2015 RESNET Building Performance Conference
Pre-Conference Session Nominations

Half-day Courses

Title: Energy Audit IR

Abstract:
Energy Audits are common in residential structures when trying to evaluate building efficiency. Often, audits incorporate the use of specialized tools like blower doors, smoke pencils, duct testers and other equipment like testing meters. The purpose of this training course is to introduce the students to utilizing IR cameras in conjunction with blower doors in an effort to give a true assessment of the building envelope. As heat transfers in one of three ways (conduction, convection and radiation), only convective movement of energy is measured with a blower door during a survey. This leaves two very important methods of heat transfer unaccounted for.
The incorporation of an infrared camera--in conjunction with a blower door, when performed with proper temperature differences--allows the energy auditor the opportunity to see all three forms of heat transfer on the building envelope, and give a true assessment of heat loss in the building.

Suggested Presenter(s):
Peter Hopkins, United Infrared, Inc.

Knowledge Level: Beginner

Title: HVAC Design 101 for Raters

Abstract:
As a rater, you don't need to know all of the ins-and-outs of designing HVAC systems. But, having a solid understanding of the HVAC design process will help you become a more valuable member of the building process and might be what differentiates you from your competition! This session will cover the HVAC design process as it relates to your role as a Rater. Special attention will be given to Manual-J, Manual-S, and Manual-D since many of these are now required by state building codes. Throughout the training, we'll reference the ENERGY STAR version 3 checklist, as well as the ESVI checklist. You'll leave the training with an understanding of what you should know, what you don't know, and what you need to focus on to round-out your understanding of HVAC system design.

Suggested Presenter(s):
Isaac Savage, Home Energy Partners

Knowledge Level: Beginner

Title: Performance Testing Refresher

Abstract:
This session is targeted at newly certified Raters and Field Inspectors, and those heading toward certification. We'll cover some of the topics and procedures that our students find to be the confusing or challenging. If these topics weren't covered in your certification training, or if you just need some reinforcement on these topics, then this session is for you.

Air Pressure and Flow: We'll learn about the use of blower doors and duct blowers to induce pressures and evaluate air flow through the building shell and air ducts. Whole house air leakage, zone pressure diagnostics, and duct leakage are the topic covered here.

Combustion Safety Testing: This is a new topic for the RESNET community. We'll learn about the procedures and equipment needed to perform the tests that RESNET now requires; Gas leakage testing, CAZ depressurization, and carbon monoxide testing.

Suggested Presenter(s):
Darrel Tenter, Saturn Resource Mgmt.

Knowledge Level: Beginner

Title: Performing Multifamily HERS Ratings

Abstract:
Join Abe Kruger of SK Collaborative and Glenn Pease of EnergyLogic to learn about Multifamily HERS Ratings during a RESNET pre-conference session! This session covers the ins and outs of multifamily, including building level and unit level HERS Ratings. During the session, we will rate a sample project as a group from plans and go through the process of selecting the “worst case” units. Topics covered include: how to address common areas, elevator shafts, commercial spaces, adjacent structures, party walls, duct leakage testing, sampling and other updates you need to know. If you’re not considering multifamily buildings in your scope of services you may be missing out.

Suggested Presenter(s):
Glenn Pease, EnergyLogic
Abe Kruger, SK Collaborative

Knowledge Level: Advanced

Title: SketchUp for Energy Professionals- Quick, Accurate, Powerful Takeoffs

Abstract:
SketchUp is a powerful graphic modeling tool developed by Google and now owned by Trimble. EnergyLogic has successfully adopted SketchUp to streamline the take-off process for all of our builder clients. With it's 3-D depiction of the thermal envelope, it has also proven to be a strong tool when reviewing probationary ratings, performing quality assurance, and field verifying a house was built to the original model.

This training is designed to provide an overview of SketchUp and provide you with practice designing a 3-D model.

Then we will use the scripts developed by EnergyLogic to generate a report designed for easy input into REM/Rate. Using SketchUp by itself will improve your speed and accuracy in performing take-offs, but with EnergyLogic’s custom reporting script designed for easy input into REM/Rate, you’ll find doing takeoffs is not only made fun, but cuts doing takeoffs in half the time.

This course is designed for HERS Raters or other energy professionals with equivalent experience with energy modeling. It has been specifically designed to help complete accurate take-offs with quick from-plans rating data collection.

Suggested Presenter(s):
Glenn Pease, EnergyLogic

Knowledge Level: Advanced

Title: The New Opportunities to Account for Hot Water Use Efficiency in a HERS Score

Abstract:
Hot water use is generally among the top three energy uses in a home or apartment. Over the past several years there has been a concerted effort to enable HERS to account for reductions in hot water use in addition to its existing ability to account for water heater efficiency. The method can now provide credit for reductions in the structural waste due to improved hot water distribution layouts, the water savings due to water efficient dishwashers and washing machines and to reduced flow rate shower heads and faucets, the operational waste due to thermally activated shower shut off valves, the energy savings due to the use of drain water heat recovery, and the energy consequences of using circulation loops to reduce hot water wait times. Once the reductions (or increases) in water use have been accounted for, the energy implications of those decisions are then calculated and

HERS points (or reductions) are assigned.
This session will provide an in-depth discussion of the new method, the underlying math and how raters will be able to verify that each claimed measure has in fact been installed and is operating as intended.

Suggested Presenter(s):
Gary Klein, Gary Klein and Associates
Philip Fairey, FSEC

Knowledge Level: Beginner

Title: WaterSense QAD Training

Abstract:
In order to become a WaterSense Provider, an organization must first be a RESNET or LEED for Homes Provider and have a WaterSense QAD on staff. This training will get you that WaterSense QAD designation in order to apply to become a WaterSense Provider.

Suggested Presenter(s):
Carissa Sawyer, EnergyLogic, Inc.
Adam Jonash, EnergyLogic, Inc.
Tom Flanagan, EnergyLogic, Inc.

Knowledge Level: Advanced

One-day Courses

Title: ASNT NDT Level II Infrared Thermography for Building Diagnostics - BETA EXAMS

Abstract:
This is a special session where we will conduct the ASNT NDT Level II BETA EXAM. I suggest we offer it both as a pre-conference session, and possibly as a late or post-conference session for those who learn about it during the conference.
I anticipate approximately 100 people to register for the exams.

Suggested Presenter(s):
L. Terry Clausing, P.E., ASNT

Knowledge Level: Advanced

Title: WaterSense Inspector Training

Abstract:
Becoming a WaterSense Inspector is the first step to helping your builders build water efficient homes. This training will enable you to become a WaterSense Inspector. By partnering with a WaterSense Licensed Certification Provider, you will have the ability to certify homes for the WaterSense program.

Suggested Presenter(s):
Tom Flanagan, EnergyLogic, Inc.
Adam Jonash, EnergyLogic, Inc.

Knowledge Level: Beginner

Two-day Course

Title: LEED for Homes 401: Green Rater Training

Abstract:
The two-part LEED for Homes Green Rater Training is designed to prepare qualified participants to provide verification services on LEED for Homes projects. Applicants must meet initial qualifications and complete a two-part training. Part 1 of the training consists of five (5) self-guided online training modules that introduce you to the roles and responsibilities of a LEED for Homes Green Rater, discuss applicable technical concepts, discuss verification specifics for various building types, and introduce the participant to the tools and resources that Green Raters will use. Part 2 consist of a two-day instructor-led workshop. This highly interactive workshop builds upon the material presented in the online course, further preparing you to verify LEED for Homes projects, and delves deep into the verification services you will provide. Following the training, participants will be eligible to register and take the LEED for Homes Green Rater exam, administered through the Green Building Certification Institute (GBCI). Those who pass the exam may proceed to complete the required mentorship. Upon successful completion of the mentorship, the participant will be awarded the LEED for Homes Green Rater Certificate. This course would be hosted by EnergyLogic, Inc.

Suggested Presenter(s):
Carissa Sawyer, EnergyLogic, Inc.

Knowledge Level: Advanced