



Residential Energy Design and Construction Training *Based on Home Energy Rater and ENERGY STAR Curriculums* **October 8-12, 2012** **Missoula, MT**

Why Attend?

- Learn home design and construction techniques based on building science principles.
- Become a Home Energy Rater (HERS). HERS ratings are increasingly being used by major builders nationwide to market and differentiate their homes.
- Become an ENERGY STAR for New Homes Verifier. ENERGY STAR for New Homes is experiencing greater penetration rates even during these difficult market conditions. ENERGY STAR is the most successful “above code” building standard in the country.
- Become certified to conduct performance testing (blower door and duct tightness testing) to support energy code compliance.
- Learn about business opportunities in residential energy efficiency.

This workshop is comprehensive residential energy efficiency and building performance training. At the conclusion of the training participants will have the option to take tests necessary to become a certified Home Energy Rater (HERS), an ENERGY STAR for New Homes Verifier and a certified blower door and duct tightness tester. NCAT is a RESNET accredited HERS Rater Training Provider.

This training and subsequent National HERS Rater test is the first step to becoming a HERS Rater. The requirements for becoming a certified Home Energy Rater include: 1) pass the National HERS Rater Exam; 2) perform two ratings supervised, in person by a HERS certified trainer; 3) complete three additional probationary ratings that are approved by a HERS certified Provider, and 4) associate yourself with a HERS Rater Provider. The National Center for Appropriate Technology (NCAT) is a RESNET-accredited HERS Rater Provider and Rater Training Provider.

When: October April 8-12, 2012

8:30 AM to 5:00 PM Monday, 8:00 AM to 5:00 PM Tuesday-Friday; the National Rater Exam will be administered from 3:00 PM to 5:00 PM Friday.

Where: Missoula, MT (Specific site to be determined.)

Cost: \$1,300 per person for the training. You must have a credit card with you to take the National Rater test. If you would like to take the test you will use your credit card to pay RESNET \$50 for the on-line test immediately prior to the test on Friday at 3:00 PM. The \$1,300 registration fee does not include your travel, lodging, or the test fee. You will be responsible for your own lunches.

To Register: Go to the NCAT website at www.NCAT.org. On the top of the screen click on "EVENTS" which will bring you to the NCAT Training and Events Registration page. Under "meeting type" select "training-energy" and choose the Missoula training. You'll be asked for name and address, payment method, etc.

For more information about the training contact Dale Horton (daleh@ncat.org, (406) 880-2622). The training session will be limited to twelve persons. If you would like to pay for the training by check, contact Dale for instructions.

A **Field Work Release** must be signed by each student at the beginning of the course. With this release the student declares themselves physically capable of working in the field with a real house. Activities associated with this training include lifting weights up to 50 pounds, climbing ladders, moving in tight areas such as crawlspaces and attics, and other physically challenging tasks. The student must declare that they have no physical conditions that would prevent them from safely participating in these activities.

Participants must bring the following to the training:

- Laptop Computer with wireless Internet capability. The computer must be capable of opening pdf documents and the REM/Rate software which is Window based. In the past some newer Apple computers with Windows operating programs have worked fine.
- Calculator
- Note Paper
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Also Recommended:

- Tape Measure (at least 20 feet)
- Clipboard
- Architectural Scale

Participants will receive the following at the workshop:

Home Energy Rater Training Manual and Reference CD by NCAT

Residential Energy by John Krigger and Chris Dorsi, published by Saturn Resource Management Incorporated (www.srmi.biz). A copy of this book will be mailed to you after you register.

Builder's Guide to Cold Climates by Joseph Lstiburek, published by Building Science Corporation and distributed by the Energy and Environmental Building Association (www.eeba.org).

REMRATE Software (Demonstration Version) by the Architectural Energy Corporation. A full license for the software will be provided after completion of all HERS Rater requirements. A full license for the software will be available only after you have completed all requirements to become a rater.

Suggested Preparation

Your chances of passing the National Rater Test will be much better if you take the time to prepare for the training session. Only about half of the people that take the National Rater Test pass on their first attempt so it may be worthwhile to study before hand. Here are some suggestions.

1. Study **Residential Energy**, the book noted above, before the training session. Being familiar with the contents of this book is probably the single most useful preparation that you can do. We will mail you a copy after we receive your registration. The class is taught with the assumption that you are familiar with all of the terms in the Glossary and all of the geometry formulas in Appendix A-2. You should be capable of calculating house floor areas and volumes including houses with attics, vaulted ceilings, and other non-rectangular shapes.

2. It will prove useful to be familiar with the information on the RESNET web site: www.resnet.us . The National Rater Test will cover material contained in the *2006 Mortgage Industry National Home Energy Rating Systems Standards*. We strongly suggest that you review the following three documents before you arrive for the course:

Mortgage Industry National Home Energy Rating Systems Standards

[http://www.resnet.us/standards/mortgage/RESNET Mortgage Industry National HERS Standards.pdf](http://www.resnet.us/standards/mortgage/RESNET_Mortgage_Industry_National_HERS_Standards.pdf)

Rater Information www.resnet.us/rater/what_is_a_hers

Lender Information <http://www1.resnet.us/lender/default.htm>

3. The test will require calculating building floor areas, surface areas, and building volumes for various house configurations. You should be comfortable with building geometries as well as basic math and trigonometry. You should also be familiar with residential construction and have the ability to read and understand architectural drawings. We will not have time to review these basic skills during the class.

4. Building performance testing includes conducting blower door tests and duct tests. We strongly suggest that you download and review the following manuals from the Energy Conservatory as an introduction to performance testing.

Blower Door Manual:

<http://www.energyconservatory.com/download/bdmanual.pdf>

Ductblaster Manual:

<http://www.energyconservatory.com/download/dbmanual.pdf>