

# Module One

## Home Energy Ratings Systems

The HERS industry was created in the early 1990's as a result of work from the various national laboratories, the mortgage industry, and the Federal government on reducing the amount of energy consumed by residences. In the beginning, there were different regional standards for assessing a home's energy use that were applied without a nationally unified strategy. This meant that a home in Boulder could be scored on different criteria than a home in Austin, with a different result. Many utility companies created their own efficiency evaluation programs. At the same time, the code-writing agencies were releasing a residential energy code (CABO Model Energy Code, 1993) and some form of standardization needed to occur.

By using a scoring system, houses could be compared with each other on a level playing field. This set the stage for a national standard to be developed and in 1995 the Residential Energy Services Network (RESNET) was created by the National Association of State Energy Officers (NASEO) and Energy Rated Homes of America. RESNET is a member of the National Mortgage Bankers Association and is guided by several committees and an elected Board of Directors. RESNET was created to oversee the HERS industry, provide standards for accreditation of Raters, Providers and Trainers, ethics and protocols for inspection, testing and software analysis.

RESNET is the umbrella organization for the industry. *Providers* are the link between RESNET and the Raters and provide the software, oversight, marketing assistance, and quality assurance for the Rater. Providers are organized by State (some have multiple States) and represent the Rater to various Federal agencies (such as the EPA/DoE ENERGY STAR® program) as well.

A HERS *Trainer* is accredited by RESNET and trains Raters on how to perform HERS ratings. Trainers have more requirements for continuing education than Raters and must pass a National Core Competency test (twice as many questions as the Rater Test in the same amount of time).

A *Rater* is certified by the Provider after completing training, passing the

National HERS Rater test and performing several provisional ratings under the Provider's watchful eye. The Rater's work is audited by the Provider on a continual basis to ensure the integrity of the industry remains high. The Rater's responsibilities include inspecting and testing the minimum rated features of the home, entering the data into a RESNET accredited software tool, and providing the client with reports generated by the software.

### **Home Energy Rater Standards of Practice**

So, what are the standards of work that we must perform? The work that we do shall be performed in compliance with the Residential Energy Services Network (RESNET) Standards of Practice as adopted by the RESNET Board of Directors, latest edition.

The Rater shall be responsible for inspecting and testing the home's minimum rated features, including but not limited to the foundation, walls, roof/ceiling, rim joist, doors, windows, skylights, air infiltration, heating and cooling equipment, heating and cooling distribution system, duct leakage, domestic water heating, passive solar design, and solar water heating. Any changes to the insulated shell dimensions, orientation, window efficiencies, HVAC equipment, and water heater will require the builder to notify the Rater prior to change being made in order to determine whether the change adversely affects the Home Energy Rating.

The Rater shall be responsible for entering the collected data into a software tool approved by RESNET for performing Home Energy Ratings.

The Rater shall provide the Client with rating reports (including a financial interest disclosure form) generated by the software. Rater shall also provide Client with the RESNET Consumer Complaint process.

All performance tests shall be performed in accordance with RESNET approved protocols.

The estimated energy use information contained in the rating report does not constitute any guarantee or warranty of actual energy cost or usage.

Inspections performed to the RESNET Standards of Practice are not tech-

nically exhaustive, will not identify concealed conditions or latent defects, and are not intended to be an inspection of the structural integrity of the home or any other attribute of the home other than the home's energy features.

The Rater is not required to perform any action or make any determination unless required in the RESNET Standards of Practice. The Rater is not required to determine the condition of systems or components that are not readily available, remaining life of any system or component, compliance with regulatory requirements such as construction codes, future conditions including but not limited to failures of systems or components, market value of the home or its marketability, environmental hazards including mold, effectiveness of any system installed or method used to control or remove suspected hazardous materials, presence of potentially dangerous plants or animals including termites and diseases, and acoustical properties of any system or component. The Rater is not required to offer or perform any act or service contrary to law, engineering or design services, HVAC system design or sizing consultation, indoor air quality consultation, and work in any trade or professional service other than the Home Energy Rating, and provide any warranty or guarantee of any kind. The Rater is not required to operate any system or component that is shut down or inoperable, does not respond to normal operating conditions, and shut off valves. The Rater is not required to inspect or test systems or components that are not installed in the rated home, are located in areas that are not entered in accordance with the RESNET Standards of Practice, or in detached structures. The Rater is not required to enter any area or perform any procedure or operation that, in the opinion of the Rater, is likely to be dangerous to the Rater or others or may damage the property, systems or components. The Rater is not required to move any suspended ceiling tiles, personal property, furniture, debris, equipment, plants, soil, ice, or snow. The Rater is not required to dismantle any system or component except as explicitly required in the RESNET Standards of Practice.

The Rater may choose to use default values for features that are not present or available for inspection according to the exclusions listed above or the Rater may conclude that a legitimate rating is not possible under the circumstances. Under no circumstances shall the Rater be required

to use default values that are not allowed under the RESNET Standards of Practice to produce a rating.

### Module One Review Questions

1. What do HERS Providers provide?
2. What role does a HERS Trainer play?
3. What are some of the responsibilities of a HERS Rater?
4. Why was RESNET created and by whom?
5. What are the minimum rated features of a home?
6. Can any energy analysis software be used to produce a HERS rating?
7. Is a Home Energy Rater required to verify compliance with the local energy code?
8. If a Rater enters an existing home to perform inspections and testing and the owner's 9 foot Burmese python is loose, does the Rater have to complete the inspection and testing?
9. Is a Rater required to perform Manual J load calculations?