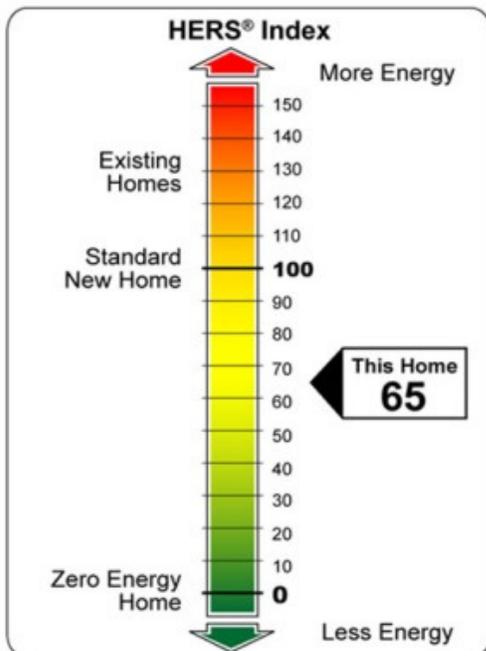


# Builder's Guide to HERS Ratings



## Step 1: Determine if you Need a HERS Rating

- ❑ HERS is not a code, so there are no specific requirements for a HERS Rating. It is simply a number which represents the overall energy efficiency of a building.
- ❑ HERS Ratings can be conducted on both new and existing homes.
- ❑ Some programs, such as grant funded or FHA/HUD renovation programs require a Pre-Test. The Pre-Test must be completed before demolition and reconstruction begins and results in a scope of work.
- ❑ A Post-Test is then completed at the end of construction to verify the necessary improvements were made.
- ❑ While HERS is not a code, it can sometimes be used as a compliance path for certain energy codes. For example the 2015 IECC allows a builder to show compliance by meeting the minimum insulation levels of the 2009 IECC, the mandatory requirements of the 2012 IECC, and achieving a specific HERS score.
- ❑ Before starting construction or renovation, check your program or code requirements and contact your HERS Rater.



### Best Value Points

There are dozens of factors that affect the final HERS Index Score. Here are a few examples of point values achieved in a typical 2200 Ft<sup>2</sup> home in Michigan:

- ❑ 100% CFL or LED Bulbs vs. only 50% **-2 Points**
- ❑ Bath fan ventilation vs. air-cycler **-8 Points**
- ❑ 2 ACH50 vs 4 ACH50 **-3 Points**
- ❑ 96% Furnace vs. 92% **-1 Point**
- ❑ 16 SEER A/C vs. 13 SEER **-1 Point**
- ❑ Tankless 97% water heater vs power-vent **-5 Points**

## Step 2:

### Work with your Rater to Achieve the Best Score Possible

- Your HERS Rater can model the home in the rating software and run multiple scenario calculations to determine the best possible methods of achieving a lower score
- If you are working under the guidelines of a special program, include a statement on all your bid requests to sub-contractors and on your final plans that states your required rating. For example:  
  
*“This home must achieve a HERS Index score of 85 or lower. All subcontractors are responsible for knowing their role and including provisions in their bids to ensure the finished home meets that requirement.”*
- Send the plans to your HERS Rater along with details about the energy related features including:
  - Street address of the home
  - Orientation of the home on the property (front faces N/S/E/W?)
  - Window U-Factor and SHGC specifications
  - Proposed heating and cooling system efficiencies
  - Proposed water heating equipment
  - Foundation, above-grade wall, and attic insulation strategy
  - Planned automatic mechanical ventilation system
  - Any other details affecting the energy use of the house
- If you don't have all those details yet, your rater can make some assumptions, but will need the final details to be most accurate with the rating and to print compliance documents to bring to the final testing
- Review the projected rating certificates that your rater will send
- During the build, if there are any changes which will affect the energy use of the house, inform your rater, who will review and make sure the changes do not adversely affect the rating.
- At the time of this writing, there is no requirement for your rater to inspect the house before drywall, however, some programs and rating companies DO require such inspections.
- If you want to maximize your chances of achieving a better score, always have your rater inspect AFTER INSULATION but BEFORE DRYWALL and complete the Thermal Enclosure Checklist. If you are using the HERS Rating as a means of Code Compliance, then this is a critical step.
- If this is your first HERS Rating, you should plan to have a site supervisor there to make note of any items the rater recommends before drywall goes up.
- When the house is complete, contact your rater to schedule the final inspection and testing. The final testing is typically done about the time the house is being cleaned and painters are touching up, right before final walk-thru and close.
- Make sure the following last minute items are complete
  - Final doors and weather-stripping installed, thresholds adjusted
  - Attic access hatch has insulation attached to the lid and a gasket around the opening
  - Plumbing and electrical penetrations in the bond are sealed with caulk or foam
  - Water has been turned on and plumbing fixtures are set with traps filled
  - Electricity is turned on to the house
  - All flooring is installed and HVAC registers are in place
  - Final HVAC has been completed and the systems are all operating as they will be at occupancy



## Step 3: Final Testing

- Final testing and inspection can take about 2 hours. During part of the testing, the rater will need to have all windows and doors remain closed.
- The rater will primarily conduct the following tests:
  - Blower door test to measure air infiltration
  - Duct leakage test to measure leakage to outdoors and indoors
  - Other tests for building performance but which do not affect the Rating
- The results of the rating will not be known until the data collected at final, including the test results, is entered into the rating software to calculate the HERS Rating.
- The rater will send all the information to a Rating Provider who will enter the house into the building registry. The Provider will also send a copy of the certified report to the rater to forward to you. Ultimately, you will provide the report to the homeowner.
- In the event you have a problem with your rater which may constitute a conflict of interest, code of ethics violation, or standards of practice violation, contact RESNET to file a formal complaint at <http://www.resnet.us/complaint-resolution>

## Step 4:

### Using HERS Scores to your Advantage

- Use the HERS Score in your marketing materials
- Consider joining RESNET and signing an agreement for the ENERGYSMART BUILDER program which gives you access to more marketing materials and logos
- Tell potential buyers that your Rater can calculate the estimated energy bills for the house very accurately and tell them to ask competing builders what the home will score or cost to operate
- Meet with your rater after the project is over and ask for ideas to improve the rating score on the next house

