

RESNET Notes

September 2009

Energy Labeling and Energy Billing Analysis

By

Philip Fairey, Florida Solar Energy Center – President RESNET Board

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There is a great international interest in policy initiatives for labeling the energy performance of buildings. Discussions on this issue have focused on the differences between “asset value” labels, which are how a building should perform at standard operating conditions, and “operating value” labels which are based on measured energy performance at a defined space of time. Both types of labels characterize energy use for different purposes. There has been much discussion and some misinformation on this subject. The following is a message from the RESNET Board of Directors President and Vice President on this critical issue.

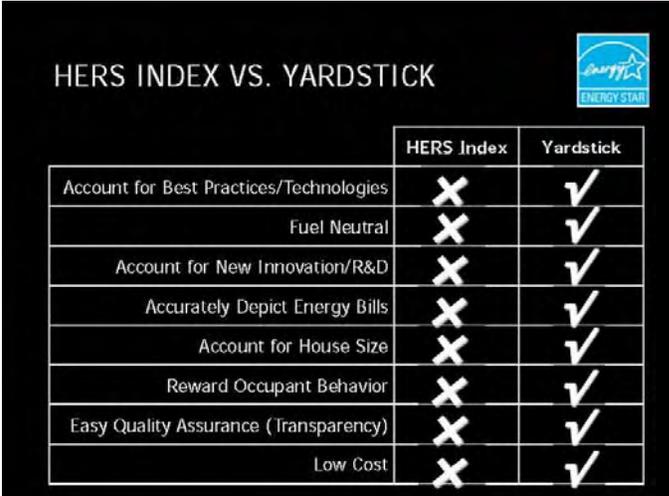
Most products such as cars or appliances, are rated using asset value labels with a standardized operational component—for example, cars are rating by EPA miles per gallon (mpg) but are not re-sold based on the mpg that the seller actually obtained. For buildings, however, analysts generally recognize that both results are useful.

These two types of labels are very distinct and different ways of characterizing energy use, with different purposes.

At this summer’s Westford Symposium, the **U.S. Environmental Protection Agency** (EPA) made a presentation, entitled “ENERGY STAR Qualified Homes Stuff.” About one-third of the presentation was dedicated to discrediting the HERS Index, which is, at present, an asset value rating (although RESNET is in the process of adding an operational component).

As illustrated by the slide in Figure 1, much of the presentation was based on a checklist prepared by EPA to evaluate the differences between the **HERS Index** and **EPA’s Home Energy Yardstick**. Figure 1 from the presentation shows the EPA Yardstick to be acceptable and the HERS Index to be unacceptable in every single category

What exactly is the EPA Home Energy Yardstick? It is a web-based statistical analysis tool that compares the reported energy use of a given home against data provided in the **2001 Residential Survey** (RECS) to determine the home’s percentile energy use compared against the reported RECS data, adjusted for climate, number of occupants and house size. Thus, a home with a Yardstick score of 9.9 would have an adjusted energy use



	HERS Index	Yardstick
Account for Best Practices/Technologies	X	✓
Fuel Neutral	X	✓
Account for New Innovation/R&D	X	✓
Accurately Depict Energy Bills	X	✓
Account for House Size	X	✓
Reward Occupant Behavior	X	✓
Easy Quality Assurance (Transparency)	X	✓
Low Cost	X	✓

Figure 1. Completed EPA “checklist” comparing the HERS Index and the EPA Yardstick.

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Energy Billing and Labeling Analysis Continued ...

that is less than 99% of existing homes of that size, number of occupants and in that weather category. This is a completely operational rating.

We need all the tools we can muster, and the Yardstick is a useful tool. But it is certainly not all things to all people as the EPA purports. For example, it is widely known in building science circles that the independent variables used by the analysis (weather, home size and number of occupants) can explain only a portion of the annual energy use of any given home. The unexplained variance in home energy use, when using only these variables, is normally greater than $\pm 40\%$ of the mean. This is a rather large statistical variance and over an entire population of ± 3 standard deviations, it can result in errors as great as $\pm 120\%$ for any given home. Thus, the physical attributes of any given home can be severely over or under estimated by the Yardstick. In fact, more than 1/3 of all homes will have building energy use attributes that are more than 40% different than the Yardstick projection.

The heart of the issue is that, as examples of different types of energy indicators, the Yardstick and the HERS Index have completely different (and complementary) uses and purposes. Neither one is necessarily correct or incorrect – they simply measure different things. The Yardstick uses utility bills to characterize the energy use of the home *as it is used by its occupants*. The HERS Index provides *a measure of the relative energy use of the home based on its physical characteristics and a standardized set of operating characteristics*. The HERS index, like a car's miles per gallon rating or an air conditioner's SEER label, is based on an engineering "model" of its physical attributes and a standard set of operating assumptions. This is called an "asset" rating because it looks at the impacts of the home's physical assets (energy attributes) rather than at the way the home is "operated" by its occupants.

It is widely known in the building science community that a large fraction of actual home energy use is driven by the lifestyle and operating characteristics of the inhabitants themselves. As a result, the Yardstick actually says more about the energy habits of the inhabitants than it does about the physical attributes of the home.

The HERS Index does the opposite. It speaks only to the physical energy attributes of the home under a standardized set of operating assumptions. This is an important distinction that must be addressed.

RESNET explicitly and purposefully chose to remove lifestyle from consideration in the HERS Index. It does so by using set of consensus-based, standardized operating conditions that is applied to all homes consistently. This has two results: first, only the physical attributes of the home impinge on the HERS Index and second, the HERS Index does not predict the impacts of lifestyle choices made by the specific occupants of the home.

When methods of examining home energy use are combined, they can provide a valuable tool for the home occupants, helping them understand how and why their energy use habits differ from the standard operating conditions and providing a customized assessment of the energy and cost impacts of improvements to the home. However, to do this, one needs to go quite a few steps beyond the Home Energy Yardstick. The critical value of utility billing data is that it provides a basis from which to "calibrate" the engineering model of the home to the occupants' lifestyle. Without the

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Energy Billing and Labeling Analysis Continued ...

calibrated engineering model, the energy use history is not very valuable because it contains no information about the physical attributes of the home. It is analogous to saying that we can know something about the eating habits of households by examining their monthly or annual grocery bill. In reality, we would know very little about their eating habits without knowing the actual items (the attributes) contained in their grocery cart.

However, with a calibrated engineering model of a home, a large number of engineering assessment opportunities becomes accessible. One can now ask multiple types of “what if” questions; not only what happens if a physical attribute is changed but also what happens if a particular operating characteristic is changed? A calibrated model also has great value in assessing the cost effectiveness to the homeowner of a broad range of home energy retrofit options. These options can be individually and collectively evaluated very quickly to rank order them by any number of economic indicators from internal rate of return to simple payback. Of course, this same engineering exercise can be performed using the “standard” operating assumptions that are used for the HERS Index if one wants to make similar decisions based on an unknown “typical” user, as would be the case if the home is changing ownership or if a standardized energy label is desired.

What is RESNET doing with these challenges?

Much of the national discussion on home energy ratings and especially retrofits has devolved to an over simplified “slogan” – existing homes are different than new homes. But the physics that determine their energy use are certainly not different. We badly need to change the conversation. The national discussion needs to be re-focused and centered on “standard” operating conditions and “calibrated” operating conditions rather than on “new homes” and “existing homes.” Not using the correct terminology to describe the challenges only confuses the issues. After all, a new home becomes an occupied home as soon as the first occupants move in and an existing home is an unoccupied home as soon as the occupants move out.

There are good and valid reasons to have both standard and calibrated operating conditions. Energy “ratings” used for labeling should always use standard operating conditions, otherwise the rating label has no basis for comparison. An energy rating label based on the previous occupants’ energy use habits would say little to nothing about the physical energy attributes of the home and would make it virtually impossible to compare the physical energy attributes of one home against another. On the other hand, a calibrated engineering model is extremely useful for decision making by the current occupants of a home so there must be both capabilities if the home energy marketplace is to be well served.

RESNET has established an **Occupied Home Software Task Force and Working Group**. This group is working on standardizing methods and procedures that can be used to exploit utility billing analysis to create calibrated engineering models of occupied homes. This would allow analysts to more accurately project energy use and savings potentials where there is a billing history. RESNET is also working very closely with the **National Renewable Energy Laboratory** (NREL) and the **U.S. Department of Energy** (DOE) on a new software verification test suite called **BESTEST-EX**, which can be used in the accreditation of software tools capable of creating calibrated engineering models for occupied homes.

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Energy Billing and Labeling Analysis Continued ...

In summary, there are two good and valid ways of characterizing home energy use:

- An energy “asset” rating (or label), based on a standardized set of operating assumptions, which depicts the energy performance of the home’s energy attributes relative to other homes
- An operational assessment of the home’s energy use based on an actual set of home occupants, which includes the impacts of the inhabitants’ lifestyle.

Both have value, and can be combined through calibrated engineering models to provide powerful tools in assessing building retrofit opportunities, energy asset ratings and for energy labeling purposes for all homes, new or old. RESNET will continue to work with all its partners and collaborators to achieve national resolution and consensus on these important challenges of our time.

RESNET Developing Guidelines for Occupied Buildings Energy Performance Software



RESNET’s standards already establish guidelines and testing protocols for the calculation of asset value ratings based on how a building performs at standard operating conditions. With the commitment to assisting homeowners in making investments to improve the energy performance of their homes, RESNET is developing a set of guidelines for energy billing analysis software programs.

RESNET has recruited a task force representing a diverse group of expertise and interest, the **RESNET Occupied Buildings Software Task Force**. The members of this task force are posted on RESNET’s web site at www.resnet.us/about/taskforces/software/members

The task force has adopted a set of process steps for modeling proposed improvements to occupied buildings for which historical energy use data exists. The process involves the following steps:

- Recording of energy use and weather data for the pre-retrofit period
- Develop a regression model of the energy use data in accordance to ASHRAE’s Inverse Modeling Toolkit
- Develop a set of weather-normalized energy use data
- Collect and record all building and energy systems characteristics necessary to accurately construct a building simulation model for the pre-retrofit building
- Calibrate the building simulation model developed to the weather-normalized energy use data
- Using the calibrated pre-retrofit simulation model as the basis of comparison, along with the weather data to determine projected energy savings from proposed energy conservation and energy efficiency improvements to the building.

The process steps adopted by the task force is posted at www.resnet.us/about/taskforces/software/Process_Steps_for_Modeling_Proposed_Improvements.pdf

To develop the details for the guidelines, an Occupied Homes Software Working Group has been recruited. The members of the working group are:

- Michael Blasnik representing Conservation Services Group
- Philip Fairey, Florida Solar Energy Center

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Occupied Buildings Energy Performance Software Continued ...

- Tom Fitzpatrick, Texas Home Energy Raters Association
- Dave Roberts, National Renewable Energy Laboratory
- Rob Salcido, Architectural Energy Corporation
- Greg Thomas, Performance Development Systems

The working group has set up three task groups. The task groups are:

- Weather use data lead by Rob Salcido
- Inverse Modeling lead by Michael Blasnik
- Calibrated Modeling lead by Greg Thomas

The RESNET efforts are being closely coordinated and tracked with the U.S. Department of Energy and National Renewable Energy Laboratory to develop the BESTTEST-EX tests for calibrating energy use in calculating retrofits.

RESNET/BPI Joint Comprehensive Home Energy Audit Standard on Hold

For the past three years, the **Building Performance Institute** (BPI) and RESNET have worked to develop a joint **Comprehensive Home Energy Audit (CHEA)** Standard. One of the goals of the effort was to require an individual to undergo a single training and testing to be able to perform a home energy rating and a BPI building analysis for a home performance contractor. A draft standard was developed and approved by both organization's technical committees and board of directors. The draft standard underwent a public review and comment process and modified by a joint BPI/RESNET standards committee. The joint committee recommended that the BPI and RESNET Boards adopt the revised draft. The **RESNET Board of Directors** voted to adopt the revised standard but the **BPI Board** voted to put the standard on hold.

In its communication to the RESNET Board, BPI gave the following reasons for tabling the adoption of the standard:

- How the standard addresses work orders "is too prescriptive and onerous for home performance contractors to implement."
- CHEA software should be a software tool that is approved for residential retrofit work under the DOE weatherization program, approved by DOE and/or EPA for similar existing home retrofit purposes or approved by a process established by DOE or DOE Lab/stakeholder process now underway called the "BEST TEST EX."

Since the CHEA standard was to be a joint BPI and RESNET standard, its adoption is on hold until the BPI issues can be resolved.

The RESNET Board voted to authorize RESNET Board President to send the following response to BPI:

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Joint BPI/RESNET Standard on Hold Continued ...

This letter is in response to your undated letter sent by e-mail on July 13, 2009, informing RESNET that the BPI Board of Directors had voted to table action for an undetermined period of time on adoption of the Comprehensive Home Energy Audit (CHEA) standard. I apologize for the delay in my response but I felt that careful consideration of this matter by the RESNET Board was important.

The RESNET Board of Directors voted on July 22, 2009 by a vote of 15 yeas, 1 nay and 1 abstention to adopt the June 26, 2009 version of the joint BPI / RESNET CHEA Standard.

Your correspondence states that the BPI board has tabled the adoption of this important standard due to the following concerns:

The applicability of RESNET software verification procedures, requiring that adoption wait on the completion of the BESTEST-EX software test suite and implying that “new” home simulation tools are not applicable to “existing” homes.

The work scope portion of the standard being too “prescriptive and onerous for home performance contractors to implement.”

In terms of the work scope portion of the standard, RESNET relied heavily on the expertise of the BPI Technical Committee in development of this section of the CHEA draft. We are very interested in additional details on BPI’s concerns and on how the BPI board would like to move forward to address this issue.

Since RESNET has been extensively involved in developing standards for software tool verification for standardized ratings and tax credit qualification, many of our concerns are focused on this issue.

While RESNET agrees that enhanced software tools and expanded software verification procedures are needed where there is a utility billing history that allows more accurate prediction of energy use for a specific set of home occupants, we do not agree that there is any difference in the physics that underpins the accurate simulation of “new” and “existing” homes. The difference lies not between new and existing homes, but rather between standard and calibrated operating conditions in occupied homes.

RESNET desires to continue its discussions with BPI on these important challenges. To that end, we believe it is important to briefly describe some of RESNET’s ongoing efforts in this area.

RESNET has established an Occupied Home Software Task Force and Work Group designed specifically to address the need for standardized methods and procedures for projecting energy use in occupied homes. The Task Force represents a diverse group of individuals with expertise in software modeling tools, building performance analysis, home energy auditing and home energy ratings as well as representatives of the U.S. Department of Energy and the Environmental Protection Agency.

C o n t i n u e d o n n e x t p a g e . . .

RESNET Notes

Joint BPI/RESNET Standard on Hold Continued ...

This effort includes both “asset ratings” based on standard operating conditions and “operational ratings” based on calibrated models of occupied homes. Derived from utility billing histories, calibrated engineering models are capable of replicating actual operating conditions and reported energy uses in occupied homes. The Work Group has already identified and come to agreement on a 6-step framework process for development of calibrated engineering models and has begun work on filling in standard methods and procedures appropriate for each step of the process.

The work being conducted under the U.S. Department of Energy (DOE) BESTEST-EX project comprises a critical component of one of these six steps in the RESNET framework. RESNET is an active participant in DOE’s BESTEST-EX project and BPI’s involvement in this project is highly encouraged. When this project is completed, RESNET fully intends to incorporate the resulting test suite into its requirements for software verification for occupied homes. In fact, RESNET sees two distinct levels of software accreditation: the first consisting of its current software test procedures for software that uses standard operating conditions and a second, higher-level accreditation for software that can not only pass the current software verification tests but also can pass the model calibration tests being developed under the BESTEST-EX project. A software tool could then be accredited either for use under standard operating conditions or for use under both standard and calibrated operating conditions.

We would like to invite BPI to become an active participant in RESNET’s effort to develop standardized methods and procedures for projecting energy use in occupied homes. There is much to gain by the two organizations working together proactively on this important task.

The RESNET Board agrees that a dialog between representatives of both boards could be productive in resolving the issues identified by the BPI Board. As you know, we have been actively involved in a dialog with BPI on the CHEA standard for the past three years. Based on BPI’s Board action on this standard, we believe it is important to complete two steps before the dialog can continue productively:

The BPI Board should delineate their specific concerns on the work scope portion of the draft standard. It would be most beneficial if the BPI Technical Committee develops a proposed alternative that addresses the BPI Board’s concerns.

DOE’s BESTEST-EX project and RESNET’s effort to develop standardized procedures for projecting energy use in occupied homes are important in addressing the BPI Board’s concerns. Therefore, as the BPI Board requested, both of these efforts should be completed prior to continuing our dialog on software verification

RESNET has also begun the process of relocating all testing and diagnostic methods and procedures into a single chapter of the RESNET Standards. This new Chapter 8 will contain not only the new standards for IR thermography, but also standards for envelope leakage and distribution system

C o n t i n u e d o n n e x t p a g e . . .

Joint BPI/RESNET Standard on Hold Continued ...

Since the joint BPI / RESNET standard on comprehensive home energy audits has been placed on hold until the issues identified by the BPI Board are resolved and because RESNET continues to receive frequent requests for this standard, RESNET also intends to modify Chapter 7 of the RESNET standards to address work scope development and other comprehensive home energy audit requirements.

While RESNET is disappointed that the BPI Board could not approve adoption of the CHEA standard at this time, we believe that there is great value in working together with BPI to address the significant issues that face us all in the development of high-quality, highly-efficient homes that address energy security and climate change. We look forward to hearing more from BPI on how they believe we can best work together to meet these great challenges of our time.

RESNET Joins the United Nations on Call for Action on Buildings and Climate Change



The **Kyoto Climate Change Protocol** gave the **United Nations Environment Programme** (UNEP) the responsibility for facilitating the negotiations for the successor to the international climate treaty which is set to expire in 2011. One of the failings of the protocol was that it did not adequately effect building energy performance. The United Nations is in the process of negotiating the successor treaty to Kyoto. It is expected that the U.S., China, and India will be parties of the new treaty.

One of the failings of the Kyoto protocol was that it did not inadequately affect building energy performance. To ensure that the building sector is adequately covered in the successor treaty, the United Nations has formed the **Sustainable Buildings & Construction Initiative** (UNEP SBCI) that will make recommendations to the UNEP and the national leaders that will be negotiating the new climate change treaty. **RESNET** has been named to serve on the UNEP SBCI. Other organizations representing the U.S. the initiative is the **Natural Resources Defense Council** and the **U.S. Green Building Council**.

The McKinsey report also addressed the energy labeling of homes through such programs as **home energy ratings, ENERGY STAR and LEED**. It found that “labeling and voluntary standards have proven effective in the new home market and may be promising homes market, though full penetration of the market will take years.” It concluded that “with sufficient penetration though broad market adoption or mandates, this measure overcomes many barriers.

The SBCI has issued a call for action for the industry to support efforts to include building energy performance in the international climate treaty . The call for action finds:

- Building have the greatest potential for delivering greenhouse gas (GHG) emissions cuts, at the least cost, using available and mature technologies.

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United Nations Call for Action Continued ...

- Buildings are responsible for approximately 40% of global energy use and up to 30% of global GHG emissions.
- Countries must support the building industry to meet their existing commitments to Kyoto Protocol and to the Bali Roadmap.
- The building industry can deliver significant cost savings and improvements in energy and resource use. It can also create jobs and improve local economies.

It calls for the Copenhagen climate change framework to:

- Recognizing buildings as a top priority for achieving GHG emissions reductions.
- Enable market-based measures that can support investment in building projects that are energy efficient and reduce GHG emissions.
- Building capacity and transfer technology to enable improvements in energy efficiency of buildings.
- Supporting reform of flexible mechanisms to encourage investment in projects that improve energy efficiency and reduce GHG emissions from new and existing buildings.
- For the UNFCCC to establish working groups to develop specific measures for the building industry prior to the next commitment period.
- Encourage governments to inventory and set performance goals for GHG emissions from national building stocks.

RESNET supports the call for action and urges the U.S. negotiating team to the climate talks to adopt the principals contained in the call. The SBCI has produced a PDF version of the call to action on buildings and climate change. It is posted on the RESNET web site at [www.resnet.us/UNEP-SBCI-Call to Action.pdf](http://www.resnet.us/UNEP-SBCI-Call_to_Action.pdf) The RESNET network is urged to download the call for action and share it with their partners, peers and allies.

By working together, the building performance industry can influence the process and make improved building performance a key element in the new international climate treaty.

Zachary Shadid of the Environmental Protection Agency EN-ERGY STAR for Homes Program Appointed to the RESNET Quality Assurance and Ethics Committee

Zachary Shadid who serves as a program analyst for the Environmental Protection Agency's EN-ERGY STAR for Homes was confirmed by the RESNET Board of Directors to serve on RESNET's Quality Assurance and Ethics Committee. The addition of Mr. Shadid will ensure the more effective coordination on ENERGY STAR and home energy rating quality assurance issues.

The 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. For more information e-mail RESNET at info@resnet.us. Visit RESNET's web site at: www.resnet.us

RESNET Adopts Policy on Rating Field Inspectors That Have Not Passed RESNET Test



August 1, 2009, was the deadline for rating field inspectors to have passed the RESNET Rating Field Inspector Test. The RESNET Training and Education Committee has adopted the following procedures that accredited rating providers must follow with those rating field inspectors who did not pass the test:

"By September 1, 2009, all accredited rating providers must initiate the first stage of the disciplinary process, probation, on all certified rating field inspectors who have not passed the RESNET test. By September 15, 2009, each provider shall submit to RESNET the list of rating field inspectors that are not in compliance with the test requirement. The terms of the probation for rating field inspectors that have not passed the test should stipulate that if the rating field inspector has not passed the test within 60 days the rater will be suspended until he or she passes."

Announcing the 2010 RESNET Rating Industry Leadership Awards

Do you know of a rating company or organization that has done an extraordinary job in the rating industry? This is an opportunity for you to nominate them for national recognition. To recognize leadership in the rating industry, RESNET has established the **Rating Industry Achievement Awards**. There are three categories in which you can nominate yourself or another organization:

- **RESNET Market Transformation Award**
This award will be presented to the organization/rater that has made the most significant contribution to penetrating their housing market with rating services while maintaining the quality of the services. Applicants must clearly document the significance of the impact of their program in the defined housing market. The criteria for the award would be the organization's quantifiable impact on the defined housing market, the significance of the housing market, support of national programs such as ENERGY STAR, and the transferability of the effort.
- **RESNET Industry Innovation Award**
This award will be presented to the organization that has developed and implemented the most innovative program or policy. Applicants must clearly document why the program, idea, effort and its impact is unique. The criteria for the award would be originality, creativity, and impact on the rating industry.
- **RESNET Program Leadership Award**
This award will recognize the outstanding contribution of a residential energy efficiency initiative has made to the rating industry. Such programs as Building America, ENERGY STAR, Home Performance with ENERGY STAR, or a government agency lending institution or local, regional or national level

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2010 RESNET Leadership Awards Continued ...

The RESNET Rating Industry Achievement Awards will be awarded by the **RESNET Board of Directors** and presented at the **2010 RESNET Building Performance Conference**.

Go to www.resnet.us/about/awards to download a detailed description of each award and instructions on how to submit an application/nomination form.

Applications/nominations are due to RESNET on November 24 2009.

Reminder: October 30, 2009 is Deadline for the Nomination of Candidates for the RESNET Board



RESNET's By-Laws provides for staggered two year terms for the **RESNET Board of Directors**. The following seats are open for election this year: Rating Provider Representatives (10 seats), Rater Training Provider Representatives (2 seats), Rater Representatives (1 seat), and Associate Member Representative (1 seat).

The RESNET Nominations Committee has nominated the following slate of candidates for the 2009 RESNET Board Election:

Rating Provider Representatives

- Steve Byers, EnergyLogic, Colorado (Incumbent)
- Rick Davenport, Masco, Florida (New)
- Lance DeLaura, CHEERS, California (New)
- Richard Faesy, Vermont Energy Investment Corporation (Incumbent)
- Philip Fairey, Florida Solar Energy Center (Incumbent)
- Andy Gordon, Washington State University Energy Program, Washington (Incumbent)
- Greg Nahn, Wisconsin Energy Conservation Corporation, Wisconsin (Incumbent)
- Lee O'Neal, CGE Solutions, Virginia (Incumbent)
- L. Javier Ruiz, Southwest Home Energy Ratings, Texas (New)
- Greg Thomas, Performance Systems Development, New York (New)

Rater Training Provider Representatives

- Dennis Creech, Southface Energy Institute, Georgia (Incumbent)
- Brett Dillon, IBS Advisors, Texas (New)
- Bruce Harley, Conservation Services Group, Massachusetts (Incumbent)

Rater Representative

- Orlo Stitt, Stitt Energy Systems, Arkansas (new)
- Erin Wiggins, Cenergy, Iowa (Incumbent)

Associate Member Representative

- Bill Prindle, ICF International, Washington, DC (Incumbent)

RESNET members can nominate independent candidates for the board until October 30, 2009. To nominate a candidate please e-mail to Steve Baden at sbaden@resnet.us the following

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2010 RESNET Leadership Awards Continued ...

- Name of Person Being Nominated
- Organization of Person Being Nominated
- Category of RESNET Membership that the Person is Being Nominated to Represent
- E-mail Address of the Person Being Nominated
- One paragraph bio
- One paragraph statement on how person will contribute to the RESNET Board

After the nominations period has expired and before the electronic ballots are sent out, RESNET will post bios and statements from candidates seeking election to the RESNET Board of Directors.

2010 RESNET Building Performance Conference to have Carbon Neutral Footprint



RESNET will offset 100% of the carbon dioxide emissions associated with hosting the annual conference. This includes emissions generated from the facilities and participant travel. RESNET arranged with the LiveNeutral to offset its carbon emissions. LiveNeutral fosters education and action around greenhouse gases. The organization helps make it easy for organizations and individuals reduce their greenhouse gas emissions through innovative market based-solutions to climate change. RESNET will offset the emissions by purchasing energy efficiency certificates

Vote for Sessions That You Would Like to See Offered at the 2010 RESNET Building Performance Conference

RESNET's goal is to make the annual RESNET conference a memorable learning experience for attendees. To be a success in 2010, RESNET needs your input. The RESNET network has nominated sessions that it would like to see offered at the 2010 RESNET Conference. The growing interest in the RESNET Building Performance Conference is reflected in the number, diversity and quality of sessions that have been nominated to be offered in 2010.

The sessions that have been nominated to be offered at the 2009 Conference can be downloaded at www.resnet.us/conference/2010/sessions-nominated.pdf

You are invited to vote on the sessions that you would like to see offered at the break-out session of the 2010 RESNET Building Performance Conference. RESNET has posted an online survey where you can vote for your top ten favorite sessions. To vote go to: www.resnet.us/conference/2010/session-nominations

The deadline for voting on sessions is October 31, 2009.

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Theme of 2010 RESNET Conference is "Time to Take Off"



The building performance industry, as well as the nation as a whole, is confronted with an incredible sea of change. Concerns over spiking energy prices and global climate change are creating new momentum for energy efficiency, placing energy back in the news.

There are billions of dollars in federal economic recovery funds dedicated to improving the energy performance. Congress is considering comprehensive energy and climate legislation. This legislation contains many provisions on building energy performance.

Public interest in green building, ENERGY STAR and improving the energy performance of existing buildings is also creating a new opportunity for the building performance industry.

2010 offers building energy performance a number of new opportunities such as:

- Effective tapping into the existing homes market
- New innovative non-mortgage financing of energy improvements
- Energy policy initiatives
- Commercial building ratings

Because of these emerging opportunities, the theme of the 2010 RESNET Building Performance Conference is "**Time to Take Off**". The 2010 RESNET Conference will review the new opportunities that are emerging for the building performance industry, discuss their implications, and explore how to position a building energy performance business to profit from the new opportunities.

This year's conference will merge with the successful **North Carolina ENERGY STAR Conference** and give attendees a first hand look at building science southern style ... and some Tar Heel hospitality.

The RESNET Conference is the premier national forum on home energy ratings, residential energy efficiency financing, and building performance business development. Make plans now for three days of networking, learning, sharing and enjoying dynamic North Carolina.

Registration is Now Open for the 2010 RESNET Building Performance Conference

The **2009 RESNET Building Performance Conference** will take place in Raleigh, North Carolina from February 22 - 24, 2010. Registration for the conference is now open. Make plans now to attend this not to be missed event. To register for the conference, go to: www.resnet.us/conference/2010/registration

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It's Not Too Early to Make Your Hotel Reservations for the 2009 RESNET Building Performance Conference



The 2010 RESNET Building Performance Conference will take place at the **Hilton North Raleigh Hotel**. Located just minutes from the new eclectic district, North Hills. North Hills is your ultimate resource for everything including events, restaurants, shops, entertainment, news, and anything that is happening in the Midtown/North Hills Raleigh area. RESNET has arranged for a special RESNET Conference of rate of \$129 per night. To take advantage of the special RESNET rate you must make your reservations by January 18, 2010. You can make your reservations on line by clicking on www.resnet.us/conference/2010/hotel.htm

Join the Elite of Building Energy Performance – Become a 2010 RESNET Conference Supporter



The RESNET Building Performance Conference presents an exciting opportunity to boost the movement toward market-driven, building performance initiatives. Your company can demonstrate its leadership in this effort by being a 2009 RESNET Building Performance Conference sponsor, patron, supporter or exhibitor.

Your organization can support the 2009 RESNET Conference through the following options:

- **The RESNET Winner Circle** - The RESNET Winners Circle is the premier conference sponsorship at \$10,000. This category offers premier recognition in all conference materials, including your organization's name on the cover page of the registration brochure and the conference program. This recognition also includes a complimentary conference exhibit booth and up to five complimentary conference registrations.
- **Conference Sponsor** - Conference sponsorships are \$7,000 and offers recognition in all conference materials including your organization's name on the cover page of the registration brochure and the conference program. Sponsorships also include a complimentary conference exhibit booth and two complimentary conference registrations.
- **Conference Patron** - Conference patrons are \$3,500 and offer extra recognition above that of a Conference Supporter, including highlighting in the conference program, a complimentary conference exhibit booth, and one complimentary conference registration.
- **Conference Supporter** - Conference supporters are \$1,000 and offer recognition in all conference materials and one complimentary conference registration.
- **Conference Exhibitor** - Conference exhibitors are \$750 and offer a conference exhibit booth and one complimentary conference registration.

To become a 2010 RESNET Building Performance Conference supporter, please go to

www.resnet.us/conference/2009/supporter

RESNET Notes

RESNET Board 2009 Fall Meeting – October 9, 2009 – Indianapolis, IN



The RESNET Board of Directors will be holding its 2009 Fall Board Meeting on Friday, October 9 from 9:00 a.m. to 3:00 p.m. at the Embassy Suites Indianapolis Downtown. RESNET members and other interested parties are invited to attend the RESNET Board meeting.

The preliminary agenda for the meeting includes:

- Call to Order/Roll Call
- Approval of February 15, 2009 Minutes
- New Approach to Quality Assurance
- COMNET Overview
- Status of National Builder Registry
- New Approach to RESNET Standards
- Washington Update
- Adopt 2010 RESNET Priorities
- Adopt RESNET 2010 Budget
- Overview of RESNET Policies on Whistle Blowers, Conflict of Interest and Anti-Trust
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Scholarships Available to RESNET Rater Members for the EEBA 2009 Excellence in Building Conference



The EEBA 2009 Excellence in Building Conference will take place on September 28 – 30 in Denver, Colorado. EEBA welcomes RESNET rater members to the conference. Now is the time to define your opportunities.

- Featuring a rater specific education track
- Program updates from RESNET, BPI, Environments for Living, Green Builder College and EEBA
- 4 hour Houses that Work for raters training
- Earn RESNET rater CEUs

Environments for Living is pleased to offer RESNET rater members a full conference registration for only \$250 (\$500 value). You must be a RESNET rater member to qualify for a scholarship. Call today 952-881-1098. Hurry scholarships are almost full.

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RESNET Enters into Partnership with Environments for Living



RESNET and **Masco** have entered into a Memorandum of Agreement that will allow RESNET rater members to participate in **Environment for Living** (EFL). EFL is a

program that provides marketing support and guaranteed energy performance for builders. Previously only in-house Masco raters were able to offer the program to production scale builders. This agreement will provide raters with an additional marketing tool for their services and provides Masco with a larger pool of raters that rate buildings participating in the EFL program in markets under-served by the program. In addition, Masco will provide participating RESNET rater members with marketing support.

To participate in the ELF program, a RESNET rater member will need additional training. This training includes the options of:

- Attend a two-day building science course taught by Advanced Energy Corporation (The training will be offered a minimum of twice per year with one training to be scheduled in conjunction with the RESNET annual conference), or
- Complete the EFL online Green Builder College certification training, or
- Complete the EEBA "Houses That Work" training certification, or
- Complete the BPI Building Analyst Certification

RESNET Rater members who have already completed at least one of the training programs listed will be grandfathered into program.

Additional training will be required via the EFL web site on proper entry of data into Project Manager Database, submittal of plan review data, completion of Project Agreement, and explanation of guarantee (There will be no fee for this training).

For more information contact Dave Bell at dave.bell@mascoocs.com

RESNET is now on Facebook!

You can now receive RESNET and energy efficiency news updates right on your Facebook page. It is easy to plug into RESNET's Facebook page: (1) Simply go to <http://www.facebook.com/pages/RESNET/117015546426?ref=nf> (2) Then click "become a fan of RESNET." This will allow you to receive updates from RESNET and

post comments from your facebook page. You can also connect online with others who are members of the RESNET page, and extend your business network or talk with associates. If you are not a member of facebook, signup is easy. Simply go to the above link, and click "sign up." Remember internet networking is no longer simply a place for teenagers to chat, but a place where news is shared, companies network, and presidents are elected.

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