



What is the HERS Index?

A home energy rating involves an analysis of a home's construction plans and onsite inspections. Based on the home's plans, the Home Energy Rater uses an energy efficiency modeling software to perform an energy analysis of the home's design. This analysis yields a projected, pre-construction HERS Index. Upon completion of the plan review, the Rater will work with the builder to identify the energy efficiency improvements needed to ensure the house will meet ENERGY STAR performance guidelines. The Rater then conducts onsite inspections, typically including a blower door test (to test the leakiness of the house), a duct blaster test (to test the leakiness of the ducts), and an inspection to confirm that insulation has been properly installed and to ensure that common thermal bypasses are not present. Results of these tests, along with inputs derived from the plan review, are used to generate the HERS Index for the home.

The HERS Index

The HERS Index is a scoring system established by the Residential Energy Services Network (RESNET) in which a home built to the specifications of the HERS Reference Home (based on the 2006 International Energy Conservation Code) scores a HERS Index of 100, while a net zero energy home scores a HERS Index of 0.

The lower a home's HERS Index, the more energy-efficient it is in comparison to the HERS Reference Home. Each one-point decrease in the HERS Index corresponds to a 1% reduction in energy consumption compared to the HERS Reference Home. For example, a home with a HERS Index of 85 is 15% more energy-efficient than the HERS Reference Home and a home with a HERS Index of 80 is 20% more energy-efficient.

Comparing the New HERS Index with the Old HERS Score

For homes rated before July 1, 2006, the rating score is known as a "HERS Score." The HERS Score is a system in which a home built to the specifications of the HERS Reference Home (based on the 1993 Model Energy Code) has a HERS Score of 80. Unlike the HERS Index, each 1-point increase in a HERS Score is equivalent to a 5% increase in energy efficiency. Please see the table below for a comparison of the HERS Score and the HERS Index.

	HERS Score	HERS Index
Reference Home Score	Reference Home is assigned a HERS Score of 80	Reference Home is assigned a HERS Index of 100, while a net zero energy home is assigned a HERS Index of 0
Reference Home Basis	1993 Model Energy Code (MEC)	2006 International Energy Conservation Code (IECC)
Scale	Each 5% <i>increase</i> in energy efficiency corresponds to a 1-point <i>increase</i> in HERS Score	Each 1% <i>increase</i> in energy efficiency corresponds to a 1-point <i>decrease</i> in HERS Index
Energy Use Considered	Heating, cooling, and water heating (lighting, appliances were included in the HERS score as well)	Heating, cooling, water heating, lighting, appliances, and onsite power generation*
ENERGY STAR Requirement	HERS Score 86	HERS Index of 85 in climate zones 1-5 HERS Index of 80 in climate zones 6-8
Status	Phasing out	Approved by the RESNET Board of Directors and implemented as of July 1, 2006.

A HERS Index of 85 or lower, compliance with the Thermal Bypass Checklist and corresponding documentation is required for the ENERGY STAR incentive payments from the Massachusetts New Homes with ENERGY STAR Program.

* Note that although onsite power generation is included in the RESNET HERS Index, it cannot be used to decrease a HERS Index to qualify for ENERGY STAR.

The sponsors of the Massachusetts New Homes with ENERGY STAR are Bay State Gas, Berkshire Gas, Cape Light Compact, GasNetworks, KeySpan Energy Delivery, Massachusetts Technology Collaborative, National Grid, New England Gas, NSTAR Electric, NSTAR Gas, UNITIL, and Western Massachusetts Electric.