Sessions Nominated to be Offered at the 2008 RESNET Building Performance Conference

Conference Break Out Sessions

The 2008 RESNET Building Performance Conference will feature 70 1 ½ hour break out sessions. The following sessions have been nominated for the main conference break out sessions.

Technical

2008 – 001 The Importance of Air Barrier Detailing and Cost Effective Methods for Achieving the Thermal By Pass Check List Requirements.

Air Barriers are the systems of materials designed and constructed to control airflow between a conditioned space and an unconditioned space. This seminar addresses the importance of air barrier detailing and understanding the difference between interior and exterior air barriers, their effectiveness as well as the common mistakes made in installation. Steve Easley will describe the attributes that make an effective weather barrier and identify the key details in a properly performing weatherization system. He will also discuss common mistakes when inspecting for the Energy Star Thermal Bypass Check List. Also examples of how uncontrolled air flow can lead to moisture problems will be presented as well as solutions.

2008 – 002 Effective Mechanical Ventilation, Dehumidification and Zoning Strategies for Hot, Humid Climate Homes

Energy Efficient homes in Hot, Humid climates require adequate levels of mechanical ventilation and larger homes can reduce energy usage by zoning of
the mechanical systems. Additionally, dehumidification is increasingly required in custom, multifamily and seasonally occupied homes. Effective strategies to accomplish all three objectives will be presented – based on hundreds of Building America homes in Florida where these strategies have been implemented. In this session attendees will learn the reasons these topics are important, pitfalls to avoid and effective designs which have been successfully used in many homes.

2008 – 003 Infrared Thermography and Residential Insulation Efficiency

This session will explore how infrared thermography can be used to quantitatively evaluate efficiency for R-value and other insulation ratings. Attendees will learn about the pros and cons of the various approaches to quantitative evaluation of insulation efficiency using IR thermography including such elements as steady state conditions, IR cameras, thermographer training and expertise, and environmental factors. Also included will be a brief discussion of general applications of IR thermography in building sciences.

2008 – 004 Controlling Indoor Humidity in High Performance Homes

Depending on a high efficiency air conditioning system to control the indoor humidity of a high performance home will consistently fail. The result is elevated relative humidity with lots of unintended consequences. What are the latest most advanced whole house humidity control strategies. Which ones work - which ones don't.

2008 – 005 Builders "411" of the Fundamentals of Building Science

Understanding basic building physics is critical to building homes that work. This class focuses on understanding how heat, air and moisture movement in buildings impact building performance and product selection. Presenter uses real world practical examples to illustrate how the laws of nature interact with building components. This session by Steve Easley is designed to give builders the knowledge to sort out fact from fiction among the myriad manufacture claims.

2008 – 006 Whole-Wall Thermal Performance - Technology Update

R-value is not the best predictor of wall thermal performance. Air leakage, mean temperature, moisture and even orientation all affect real wall performance. There is now a significant interest from the research community on how to best characterize envelope performance using whole wall test methods and several projects are underway. This session will provide an update on these testing programs.
ASHRAE Standard 62.2-2007, Ventilation for Acceptable Indoor Air Quality, is one of the most important IAQ related documents in the home rating business. Have you read it? Do you have a copy (and have you read it)? Do you know what types of systems are covered by the standard? What climates are exempt from whole house mechanical ventilation? Should ventilation be required in hot/humid climates? Does Joe want to increase or decrease the ventilation rates in the next version? Whether you’re a ventilation expert or a novice, this session will include something for you.


Litigation surrounding water and moisture-related problems in residential construction has risen dramatically in recent years. Some experts estimate that as much as 80% of construction defect litigation in the residential construction market segment is due to water and moisture-related failures. Using photos gathered from years of field experience, Steve Easley will examine common design defects which create moisture problems and lead to callbacks. We’ll also identify and show common installation errors, and help your audience learn how to select building materials that lead to a more durable building.

The Biggest Energy Mistakes Builders Make

When it comes to comfort and energy costs, a home’s energy performance often looks good on paper but may not always meet customer expectations. This presentation focuses on technologies and installation practices that provide the “biggest bang for the buck” when it comes to making homes more energy efficient. Steve Easley uses field slides to illustrate cost effective solutions that lead to practical and long lasting energy savings.

The Water and Energy Efficiency Nexus: Synergies for Increasing Value

Did you know that electric power generation requires large quantities of water, and oil and gas production produces large quantities of wastewater? In fact, the electricity industry is second to agriculture as the largest user of water in the United States. Similarly, potable water sourcing, treatment, and distribution require considerable amounts of energy. But most states expect to be faced with water shortages in the next 10 years. In addition, there is growing concern as to whether water supplies will be sufficient to meet US energy demands in 20 years. Learn more about how water and energy are integrally linked to each other, what types are expected to become more pervasive in the market place and what role you can play in minimizing this pending crisis.

An infant in energy modeling tools, EnergyPlus is now in its 10th year of development. While energy plus is not a stand-alone tool with an easy to use interface, it is a powerful modeling engine. But is the engine too powerful for its own good? Or is the industry just slow to adopt new tools? This session will explore the strengths and weakness of EnergyPlus as it pertains to everyday energy modeling jobs in building design, efficiency prediction and savings verification.

2008 – 012 Cures for Common Callbacks in Homes

In the construction business, it's not how much money you make that makes you successful, it is how much money you get to keep. Callbacks cost money and can damage your company’s hard-earned reputation. This session covers common callbacks and problems that get builders into trouble. Steve Easley uses real world pictures to illustrate concepts and solutions that provide the biggest bang for the buck in reducing callback costs.


Research conducted in the Pacific Northwest suggests that properly sized, installed and commissioned high-performance heat pumps perform as well or better than natural gas or propane furnaces. BOPs developed for the Energy Star Homes Northwest program reflect this research; homes heated with high efficiency heat pumps qualify for the program using the same shell as homes heated with natural gas or propane furnaces. Under the 2007 HERS guidelines, it is much more difficult to qualify a home for the federal tax credit for new homes if it is heated with a heat pump. This session will discuss the technical and policy issues associated with accurate modeling and field installation of heat pumps. The session will include heat pump monitoring research funded by USDOE as part of the State Technology Assessment Collaborative (STAC) program, and preliminary efforts of the RESNET technical subcommittee on heat pumps.

2008 – 014 “Liar, Liar Pants on Fire”: Common Thermal Defects that Lead to Poor Performance

Homes often look great on paper but their “true life” operational performance often does not perform anywhere close to their design spec. This session examines the common thermal defects lead to poor performing homes and call backs. The presenter uses slides from hundreds of field investigations that to show causes and practical solutions to these construction defects. The focus of this talk is on designing and building homes that are energy efficient, durable and comfortable to live in. Homes that are Energy Star rated must now pass the Energy Star Thermal BY-Pass Check list. This session interprets and presents
cost effective methods for reducing conductive and convective by-passes to comply with the Energy Star Homes Thermal By-Passes Check List.

2008 – 015 Calculating Compliance to the Performance Method of the International Code: RESNET’s Test Suite for Verification of IECC Compliance Software Tools

The performance option of the International Energy Conservation Code (IECC) offers builders the most flexibility in adopting cost effective means to comply with the code. The performance path requires a software program to calculate the home’s energy performance. With funding from the U.S. Department of Energy RESNET has developed a suite of software verification tests. Software tools passing the suite of tests will be accredited by RESNET. This session will explain the test suite and explore how the performance method can assist builders in developing their most cost effective strategy to complying with the energy code.

2008 – 016 Heating Ventilation and Air Conditioning for Residential Buildings

Proper HVAC design, sizing and installation are critical to designing and constructing quality buildings that are energy efficient and comfortable. On average, residential HVAC systems are oversized by as much as 10 to 25%. At the same time, poor installation practices account for 25% of heating and cooling costs. Steve Easley uses real life examples to illustrate common mistakes made when designing and installing HVAC systems. Recommendations for installation techniques and technologies for diagnostic procedures are also discussed in detail.

2008 – 017 Understanding How Occupant Behavior Impacts Energy Use: The Occupant Energy Index

Standard procedures for estimating energy consumption of homes rely upon simulation of the home’s architectural details, its energy efficiency features, normalized weather data, and standard operating assumptions. Operating assumptions, such as thermostat setpoints, daily water consumption, appliance purchases, and interior shading schedules, are standardized for the purpose of producing consistent ratings. However, in practice, occupants can behave very differently, resulting in consumption that varies significantly from the simulation. Current modeling methodologies do not accurately account for seasonal variation in hot water usage or the impact of an increasing number of miscellaneous appliances and plug loads that use a tremendous amount of energy in a typical home. The Occupant Energy Index is a scale that assesses the impact of variations in occupant behavior, and demonstrates how such a scale can be useful to policy makers and program designers.
2008 – 019  Residential Construction Techniques and Materials

This session covers fundamentals of residential construction and how they shape building performance. BMI’s presenter uses photos from field experience to illustrate the “A to Z” of how homes are built, focusing on learning the terminology, systems and methods used in residential construction. Even experienced contractors will walk away from this seminar with a better understanding of the pros and cons of building methods and materials as they relate to building durability, comfort and energy efficiency.


A key element in the high performance of a home is the proper sizing of the HVAC System. Both the ENERGY STAR for Homes and RESNET national rating standards require the proper sizing of HVAC systems. The industry standard for HVAC load calculations is the ACCA Manual J. This session will provide an overview.

2008 – 021  Residential Indoor Air Quality

This session provides information about how to design and build homes that are comfortable, energy efficient and safe to live in. Steve uses slides to illustrate how the air quality in a home is affected by construction materials, water and moisture problems, furnishings, ventilation, human activities and construction methods. After attending this seminar, participants will walk away with an improved understanding of the causes of poor indoor air quality and approaches for building better homes.

2008 – 022  Introduction to Energy Efficient Lighting

This session will provide an overview of the current state of energy efficient lighting. By better understanding the world of efficient lighting, raters can have another tool to help builders select upgrades that best fit their business model. By being more knowledgeable and versatile in this subject, raters can offer better services to their clients than competitors. Topics will include an explanation of EPA’s Advanced Lighting Package, how builders can select lighting that meets the aesthetic needs of consumers, how much credit builders can get towards meeting ENERGY STAR requirements, how to verify compliance, and the range of incremental costs that might be incurred.

2008 – 023  Understanding High Performance Window Technologies

Window technologies have changed considerably in recent years. The right window product can save up to 25% on heating costs and up to 40% on cooling
costs. But did you know that using the wrong window technology in the wrong climate can actually increase energy costs? Steve Easley’s presenter uses slides to illustrate how windows work, focusing on their relative value in saving energy and providing significant gains in consumer comfort.

2008 – 024 Understanding the House as a System

Builders and remodelers must choose from hundreds of products and technologies. This session helps them understand the relationships between choices in windows, heating, air conditioning, ventilation strategies, insulation systems and indoor air quality. Attendees will learn how selecting the wrong window coating can increase energy costs, or how replacing interior doors might cause a water heater to back draft deadly fumes into a home, and how poorly installed ducts cause fireplace back drafting. They will also learn about building loads, foundations, framing, building science fundamentals, weather barriers, exterior cladding systems, windows, insulation, roof and attic systems, HVAC, electrical and plumbing systems and interior finishes.


Standard procedures for estimating energy consumption of a home or building involves conducting hourly simulations using exact architectural and energy related features, typical static 30 year average weather data and typical static operating assumptions. Using real hourly weather data allows energy efficiency and demand management programs to better assess the impact of installed technologies or modified operating procedures, by providing a closer match to the actual energy consumption and electrical demand. The use of typical average weather data is adequate when the goal is to estimate savings relative to a typical baseline. However, it is actual weather that dictates the current and future energy use and helps to prioritize technology and procedure upgrades.

2008 – 026 Air, Water and Moisture Management in Commercial Building Envelopes

This session by Steve Easley This seminar addresses the necessity for building redundancy in the commercial building envelope (wall systems) to help reduce damage due to water intrusion and energy lost due to air infiltration. Participants in this seminar will receive an in-depth overview of how moisture infiltrates commercial wall systems. This causes damage to building materials, which contributes to indoor air quality problems and creates costly repair and callbacks. An interactive session quizzes participants on ‘what’s wrong with this picture or this design detail,’ to enhance the learning experience.
Home Energy Ratings

208 – 027 Home Energy Ratings 101

New to the home energy rating industry? This session is a “101” primer to the rating industry. It will explain the relationships between a certified rater and a rating provider and other terms and concepts. This will serve as a solid platform for a person just entering the industry for the subsequent sessions at the conference.

2008 – 028 Meeting the RESNET Provider Quality Assurance Monitoring Challenge

Come hear RESNET Providers present their rigorous quality assurance programs that meet or exceed the RESNET Quality Assurance Standards. See a variety of quality assurance models and software products used to meet the Standard. Hear RESNET's staff's experience with compliance to the Standard and suggestions for improving your process.

2008 – 029 The RESNET HERS Index – The Path to Zero Energy Homes

In July 2006, RESNET implemented the new HERS Index. The index rates the home according to the energy it consumes. A standard home today is rated as 100 and a home that uses net zero energy is rated as 0. Older homes’ ratings increase as they are less efficient than the standard home built today. This new metric allows a path to the net zero energy home. It also presents a foundation to compare the various energy programs – International Energy Conservation Code, Building America, and Net Zero Energy Home. This session will discuss how programs can take advantage of this home energy performance metric.

208 – 030 Infrared Scanning Technology and the RESNET Insulation Quality Installation Inspection Procedures

The RESNET insulation installation inspection procedures require that only through a pre-dry wall inspection can insulation installation be rated as a grade III. The emerging technology of infrared inspection offers an opportunity for raters to evaluate insulation installation after the dry wall has been installed. This session will explore what standards and procedures must be adopted to be able to take advantage of this opportunity.

2008 – 031 Adjusting to a Carbon Constrained World: Rating the Carbon Foot of Buildings

There is a growing movement in the United Kingdom led by PepsiCo for labeling the carbon footprint of consumer products. For example, a package of Walkers potato chips lists the amount of carbon dioxide emitted by the package’s
production, (from growing the potato to packaging and distributing of the finished products) along with the fat, salt and calories listings. There is clearly emerging a new market force for combating global climate change. RESNET needs to begin considering adapting itself to a carbon constrained future. If it possible for a potato chip manufacturer to calculate the carbon footprint, it is surely possible for RESNET to develop a rating of a home’s carbon footprint that considers the products used in the construction of the home, the proximity of the home to mass transit and the energy consumption of the home. Just as a HERS Index allows a consumer to compare the relative energy performance of a particular home with others in the market, a carbon footprint index would allow a consumer to compare the footprint of that home with other homes in the market. In addition a carbon impact rating would allow homeowners who improve the efficiency of their home to quantify the results in reducing their home’s carbon footprint.

2008 – 032  Codes, Ratings, Energy Star and Tax Credits, Oh My!

Sorting through the various home energy performance metrics can be confounding. How does “percent better than code” relate to the HERS Index? Why doesn’t this 75 point home meet Energy Star? Why doesn’t this Energy Star home meet code? How is it that this home meets the tax credit requirements but doesn’t qualify for Energy Star? This session will answer these and other brain teasers, and help Raters gain a better understanding of the idiosyncrasies of the various energy codes and efficiency programs.

2008 – 033  Herding Cats – iRate Online Rating Management Tool

EnergyLogic has developed a web-based rating company management tool to manage all aspects of an energy rating company’s operations. From scheduling to billing, iRate is a one stop shop for managing rating operations and integrating both REM/Rate® and QuickBooks®. Join us for a demonstration of the tool and a Q and A about its capabilities and the development process.

2008 – 034  RESNET’s Effort to Develop National Standard for Energy Audits of Existing Homes

Energy audits have been around since the 1970’s. In fact they have been around so long that there are a number of interpretations of what exactly is an energy audit. RESNET is undertaking an initiative to define a process for measuring the energy efficiency of existing homes. Because of the diversity of the nation’s housing stock and homeowners, no one single tool will meet all needs. This session will introduce the RESNET process, explain its goals, and provide an update to the process.

A key element in the high performance of a home is the proper sizing of the HVAC system. In 2006, both the ENERGY STAR for Homes specifications and the RESNET national home energy rating standards will require the proper sizing of HVAC systems. The industry standard for HVAC load calculations is the Air Conditioning Contractors of America (ACCA) Manual J. This session will provide an overview of the tool for raters and discuss the impact that the tool can have on ratings and business opportunities for raters.

2008 – 036  Lessons from Successful Quality Assurance & Quality Control Programs

Developing and implementing a well designed QAQC program can be an important step in verifying impacts from energy efficiency programs. The main goals of the QAQC process are to verify RESNET standards are followed by HERS Raters, confirm the data used by the utilities to calculate utility-sponsored program impacts, and help strengthen the integrity of the ENERGY STAR Home label and the HERS rating process. Such verification can improve the overall quality of the program by quickly identifying and correcting problems, decreasing uncertainty associated with program impact estimates, which can result in higher claimed savings, and increasing the likelihood of the program standing up to regulatory scrutiny from third-party auditors. This session will share observations, issues, new best practices, and lessons learned from implementing QAQC programs since 2004 for electric utilities.

2008 – 037  ACCA’s Quality Installation Verification Initiative: A New Opportunity for Raters

The Air Conditioning Contractors Association (ACCA) is launching a Quality Installation initiative to train, certify and promote quality air conditioning system installation. As part of the initiative ACCA will be adopting a Quality Installation Verification Protocol. The protocol will address:

- Contractor eligibility and forms of needed documentation
- Verification approaches and recommended verification frequencies
- Dispute resolution and recourse
- Confidentiality
- Skill sets required of 3rd party verifiers
- Administration, oversight and implementation

The session will introduce the new ACCA initiative and explore what business opportunities it presents to raters.
2008 – 038  HVAC Systems - What the Rater Needs to Know in the Field

This session provides lessons learned from field inspections of HVAC systems that will help the rater better understand what to look for in assessing buildings. A checklist of items to look for related to the design and installation of systems will be provided so the rater can provide homeowners with an independent assessment of the HVAC system and guidance for improvement.

2008 – 039  Making the Grade – Real Life Examples of Meeting the Threshold for the Federal Tax Credit

What will it take for a builder to meet the 50% threshold of the federal tax credit for energy efficient homes? This session will provide real life cases of homes that have met the tax credit in regions across the nation.

2008 – 040  When the Rating is Not Enough – Technical Details that Cause Performance Problems

We all have stories of buildings that have successfully earned the Energy Star (or other program) label yet come up short in actual performance. This session would offer examples of situations where a well-intentioned rater missed technical details that caused performance problems and offer advice on how to avoid repeating these mistakes. (Examples: condensing boilers that never condense, back-drafting appliances, moisture problems in attics, insulation that doesn’t do it’s job, etc.)

2008 – 041  Using the Internet to Make the Grade: Online Rater Training

There is an exciting development is preparing rater candidates be able to succeed in becoming a certified rater. There is an emerging market for online self directed training to prepare rater candidates pass the RESNET national rater test. This session will introduce the Saturn Online rater training course. It will also explore how rater training providers can take advantage of this emerging opportunity.

2008 – 042  Tablet Personal Computers, High Potential for the Rating Industry

Become introduced to Tablet PC’s, their functions, their restrictions, and use in the field for site data, on-site demonstrations and training, and in-office presentations.

2008 – 043  Energy Star, Tax Credits and Building America in the Pacific Northwest
The Pacific Northwest has a long history of supporting energy codes and state, regional and national efforts to improve energy efficiency in residential construction.

The Energy Star Northwest program relies on verifiers and raters using regionally accepted prescriptive Builder Option Packages (BOP).

Energy Star, tax credit qualified and Building America homes also receive various degrees of HVAC system and envelope testing. A four state panel from Washington, Oregon, Idaho and Montana will discuss:

1) Energy Star Home Northwest program design
2) Northwest efforts to address federal and state energy tax credits,
3) Efforts within the existing home retrofit market in Oregon and Idaho

Both regional and national stakeholders are encouraged to participate in the discussions.

2008 – 044 The Role that Energy Ratings and Building Performance in Disaster Recovery

Recently American communities have had to deal with the disruption caused by natural disasters. This session will explore the role that home energy ratings and building performance can play in assisting a community recovery. The session will highlight the efforts that Building America and energy raters are playing in tornado disaster recovery in Greensburg, Kansas.

2008 – 045 Accredited Rater Provider's Forum

This session should be for PROVIDERS ONLY. It should address the concerns that providers have with the direction of the industry and to address possible amendments to RESNET standards, procedures and guidelines.

2008 – 046 2006 IECC Simulated Performance Path and Your Rating Business

As more and more code jurisdictions move to the 2006 IECC, This session will discuss the 2006 IECC simulated performance path Compliance path. It will give a brief overview of the other two compliance paths i.e. the prescriptive and the UA trade off method, and then move into how energy rating, the Energy Star inspection process, plus a few additional inspection items meet the requirements of the IECC. EnergyLogic would also give a case study of why builders are choosing this method of code compliance and how this has improved one rating companies business.

2008 – 047 Multi-Family Ratings
Protocol for rating & how to use REM/Rate for multifamily structures. Because of construction practices (one floor or unit at a time) multiple thermal bypass & final inspections can be needed. How to test air infiltration on each unit? What to do about common areas? What is needed to qualify for the federal tax credit? How to define each unit in REM/Rate.

2008 – 048 HERS Index Score vs. Predicted Energy Use and Modeling vs. Real Life a Colorado Case Study

There has been much local discussion about how predicted energy use lines up with actual energy use in rated homes and how the HERS Index score aligns with predicted energy savings. This Colorado case study looks at these issues review other like studies that have taken place and draws some conclusions that may help start a wider national discussion on the issues.

2008 – 049 How to Qualify Modular Homes for ENERGY STAR & Federal Tax Credit

If a rater does not have access to the factory, what can be done instead of the thermal bypass inspection? What else needs to be considered?

ENERGY STAR for Homes

2008 – 050 ENERGY STAR Qualified Homes Thermal Bypass Checklist: Oh What a Year It’s Been

Many HERS providers and raters will recall the significant concerns when the new ENERGY STAR for Homes specifications were introduced. In particular, many builders and HERS professionals did not feel the new Thermal Bypass Checklist (TBC) requirements were compatible with prevailing subcontractor technical capabilities or cost-effective. After a year of extensive training including 1000’s of builders across the country, tremendous progress has been made linking the TBC to key builder business objectives. This session will review key lessons learned regarding TBC requirements, implementation and builder recruiting.

2008 – 051 ENERGY STAR Qualified Homes: Where Are We Headed?

After 10-plus years with only one initial specification and a few regional modifications, ENERGY STAR introduced a more rigorous specification in 2006 to be implemented one year later. One of the biggest lessons learned was that stakeholders need more time to absorb, understand and plan for change. Thus, the ENERGY STAR for Homes technical team has already developed guidance regarding likely requirements for the next ramp up in specifications. This session will track the progression to these new specifications and how they can ultimately
provide a roadmap to a carbon neutral home that can align with the American Institute of Architect’s 2030 Challenge. In addition, results of detailed simulations for homes applying these improvements will show how much energy savings will be achieved with the next tier technologies and what amount of residual energy consumption will be required to achieve carbon neutrality in various markets across the country.

2008 – 052 ENERGY STAR Qualified Homes: Engaging the Design Community with ‘Designed to Earn ENERGY STAR’

Up to now, ENERGY STAR Qualified Homes has not offered the design community, architects and home designers, an effective partnership opportunity. Moreover, field observations during visits to 1000’s of homes under construction revealed a significant gap between ENERGY STAR for Homes specifications and scopes of work on architectural construction documents. Based on these observations, EPA has introduced a new label for house plans called “Designed to Earn ENERGY STAR”. To earn this label, plans must be certified by a HERS rater to include complete ENERGY STAR Qualified Homes specifications along with supporting HVAC sizing calculations, wall sections, and architectural details. Consumers and builders looking for this label will be assured of compliance with ENERGY STAR where verified in the field by a certified HERS rater. This session will present the specifications for this new label, business opportunities for promoting this new label, and the process that needs to be followed.

2008 – 053 ENERGY STAR Qualified Homes: New Marketing Tool Developments

The ENERGY STAR for Homes team seeks to continually improve marketing resources for partners by upgrading existing tools in response to user feedback, eliminating tools that don’t add meaningful value, and developing new tools that help partners effectively communicate the benefits of energy efficient homes. In this session, the substantially upgraded ENERGY STAR for Homes Sales ToolKit will be demonstrated as a valuable resource for developing totally customized point-of-sale material for homebuyers. In addition, updates will be provided on the latest ENERGY STAR for Homes Outreach campaign, new ‘Behind the Walls’ homebuyer education feature on the web site feature, and revised brochures and consumer fact sheets.

2008 – 054 ENERGY STAR Qualified Homes Builder Recruitment ToolKit: Finally a Tool for Raters

The HERS industry has provided invaluable help to EPA recruiting and supporting builders interested in ENERGY STAR Qualified Homes. EPA continually looks for opportunities to assist HERS raters in this effort and has applied over ten years of experience managing exponential growth of labeled homes in the development of a new ENERGY STAR Recruitment ToolKit. This
session will present the key components of this toolkit including a builder recruitment presentation, a “Top Ten Ways to Reach and Retain Homebuilders” fact sheet, a compilation of success stories, the updated ENERGY STAR for Homes builder brochure, and a Guide to Understanding the Home Building Industry.

2008 – 055 ENERGY STAR Qualified Multi-family High-Rise: Moving on Up

High-rise multi-family buildings has been a very small component of ENERGY STAR Qualified Homes. However, many industry analysts are pointing to the aging ‘baby boomer’ population and increasing cost of developing land further from urban centers as drivers behind a looming trend to multi-family high-rise buildings. EPA has been actively working with stakeholders in pilot markets to develop a label for high-rise multi-family buildings. In addition, market research studies and technical evaluations have identified the biggest opportunities for energy savings. This session will present the results of these initial efforts along with potential scenarios for a national label for high-rise multi-family housing.

2008 – 056 ENERGY STAR Qualified Homes: Ten Myths vs. Reality

By any measure, but particularly as we approach one million labeled homes, ENERGY STAR has been a major force in the market transformation to energy efficient homes. Any time an initiative can influence an industry this profoundly, it is important to stand back and observe what lessons can be learned from a broader market transformation perspective. This session will present ten myths vs. realities based on the growth of labeled homes and other developments promoting energy efficient homes.


Last year, EPA convened a two-day meeting with sponsors and utilities implementing or considering implementing ENERGY STAR for Homes. The key objectives were to gather as much input as possible regarding best practices and lessons learned, to identify any areas of consensus, and to use this feedback to prepare a ENERGY STAR Qualified Homes guide for sponsors and utilities. A secondary objective was to foster networking among sponsors and utilities so they no longer needed to operate in isolation. At this time, the guide has been completed and an ongoing annual meeting process has been set up to continue the networking process. This session will present key findings from the guide and the new objectives for the next annual meeting.

2008 – 058 ENERGY STAR Qualified Homes: Opportunities to Work with Affordable Housing
Affordable housing is such an important component of any energy efficiency program because it is the segment of the housing industry with the greatest potential benefits. Recognizing this opportunity, EPA has increased its commitment to support greater ENERGY STAR participation by affordable housing stakeholders. This session will present the key affordable housing organizations across the country, EPA’s strategy for attracting their interest, and case studies where ENERGY STAR has been successfully integrated into the development process.

2008 – 059 Reducing Business Risk with the New ENERGY STAR Indoor Air Package

Builders today are at risk. One southern California law firm specializing in construction defects has won over $430,000,000 in awards for their clients. Many of their claims relate to mold/moisture control. The new ENERGY STAR Indoor Air Package includes a comprehensive set of mold/moisture control features, beyond the requirements of Green building programs. Learn how to help builder clients manage this significant business risk, using the government label designed to reduce moisture/mold and other IAQ problems. You’ll also learn how IAP can reduce other business risks, including callback costs, complaints, and lost business due to competition.

2008 – 060 Quantifying Energy Savings from EPA's Thermal Bypass Checklist

EPA’s Thermal Bypass Checklist (TBC) is a procedure for improving the effectiveness of insulation, with improved air sealing and air barrier insulation contact. The value of following the TBC is highly dependent on estimated of current typical practice. This session will explore each of the points in the checklist and provide savings estimates that will stimulate a discussion on the value of the Thermal Bypass Checklist.

2008 – 061 New ENERGY STAR Marketing Tools for IAQ

The new ENERGY STAR Indoor Air Package program includes a new set of marketing tools to help raters and builders get more value from their partnership. In this session, you will learn about: the new IAP version of the ENERGY STAR Sales Toolkit for qualified partners. It has the same suite of marketing tools as the ENERGY STAR version, but includes additional materials for builders to promote IAQ benefits.

2008 – 062 How to Qualify an Home that has Completed Construction as ENERGY STAR
If a builder wants an Energy Star rating for a home that is already beyond the thermal bypass inspection point, what protocol can be used to rate the home for Energy Star & the federal tax credit?

**Existing Homes – Home Performance With ENERGY STAR**

**2008 – 063 Business Opportunities for Raters in Existing Homes**

Integrate specific strategies and results used to break into the world of home performance contracting. Discover how “value-added” services and products will help start or improve your home performance career. Find out how to develop your business plan, product and service offerings for your own home performance business. With new home construction down - expanding into existing homes may be more than an act of survival! Are You Ready to Become a Home Performance Analyst? Rating business stalling? Ready to take next step toward translating your skills toward the existing home's market? Come learn the steps you need to take to broaden your career and opportunities. What certifications are needed? Where can I get more training? What is BPI and RESNET doing to make this change easier? Where is all the Home Performance action? Can I serve as both a consultant and a quality assurance verifier?

**2008 – 064 Advanced Combustion Safety Testing**

Correct the typical Rater deficiency - Learn combustion safety testing! To guarantee the safe and efficient operation of gas appliances and ensure the health and safety of the occupants, a detailed combustion testing process is necessary. Explore traditional and high tech ways to test for CO, drafting, combustion efficiency, as well as inspections on flues, HVAC equipment, and duct air flow. Discuss the importance of combustion appliance zone (CAZ) and worst case depressurization tests. Have your questions answered, implement these practices, and ultimately do no harm.

**2008 – 065 Performing a Home Performance Assessment**

Home performance contractors, raters, and other residential energy professionals use the “house as a system” concept to sell and install more energy efficiency improvements. And, it all starts with a Home Performance Assessment (HPA - previously referred to as a Comprehensive Home Assessment) that enables homeowners to make informed decisions on improving the energy efficiency and comfort of their home. Come learn new techniques that will help new or seasoned professional to more fully deploy the HPA and motivate your customers to invest in energy efficiency home improvements.
2008 – 066  Frontline Communication 101: Conveying Home Performance Benefits

Regardless of whether you and the customer are on the phone or in their house, there are opportunities to convey the concepts of home performance. But, it is not easy, and it is not just having a few key lines in your back pocket. Learn to build on the clues potential customers give you to establish credibility and trust. Knowing how to concisely tell the HP story will help your distinguish between "suspects and prospects"

2008 – 067  Using Diagnostics to Close the Deal - HP Sales Techniques

Home performance offers a unique sales approach to the contracting business by employing diagnostic tools, customer education, and relationship building skills. Find out how to take your business to the next level. Discover successful strategies, such as, “walk-through” tactics, selling the customer on doing a Comprehensive Home Assessment, as well as, closing techniques and countering objections.

2008 – 068  Starting the Work - Work Order 101

What should a HP contract look like? What are the basic terms that protect the contractor/consultant and give the homeowner what they need. Liability, warranty, callbacks - if you are delivering HP work - come learn the secrets of getting the Work Order right to minimize misery! Lower misery = higher profits! Integrating Renewables with Home Performance. More and more consumers want PV to be green and environmental…how can a home performance contractor stay competitive. Well, you can't have a an effective solar system without load reduction, envelope tightness, and HVAC system sizing. Find out how this contractor has created a successful business by combining home performance with energy systems to provide clients with comprehensive solutions to their energy needs.

2008 – 069  Home Performance Quality Assurance as a Rater Business Opportunity

Home Performance programs create an unique opportunity for raters, quality assurance (QA). Just as HERS raters ensure the high standards of the ENERGY STAR Homes programs, QA raters verify that work in Home Performance with ENERGY STAR programs is correct. Find out more about this career avenue and get your questions answered.

2008 – 070  Take it to the Next Level: Running Your Business Better

OK, you're a pretty good HP contractor/consultant.... but your bank statements say otherwise! Discover more strategies and lessons learned from successful
home performance contractors. Get your questions answered. And embark on your on path to a successful home performance contracting business.

2008 – 071 Building Performance Institute & RESNET Board Forum: Harmonizing BPI & RESNET Standards

Representatives of the Boards of Directors of the Building Performance Institute (BPI) and RESNET have been in discussions for over a year in developing a seamless relationship between the two organizations. Solid steps have been take to harmonize the two organizations’ standards. This session will be an open forum in which BPI and RESNET board members will answer questions on this effort and project what the relationship will be between the two organizations in the future.

2008 – 072 Home Performance with ENERGY STAR: Getting Over the Bumps in the Road

Home Performance with ENERGY STAR is a comprehensive market transformation program that promises significant, lasting energy savings and an overall upgrade in the quality of home improvement services in providing safe, efficient and durable living environments. But before those lasting benefits can be achieved, many challenges must be faced in budgeting, program design, infrastructure development, marketing and quality assurance. As pioneers in program design, panelists will lead a discussion of the challenges they have faced, lessons learned, and ideas for improvements in program design and delivery in the future.

2008 – 073 The New Partnership: REALTORS and Auditors

Residential buildings annually use more than 20% of the nation’s energy. And yet, less is being done about existing homes than new construction. How do we reach the homeowner? While there are a number of projects doing just that, one player that has largely been ignored is the REALTOR. According to recent figures, REALTORS sell between six and seven million existing homes annually and the National Association of REALTORS (NAR) has more than 1.3 million members. The U.S. Department of Energy (DOE) and the NAR have joined together and are currently working on a number of projects to address the missing REALTOR link with regard to energy conservation in existing homes. What does this mean for you? How can you make your neighborhood REALTOR a partner in educating the homeowner about the value of your services? The real estate industry is poised to play a far more active role in meeting the growing demand for energy efficiency and “green” features in existing homes. The time is now for Raters and REALTORS to join forces and transform energy wasteful existing housing stock to more comfortable, healthy, energy efficient homes that will contribute to our nation’s energy independence.
2008 – 074  Estimating Savings for Energy Improvements in Existing Homes at the Point of Sale

One of the main things that distinguishes home performance contracting from mainstream home improvement contracting is the comprehensive assessment that educates the customer on a wide range of measures to reduce energy consumption while addressing health and safety and building durability concerns. One of the objectives of the comprehensive assessment is to provide the homeowner with a credible projection of energy savings. In recent years we have seen the introduction of sophisticated home performance auditing software that provides such energy savings projections and builds a financial analysis around them to show the customer the returns on their investment. However, few home performance contractors use such software in the field while they are assessing the home and making their sales pitch. Is it possible to develop quick-and-easy tools that can be used reliably in the field during the initial assessment to close the deal more efficiently? What kinds of methodology should be employed in the development of such tools? The panel will explore the current status of assessment tools, barriers to use, and priorities for research and development.

Policy Initiatives

2008 – 075  Energy Efficiency:  The First Fuel

Energy efficiency is the most cost effective tool to address the nation’s energy security and climate change challenges. This session led by Bill Prindle of the American Council for an Energy Efficient Economy will explore the opportunities that energy efficiency can play.


Energy and climate change is the hot topic in Washington. Both the House and Senate have passed energy policy bills and there are currently 10 bills addressing global climate change. With so much action on Capitol Hill it is hard to track what is happening. The results of Congress’ deliberation could have a profound effect on building energy performance professionals. This session will attempt to make sense of what is going on in Washington and project what the likely outcome of this debate.

2008 – 077  Extend and Amend: Congressional Action on the Building Energy Efficiency Tax Incentives

The building energy efficiency tax incentives passed by Congress in 2005 only have a two year life span. There are also structural problems with the existing
homes tax credit and commercial building tax incentive. This session will provide a survey of initiatives currently being considered by Congress to extend the tax incentives and amend them to be more effective to the goal of market transformation.

2008 – 078 Western Regional Climate Initiative

Six Western governors, joined by two Canadian provincial leaders, have pledged to enforce a robust regional cap on greenhouse gas emissions. Under the Western Climate Initiative, the leaders agreed to cut carbon dioxide emissions to 15% below the 2005 levels in their states and provinces in the next 13 years. Once implemented the initiative would cut carbon emissions by 350 million tons over the time period. The states that have signed up are Arizona, California, New Mexico, Oregon, Washington and Utah. Canadian provinces of British Columbia and Manitoba also joined the partnership. Other states and provinces have signed up as official observers while considering to join the effort. They include Colorado, Kansas, Nevada, Wyoming, Ontario and Quebec, Canada; and Sonora, Mexico.


Following the success of clean energy utility portfolio standards an increasing number of states are enacting legislation that would require utilities to meet a certain percentage of their future power needs for energy efficiency. Utilities that can not meet the targets can purchase offsets from third parties. This session will showcase regulations that are being adopted in Connecticut, Nevada and Texas. The session will explore how to include the energy savings from high performance buildings into the efforts.


There is a growing market force of voluntary carbon offset trading. The Los Angeles Times has reported that the "race to save the planet from global warming has spawned a budding industry of middlemen selling environmental solutions at bargain prices. ... Driven by guilt, public relations, or genuine concern over global warming tens of thousands of individuals and companies have purchased offsets to zero out their carbon impact on the planet." Examples of this are the Academy Award winning film "An Inconvenient Truth" purchased carbon offsets to make the film carbon neutral. The travel web sites of Expedia and Travelocity offer passengers the option of offsetting their flights and Rupert Murdoch promises that his News Corp will be carbon neutral by 2010, largely through the purchase of offsets. The Times estimates that the U.S. voluntary carbon offset market is a $55 million a year enterprise. The U.S.'s only carbon trading commodities market is the Chicago Climate Exchange. This session
would introduce the Chicago Climate Exchange and explore how the institution would treat offsets from improved building energy performance.

2008 – 081 Voluntary Carbon Offset Market: Pioneering to a Carbon Constrained World or Snake Oil?

Ten of thousands individuals and companies are purchasing carbon offsets to lower their carbon footprint. This growing market is now a $55 million a year economic activity. The problem that there is no national standard on what is above “business as usual” (additionality), ensuring that the emissions savings exist, and ensuring that credits are only sold once. This session will explore this budding industry and look into its role in combating climate change.

2008 – 082 What’s Happening in the Rest of the World? Other Residential Business Models

Carbon and energy are global issues and residential energy efficiency is a central component. While voluntary programs have been a key approach to date, constrained grids and a changing political climate may require the US to adopt practices that are already being implemented in other countries around the world. This session will look at some of these practices and explore what we might expect in the years ahead.

2008 – 083 Time of Sale Energy Ratings: A Time that has Come?

The European Union’s Energy Performance in Buildings Directive requires that all buildings in Europe must receive an energy rating at the time of sale or change of occupancy of a building. Already there is such a movement beginning in the U.S. The states of Nevada, New Jersey and New Mexico are in the process of adopting laws that will require an energy inspection of homes at the time of sale. This session will review these state initiatives and consider the implications for the home energy rating industry.

2008 – 084 State Led Leadership on Global Climate Change – California Carbon Cap and Trade Initiative

The U.S. government has not embraced a cap and trade protocol to address global climate change. States, however, are taking up the challenge. California, with the 5th largest economy in the world, has recently enacted a carbon cap and trade law. The state is also exploring the possibility of entering into a partnership with the United Kingdom to create a greater market for carbon savings. This session will introduce the new California carbon cap and trade law and discuss the implications for the nation and the building performance industry.

The 2008 races for the Democratic and Republican presidential nominations are the most competitive in recent industry. The next president will have to grapple with serious issues affecting our future energy future and the global climate. This session will review the leading candidates positions on the nation’s energy and environmental future.

**2008 – 086 Quantifying Energy Efficiency Potential**

Many utilities, governments and other organizations around the country have adopted energy efficiency programs, to save energy and do so cost effectively. The key to success is developing programs based on quantified energy efficiency potential for the region where the programs are being introduced. Quantifying energy efficiency potential is based on two major steps: First, analyzing the baseline building construction, occupant profile and weather. Second, analyzing individual technology improvements to estimate their impact on total annual energy consumption and demand. Resulting energy efficiency potential can then be expressed as technical potential, economic potential and achievable potential. This session will share the secrets to accurately and effectively quantifying energy and demand savings to develop and operate a successful energy efficiency programs.

**2008 – 087 Kilowatt Ours: A Filmmaker’s Journey on Energy**

Kilowatt Ours is the story of filmmaker and conservationist Jeff Barrie’s 18-month journey across the southeastern U.S. to document our energy-related problems and present practical, cost-saving solutions for consumers. Widespread problems revealed in Kilowatt Ours include mountaintop removal, air pollution, global warming, childhood asthma, and mercury contamination. The film illustrates practical solutions that help homeowners save more than $600 per year on energy bills while helping the environment and protecting human health.

**2008 – 088 Iowa- The Silver Bullet for Energy**

This session would explore the changing sources of fuels being studied and the accomplishments of said fuels to the environment. How we can reduce emissions by using natural resources instead of foreign oil.

**Financing**


Energy efficient mortgages have been around for several decades but have been seldom used. With the growing concern over spiraling energy costs and climate change consumers and the media are growing more interested in the product.
This session will explore why the energy efficient mortgage has not taken off and what RESNET has proposed to make the product work.


Dozens of utilities in the United States are implementing residential energy efficiency programs and interest in such programs is growing as states participate in regional emissions reductions programs, attempt to control demand growth, and are met with increasing regulations. Simultaneously, interest is increasing within the United States to adopt national legislation that controls the production of CO2. The presence of these two factors suggests that a valuable emerging market exists in the quantification and sale of emissions credits within the residential sector. This session discusses key issues that must be resolved prior to the implementation of a system and lessons learned from working with partners in the emerging voluntary and mandatory markets.

2008 – 091 Loan Guarantees: The Path to Unlocking the Key to Financing High Energy Performance Buildings?

Loan guarantees are an effective tool for government to address financial barriers. For example the federal government has effectively addressed the barrier of the high cost of a college education through guaranteeing student loans. A loan guarantee program is where the government will guarantee a loan from default for certain policy purposes. The government guaranteeing a loan reduces the risk to the lender and hence will result in a lower interest loan and an avoidance of a premium mortgage insurance payment. The Energy Policy Act of 2005 authorized the U.S. Department of Energy to create an energy guaranteed loan program. This session will explore the opportunities that exist in directing the loan guarantee program to residential energy efficiency and what the actions the building performance industry should take to advocate for this.

2008 – 092 CitiMortgage New Energy Efficient Mortgage Product

With the growing response to climate change major U.S. financial institutions are adopting products to finance energy efficient homes. As part of its ongoing commitment to communities, Citi is aiming to help make a beneficial difference in the environment. This year, the company announced it will direct $50 billion over the next 10 years to address global climate change through investments, financings and related activities to support the commercialization and growth of alternative energy and clean technology among the clients and markets it serves, as well as within its own businesses and operations. As part of this initiative CitiMortgage is offering an energy efficient mortgage product that requires an energy rating.

2008 – 093 Energy Efficiency and Environmental Certification Trading 101
There is an emerging opportunity for the home energy rating industry in the monetizing the energy savings from improving a home’s energy performance. Such potential economic opportunities includes carbon offsets, environmental emission trading, energy efficiency certificate trading and utility forward capacity trading. Learn what these opportunities are and how the home performance industry take advantage of this emerging market.

2008 – 094 Energy Efficiency: Beyond kW and kWh – Selling Environmental Benefits and More

There is a growing opportunity towards the monetizing of energy savings. This session will explore the opportunities to finance energy improvements of buildings through such finance mechanisms as NOx cap and trade systems, CO2 cap and trade, capacity and reserve supplemental energy markets, and white tags.

2008 – 095 White Tags – Trading Energy Efficiency as a Commodity

Twenty states have enacted renewable energy portfolios that require utilities to provide a percentage of their energy load from renewable energy sources. Utilities that are not able to produce this requirement are able to purchase credits from other sources. This cap and trade regime has resulted in a healthy commodities trading market. In 2005, over $900 million were traded in renewable credits. Spurred by this success, state utility regulatory commissions are looking to energy efficiency portfolios. This commodity is called White Tags. This session will introduce White Tags and explore their potential for financing building energy efficiency. It will also discuss the role that energy ratings can play.

Affordable Housing

2008 – 096 Incorporating Energy Star into Affordable Housing Programs: Lessons Learned

The affordable housing industry can make a significant impact on reducing energy consumption. HUD alone spends approximately $4 billion on energy each year, through grants to public housing authorities and utility allowances to low income renters. A 5% reduction would save $2 billion in tax payer funds over the next 10 years. Many states are turning to this sector to reduce energy demand. This session will explore how state and local affordable housing programs are adapting Energy Star construction guidelines and products to reduce energy use, lower utility bills for low income tenants, and maximize comfort and building performance.

2008 – 097 Rater Roundtable – Habitat for Humanity
RESNET currently partners with Building America’s Habitat for Humanity Program to match raters willing to donate their rating services with Habitat affiliates. The partnership has encouraged close to 30 rating companies to volunteer their services to help Habitat for Humanity ensure they are building efficient homes. September’s RESNET Rater Roundtable will focus on this unique opportunity for raters to give back to their communities and receive recognition. Tune in and hear how you can plug in! Speakers will include representatives of Habitat Affiliates, current rater volunteers and the staff from RESNET, the Florida Solar Energy Center and Habitat for Humanity International.

2008 – 098 Building America Factory Built Homes

For the past seven years, the USDOE Building America Industrialized Housing Partnership (BAIHP) has worked with HUD-code factories throughout the USA to produce tens of thousands of affordable energy efficient homes. Research, development and deployment efforts under the Partnership have led to on-going improvements to the HUD Manufactured Housing & Construction Safety Standards (MHCSS) and standards for Energy Star manufactured homes. In this session, presenters will share their hand-on experiences working with the HUD-code industry to improve installation and testing of: ducted HVAC systems, windows, and whole house mechanical ventilation systems. An analysis of consumer life cycle costs will also be presented. All national stakeholders involved with or interested in HUD-code housing are encouraged to attend and participate in this session.

2008 – 099 HERS Rater Opportunities in the Affordable Housing Market

Many funding sources for affordable housing reward energy efficiency but require verification by a HERS Rater. Learn about the latest programs, funding sources, and efforts that HERS Raters can leverage to develop new business in the affordable housing market. Low Income Housing Tax Credits, ratepayers funded programs, Redevelopment Agency funding and Energy Efficiency-Based Utility Allowances provide funding for energy efficiency and depend on energy consultants and HERS Raters to deliver the savings.

2008 – 100 Texas Low-Income - Weatherization Standard Offer Program

This session will discuss the implementation, and history of the PUCT mandated Low-Income Residential Standard Offer Programs in Texas. Over view of what changes were made to increase cost effectiveness and participation of the program. It will also discuss the performance, market and direction of the program.

2008 – 101 Low-Income Partnership Market Transformation Program
Discusses the focus of establishing partnerships with Housing Agencies and other Non-profits, faith based organizations and others to reach low-income customers in non-metro areas for weatherization programs.

**International Harmonizing of Standards**


The European Union as part its effort on global climate change has undertaken an ambitious effort to reduce the energy consumption in buildings, the Energy Performance in Buildings Directive (EPBD). Among its provisions the EPBD requires the ratings of all buildings in Europe at the time of sale or change of occupancy. The 2007 RESNET Building Performance Conference featured the chair of the EPBD’s standard setting committee as its key note speaker. This session will review the progress in implementing the EPBD and the prospects of harmonizing Europe’s and the RESNET home energy rating standards.

**2008 – 103  Running Off the Same Page – The Effort to Harmonize International Home Energy Rating Standards**

Home energy rating systems are now emerging across the globe. There is a growing interest in harmonizing the standards in anticipation of an international carbon emissions market. RESNET has entered into an agreement with the Canadian home energy rating system to develop a North American protocol. RESNET is in the processing of working on agreements with the European Union and Shanghai, China. The session will review the goals of these efforts and the progress in achieving an international protocol on rating the energy performance of buildings.

**2008 – 104  Looking to the East: The Harmonizing of Standards Between RESNET and Shanghai, China**

RESNET has been working with the Natural Resources Defense Council (NRDC), the Shanghai Real-estate Science Institute and the Shanghai Construction Commission to harmonize the Shanghai building performance rating standard with RESNET’s. All of the parties will soon be entering into a formal memorandum of agreement. The key aspects of the agreement is that the Shanghai Real-estate Science Institute will become an international affiliate of RESNET and that Shanghai will adopt the HERS Index. RESNET, NRDC, and the Shanghai partners will be working together to develop the Shanghai reference building and to develop a Shanghai rater training and certification program. Shanghai intends to incorporate their building performance rating standard into their stringent energy code. This session will explain this new partnership and explore its implications in developing a global market for carbon emission savings through improved building energy performance.
Green Building

2008 – 105  LEED for Homes and How a HERS Rater Can Profit

This session will explore the questions of what is LEED for Homes and how is LEED-H tied to the HERS Index? Who is building LEED Homes and what testing and Inspections are required? What is the LEED-H business model and how does a HERS Rater become a LEED-H Rater through a LEED-H Provider?


The National Association of Home Builders (NAHB) is developing an ANSI green building standard. This session will introduce NAHB’s green home program and explore what role home energy raters can play in the program’s implementation at the local level.

2008 – 107  Green Building Rating Systems

Energy efficiency is the cornerstone of many green building programs. The new Energy Star, LEED for Homes and upcoming NAHB ANSI Green Building Standard places even greater emphasis on insulation inspections, thermal bypass checklists, and air infiltration. This presentation reviews the opportunities for the RESNET rater in green building.


In the past two years the State of New Jersey has begun a process of planning and legislating a green future. From reducing green house gases, bolstering economic growth through bio-fuels & renewables and creating green building standards NJ is in the forefront of environmental policy. The presentation will delve into the states green evolution including at broad view of innovative state legislation, municipal initiatives and ordinances; enhanced codes; incentive programs and the creation of new state offices and “Green Teams” to name a few. In the second part of the presentation we’ll explore the social, economic and political impetus for New Jersey’s blooming environmental progression. We’ll also look at the controversies, issues not addressed or needing more attention, the pundits, adversaries and lobbyists. Time will be available for questions and discussion. Highlights Include:
• An overview of some of the 30+ green building and energy efficiency bills passed and pending legislative approval. Including bills that would require a home energy rating of all residential homes for resale; the phase-out of incandescent light bulbs; the construction of a wave energy park; raising the minimum energy efficiency of new home construction by 30-50% above code and many more.
• Exploring the Global Warming Response Act positioning New Jersey as the third state in the nation to make greenhouse gas reduction goals law.
• The creation of the 2008 Energy Master Plan and Green House Gas Action Plan; transition to solar SREC’s estimated to worth billions of dollars; the appointment of an Energy Czar; municipalities taking the LEED; etc.

2008 – 109  Green Building Alternative Dispute Resolution

Green-related disputes will most likely be performance based and not prescriptive based. Judges and juries will most likely have no understanding of green building or remodeling. As a result, most verdicts and awards through litigation will be based on which party makes the best and most convincing presentation, not which party is right or wrong. The insurance industry is already indicating that they may exclude coverage on green-related building disputes and may even not offer insurance to green builders and remodelers similar to issues such as mold and mildew and subsidence exclusions. Through the use of Alternative Dispute Resolution (mediation, binding mediation and arbitration) contractors, raters, testers and all individuals involved in the green building process can virtually assure themselves that they will get a fair and equitable award or outcome of disputes based on construction knowledge as opposed to the most convincing presentation. Kelly Parker and Peter Merrill will cover what types of issues will most likely result in green-related disputes and how to effectively prepare and handle those disputes in an expeditious and inexpensive manner as opposed to a lengthy and costly litigation.

2008 – 110  Real & Relevant Green Home Buildings - Connecting the Dots

90% of the effective green building strategies occur within the first 10% of the design process. Relevant high performance green home building is so much more about client education, thoughtful programming and prioritizing, climatically appropriate siting, sound design decisions and building systems integration than about sustainable material choices - although these will be addressed also. An integrated approach to residential & light commercial green building will be presented. This session would be led by architect Peter Pfeiffer.

2008 – 111  Making Sense of It All: LEED-H, NAHB Green Building Guidelines, ENERGY STAR, Indoor Air Package, Health House, etc

With so many residential programs being promoted it can be challenging to figure out which to do. What are the nuances, how might programs compliment each other, what are the benefits and what are the costs? Come learn more about these programs as we help you sort these questions and more.
2008 – 112  **Cost Effective Techniques for Green Building**

This colorful tour by Steve Easley sorts out the facts and fiction with regards to Green building. These class identifies the difference between green products and “green washed products” Helps builders identify ways to affordably “green” their homes for the biggest bank for their buck. The course is the “411” to give builders the knowledge to build truly high performance homes that are durable, safe, healthy, energy efficient and comfortable to live. The mind set of this class is “The greenest building you can build is the one you don’t have to rebuild”.

2008 – 113  **How Healthy is Green?**

Green is hot! And every Green building program claims health and IAQ benefits. But, how healthy is a Green home? Do all Green Homes meet the same standards? The truth is that Green program flexibility and assurance of improved IAQ are sometimes competing objectives. This presentation (proposed as a panel discussion) will address these issues head on, including variation in the IAQ requirements for Green standards and programs, and how to advise builder clients about building healthy, green homes. Panel members have been actively involved in resolving these issues through their work on green standards and programs.

2008 – 114  **Marketing "Green Homes"**

Take advantage of "the green building" trend. Consumers are becoming more aware of the advantages of high performance homes. Avoid being labeled as a "green wash" builder and provide facts and quality by utilizing Energy Star and certified programs. This session provides an overview of current programs and various marketing techniques.

2008 – 115  **Integrative Design in Housing - Moving Beyond Green Building**

Bill Reed makes the case for a long-term "permaculture" approach to our housing, and looks at how designers, specifiers and builders can move beyond a cookie-cutter approach to green building.

**Multi Family Housing**

2008 – 116  **Reducing Construction Defects in Multifamily Housing**

Construction litigation surrounding multifamily housing is one of the highest in the industry. This presentation will help designers, developers and contractors identify designs, details and construction practices that that lead to call backs. The session will show examples of design and construction defects that can lead to water intrusion, envelope failures and HVAC related problems.
2008 – 117  Multifamily Housing: The New Bread and Butter

Multifamily housing starts are up throughout California (single-family starts are down). Now is the time for HERS Raters to embrace the multifamily market. Learn about how to get involved in the multifamily market and the challenges and rewards of working with multifamily buildings (high-rise and low-rise).

2008 – 118  Energy Star for Low Rise Multifamily

Now that EPA is working on a protocol for Energy Star for high rise multifamily buildings, it’s time to revisit what we’re doing with low rise multifamilies. Low rise multifamily buildings have been earning the Energy Star label through the single family homes process, but should they be? Technical challenges unique to multifamily buildings are often left to the interpretation of the local authority. This session would be a facilitated panel of representatives from local implementers to identify the technical challenges that make low rise multifamily buildings different and to discuss the various approaches that have been used to date to address these issues. The ultimate goal is to guide a longterm process to develop consistent standards for these buildings.


Have you ever tried to achieve a HERS 80 in a townhouse or apartment? Current rating methodologies make it hard to achieve significant energy savings with typical energy efficiency measures on the HERS Index for these and other efficient building types, due reduced heating and cooling energy usage. This session will explore what it takes to make the most energy savings in more efficient building types.

2008 – 120  Large Building / High-rise and Multiple Unit Energy Testing

Clearly, it is not hard to see how all high rise buildings will some day benefit from quantitative measurements to control energy, smoke, moisture and indoor contaminants (such as cigarette smoke). In this session, we will present information on both theoretical and actual leakage testing of numerous high-rise and multi-occupant buildings, in order to resolve building science issues. During the presentation, we will also present examples of how we have tested all 6 sides of apartments separately. This type of testing, being the most complicated, clearly demonstrates that other tests, such as measuring envelope leakage and floor by floor leakage, are far simpler by comparison. Advances in modern door fan systems make complex tests like this not only possible, but fast and accurate. The equipment used, features ultra-stable speed control, automated high powered fans, rapid set up panels, and most importantly, a centralized control point for all equipment.
2008 – 121  Texas Residential Small Commercial Standard Offer Program

This session will discuss the implementation and history of the PUCT mandated Residential Small Commercial SOP in Texas. Overview of what changes were made to increase cost effectiveness and participation of the program. It will also discuss the performance, market and direction of the program.

Business Development

2008 – 122  Using Quality Assurance to Increase Builder Participation

The homebuilding industry is in the midst of aggressive pricing to sell homes including pricing to the end user (potential homeowners) and subcontractors (HERS Raters). In addition to aggressive pricing the homebuilding industry is facing multiple program choices from multiple sources. The key to successfully integrating these multiple programs during these trying times is a streamlined approach by using HERS Raters more effectively and efficiently. Providing quality assurance inspections can reduce insurance costs for the homebuilder which provides an opportunity to the homebuilder to integrate Energy Star, Green Building or other programs in a cost effective approach by using a HERS Rater. Many of the largest insurers have programs in place for homebuilders that implement a quality assurance program which in many cases require an on-site inspection. Find out how you can participate as a HERS Rater.

2008 – 123  The 2030 Challenge and the Opportunity it Provides the Rating Industry

Architect Edward Mazria has developed the 2030 Challenge. The challenge asks the global architecture and building community to adopt the following targets:

- All new buildings, developments and major renovations shall be designed to meet a fossil fuel, GHG-emitting, energy consumption performance standard of 50% of the regional (or country) average for that building type.

- At a minimum, an equal amount of existing building area shall be renovated annually to meet a fossil fuel, GHG-emitting, energy consumption performance standard of 50% of the regional (or country) average for that building type.

- The fossil fuel reduction standard for all new buildings shall be increased to:
  - 60% in 2010
  - 70% in 2015
  - 80% in 2020
  - 90% in 2025
Carbon-neutral in 2030 (using no fossil fuel GHG emitting energy to operate).

The U.S. Conference of Mayors, the American Institute of Architects, and ASHRAE have adopted the 2030 Challenge. RESNET is working with the organization to incorporate the HERS Index into the residential building challenge. This session will introduce the 2030 Challenge and explore what opportunities it presents to the rating community.

2008 – 124 Ecomagination Home Builder Program

The ecomagination homebuilder program offers builders and developers a turnkey solution for building higher performance homes with lower environmental impact. It combines advanced GE technology with the proven building science of Masco's Environments for Living program. Homes built under the program are expected to achieve at least a 20% reduction in total household energy use, associated greenhouse gas emissions, and indoor water use. Additionally, homes are expected to have significantly improved indoor air quality. The program incorporates broad support for builders, including innovative mortgage financing, turnkey project execution, and interactive homebuyer sales and marketing content.

2008 – 125 Marketing Our Services

Green Building projects on whatever scale have created an opportunity to train policy makers, buildings inspectors and plans examiners and planners at the local level. The requirement in local building codes are a driver for energy performance labels (ENERGY STAR) and flowing from that, the interest in green building (LEED). On the other side of the coin, builders need on-site, hands-on training and feedback to be competitive in a market where energy labeling and green building helps them define their product.

2008 – 126 Low-Cost, No-Cost Marketing Tactics for Home Performance Contractors

This interactive session is designed to aid home performance contractors in developing a marketing program that helps them to raise awareness of their offering, increase sales leads and ultimately increase profitability. Topics include brand building, messaging development, choosing a target audience and methods for reaching the people most likely to buy your service. The presenters offer a wealth of experience in marketing for the building and construction industry, including strategic and executional programs for such brands as BASF Building & Construction division, BASF Polyurethane Foam Enterprises LLC, Canam Building Envelope Specialists Inc. and ZERODRAFT® Weatherization.

Do consumers really prefer granite countertops to insulation? How often do consumers even think of this choice as a trade-off? This session evaluates the real cost of house size, price, location, and cosmetic and efficiency characteristics selected at the time of purchase. From this state-of-the-market assessment important regional trends in home design, consumer choice, and energy consumption are examined.

**2008 – 128 Win Business by Helping Builders Win**

Sponsored by U.S. DOE through its Building America program, EnergyValue Housing Award is a nation’s premier annual award for builders who voluntarily incorporate energy efficiency into new home construction. For the past 13 years, RESNET certified raters have been significant contributors in assisting builders in preparing a winning application, including field testing, obtaining HERS Index and filling out application forms. In return, the raters win more clients by helping the builders win. In the session, several EVHA winning builders and raters who help builders win introduce how they work together to prepare a winning application.

**2008 – 129 EcoBrokers: A New Business Opportunity for Raters**

This session will outline blossoming new business development opportunities for RESNET raters with the real estate industry. We’ll address what rules remain the same? Which rules are changing? As you remember, our presentation in San Antonio was very well received, with many in the audience approaching after the session to suggest to me that I should offer a full session at an upcoming RESNET conference. Inspirational speakers at conferences of this nature are more important than ever, and we continue to inspire large audiences in ways that meaningfully shape conferences and resulting partnerships. Perhaps consider scheduling us before or after one of the other speakers for which a large percentage of the attendees will gather. With over 1700 members in the Association of Energy and Environmental Real Estate Professionals, the raters in the audience will find very useful tools for building constructive RESNET real estate networks.

**2008 – 130 Using the Internet to Make Your Life Easier**

This presentation will look at how raters and energy professionals can use their email, web site, mobile devices, etc to make their jobs easier, save time and save money.

**2008 – 131 Thermal Comfort Diagnostics**

Thermal Comfort Diagnostics is the practice of diagnosing a home for the causes
of comfort complaints by the occupants. Comfort complaints typically manifest as excessive temperature variations between rooms, but can also be caused by drafts and humidity issues. This seminar focuses on comfort issues in Hot/Dry climates. The causes of the comfort issues can include poorly sized equipment (under or over-sized), poor duct system design, poor shell building construction, poor thermostat operation, poor air balance, and many others. Tools and techniques used for thermal comfort diagnostics include on-site room-by-room load calculations, air flow measurement (flow hood), long term temperature monitoring (temperature data loggers), static pressure testing (manometer), duct leakage testing (duct tester), air temperature measurements (temperature probes and laser thermometer), and more. Thermal Comfort Diagnostics is a great business opportunity that HERS raters can add to their quiver of services. It uses many of the same tools and skills and can greatly enhance their understanding of how a home operates. This would work best as a 1/2 to 1 day seminar on the weekend.