

**RESNET**

*Residential Energy Services Network*

# 2008 RESNET<sup>®</sup> Annual Report

## January 2009

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**Residential Energy Services Network, Inc.**

**P.O. Box 4561**

**Oceanside, CA 92052-4561**

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*Setting the STANDARD  
for QUALITY*

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# RESNET 2008 RESNET<sup>®</sup> Annual Report

## Introduction

The Residential Energy Services Network, Inc. (RESNET<sup>®</sup>) is a membership driven, not-for-profit corporation. RESNET's mission is to ensure the success of the building energy performance certification industry, set the standards for quality and increase the opportunity of high-quality building ownership.

RESNET supports its mission through two principle goals:

- Setting the standards for quality of rating services thereby enhancing the credibility of ratings to consumers, lenders, the housing industry, government agencies and utilities.
- Providing the tools to help home energy raters succeed in becoming profitable businesses

RESNET is guided by a Board of Directors whose membership includes representatives from the entire home energy rating industry.

2008 RESNET Officers:

President - Philip Fairey, Florida Solar Energy Center  
Vice President – David Goldstein, Natural Resources Defense Council  
Treasurer – Lee O'Neal, Nspeacts  
Secretary – Bruce Harley, Conservation Services Group  
Immediate Past President – Kelly Parker, Guaranteed Watt Saver (GWS)

Other members of the RESNET Board of Directors:

Ben Adams, MaGrann Associates  
Steve Byers, Energy Logic  
Dennis Creech, Southface Energy Institute  
Richard Faesy, Vermont Energy Investment Corporation  
Andy Gordon, Washington State University Energy Program

Tom Hamilton, CalCERTS  
Michael Holtz, Architectural Energy Corporation  
Mark Jansen, Energy Efficient Homes Midwest  
C.T. Loyd, The Nelrod Company  
Greg Nahn, Wisconsin Energy Conservation Corporation  
Bill Prindle, ICF International  
Robert Scott, California Home Energy Efficiency Rating Services  
Barb Yankie, Homes+, Inc.  
Douglas Walter, Kansas Building Science Institute  
Daran Wastchak, D.R. Wastchak, LLC  
Erin Wiggins, Cenergy, LLC  
David Wilson, Energy Rated Homes of Utah

To better achieve its goal of setting the standards for quality, the RESNET Board of Directors has established standing committees. Each committee's purpose is to provide the RESNET Board with policy implementation and technical guidance. The committees are:

**Quality Assurance and Ethics Committee**

Chair: Ben Adams, MaGrann Associates

Members:

Doug Beaman, Douglas Beaman Associates  
C.T. Loyd, The Nelrod Company  
Ethan MacCormick, TREAT Ratings  
Greg Nahn, Wisconsin Energy Conservation Corporation  
Lee O'Neal, NSpects  
Robby Schwarz, Energy Logic  
Daran Wastchak, D.R. Wastchak, LLC

**Training and Education Committee**

Chair: Mark Jansen, Energy Efficient Homes Midwest

Members:

Adam Gifford, Conservation Services Group  
Russ King, Sierra Building Science Center  
Tei Kucharski, Energy Gauge USA  
Neil Moyer, Florida Solar Energy Center  
Kelly Parker, Guaranteed Watt Saver Systems  
Tabetha Reyes, Energy Potential, Inc.  
Richard Simpson, Total Energy Systems  
Dan Tempas, Dow Building Solutions CTSC  
Douglas Walter, Kansas Building Science Institute  
David Wilson, Energy Rated Homes of Utah

## **Technical Committee**

Chair: Bruce Harley, Conservation Services Group

Members:

Michael Blasnik, M Blasnik & Associates

Steve Byers, EnergyLogic

Philip Fairey, Florida Solar Energy Center

Bion Howard, Building Environmental Science and Technology

Abraham Kruger, Sealing Agents Waterproofing, Inc.

Michael Lubliner, Washington State University Energy Program

David Meisegeier, ICF Consulting

Jim Meyers, North American Insulation Manufacturers Association

Gary Nelson, Energy Conservatory

Duncan Prah, IBACOS

Dave Roberts, National Renewable Energy Laboratory

Paul Scheckel, Vermont Energy Investment Corporation

Dennis Stroer, Energy Calcs

## **2008 RESNET Priorities Adopted by the RESNET Board of Directors**

The RESNET Board of Directors adopted the following priorities for 2008 in rank order:

- I. Ensuring the Quality of Rating a Building's Performance**
- II. Tapping the Existing Homes Market**
- III. Overcoming the "First-Cost" Barriers in Improving the Energy Performance of Buildings**
- IV. Harmonizing the Standards for Rating the Energy Performance of Buildings**

This report is divided into two parts:

- Report on achieving 2008 RESNET Board priorities
- Report on other accomplishments in 2008

## **Report on 2008 RESNET Priorities**

In 2008 the RESNET Board of Directors adopted four very ambitious priorities. This decision was made because of the growing concerns over energy prices and global climate change facing our nation coupled with the current opportunities available to the industry with the passage of the Federal energy efficiency tax credits.

- **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 completed a quality assurance review of all accredited rating providers. The RESNET staff monitoring includes the review of the following submission by the rating provider:
  - Rater Registry
  - Rater Agreements
  - Proof of Initial Rater Training and Provider's Rater Probationary Reviews
  - Continuing Education Credits Documentation
  - Proof of Provider Complaint Process and Notification of the Process to Consumers
  - Documentation of Building File Reviews
  - Documentation of Field Inspection Reviews
  - Documentation of Company's Tracking Method for Building File and Field Reviews
  - Documentation of Disclosure Notice to Customers

In 2008, the quality assurance review has been expanded to include quality assurance review of rating sampling provider procedures.

RESNET established a National Rating Registry Work Group in 2008 to develop and recommend standards for a national Rating Registry that can serve as an important quality assurance tool of ratings as well as audits.

To enhance its ability to resolve quality assurance disputes, RESNET selected a set of contractors through a Request for Qualifications that can call on to review building files and field ratings.

In 2008 the following amendments were adopted by RESNET to clarify technical issues with the RESNET Mortgage Industry National Home Energy Rating Standards:

- Revision of the rating of roof reflectivity
- Revision of the lighting definitions

RESNET also adopted an amendment that clarified the requirement of disclosure as to whether the home was rated as part of a sample set or individually inspected and tested.

The RESNET Board of Directors also adopted two formal interpretations suggested by the RESNET Training and Education Committee on:

- Clarification of the number of ratings conducted as part of rater training
- Clarification the responsibilities of a rating field inspector

- **Tapping the Existing Homes Market**

The following have been accomplished in 2008:

- Adoption of a RESNET National Energy Audit Standard – The new standard is already making an impact on the market. The states of Arkansas and Missouri have already adopted the standard for their state energy audit programs.
- Developing a Draft Joint RESNET/BPI Comprehensive Audit Standard. RESNET and BPI staffs have come to an agreement on the process for implementing the new standard once it is adopted.
- 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 Labeling Legislation
- Entered into a Memorandum of Understanding with the Eco Brokers program
- Worked with the American Society of Home Inspectors (ASHI) in developing a partnership to encourage home inspectors to become certified as Home Energy Survey Professionals and complete in-home energy surveys as part of the home inspection process. This partnership has resulted in ASHI sponsoring a special training session on how to qualify to become a Home Energy Survey Professional at the annual Inspection World Conference in January in Orlando, Florida.

- **Overcoming the “First Cost” Barriers in Improving the Energy Performance of Buildings**

The RESNET Board of Directors adopted a policy advocating that Congress require the secondary mortgage markets of Fannie Mae and Freddie Mac to 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. In 2008 Congress enacted legislation that 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 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.

RESNET and Fannie Mae are undertaking an evaluation on how high performance homes compare to standard homes in terms of buyer's FICO scores, late payments, and loan defaults. The study includes the review of the mortgage loan performance of over 200,000 homes that have been rated. The results of the study are expected to be released in 2009.

- **Harmonizing the Standards for Rating the Energy Performance of Buildings**

RESNET made solid progress in an international dialogue on harmonizing standards. Accomplishments include:

- In order to enhance governmental and international recognition of RESNET standards, the standards must become compliant to the American National Standards Institute (ANSI) and International Standards Organization (ISO) procedures. As the first step, RESNET contracted for an evaluation of the RESNET standards and the identification of changes that would be required to them compliant to the ANSI and ISO procedures.
- The RESNET standards were recognized by ERT as measurement and verification procedures for calculating residential energy savings for energy efficiency certificates ("White Tags").
- RESNET Board President, Philip Fairey was appointed by ANSI to serve on the ISO working group on developing an international standard for rating building energy performance. RESNET created an International Initiatives Task Force. The role of the RESNET International Initiatives Task Force will be to review the issues that emerge from the international collaborative and provide input to RESNET. This will assist RESNET in developing positions for the international group's consideration. Having a large and transparent process adds credibility to RESNET's

- Representatives of the Shanghai Real Estate Science and Research Institute addressed the 2008 RESNET Board meeting and the 2008 RESNET Conference on harmonizing their energy standards with the RESNET Standards. The Shanghai Real Estate Science and Research Institute decided to become accredited by RESNET as an accredited rating provider. In January 2009, Steve Baden conducted training in Shanghai on the responsibilities of being an accredited rating provider.
- Establishment of a joint RESNET/BPI Comprehensive Energy Audit Testing Working Group. The working group harmonized the RESNET and BPI test categories and weighting. This will serve as the basis for the joint test for the new dual certification.
- RESNET Executive Director Steve Baden was appointed to the Organization of Economic Development and Cooperation's committee to develop a global sustainable building network.
- An agreement was reached with the Japan Energy Star Group to become a Japanese affiliate of RESNET
- Provided assistance to the Canadian Residential Energy Services Network on being accredited by RESNET as its first international provider.
- Philip Fairey and Steve Baden met with Jens Lausten, the International Energy Agency's lead staff on building energy performance in Paris. Mr. Lausten briefed us on his new proposal, "Setting up a Factor Four Policy for Buildings". The policy would set the goal of reducing the energy consumption of buildings by 67% by the year 2050 using available technologies and building products. The proposal will be published, and if adopted by the International Energy Agency, submitted to the G8 for endorsement as part of their climate action strategy.
- On November 12th, RESNET hosted a briefing session on the European Commission's Energy Performance of Buildings Directive (EPBD). The session featured Dr. Eduardo Maldonado, who is the chief energy advisor to the Portuguese government and the chairman of the EPBD's Concerted Action. Representatives from the U.S. Department of Energy, Environmental Protection Agency and the U.S. Department of Housing and Urban Development as well as representatives of the Alliance to Save Energy, the American Council of an Energy Efficient

- Philip Fairey and Steve Baden met with staff of the European Commission responsible for the Energy in Performance of Buildings Directive. We were briefed on the European Commission's (EC) plans for the second phase of the Energy Performance in Buildings Directive. It appears that this effort will increase the requirements of building labeling to actually require energy upgrades of buildings to a minimum standard at the time of major refurbishments. Mr. Baden & Fairey shared the residential energy efficiency initiatives for the new President and Congress that was adopted by the RESNET Board. The EC staff stated that RESNET's recommendations were tracking very closely with the policy changes being advocated for the EC. EC staff stated that the dialogue between RESNET and the EC through the Concerted Action was very important and that they were very interested in increasing the intensity of this collaboration.

### **Other Accomplishments Achieved in 2008**

In addition to meeting the goals established for 2008, RESNET achieved a number of additional key accomplishments. The following is a summary of the results of those activities.

#### **A. Adoption of Residential Energy Efficiency Policy Initiatives for the Obama Administration and New Congress**

At its Fall 2008 Meeting in Washington, D.C., the RESNET Board of Directors adopted a set of residential energy efficiency policies for consideration by the incoming presidential administration and new Congress. The proposed initiatives are:

- 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

In addition, the board adopted a policy initiative on addressing repossessed homes. The U.S. is facing a severe shortfall in credit availability in its financial markets, primarily caused by subprime mortgages, foreclosures and falling real estate values. The new Emergency Economic Stabilization Act of 2008 (EESA) puts the federal government in possession of billions of dollars of troubled loans, and by implication, in charge of large numbers of properties. The RESNET plan proposes:

- The federal government should create a special Home Energy Improvement Initiative that requires property asset management companies to:
  - Set a federal goal to improve the energy performance of the portfolio of all foreclosed properties by 30%.
  - Enable foreclosed homes to receive a screening and energy audit process that would identify suitable homes for cost-effective energy improvements.
  - Define *cost-effective* on a 30-year net present value basis, using prevailing FHA mortgage interest rates as discount rates. Energy improvements should be designed to make housing more affordable by reducing net ownership costs by creating energy savings greater than any added mortgage payment (i.e. “positive cash flow”).
  - Install all cost-effective improvements, leveraging federal, state, local, utility and other entities with the capability

#### **B. The U.S. Department of Energy (DOE) Adopted the HERS® Index to Designate Thresholds for Building America and Net Zero Homes**

In 2008 the U.S. Department of Energy (DOE) launched the National Builders Challenge to recognize builders who are pioneering the path towards net zero energy homes. DOE decided to base qualification the challenge’s at a HERS Index of 70 or lower. There was a major announcement of this initiative at the 2008 International Builders Show in Orlando, Florida in which the Secretary of Energy and RESNET President Philip Fairey participated.

On December 4, 2008, RESNET hosted a Rater Audio roundtable on the Builders Challenge. Ed Pollock of DOE led the session

which explained how raters can participate in the process. Over 200 phone lines were tied into the roundtable. This represented the largest participation in a RESNET Rater Roundtable.

**C. 2030 Challenge® Incorporating RESNET HERS® Index**

The 2030 Challenge is a challenge to ensure all new buildings will be net zero carbon by the year 2030. The challenge has gained publicity and support from influential organizations such as the U.S. Council of Mayors, AIA and ASHREA. RESNET staff have completed negotiations for the residential 2030 Challenge to use the RESNET HERS Index to define the targets for the residential challenge. The 2007 challenge for new and existing homes will be sixty-five on the index. In proceeding years, the challenge will only apply to new homes at fifty-two in 2010, thirty-nine in 2015, twenty-six in 2020, thirteen in 2025, and zero in 2030. The 2030 Challenge concepts were adopted by Barack Obama as part of his presidential campaign's energy policy.

Architecture 2030 has developed a 2030 Challenge Stimulus Plan that it presented to the Obama transition team. The 2030 Challenge Stimulus Plan provides reduced interest mortgage financing to purchase homes that meet the challenge and to finance the energy upgrade of existing homes.

**D. Development of RESNET Green Rater Designation**

RESNET has developed its first rater specialty designation, the RESNET Green Rater. In conjunction with the 2008 RESNET Conference, RESNET hosted a pilot green rater training program in which over 100 raters participated. After the training, RESNET conducted an evaluation of the training with the participants and formed a task force to provide input on the development of ongoing RESNET Green Rater training. Over one hundred representatives of the building performance industry volunteered to serve on the task force. Jay Hall and the Southface Energy Institute were contracted to develop the curriculum, lesson plans, presentations, and student materials for an ongoing two day RESNET Green Rater training.

RESNET will be sponsoring a two-day training on the new curriculum in conjunction with the 2009 RESNET Building Performance Conference in New Orleans on February 14 & 15. After the training, RESNET will accredit training providers to provide the RESNET Green Rater training on an ongoing basis across the nation.

**E. RESNET Entering into an Agreement with the National Association of Home Builders for Raters to Become Certified as Green Building Verifiers**

RESNET reached an agreement with the NAHB Research Center for the National Association of Home Builders (NAHB) to recognize RESNET Green Raters as meeting the prerequisites for being certified to verify homes for the NAHB's Green Building program. This will create new business opportunities for RESNET Green Raters. As part of the partnership with NAHB, the NAHB Research Center will be offering NAHB green building verifier training in conjunction with the 2009 RESNET Building Performance Conference on February 14, 2009.

**F. Dialogue with the U.S. Green Building Council on Recognizing RESNET Green Raters in the LEED for Homes Program**

RESNET Executive Director Steve Baden met with staff of the U.S. Green Building Council and the Green Building Certification Institute three times to recognize the RESNET Green Rater training in securing certification as a LEED Homes verifier. While the ongoing procedures have not yet been finalized, RESNET has been assured that the RESNET Green Rater designation will be recognized as meeting prerequisites for LEED for Homes.

As part of the partnership with the U.S. Green Building Council, there will be a LEED for Homes training in conjunction with the 2009 RESNET Building Performance Conference on February 17.

**G. Advocacy for Extension of the Federal Tax Incentives for Building Energy Efficiency**

RESNET joined with a coalition of environmental, energy efficiency and housing industry organizations to advocate extension of the federal tax incentives for building energy efficiency. This effort paid off. The Emergency Economic Stabilization Act (EESA) to provide a bail out to the troubled U.S. financial markets includes an extension of the federal tax credit of \$2,000.00 for building energy efficient homes through December 31, 2009. Among the other building energy efficiency tax incentives that were extended include

- An extension of the \$500 homeowner's energy tax credit for improving the energy efficiency of existing homes for 2009.
- An extension of the Commercial Building Tax Deduction until 2013 that allows building owners to deduct up to \$2.25 per square foot for improvements in overall performance.

**H. Enhance RESNET Financial Stability**

RESNET's expenses conformed to the budget adopted by the RESNET Board of Directors. Through sound financial

management in 2008, RESNET's revenues exceed its expenses. To properly manage the organization's financial resources, the RESNET Board of Directors adopted a financial plan where the excess revenues are invested in a sound investment fund. At the end of 2008, RESNET had a balance of \$123,158 in the checking account and \$495,647 in insured reserve accounts. This is a remarkable feat in today's economic climate.

- I. Host the 2008 RESNET Building Performance Conference** The 2008 conference was held February 18 - 20, 2008, in San Diego, CA. The conference not only had the largest attendance to date but created increased revenues over previous years. The effectiveness of the conference is clearly demonstrated in the results of the on-line survey of conference attendees. Over 85% of attendees responded positively on the value of the conference, and 83.1% said they planned to attend the 2009 conference in New Orleans. Registrations for the 2009 conference exceeded 500 in early January 2009.

In 2008 RESNET adopted a new conference registration data base management system that will allow staff to efficiently track and manage conference registrations.

In 2010 RESNET will partner with the North Carolina Energy Star Homes Program and host a joint conference in Raleigh/Durham, North Carolina.

**J. Maintain and Enhance the RESNET® National Rater Test**

The following activities were accomplished during 2008:

- The RESNET Training and Education Committee conducted an extensive review of all questions contained in the RESNET National Rater Test. As a result of the review, a number of questions were edited for clarity and a number of questions were removed from the database. The enhanced test is now online. RESNET will again review the test in conjunction with the 2009 RESNET Building Performance Conference. On February 13, 2009, all accredited rater training providers will be provided an opportunity to review and comment on the test.
- The committee approved adding fifty new questions to the test.
- The committee developed the test categories and weighting for the new online RESNET Home Energy Survey Professional Test. The Appalachian State University Energy Center was contracted to develop the test questions.
- The committee reviewed the RESNET Rating Field Inspector Test and removed questions not appropriate to the

**K. Expand RESNET/Habitat for Humanity® Partnership**

RESNET is offering a specially designed “RESNET Rater - Habitat for Humanity Volunteer” logo to raters who agree to provide free ratings to Habitat Affiliates. The logo is to be used in their promotional materials and is posted next to their name on the RESNET website. In 2008, the effort elicited over 70 raters nationwide to volunteer for the program.

Habitat for Humanity International and the Home Depot Foundation have launched a new national green building initiative called "Partners in Sustainable Building Project". Partners in Sustainable Building Project is a five-year, \$30 million effort whose goal is to build 5,000 units of energy efficient, sustainable and affordable housing. Habitat for Humanity estimates that this project will cover approximately 17% of all single and multi-family homes built by Habitat for Humanity in the U.S. for the next five years. All of the homes that participate in this project, must be rated in accordance with RESNET standards. RESNET Executive Director, Steve Baden, was appointed by Habitat for Humanity International to serve on the project's advisory board. Mr. Baden's focus on the advisory board will be to guide Habitat in developing a rating infrastructure in rural under-served areas and tie the energy savings into the mortgage loan for the Habitat partner families.

**L. Implement 2008 RESNET Rating Industry Leadership Awards Program**

To recognize leadership in the rating industry, the RESNET Board of Directors established the Rating Industry Leadership Awards. At the 2008 RESNET Conference, the following awards were presented:

- Market Transformation Award – *North Carolina Energy Star Program*
- Program Leadership Award – *California Energy Commission*
- RESNET Industry Innovation Award– *EnergyLogic*

**M. Liaison and Advocacy With the Environmental Protection Agency (EPA)**

Labeling of ENERGY STAR homes is currently the single largest business activity of the home energy rating industry. Because of this central economic concern, a key responsibility of RESNET is to act as a liaison/ advocate for the home energy rating industry with the EPA. In 2008, RESNET was involved in discussions and negotiations with the EPA on the following issues:

- The RESNET Sampling Standard
- Testing and Verification Procedures for Modular Homes built in HUD Code Home Manufacturing Plants
- The National ENERGY STAR Oversight Organization
- High-rise Multi-family Building ENERGY STAR pilot program
- Deliberations on Version 3 of the Energy Star New Homes program.

**N. Increased National Visibility**

Spiraling home energy costs and heightened concern about global climate change has renewed the media's interest in energy efficiency. RESNET staff took advantage of this opportunity and aggressively worked with the national media. This resulted in coverage by such premier national outlets including:

- *Newsweek Magazine*
- *The Wall Street Journal*
- *New York Times*
- *U.S. Today*
- *Washington Post*
- *Chicago Tribune*
- *Energy Design Update*
- *Fine Home Building Magazine*
- *Home Energy Magazine*

In 2008, RESNET staff presented at the following conferences:

- National Home Builders Association's Energy Subcommittee Meetings
- Insulation Contractors Association Annual Convention
- 2008 Affordable Comfort Conference
- California Association of Building Energy Consultants Conference
- Electric Utility Energy and Environment Conference
- American Society of Home Inspectors Inspection World 2008
- EcoBroker National Conference
- ACEEE's Financing Energy Efficiency Conference

The immediate benefit to RESNET and the rating industry is the increased traffic on the RESNET web site. Most of the media coverage that RESNET received referred to the RESNET web site. The number of distinct visits to the RESNET web site increased 59% in 2008. It jumped from an average of 74,134 visits a month in 2007 to 118,195 in 2008.

**O. Increase in RESNET Membership** 2008 has witnessed a continued increase in membership. Through on-line evaluations of memberships, it has been determined that this increase is being driven by:

- Listing on the RESNET Web Site Rater Directory
- RESNET's Effectiveness on Serving as the Voice of the Rating Industry
- Affordable Rater Insurance
- Subscription to Home Energy Magazine
- Effectiveness of RESNET Communications to its Network
- RESNET's Heightened National Visibility

In 2008 RESNET exceeded 1,000 members. At the end of 2008, RESNET had 1,197 members in good standing.

**P. Development of a RESNET National Building Registry**  
RESNET is developing a national building registry in which all ratings, tax credit verification and home energy surveys and comprehensive audits will be data based. To guide the development of the registry, RESNET recruited a National Buildings Registry Task Force. Steve Byers of EnergyLogic was appointed as the chair of the task force. Twenty-five representatives of accredited rating providers, rating software developers, the Environmental Protection Agency, the U.S. Department of Energy and the National Renewable Energy Laboratory have volunteered to serve on the task force.

**Q. Adoption of RESNET Standards Standing Committee**  
To ensure compliance with ANSI and ISO standard amendment procedures and to maintain the RESNET standards, the RESNET Board of Directors has established a standing standards committee. The board elected Michael Holtz of Architectural Energy as the chair of the committee. RESNET is currently in the process of recruiting members of the committee.

**R. Development of RESNET Infrared Scanning Standard**  
Thermal imaging technology has advanced significantly in the past few years and the price of equipment has grown more affordable. This technology offers the promise of a way to measure the EPA ENERGY STAR Homes Thermal Bypass Checklist and the quality of the installation of the insulation after the dry wall has been installed. It will also likely figure heavily in the comprehensive home energy audit process to ensure that operators have been properly trained.

To pave the way to achieve this potential, RESNET is developing a standard for conducting infrared scanning of homes. An Infrared Task Force was recruited to draft the standard. The task force developed a draft standard, based on both the experience of its members and the United Kingdom's standard for using the technology in measuring the quality of insulation installation.

The RESNET Technical Committee is currently reviewing the standard. It is expected that the draft standard will be submitted to the RESNET standard amendment public review and comment process in the first quarter of 2009.

#### **S. RESNET Forms Existing Homes Software Task Force**

There are two primary needs for software verification tools for existing homes:

- "Institutional Purposes" (e.g. Energy Improvement Mortgages, Time-of-Sale Labeling, Energy Efficiency Certificates, Carbon Offsets) - This uses modeled performance and is not driven by consumer behavior. This is often referred to as an "Asset Rating". This is the current RESNET rating method.
- "Informative" is to guide homeowners in making decisions about making energy improvements to a home. This needs to account for consumer behavior and often is called an "Operational Rating".

RESNET convened a task force to review the issues associated with rating software programs for existing homes. Ninety-one representatives of the building performance industry have volunteered to serve on the task force. The task force will work on the following plan of action:

- The first effort will focus on developing the specifications for the operational rating. This would include:
  - Provide input and a tracking progress for the U.S. Department of Energy and the National Renewable Energy Laboratory in their effort to develop a BESTTEST-EX for reconciling weather and utility bills. If necessary, the task force would develop an interim process with specific attention to:
    - + Weather normalization methods
    - + 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 the standard for operational ratings
- + Define acceptable range criteria for the software verification
- + Establish a process for accrediting software programs that comply with the new RESNET operational rating standard
- Develop recommendations on how RESNET would treat the rating report that would be presented to the consumer if RESNET included both the operational and asset rating.
- Investigate simplification of the current asset rating method (asset rating) for existing homes
- Until a national carbon tool is developed, develop an interim RESNET standard for calculating the carbon emissions of homes
- Define how RESNET will gather the data from operational ratings to improve the asset rating modeling

**T. RESNET Forms High-Rise Multifamily and Commercial Building Energy Performance Simulation Software Verification Task Force**

There is a growing interest by developers and utility sponsored programs to be able to rate the energy performance of high rise multifamily and commercial buildings. Currently there is no national standard for the verification of high-rise multifamily and commercial building performance simulation software programs. To meet this need, RESNET will develop and adopt new simulation software verification standard and testing procedures. This will be accomplished by working with commercial building energy efficiency programs such as the New Buildings Institute, LEED, the ENERGY STAR Homes Multi-Family High Rise Pilot Program, and RESNET international affiliates such as the Shanghai Real Estate Science and Research Institute and the Japan Energy Star Council.

This effort will focus on developing accreditation procedures for software simulation tools used in performance-based analysis. A set of national commercial building modeling protocols is also being developed in a separate work effort by the New Buildings Institute and the Natural Resources Defense Council with funding from the Energy Foundation. This effort will also be coordinated with the Environmental Protection Agency's modeling efforts with the ENERGY STAR Homes Multi-Family High Rise Pilot Program and the USGBC's LEED program.

RESNET has recruited a task force to guide it in developing the

software verification procedures. 42 representatives of the building science industry have volunteered to serve on the committee.

RESNET has recruited a Working Group that will prepare the drafts during the development process that the task force will review on comment on.

Members of the High-Rise Multifamily and Commercial Building Energy Performance Simulation Software Verification Working Group are:

- Philip Fairey, Florida Solar Energy Center
- David Goldstein, Natural Resources Defense Council
- Michael Holtz, Architectural Energy Corporation
- Ron Judkoff, National Renewable Energy Laboratory
- David Lee, Environmental Protection Agency
- Courtney Moriarta, Steven Winter Associates
- Mike Optiz, U.S. Green Building Council
- Nick Zigelbaum, New Buildings Institute

The working group has proposed the following work plan for developing the RESNET building energy performance index:

- Establish procedures for accreditation of commercial building software
- Software must pass ASHRAE Standard 140, Section 5.2 tests (specific test number to be determined)
- Establish RESNET software pass/fail criteria (Standard 140 does not specify acceptance criteria)
- Software must provide for automatic generation of reference buildings
- Establish minimum standards for the rating method
- Reference building As defined by ASHRAE 90.1-2004, Appendix G
- California ACM HVAC Systems Map (rule base)
- Residential lighting budgets

U. **Increased Transparency of RESNET Board Activities**

Since the RESNET Board of Director are representatives of the organization's membership, it is critical that the Board activities are transparent to its members and the public. To increase transparency in 2008, RESNET launched a web page on Board activities. The new web site includes the following information:

- RESNET's By-Laws

- RESNET's Anti-Trust Policy
- Responsibilities and Duties of Members of the RESNET Board
- The Adopted RESNET Board Policies and Procedures
- Briefing Paper on RESNET Organization
- RESNET Annual Priorities
- RESNET Strategic Plan
- RESNET Board Meeting Minutes
- RESNET Policy Initiatives
- RESNET Standing Committees
- RESNET Board Rating Industry Achievement Awards

#### **V. RESNET's New Web Based Networking Program**

Recently there has been a truly revolutionary transformation in how information is shared through the internet. Rather than solely relying on web pages 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 practical value of this transformation is best demonstrated by the 2008 Obama presidential campaign and social networking sites like Facebook. The campaign deployed this networking to effectively allow citizens to organize local campaigns and raise funds.

In 2008, RESNET created a networking site that will allow users to connect with others in the building performance industry. After logging onto the network, users will be able to organize building performance events, join list-serves, and create or join user groups for environmentalists, raters, builders, or any other category. This will allow professionals to come in contact with new people, better advertise events, and stay in touch with the building performance industry. The network is currently undergoing beta testing. The networking site will be unveiled at the 2009 RESNET Building Performance Conference.