



## RESNET Rater Volunteers with Habitat for Humanity in Cincinnati, Ohio

Since 1995, The U.S. Department of Energy's Building America program has provided technical assistance to Habitat for Humanity International and local Habitat affiliates interested in building energy efficient homes. Building America researchers help Habitat identify energy improvements that:

- are proven to be cost effective,
- are readily available in the market place,
- are appropriate for Habitat's volunteer construction crews, and
- do not place a maintenance burden on the homeowner.

### Free Home Energy Ratings for Habitat for Humanity Affiliates

In 2007, Building America researchers partnered with RESNET (a national standards making body for building energy efficiency rating systems) whose members are encouraged to volunteer with Habitat for Humanity by providing free home energy ratings to their local Habitat affiliate. RESNET Member, Homes+, Inc. in Cincinnati, Ohio stepped forward to work with TriState Habitat, a single nonprofit corporation merging nine Habitat for Humanity affiliates in Ohio, Indiana, and Kentucky.

Holly Todd, Operations Manager of Homes+ Inc. reports that the house leaders are very competitive and present her with their air sealing details when she arrives to test their homes. Under Construction Director Randy Wilkerson, the Habitat affiliate builds homes to specifications that deliver an average HERS Index of 60.3.

Habitat builds homes with volunteers, including Habitat's home buyers, completing most of the work. Ms Todd notes that hundreds of volunteers learn about energy efficiency, insulation, and air sealing on TriState Habitat's job sites. She will lead TriState Habitat's first Women's Build home which will also be their first Green certified home.

### Organizational Commitment

Wilkerson drafted an illustrated "Energy Efficient Home Construction Manual" that details construction procedures for many aspects of their building science approach. Details include moisture management, air sealing, advanced framing, duct sealing, and installing batt insulation, rigid insulation, house wrap, window and door flashing. The manual also describes that building Energy Star homes is a board approved policy.

By assisting this Habitat for Humanity affiliate, Homes+ Inc. is helping to raise expectations of affordable housing performance and giving back to the community in a way that draws on their extensive expertise.

### Systems and Appliances

- Manual J System sizing
- 90+ AFUE gas furnace
- SEER 13 straight cool
- Programmable Thermostat
- Sealed and tested duct work
- Tankless gas water heater
- Compact fluorescent bulbs

### Enclosure

- Advanced Framing with R-19 wall insulation
- ½" exterior rigid insulation with taped house wrap
- Double pane, argon filled, Low-e windows
- Air sealing & thermal bypass checklists
- R-38 blown in ceiling insulation; R-30 floor insulation over unconditioned space

**Average HERS Index = 60.3 Average estimated annual energy savings = \$450**

# RESNET

Residential Energy Services Network

[www.natresnet.org](http://www.natresnet.org)



Read more about this Partnership:  
[www.natresnet.org/rater/partnership](http://www.natresnet.org/rater/partnership)



For more information on Building America's Partnership with Habitat for Humanity, see [www.baihp.org/habitat](http://www.baihp.org/habitat)

## A Strong Energy Portfolio for a Strong America

Energy efficiency and clean, renewable energy will mean a stronger economy, a cleaner environment, and greater energy independence for America. Working with a wide array of state, community, industry, and university partners, the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy invests in a diverse portfolio of energy technologies.

## Research and Development of Buildings

Our nation's buildings consume more energy than any other sector of the U.S. economy, including transportation and industry. Fortunately, the opportunities to reduce building energy use—and the associated environmental impacts—are significant.

DOE's Building Technologies Program works to improve the energy efficiency of our nation's buildings through innovative new technologies and better building practices. The program focuses on two key areas:

### • Emerging Technologies

Research and development of the next generation of energy-efficient components, materials, and equipment

### • Technology Integration

Integration of new technologies with innovative building methods to optimize building performance and savings

For more information contact  
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