energy Homes as the Standard of Construction by 2030
- Foster Development of Residential Energy Service Companies (ESCos)
- Revise Mortgage Financing Underwriting Guidelines to Factor the Energy Performance of a Home into the Mortgage Loan

Robert Scott seconded the motion.

The motion passed.

Board members were asked to review the white paper prepared by Steve Baden and send him suggested edits by October 15, 2008.

Adopt RESNET 2009 Priorities

Steve Baden presented RESNET's Proposed 2009 Priorities (Attachment G).

Kelly Parker made a motion to accept the proposed priorities. Andy Gordon seconded the motion. The motion passed.

RESNET Standing Committee Reports

Quality Assurance and Ethics Committee

Committee chairman, Ben Adams reported the following:

- The QA monitoring process is on schedule.
- There were no ethics complaints filed to date in 2008.
- The committee will be submitting a proposed standards amendment on the accreditation of rating providers.
- The committee voted that provider applications must identify the providers QA designee and include a copy of the contract with the designee, either in the application, or before final approval.
- The issue of quality assurance for low volume raters issue continues to be an issue that the committee is addressing.

Technical Committee

Bruce Harley reported the following:

- One formal interpretation has been issued on ventilation since February
- The Comprehensive Audit Standard is complete and in the public comment process
- The proposed IR Standards were sent back to the IR Standards drafting committee this week

- The discussion on heat pump and air conditioning commissioning is ongoing
- The committee intends to be more proactive rather than reactive

Training and Education Committee

Mark Jansen reported the following:

- The changes made to the test after the 3-day summit in Denver should be on-line soon.
- The committee will be soliciting new test questions from training providers at the RESNET Conference.
- A contract has been awarded to Texas HERO to draft the new Rating Field Inspector test questions.

Standards Committee

Michael Holtz described the purpose of this new committee as follows:

The committee will be responsible for oversight of the process for amending the RESNET Standards to ensure that ANSI and ISO protocols are followed. The committee will review proposals submitted by the RESNET standing committees to ensure that they are in the proper format, consider public comments and recommend to the board the adoption of amendments. The committee will be also responsible for the maintenance of the standards.

The committee composition, term limits, and caps will be established, and the committee will have members representing "general", users of the standards, and related industry and government.

Proposed Japanese RESNET Affiliate

Mark Jansen presented a draft Agreement of Cooperation between RESNET and Japan Energy Star Council (Attachment I).

Michael Holtz moved that the board approve the proposed agreement with the specific dollar amount for RESNET professional services proposed in Annex 1 of the agreement allow for negotiation of fees and travel expenses. David Goldstein seconded the motion. The motion passed. C.T. Loyd and Daran Wastchak abstained.

RESNET Task Force Update

RESNET Green Rater

Kelly Parker reported that the training materials for RESNET Green Rater—106 pages of lesson plans and how to teach over 2 days have been sent to Green Rater Task Force

Barb Yankie proposed that the future Fall Board Meetings be expanded to one and half days. The board directed staff to evaluate this suggestion.

Adjournment

Mark Jansen made a motion with a second from Bruce Harley to adjourn. The motion passed. The meeting adjourned at 3:07 P.M. (eastern).

Respectfully submitted,

Bruce Harley
Secretary

Attachment A

RESNET Initiative to Create a Federal Resolution Trust Corporation for Energy Efficiency Improvements to Stranded Home Assets

September 25, 2008

Background:

- The US is facing a meltdown in credit liquidity in its financial markets. Subprime mortgages, foreclosures and falling real estate values are touted as the primary cause. As an example, the LA Times recently reported that, in Southern California, 50% of the homes currently being sold are repossessed homes.
- Under pressure from Treasury and the Federal Reserve, crisis deliberations are underway in Congress on a $700 billion bailout of the distressed credit markets (i.e. Wall Street).
- There are rising concerns about the US jobs market, with unemployment rising and with the construction industry experiencing a major contraction.
- Energy costs are rising, presenting another significant challenge to the future health of the US economy.
- There are significant concerns on the part of the public and governments – local, national and international – over the issues associated with global climate change.
- A Resolution Trust Corporation may be created to address part of the credit liquidity problem. In this case it is likely, as in the 1980's, that property asset companies will be retained to enhance foreclosed prosperities prior to sale.

Proposal:

- The federal government should create a special RTC that requires property asset companies to:
  - Subject each foreclosed home to a comprehensive home energy audit that would identify all cost-effective energy improvements
  - Define *cost-effective* as based on a 30-year fixed-rate simple-interest mortgage at the original appraised value of the property plus the cost of all improvements, evaluating improvement based on the total present value cost of the home, including projected energy costs
  - Install all cost effective improvements
  - Set a federal goal to improving the energy performance of the portfolio of all foreclosed prosperities by 30%
- The purchaser of the home pays for all improvements to the property in the mortgage loan through an ex post facto Energy Improvement Mortgage based upon the current Fannie Mae Guidelines as follows:

    - The financing of the upgrades would be spread over the 30 life of the mortgage
    - The borrower would have no additional down payment as a result of the energy upgrades
    - The mortgage would not require additional income to qualify for the loan with the energy package

Benefits:

- This plan would add value to the government's assets, raising the revenue to the government from stranded home assets.
- The plan would help the U.S. reduce its dependence on imported oil while cutting carbon emissions from the homes sold through the Resolution Trust
- The plan would add jobs to the economy in construction – our most distressed industry sector; and in the energy efficiency technology sector – our most needed new skills in an energy and carbon constrained economy
- The plan would likely result in program "overflow" with the new housing retrofit skills and industries, created by the opportunity, spilling over into the remainder of the housing market, creating additional jobs and improving the efficiency of a much expanded number of existing homes
- The plan would not impinge on the borrower's ability to afford the mortgage because the total monthly cost of owning the property would actually be less than the total monthly cost of owning the property if the efficiency of the home was not improved
- In the long run, the plan may not cost the federal government nearly as much as a more standard RTC process due to the value added benefits of the energy upgrades, which may substantially increase the market value of the homes and which the consumer would pay in full in the mortgage loan

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Status of 2008 RESNET Priorities

That Were Adopted by the RESNET Board of Directors in September 2007

- **Ensure the Quality of Rating a Building's Performance** – RESNET staff has continued its ongoing quality assurance activities including quality assurance oversight of providers, maintaining the RESNET Standards, accreditation of providers and administration of the national rater test. In 2008 RESNET staff will again complete a quality assurance review of all accredited rating providers.

- **Tapping the Existing Homes Market** – The following have been accomplished to date:

    - Adoption of a RESNET National Energy Audit Standard
    - Developing a Draft Joint RESNET/BPI Comprehensive Audit Standard
    - Beginning Discussions with the State of Nevada on Developing Regulations for Energy Assessment of Homes at the Time of Sale
    - Developing a Partnership with the National Council of State Legislatures on Residential Time of Sale Legislation
    - Entered into a Memorandum of Understanding with the Eco Brokers program

- **Overcoming the "First Cost" Barriers in Improving the Energy Performance of Buildings** – Previously the RESNET Board of Directors adopted a policy on making energy efficient mortgages relevant. Included in the policy statement was the advocacy that Congress require the secondary mortgage markets of Fannie Mae and Freddie Mac prepare a report to Congress on how they would encourage improving the energy performance of homes through a mortgage loan.

  RESNET's voice was heard on this issue. The home foreclosure law passed by Congress included a policy statement that energy efficient

mortgages should play an important role in the national effort to make homes more energy efficient. The law also requires that Fannie Mae and Freddie Mac must identify the barriers that have prevented the widespread use of the feature and present recommendations to Congress to alleviate the obstacles. The law also authorized a public education and marketing campaign for energy efficient mortgages.

The legislation has already netted results. For the past two months, RESNET staff has been in a proactive dialogue with the Loan Production Division of Fannie Mae on improving their energy efficient mortgage feature.

- **Harmonizing the Standards for Rating the Energy Performance of Buildings** – The following has been accomplished to date:

    - RESNET Board President Philip Fairey appointed by ANSI to serve on the ISO working group on developing an international standard for rating building energy performance
    - Representatives of the Shanghai Real Estate Science and Research addressing the 2008 RESNET Board meeting and the 2008 RESNET Conference on harmonizing their energy standards with RESNET's Standards
    - Entering into a strategic cooperation with BPI
    - Steve Baden appointed to the Organization of Economic Development and Cooperation's committee to develop a global sustainable building network
    - Entering into discussion with the Japan Energy Star Group on becoming an affiliate with RESNET

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Summary of September 8, 2008 Meeting of RESNET Existing Homes Rating Software Task Force

Members Present

Steve Baden, RESNET
Michael Blasnik, M. Blasnik & Associates
Philip Fairey, Florida Solar Energy Center
Joel Gilbert, Apogee Interactive, Inc.
Matt Golden, Sustainable Spaces
Jeff Haberl, Energy Systems Laboratory
Bruce Harley, Conservation Services Group
Ron Judkoff, NREL
Michael L'Ecuyer, ICF International
David Lee, EPA
Lee O'Neal, CGE Solutions
Ed Pollock, DOE
Rob Salcido, Architectural Energy Corporation
Greg Thomas, Performance Systems Development

Members Not Present

Dave Abrey, Green Homes America

Guests Present

Diane Ferrington, Oregon Energy Trust
Dale Hoffmeyer, EPA
John Laun, Apogee Interactive, Inc.
Marc Milin, ICF International
Chandler Von Schrader, EPA

Steve Baden opened the meeting giving an overview of the needs for software verification tools for existing homes:

A ”Institutional Purposes” (e.g., Energy Improvement Mortgages, Time-of-Sale Labeling, White Tags, Carbon Offsets) – This uses modeled performance, and is not driven by consumer behavior. Often called an “Asset Rating,” it is the current RESNET rating method.

B “Informative” to guide homeowners in making decisions regarding making energy improvements to a home. This needs to account for consumer behavior, and is often called an “Operational Rating.”

It was explained that in the European Union there are two ratings – an asset rating (using standard operating conditions) and an operational rating (using measured energy use data). They are both presented in the rating report on existing buildings. The California Energy Commission is also considering the same track for its existing home rating standard.

Mr. Baden stated that it was RESNET’s intent to require options A & B in the rating of existing homes.

A discussion followed. The following issues were identified:

- Using both options would present an opportunity to provide feedback for consumer, raters, and over time to software design and standards development.
- There would be a need to control what raters can tweak in the operational rating in the interest of correlating the operational rating with measured energy use
- Consumers would need education on the differences between the two ratings
- It would not necessarily specify that both need to be completed in a home. Outside of a “full” rating, option B could stand alone.
- The need for carbon emissions standardization, and a suggestion to follow the approach being adopted by ASHRAE (See e-mail from Jeff Haberl – Attachment II)
- Pool, spa, electric water heating loads and their influence on modeling bill analysis--not addressed currently in RESNET standards
- There are recent studies that appear to show that RESNET accredited software currently over predicts heating consumption in cold climates for poorly insulated houses

Ed Pollock then gave an introduction to NREL’s effort to develop BESTEST-Ex. The purpose of this is develop a set of tests that would verify how well the retrofit software being tested calibrated results to given utility bill data, and see how well the calibrated models predict savings for the various retrofits (see Attachment)

An advisory committee has been formed and will have its first meeting in October. Ed stated that NREL will interface its effort with the RESNET task force.

The meeting concluded with the following plan of action:

1 The first effort will focus on developing the specification for the operational rating (B). This would include:

- Providing input and tracking progress on NREL's effort to develop BESTEST-Ex and if necessary develop an interim process for the reconciliation of utility bills, with specific attention to
    i. Weather normalization methods
    ii. Acceptable user characteristics for modification
- Determine the set of tests to verify consistency for software programs producing an operational rating
- Create software standards and tests for software that meets that standard for operational ratings
- Define acceptable range criteria for the software verification process
- Establish a process for accrediting software programs that comply with the new RESNET operational rating standard

2 Develop recommendation on how RESNET would treat the rating report that is presented to the consumer (the asset and operational ratings), including explanatory collateral information to help the consumer interpret the results

3 Investigate simplification of the current rating method (asset rating) for existing homes

4 Until the ASHRAE carbon tool is developed, develop an interim RESNET standard on calculating carbon emissions of homes

5 Define how RESNET will gather the data from operational ratings to improve the asset rating model

Steve Baden announced that RESNET would open the task force's membership to all interested parties. The members that participated in the meeting will serve as the drafting subcommittee. The role of the expanded task force would be to review and comment on draft works developed by the subcommittee.

Task force members were encouraged to review Appendix I on the BESTestBESTEST-Ex and provide input to Steve Baden on the considerations that NREL should make in the development effort. Steve will compile and forward to NREL.

Attachment I

Thoughts on Validation for Retrofit Calibration/True-up: BESTEST-EX

R. Judkoff
National Renewable Energy Lab
9/4/08

Thoughts on Validation for Retrofit: Calibration/True-up

- Would like to calculate energy retrofit packages that get most “bang for the buck”
- Existing bldgs have real base case, but there is uncertainty around the energy related parameters of the building
- Need to match energy bills for credibility and hopefully to reduce the uncertainty of the modeling
- It is possible to match energy bills for the wrong reasons…if so energy savings predictions and retrofit choices may be very far from optimal.

Judkoff NREL

BESTEST-EX (for Existing Bldgs) (1)

- Form tech committee of retrofit software producers (first meeting has been scheduled)
- Create test cases with equivalent input data for best state of the art simulation programs (for example: E+, DOE2, etc.) (that input data is kept secret for testing purposes)
- Generate base case synthetic utility bill data with best simulation programs for the test cases.
- Provide input data that the various retrofit software packages use, but with a degree of uncertainty agreed to by the tech committee similar to the degree of uncertainty that exists in the field.
- For the test cases provide to each retrofit software participant the input data that they normally use, but with the previously mentioned uncertainty included.
- Also provide the previously generated utility bill data to the retrofit software participants for them to use for calibration/true-up of their models.

BESTEST-EX (2)

- For the test cases generate energy savings for various retrofit packages with state of the art simulation programs
- Test the retrofit software and true-up/calibration techniques against the base case energy and savings outputs from the state of the art simulation software
  - That is: check to see how well the retrofit software being tested calibrated or trued to the given utility bill data, and see how well the calibrated/trued-up models predict the savings for the various retrofits
- Cross check with empirical data where possible (real houses)

Attachment II

Steve:

Here's the latest from Hal Levin and ASHRAE Toolkit.

Jeff

From: sbse-bounces@uidaho.edu [mailto:sbse-bounces@uidaho.edu] **On Behalf Of** Hal Levin
Sent: Thursday, September 04, 2008 2:43 PM
To: sbse@uidaho.edu
Cc: jerelyn@bgsuite.com; Haglund, Bruce
Subject: Re: [Sbse] FW: Measuring a Building's Carbon Footprint

SBSEers,

After you have read the EBN article on buildings' carbon emissions, you will want to stay tuned for the public release of a project just completed by Energy and Environmental Economics (E3) of San Francisco for the California Energy Commission -- "Developing a Greenhouse Gas Tool for Buildings in California: Methodology and Use." It is a carbon emissions calculator based on California data (only) and using dispatch software rather than historical data. But it will

show the users how much difference alternative design and operational strategies make in terms of carbon emissions that don't always map one-to-one with energy consumption due to the different sources of energy at different times of the day, week, and year in California. It provides both marginal and total carbon emissions results. It is not tuned to the weather conditions that give rise to different energy consumption in buildings and, at least in the case of hydro, different sources of energy with different carbon emissions implications. There are plans to post the spreadsheet on the E3 web site so that anyone can use it or at least play around to get a feel for what it is like to use electric energy at different times of the year or to make trade-offs between on-site combustion and electricity generation or to substitute conservation or energy efficiency measures for supply options.

Another project completed by Synapse Energy Economics in Cambridge, MA, -- ANALYSIS OF INDIRECT EMISSIONS BENEFITS OF WIND, LANDFILL GAS, AND MUNICIPAL SOLID WASTE GENERATION. It is based on historical data for 2005 for the entire country and gives hourly emissions for all regions of the country. Again, it is only for that one year and is not necessarily applicable to any other weather year. . It shows that for some regions of the country, using an annual average value can distort the annual total carbon emissions by as much as ~60% while in other regions, there is little difference between an annual average value and an annual total based on 8760 hourly values. I can forward a copy of the report to anyone who sends me an email requesting it or you can download a copy of the report from http://www.synapse-energy.com/Downloads/SynapseReport.2008-07.EPA.EPA-Indirect-Emissions-Benefits.06-087.pdf

We (at ASHRAE) continue to work on developing a tool that will combine the best features of both of these projects in the ASHRAE project committee, and hope to issue an RFP to address some of the unanswered questions about the uncertainties associated with the alternative approaches to developing the emissions database that would be necessary for the ultimate tool we want to develop for use with popular building energy simulation software. If you want to know more about this project, let me know. I can forward the Statement of Work we developed at our workshop last May for the next phase of our project. Our present task is to revise it into a Work Statement for funding by ASHRAE. We are awaiting news on a possible project to be funded by DOE to develop data for use in a building carbon emission calculator before finalizing our Work Statement. We hope to submit the project for approval by ASHRAE's Research Advisory Committee at the Winter Meeting in Chicago in January.

hal levin
email: hal.levin@buildingecology.com
web: http:/buildingecology.com

Attachment D

Plan for Creating RESNET Web Based Networking Program

Introduction

In order to meet RESNET's objective to be the premier network for the building performance industry, it is crucial that RESNET remains up to date with the latest technology and use every means available to disseminate information to its members. Recently, there has been a truly revolutionary transformation in how information is shared through the internet. Rather than solely relying on webpages made by professionals, internet users are beginning to turn to user generated pages and social networking sites which allow them to share and receive information with little knowledge and experience in web-building. The success of websites such as "myspace", "facebook", "youtube", and "Wikipedia" have heralded a new age of user-generated webspace that has been called "web 2.0." In order to meet its goal of creating a building performance community, RESNET must become part of the web 2.0 Revolution. This can be achieved for a minimal cost, and ensure that its web services remain up to date, and as productive as possible.

Some of you may be wondering how websites such as myspace.com, which are generally known as vanity sites for teens, can be relevant to RESNET. The best example of professional usage of a networking web-feature has been Barack Obama's successful campaign for the Democratic presidential nomination. Barack Obama's website enabled his volunteers to meet other supporters, and post events that they were planning on the campaign network. Literally thousands of user-groups were created by supporters who logged onto the website, each with their own list-serve. Some examples of these user-generated groups were, "UCLA for Obama," "Southern California Baby Boomers for Obama," and "Musicians for Obama." The list-serve allowed each group to send emails to each other to plan events, and expand their contacts of like-minded people in their area. This ability gave Obama an edge in organizing what turned out to be crucial in caucus states.

There is a great potential for RESNET to create a similar network. By creating a similar networking site, users could find or organize building performance events that are occurring in their region. Users can join list-serves that could consist of regional raters, environmentalists, builders, building science professionals, or building performance professionals.

The following are scenarios in which a network would be beneficial:

- A local regulatory body meeting in Chicago to consider a regulation requiring ratings of all homes as part of the permitting process. A proponent of energy efficiency could send messages on the list-serves for local environmentalists and raters to attend the meeting.
- During a RESNET Conference, users from a given state could plan a social gathering in conjunction with the conference in which they could get together to know each other better and cooperate in the future.
- If there is an upcoming vote in Congress on extending the energy efficient building tax credit, an email message could be sent directly to interested parties, rather than in an article on the second page of RESNET Notes.
- RESNET accredited rater training can market upcoming rater training sessions by using the list serves to advertise it.

Of course this network will encounter some challenges. Two of them being, how do we get people to use it and how do we prevent them from abusing it?

Networking sites have traditionally been dominated by young tech-savy users, but professionals within the building performance industry are often older and less familiar with the latest fads on the internet. To familiarize people with the concept, there must be extensive outreach through RESNET Notes, the network must be given a prominent section on the RESNET homepage, and it may also be productive to feature some events on the network in order to create traffic and allow members to familiarize themselves with the feature.

What Would a RESNET Networking Feature Look Like?

Appendix I includes screen shots that use the Barack Obama website as a model for what a RESNET network could look like. The majority of these screenshots are taken from the Obama campaign's website, and photo-shopped to make it apply to RESNET.

Marketing Plan

As previously mentioned, a successful RESNET networking site will not be easy to accomplish since the demographics of RESNET members are generally older than those who have made other user-generated sites a success. A RESNET networking site would require all the traditional methods of outreach such as a prominent place on the homepage, frequent mention in RESNET notes, and discussion with board members. The single most important key to making a successful site is ensuring that there are always events posted. Members are unlikely to return if they believe no one is updating the page. RESNET staff would therefore, highly urge members to post all events that they plan to attend on the RESNET networking site. Having events frequently posted will encourage others to post their own. The goal of the site should be to make it a virtual

Energy Efficiency Calendar of Events. It must be a top priority to have all RESNET employees posting any event they are planning, whether it be a testing date, rater training, or even a business-related social event. The more events posted, the more people will use the site, even if they don't end up attending.

It is also crucial that RESNET does not release its networking site until it has been effectively advertised. A RESNET Conference would be the perfect venue for introducing the tool, and a training session could even been offered to go over the details. This would ensure that all members are familiar with the concept before they have even seen it. It would be disastrous if the networking page was online for a month and had no events posted.

How Do We Build It?

Fortunately, building a social networking feature is not too expensive. Several services are offered online that will let you build your own social network such as ning.com. Ning has already hosted several successful networks for educators, body builders, and other groups. The network for educators is a wonderful example of what a successful RESNET network would look like and can be accessed at http://education.ning.com/. Ning offers its services for free, but charges a monthly fee for additional services such as a non-ning.com domain name, additional bandwidth, and removing advertisements. Designing and maintenance is simple, and could be designed and managed from afar. If we want to keep the network for members only, we could set the network to "private' and require administrator approval for joining, which would also allow us to remove former RESNET members.

RESNET is fortunate that my son John is experienced with this area. In the California Democratic Primary he was active in the Obama campaign and made extensive use of the Obama web based network to connect volunteers and advertise campaign events. A greater majority of the campaign team found each other through the network. John has agreed to set up a network for RESNET.

How Much Will it Cost?

It is estimated that it will cost only $1,000 to set up a RESNET Networking Program using the current RESNET web site as the foundation.

There is very little risk in this investment, because if the site is not being used it can be shut down immediately, with no contract obligations. Basically, the better it works the more it will cost, but if it does not work, it will cost very little.

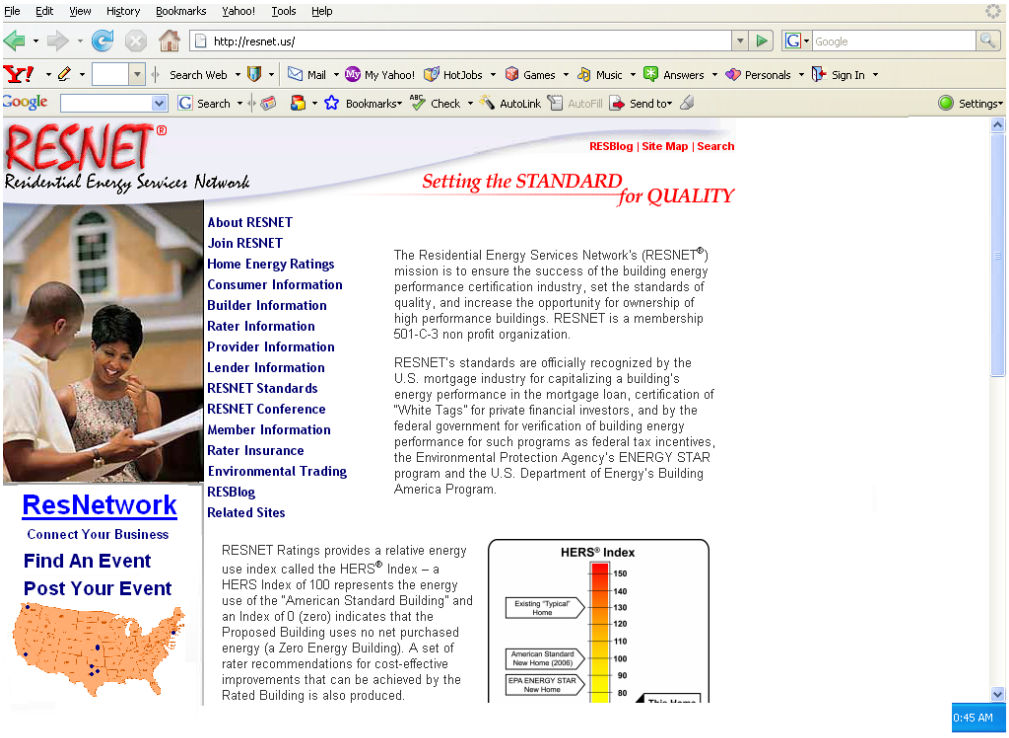
Conclusion

It is in RESNET's interest to add a social networking feature to the RESNET website. This will allow people from all across the building performance to

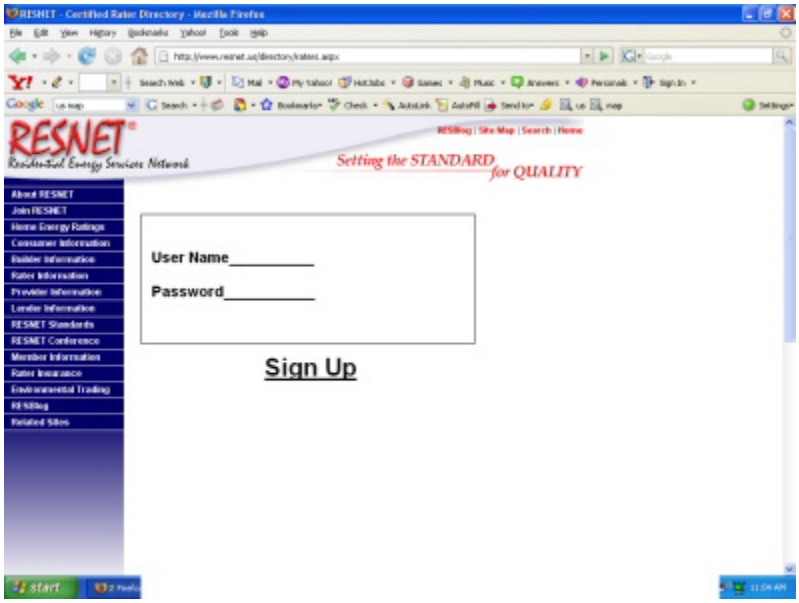
network and rely on themselves for posting information and interacting with other professionals. Getting people to use the feature will not be easy, and the release of the program must be done with great fanfare to familiarize raters with it. Despite this challenge, the low cost of creating such a program gives RESNET very little to lose and much to gain.

Appendix I

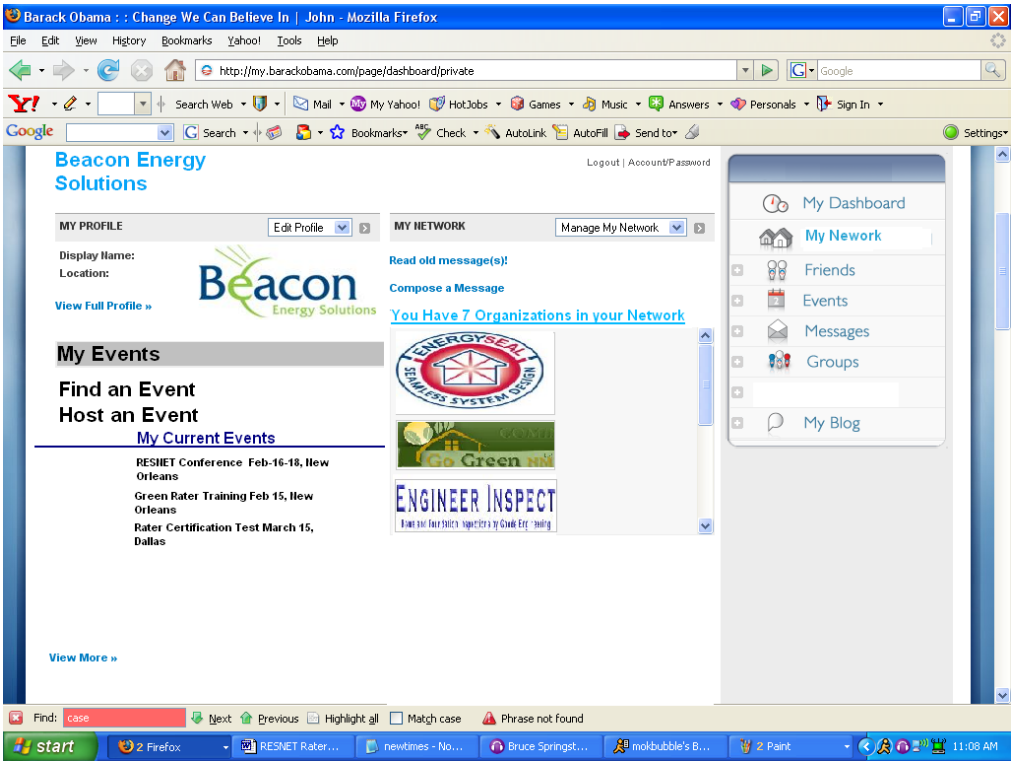
Step: 1 The networking page is given a prominent place on the RESNET homepage, with a map showing users various events occurring in the country.



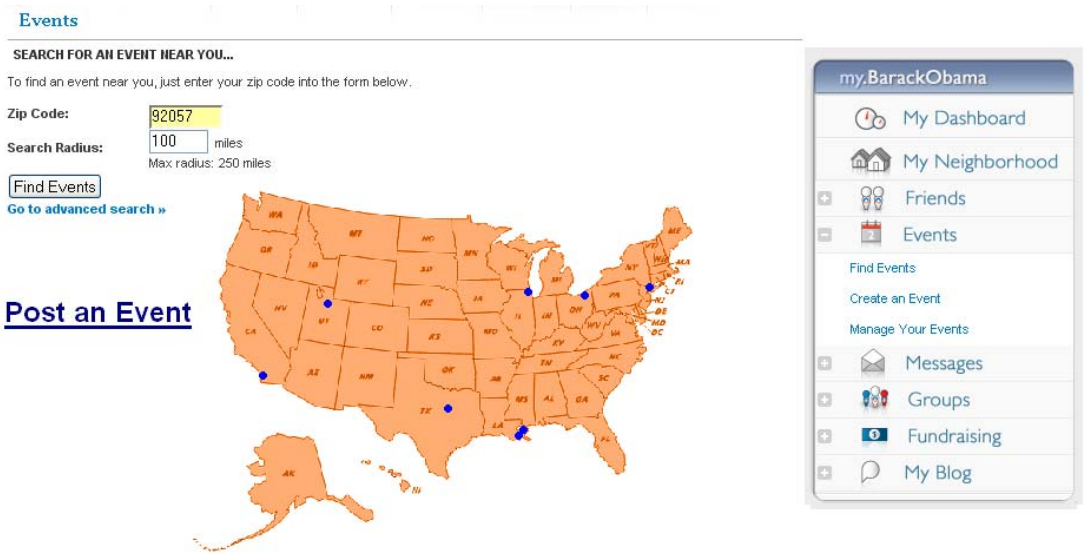
Step 2: After clicking on ResNetwork, the user is asked to either sign up, or login. It will be necessary for a mechanism for each user to be create their own username and password. There should be no charge, and the signup page must CLEARLY differentiate the difference between joining RESNET and signing up for ResNetwork (or whatever we end up calling it).



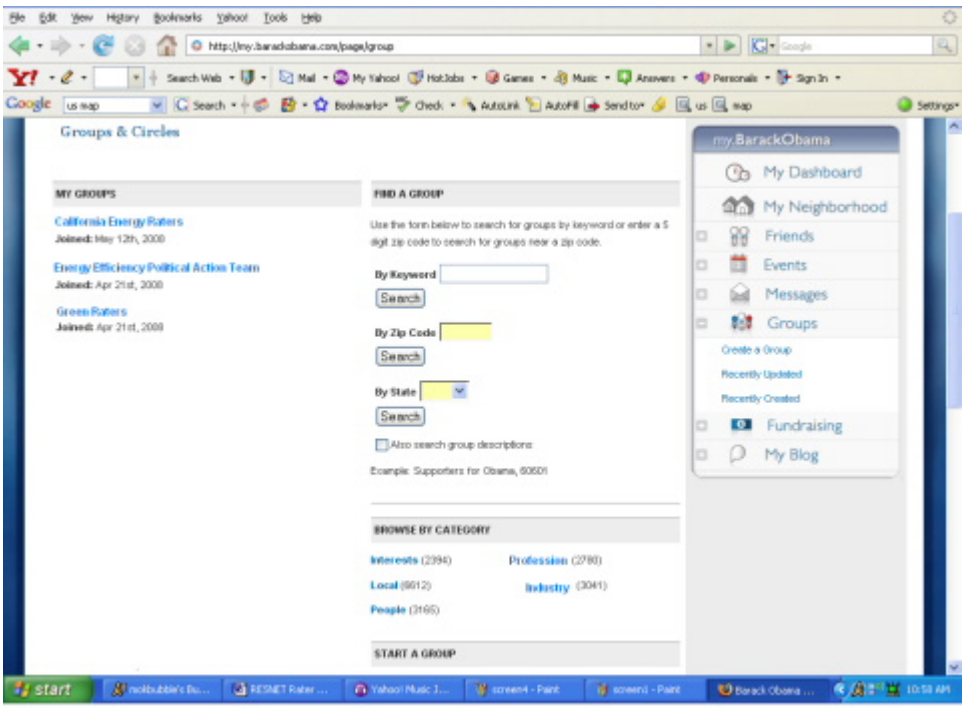
Step 3: After signing in, the user, (in this case someone working for Beacon Energy Solutions) is sent to his homepage. The user has the option of finding events in his area, posting an event, joining a group/list-serve, adding other users/organizations to his/her "network," or checking up on messages any users may have sent him/her.



Step 4: If the user is interested in finding a event, he/she is sent to a map and the option to search for events within a radius of his or her address. The user is also given the option of posting an event.



Step 5: The user now clicks on the groups section of the website. Each time the user joins a group, he or she is now a member of a list-serve, and may now send emails message to all members of that group. The user may join groups by rationality, profession, interests, or a mixture. This user has already joined California Energy Raters and the Energy Efficiency Political



Attachment E

2009 Projected Income

Projected Income

Accreditation/Membership Fees		$450,000
RESNET Conference		$306,000
Testing Fees		$ 70,000
Grants/Contracts		$85,000
Building America (carry forward)	($60,000)	
New grants/contracts (TBD)	($25,000)	
Interest Income		$4,000.00
Total Projected Income		**$915,000**

2009 Proposed Budget

Professional Services	**$475,000**

- Steve Baden
- Claudia Brovick
- Kathy Spigarelli
- R.L. Martin & Associates
- RESNET Standard ANSI/ISO Review
- National Building Registry Development Standard Changes
- Other Professional Services as Needed

Accounting	**$30,000**
Travel	**$90,000**
Supplies	**$12,000**
Other/RESNET Conference	**$260,000**

Banking Service Charge ($13,000)
Rater Member Subscriptions to
Home Energy ($11,500)
Internet Service ($1,500)
Postage & Delivery ($2,500)
Telephone ($6,000)
Insurance ($3,000)
Copying & Printing ($3,500)
Conference Food & Beverage ($219,000)

Total Proposed Budget	**$867,000**

2006/2007/2008 Budget Request Comparison

Proposed Budgets	**2007**	**2008**	**2009**
Professional Services	$322,000	$402,000	$475,000
Accounting	$15,000	$30,000	$30,000
Travel	$70,000	$85,000	$90,000
Supplies	$5,000	$12,000	$12,000
Other/RESNET Conference	$217,000	$253,000	$260.000
Contributions	-0-	-0-	-0-
Total Proposed Budget	**$629,000**	**$782,000**	**$867,000**

Attachment F

Tapping the U.S. First Fuel – Policy Initiatives to Improve Residential Energy Efficiency

Introduction

Currently America is facing a critical challenge to its energy and environmental future. The nation is facing all of the following daunting challenges:

- Peaking oil production and growing dependence on imported oil
- Global climate change
- Inadequate electrical capacity

Energy efficiency is seen by many energy policy experts as the "first fuel" needed to meet these challenges. The reasons that this particular term has been coined include:

- Energy efficiency is the least cost carbon mitigation option.
- It represents the only immediate near-term resource option.
- It is a resource that is available everywhere in large amounts (We have only scratched the surface of achieving its cost effective potential.).
- It represents the least cost option for the American economy in that it creates large numbers of jobs that can not be outsourced and significantly reduces energy payments to foreign countries.

If energy efficiency represents our "first fuel", how will we take advantage of this opportunity?

The American Council for an Energy Efficient Economy advocates and RESNET supports the following steps:

- Adopt policies that overcome market barriers that prevent maximizing the full economic potential of energy efficiency.
- Adopt climate policies that exploit energy efficiency.
- Provide affordable and accessible financing.

In order to address the energy and environmental challenges the United States faces, energy consumption in buildings must be addressed. The U.S. Department of Energy's Energy Information Administration reports that building energy use represents 70% of U.S. electricity consumption and is the nation's largest source of carbon emissions (39%).

Estimates are that the U.S. could cost-effectively save about 30% of U.S. building energy use today through improved efficiency. It is probably reasonable

to expect that new building energy use could be reduced by at least 60% by 2030 and that existing building energy use could be reduced by at least 40% by that time. That would free up about 21% (0.85 trillion kWh/y) of 2006 electric energy use by 2020 and 35% (1.4 trillion kWh/y) by 2030.

One of the key challenges for the new presidential administration and Congress will be crafting policies to address the nation's energy and climate change challenges. To assist in the process, the Residential Energy Services Network (RESNET) worked with a wide array of energy efficiency advocacy and environmental organizations in developing a set of initiatives to tap the potential that residential energy efficiency represents. RESNET used the set of principles adopted by the G8 climate initiative as the starting point for its recommendations.

Clearly, priority must be placed on existing housing stock. There are more than 107 million existing residential units in the U.S. The Brookings Institute has estimated that 75% of all buildings that will be in use in 2050 are already built. It is simply not tenable to purport that we can make significant progress in achieving all cost-effective building energy efficiency solely through better energy codes for new buildings.

Proposed Residential Energy Efficiency Initiatives

Time of Sale Energy Assessments

A large barrier to the ability of consumers to place a premium on energy efficient homes is the lack of information on the prospective home's energy performance. Fannie Mae has reported that energy represents the highest cost of housing outside of the mortgage loan. With a readily understandable, uniform label of a home's energy performance, a consumer can make an informed decision on the home being considered for purchase. The European Union recognizes the importance of providing this information to consumers. As a cornerstone of its climate change initiative, the European Commission has adopted the Energy Performance in Buildings Directive (EPBD), which requires that a building's energy performance be rated at the time of sale or change of occupancy.

This effort has moved to the U.S. shores. Already the State of Nevada has enacted legislation that requires an energy assessment of a home at the time of sale. There are four other states considering such legislation. However, unless these efforts result in a uniform method of determining the home's energy performance, consumers and the marketplace are likely to remain confused and a large part of the advantages of labeling will be lost.

The federal government is urged to encourage and assist states in adopting and implementing legislation and regulations to require the uniform labeling of a home's energy performance at the time of sale.

Financing of Energy Improvements of Existing Homes

Another key barrier to improving the energy performance of buildings is the "first cost basis" where the up front costs of investing in energy upgrades are not made despite their economic attractiveness. In order to capture the economic potential of improving building energy performance, innovative financing needs to be encouraged. The federal government must take an active role in working with financial organizations, states and utilities in developing effective financing tools. Following are a number of innovative options:

- Loan Guarantees – As it does with student loans, the federal government can reduce risk to lenders and this will result in lower interest rates. In the 2005 Energy Policy Act Congress authorized a loan guarantee program and capitalized the program with $30.5 billion. The U.S. Department of Energy should be mandated to include a portion of this fund to guarantee loans for the upgrade of building energy performance.

- On-Bill Financing – A major barrier to improving the energy performance of existing homes is the lack of affordable financing. This problem is even greater with the loss of home equity and tightening of credit as a result of the current lending crisis. Recognizing this, an innovative way to finance energy efficiency upgrades would be to have the loan go to the utility meter. A small surcharge would be added to the monthly utility bill to finance the improvements. Since the loan is with the home and not the occupant then the financing would be more affordable since there is not the danger of loan foreclosure with an individual.

- Energy Efficiency and Environmental Offset Trading – There is an emerging market opportunity on the monetizing of the energy and emissions savings that result from the improvement of the energy performance of buildings. A utility or investor could capture the ownership of the energy and environmental savings in return for financing the upgrades of the building. The utility could then take the credit for the savings as part of its portfolio requirements. A financier could sell the energy saving certificates on the carbon or white tag markets. In order for this market to develop, the federal government must ensure that building energy efficiency is recognized in a national carbon cap and trade system and in utility portfolio standards.

Utility Energy Efficiency Portfolio Standards with a Building Energy Efficiency "Carve Out"

Utility renewable portfolio standards have proven effective in the incorporation of renewable energy into the utility grid. Currently over 29 states and the District of Columbia have adopted renewable portfolio standards. Following this trend a number of states are now adopting energy efficiency portfolio standards. These

standards require that regulated utilities must meet a percentage of their demand through improved energy efficiency performance.

In the past two sessions of Congress there was a vigorous debate over having a national renewable portfolio standard. This debate will carry over to the new president and Congress. When considering a national portfolio standard Congress and the new administration must also include a national energy efficiency standard. Since buildings are responsible for 70% of the electrical consumption in the U.S. the utility energy efficiency portfolio must contain a "carve out" for building energy efficiency that sets a goal that a certain percentage of the savings must come from the building sector.

Performance-Based Federal Tax Incentives

In the Energy Policy Act of 2005, Congress established federal tax incentives for improving the energy performance of buildings. For new energy efficient homes that were at least 50% more efficient than code, a builder would receive a credit of $2,000. A homeowner was eligible for a cost-based credit of up to $500 covering 10% of the cost of the upgrades. There was also a tax deduction for commercial buildings. The existing homes credit expired on December 31, 2007 and the energy efficient new homes and commercial building incentives will expire on December 31, 2008.

The new homes credit was effective in getting builders to improve the energy efficiency of homes they built. In 2007, 23,702 homes were certified as complying with federal tax credit (50% more efficient than code) (2.3% of new homes).

The existing homes credit was not so successful because of the low amount of the incentive and the fact that it was cost based and did not create an incentive for the homeowner to maximize increasing the performance of the home.

The commercial building was also not as effective due to the amount of the incentive being offered and the lack of clarity in the legislation and rules.

Congress should immediately extend the new energy efficient homes credit that is working at moving builders to higher performing homes. The existing homes and the commercial building incentives should be modified and extended. A useful tool in modifying the incentives was embodied in the Snowe-Feinstein Bill that was introduced in this Congress.

Energy Retrofit Emergency Fund

Congress should act immediately to implement a performance-based, whole house retrofit program that will save Americans money and stimulate the economy. The energy we could find by drilling for efficiency in our own homes is

cheaper and available in a matter of weeks, not decades. Americans dealing with high gasoline prices cannot afford inaction from their leaders while heating oil prices this winter may approach $5 per gallon.

The Program

The whole house rebate program would allow residents all over the country to begin to save at least 20 percent on their energy bills in a matter of weeks. The $500 million program would rebate 40 to 60% of the costs for efficiency retrofits based on the energy savings achieved with a minimum of 20%. The rebate would be available to homeowners and any party receiving owner's consent, and the amount would be performance based, determined by the percentage of energy saved compared with the building in its original state. The program would be administered by the same lending institution with which the project is financed. The lending institution determines the specific structure of the financing as approved by Department of Energy (DOE).

The Benefits

A homeowner who elects to pursue only the quickest and most cost-effective efficiency improvements would receive a 25% energy use reduction and a $3,000 rebate to cover half of the total $6,000 project cost. This resident would save $500 a year on energy bills at national average prices. If this homeowner used oil-fired heating equipment, as is common in the Northeast, then the savings would balloon to more than $1,100 per year, with $850 of those savings occurring this winter. Another option for the homeowner is to invest in a retrofit that pursues efficiency through high-efficiency heating and cooling equipment in addition to the improvements described above. This resident would save about 55% on their energy bills and receive a rebate of $6,600. This represents 41% of the project cost and would provide the customer with $1,100 savings on energy bills per year. Again, if heating oil is the fuel source, the savings explode to more than $2,500 per year and $1,850 during this heating season. The payback periods for retrofits with the rebate program are three to five years around the country and less than one year in the Northeast.

The net benefits to the country produced by the rebate program are enormous. If the program reaches the 100,000 homes that are budgeted in the first year.,, the total electricity savings would be 375 gigawatt-hours and the natural gas savings would total 2.4 billion cubic feet, enough to power and heat 35,000 average homes for a year. But the benefits do not end after one year; they continue to accrue. Congress can provide for exponential growth in energy savings and economic benefits by re-authorizing the program for multiple years so that more homes are retrofitted. The possible energy savings are immense. Should the program last for 10 years and retrofit 100,000 more homes per year, enough energy would be saved to power and heat all the homes in Massachusetts for a year. Efficiency is an untapped resource in American homes. Homeowners

simply cannot afford to continue to let up to half of their fuel oil leak out of their homes without providing any service, or be forced to decide between heating their home for a week or buying groceries. Congress must act now prevent the worst effects of the winter heating crisis.

Building Codes to be based on total cost over 30 year period

Energy efficiency measures not installed in a home when being built represents a "lost opportunity" because once built, it is more difficult and costly to fix. Fannie Mae reports that the cost of energy is the highest cost of housing outside of the mortgage loan. The federal tax credit for new energy efficient homes has demonstrated that it is cost effective to reduce a home's energy consumption by 50% over standard construction. The leaders of the leading industrial nations in the world (G8) have found improving building energy performance as a key component for combating climate change. The G8 leaders have endorsed the International Energy Agency recommendation that the member nations adopt an economic calculation in determining the stringency of building energy codes that would optimize total energy costs over a thirty year lifetime. The U.S. Department of Energy should ensure that building energy codes be strengthened to maximize energy efficiency and minimize energy costs over the useful life of a building such that the total costs of buildings are minimized over at least a 30-year lifetime.

Adopt Policy that Sets the Goal of Having Net Zero Energy Homes as the Standard of Construction by 2030

A net zero energy home produces as much energy through renewable energy sources as it consumers. The U.S. Department of Energy through its Building America Program believes that it is possible to build net zero energy homes today. It should be the goal of the federal government to continue the research and development to ensure that net zero energy homes are cost-effective. The government should set the goal that by 2030 net zero energy homes become the standard of construction of homes in the U.S. States such as California have already adopted such a policy goal and the federal government should too.

Foster Development of Residential Energy Service Companies (ESCos)

The residential retrofit market is hamstrung by two major market barriers:

1. A lack of expertise on the part of homeowners with respect to their energy efficiency options and with respect to effective contracting for home energy improvements; and
2. Difficulty in obtaining financing specifically designed for home energy efficiency improvements.

Private market Energy Service Companies (ESCos) are specifically designed to overcome both of these problems in large commercial buildings where owners

have neither the expertise nor the available capital to effect energy improvements in buildings. Generally an ESCo will accomplish building energy improvements through "shared savings" programs, whereby they will determine the most cost effective options, secure the capitol financing, contract for the improvements and share the energy cost savings with their client for some period of time following the completion of the project, collecting sufficient revenues to repay the capital cost and make a healthy profit. ESCos normally conduct these activities in fairly large buildings and building complexes, where the transaction costs (cost of securing the job, obtaining capital, negotiating contracts, conducting initial assessment, collecting cost savings, etc.) are reasonably small compared with total project capital cost.

In the residential retrofit marketplace, where total project costs are likely to be relatively small (in the 10's of thousand dollars rather than the multiple 100's of thousand dollars), transaction cost can be a significant burden with respect to making a shared savings program profitable.

However, with the correct government incentives and controls, residential ESCos (or something of close kinship) might work well in the residential marketplace. The following considerations are important:

- There must be widely accepted practitioner certification and quality assurance in place to engender consumer confidence and keep con artists out of the market place, effectively warranting that savings, as advertised, will be achieved.
- There must be incentives for homeowner participation that overcomes the following barriers:
    - The hassle of finding and contracting with qualified energy efficiency expertise
    - The hassle of obtaining capital financing for the retrofit
    - The hassle of temporary construction mess and displacements
    - The hassle of writing another check each month to pay for the retrofit.
- There must be some mechanism in place that effectively reduces transaction costs to the ESCo so that the majority of the cost effective savings can be obtained through shared savings.

RESNET should enter into discussions with governmental units, financial institutions, the construction industry, congress and others to see if effective programs could be designed to overcome the barriers and encourage private companies and capital markets to develop and implement business plans aimed at creating a marketplace for residential ESCos.

Revise Mortgage Financing Underwriting Guidelines to Factor the Energy Performance of a Home into the Mortgage Loan

Fannie Mae has found that the cost of energy is the highest cost of housing outside of the mortgage loan. With the current housing crisis and spiking of energy costs, this has become an even more important factor. Despite this important element in the cost of housing, the mortgage industry generally does not consider energy costs when calculating the qualification for a mortgage loan. Congress saw this issue. In the recently passed home foreclosure legislation, Congress included a requirement that the federally sponsored second mortgage market identify the barriers to considering a home's energy performance in the mortgage loan and make recommendations to Congress on how to alleviate the obstacles found. The next presidential administration should require the government sponsored mortgage markets to revise their underwriting guidelines to factor a home's energy efficiency into the loan. This can be through one of two methods: taking the monthly energy savings documented through a home energy rating to reduce the calculation of housing costs or revising the formula of principal, interest, taxes and insurance by adding the subtraction of the monthly energy savings.

Attachment G

2009 RESNET Priorities

1. **Ensure the Quality of Rating a Building's Performance** – RESNET's purpose is to set the standard of quality for rating a building's energy performance. It must always be a priority to maintain this quality oversight. This continuing responsibility will be addressed through maintaining RESNET Standards, providing quality assurance oversight, accrediting providers and administering national certification tests. This effort will be enhanced through the creation of the RESNET National Building Registry.

2. **Make RESNET Standards American National Standard Institute (ANSI)/International Standard Organization(ISO) Compliant** – There is increasing interest in ramping up the performance of energy codes and requiring energy assessments of homes at the time of sale. The RESNET Standards would be the logical choice for such initiatives. In order to have the credibility to be referenced in codes, legislation and regulations, RESNET Standards must be compliant with the ANSI and ISO protocols. This will be accomplished through a comprehensive evaluation of the RESNET Standards and amending them to be in compliance with ANSI and ISO protocols for development of consensus standards.

3. **Develop RESNET National Building Registry** – Currently there is no national depository of information on homes that have been energy rated or assessed through the RESNET Standards, labeled as ENERGY STAR or qualified for the new homes tax credit. To fill this vacuum, the RESNET Board of Directors has decided to develop a RESNET National Building Registry. To accomplish this, RESNET will develop an electronic data base to which accredited rating providers will upload basic information on homes that are rated, assessed, or otherwise inspected and tested to meet any program guidelines requiring RESNET quality assurance.

4. **Advocate Residential Energy Efficiency Strategic Initiatives to New President and Congress –** In January 2009 a new President and Congress will be sworn in. No matter who is elected president, the U.S. approach to climate change and energy will change. It is imperative that any new energy or climate change initiatives address residential energy efficiency. This will be achieved through advocacy to the new administration and Congress of the strategic initiatives that have been adopted by the RESNET Board of Directors.

5. **Tap Existing Homes Market –** Seventy-five percent of buildings that will exist in the year 2050 have already been built. Clearly if the U.S. is to meet its energy and climate change goals, the energy performance of existing buildings must be improved. This will be addressed through implementing the RESNET National Energy Audit Standard and the joint RESNET/Building Performance Institute (BPI) Home Performance Analyst Standard and strategic partnerships with Home Performance with ENERGY STAR, BPI and Fannie Mae.

6. **Develop Commercial Building Energy Performance Index** – There is a growing interest by developers and utility sponsored programs to expand ENERGY STAR into high-rise, multi-family buildings. Currently, there is no national standard for indexing a commercial building's energy performance. To meet this void, RESNET will develop and adopt a commercial building energy performance index. This will be accomplished by working with commercial energy efficiency programs, such as the New Buildings Institute, the ENERGY STAR Multi-Family Program, and international affiliates like Shanghai Real Estate Science and Research Institute.

7. **Harmonize RESNET Standards with International Building Performance Rating Standards** – The energy and environmental challenges are increasingly being recognized as global issues. Through the leadership of such organizations as the G-8 and United Nations, strategic global cooperation is being stressed. To take advantage of this opportunity, RESNET standards need to be harmonized with other building performance rating standards. This will be addressed through dialogues with the European Union, International Energy Agency, and the Organization for Economic Development and Cooperation and entering into multilateral international agreements with Canada, China and Japan.

Attachment H

Agreement on Cooperation

Between
Residential Energy Services Network, Inc.
and
Japan Energy Star Council
September 2008

DRAFT COPY ONLY

PREAMBLE

Residential Energy Services Network's (RESNET) mission is to ensure the success of the building energy performance certification industry, set the standards of quality, and increase the opportunity for ownership of high performance buildings. RESNET is a membership 501(c)(3) nonprofit organization. RESNET's standards are officially recognized by the U.S. mortgage industry for capitalizing a building's energy performance in the mortgage loan, certification of "White Tags" for private financial investors, and by the federal government for verification of building energy performance for such programs as federal tax incentives, the Environmental Protection Agency's ENERGY STAR program and the U.S. Department of Energy's Building America Program.

Japan Energy Star Council ("hereinafter JESC") is a part of Japan Green Homes Program. It is a vital organization to ensure the success of the building energy performance by energy certification. The council intends to strengthen the existing programs such as CASBEE, Tokyo Metropolitan Environmental Program for Building, and other similar programs in Japan. The council is composed of representatives of government, business, and academic organizations. Japan Green Homes Program is currently operating a several pilot green building projects and has been offering numerous green building seminars for the past four years under Sustainable Business Forum Japan founded in 2006. Currently the council plans to implement the energy star standard to all pilot projects and recommend the energy rating program to CASBEE and Tokyo Metropolitan Building Program since these programs are operated by self-assessment.

RESNET and JESC are hereinafter also referred to collectively as the "Parties" and individually as a "Party."

PURPOSE AND GOAL

The purpose of this Agreement is to create a harmonization of the methodology on how buildings are rated for their energy performance in North America and

Japan. The goal is to create consistency that will lead to the concerned sector based energy code compliance in Japan and the monetization of the savings from a high performance home as part of an international carbon emissions cap and trade market.

GENERAL PROVISIONS

Through this agreement JESC will become an affiliate of the Residential Energy Services Network, Inc. (RESNET). Both organizations will strive to harmonize their standards and procedures for rating a building's energy efficiency.

TERMS OF AGREEMENT

RESNET agrees to:

- Formally recognize JESC as an affiliate of its organization.

- Authorize JESC to use the RESNET name and logo during the period of this agreement.

- Provide JESC with the following:

+ Access to RESNET's standards for modification for the Japan market;

+ A monthly column in RESNET's monthly news update, "RESNET Notes;"

+ A special link on RESNET's web site to JESC's web site.

- Assist JESC in adopting standards and procedures that will harmonize with the RESNET standards.

- Work with JESC to adopt a uniform calculation of carbon savings for improved building energy performance.

- Provide program and policy assistance to JESC on developing its rating standards and infrastructure. Assistance can be provided by RESNET on a cost reimbursable basis in the areas identified in Annex I

JESC agrees to:

- Adopt the RESNET HERS Index – the minimum requirement for this would be that JESC would use the RESNET HERS Index as a template to assign an Index as specified in the joint agreement below.

- Adopt rating standards and procedures that harmonize with the RESNET provisions for rater certification, quality assurance, codes of ethics and standards of practice

- Work with RESNET in adopting a uniform calculation of carbon savings from improving a building's energy performance

RESNET and JESC jointly agree to:

- Adopt common methods of calculating carbon emission savings from energy efficiency improvements

- Adopt a common HERS Index methodology, where a "0" represents a net zero energy building that accounts for all site fossil energy use through RESNET's definition of "Reference Electricity Production Efficiency" and where "100" represents the standard Japanese new building code home, including all home energy uses.

- Adopt common rater certification, quality assurance, code of ethics and standards of practice procedures.

- Work together to aggregate carbon emissions reduced through increased building performance for the greenhouse gases emissions trading market.

ACKNOWLEDGEMENTS

Each Party agrees to acknowledge the contributions of the other Parties on all materials produced in the course of this Agreement (including information available in electronic format) and at all public events.

COSTS

- Each party agrees to strive to fulfill this Agreement on Cooperation to the best of its ability and according to the resources available.

- Specific budgets for any collaboration will be discussed and confirmed on a project-by-project basis.

- Except as set forth herein or otherwise agreed to in writing, all costs resulting from cooperation pursuant to this Agreement and any related Annexes shall be the responsibility of the Party incurring the costs. The implementation of this Agreement is subject to applicable laws and regulations of the countries of the Parties

ENTRY INTO FORCE, TERM AND AMENDMENT

This Agreement shall enter into force upon signature by the Parties and remain in force for a period of five years. The Agreement may be amended or extended by written agreement of the Parties.

Any party may, upon a year's notification, withdraw from this agreement.

AGREED TO ON THIS DATE

_____	_____
Masanori Fukuhara	Steve Baden
Executive Director	Executive Director
JESC	RESNET
Date: September 19, 2008	Date:

Annex I
Menu of Additional Support that can be Provided by RESNET

RESNET is willing to provide additional support on a cost reimbursable basis. This would include professional services at $100 per hour and any travel expenses.

The following is a menu of potential added technical, program and policy assistance that could be provided by RESNET:

- Define core competencies needed by the Japanese inspectors;
- Develop inspector quality assurance procedures;
- Develop inspector code of ethics and standards of practice;
- Define Japanese reference home on the HERS Index;
- Provide advice on modifying rating software for Japanese ratings;
- Provide assistance in developing calculations of carbon emissions.