


How to Save \$\$\$ Complying with Residential Energy Codes

In today's competitive economy, homebuilders are faced with tremendous pressure to control construction costs, increase sales, and improve home quality. At the same time, builders in many parts of the country must comply with energy codes, such as the Model Energy Code (MEC) and the International Energy Conservation Code (IECC). For years, builders have been concerned that energy codes raise their costs and squeeze their profit margins. However, it doesn't have to be that way. A new group of building professionals, called certified home energy raters (or HERS Raters), have the knowledge and skills to help builders comply with energy codes, while reducing costs and increasing profits. HERS Raters can help builders to achieve the following objectives:

HERS



❑ For more information on the national Home Energy Rating System and to find Certified HERS Raters, go to:
<http://www.natresnet.org/dir/default.htm>

- ★ Reduce costs of complying with energy codes,
- ★ Reduce callback and warranty costs,
- ★ Meet ENERGY STAR home labeling requirements and qualify for marketing assistance.

Read on for more details.

How Can HERS Help You Reduce Code Compliance Costs?

Some builders think that energy code requirements can cost a bundle. R-38 attic insulation. An expensive high efficiency furnace. However, many builders don't know about an easy way to comply with energy codes, one that offers greater flexibility and can save hundreds or even thousands of dollars. With Chapter 4 "Residential Design by Systems Analysis", the IECC allows a house to comply with the energy code if the building design and specifications result in the same (or lower) calculated energy consumption as a home that complies with Chapter 5 "Residential Design by Component Performance" requirements. If you build to the prescriptive requirements of Chapter 5, you have limited design flexibility on window-area and insulation specifications, you're stuck with worst case assumptions about air leakage, and you get no credit for favorable orientation. However, with the help of a Certified HERS Rater, you can trade off some upgrades for others, use

Cold Climate Example		
	Chapter 5 Component Approach	Chapter 4 Systems Approach
Insulation	R21 Walls, R49 Ceiling, R13 Foundation	R15 Walls, R38 Ceiling, R4 Foundation
Air-tightness	Tight window & door specs	Blower door test: 0.35 ACH
Windows	<0.35 U-value	<0.55 U-value
Savings Potential > \$1,000 per home		

Hot Climate Example		
	Chapter 5 Component Approach	Chapter 4 Systems Approach
Insulation	R11 Walls, R19 Ceiling	
Air-tightness	Tight window & door specs	Blower door test: 0.35 ACH
Windows	<0.4 SHGC	<0.7 SHGC
Savings Potential > \$600 per home		

orientation and window area to your advantage, and get full credit for a tight building envelope and leak-free duct system. HERS Raters will help you save money by optimizing the cost-effectiveness of energy efficiency upgrades. Plus, a HERS Rater can provide all the IECC compliance documentation you need, in addition to reducing your costs to comply – for every home you build!

How Can HERS Help You Reduce Callbacks?

For many builders, over 50% of customer callbacks are related to heating and cooling problems. Does that mean the HVAC contractor is not doing his job? Not necessarily! Many times, the HVAC contractor alone cannot resolve these comfort complaints. For instance, have you ever had a customer complain that the room above the garage (bonus room) is too cold in winter and too hot in summer? Or, how about humidity problems, like window condensation? Worse yet, are you worried about your potential liability from mold and mildew in new houses? All these problems occur as a result of a combination of interactions between the air and moisture barriers, the quality of the insulation installation, and yes, even the quality of the HVAC system design and installation. Solving these problems requires a complete understanding of how the different components of a house influence each other. HERS Raters are trained building science professionals and they frequently help builders solve these recurring problems by designing and building the house "as a system". The **systems approach** to design and construction has been used effectively by many builders, including prominent production builders, to drastically reduce callbacks, improve customer satisfaction, and increase referrals. Wouldn't you like to see your costs go down and sales go up?

How Can HERS Help You Meet ENERGY STAR Labeled Homes Requirements?

The ENERGY STAR label is the national symbol for energy efficiency in the new home construction industry. ENERGY STAR represents the best way to build and market energy-efficient new homes. Building and selling ENERGY STAR labeled homes [benefits](#) businesses, consumers, and the environment. Help change the world and improve your business - [participate](#) in ENERGY STAR.



- ❑ For assistance with ENERGY STAR, go to <http://www.energystar.gov/consumer.shtml> then click [Find Labeled Homes](#) at the top.

Maybe you've already heard about ENERGY STAR. You recognize the marketing value of using the government endorsed label to help potential customers recognize your homes for their quality and energy efficiency value. Now you want to know what exactly is required to earn the label. You don't have to look far for help.

Certified HERS Raters are

trained to help builders achieve the ENERGY STAR label cost-effectively. HERS Raters can help you reduce the costs of reaching the voluntary ENERGY STAR performance level, by optimizing the cost and energy performance tradeoffs of the many inter-related features that affect the energy rating score of your homes. If you want to take advantage of ENERGY STAR marketing, but you don't want to increase your costs, seek the help of a Certified HERS Rater.



RESNET

Residential Energy Services Network