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Owner receives keys to Net Zero Energy Habitat for Humanity House

Home to produce as much energy as it consumes annually

Golden, Colo., Sept. 15, 2005 – Habitat for Humanity of Metro Denver today dedicated the ultimate energy efficient demonstration home: a house designed to produce as much energy as it consumes on an annual basis. The Net Zero Energy Habitat for Humanity House, at 4700 Carr Street in Wheat Ridge, Colo., combines energy efficient building design that reduces energy consumption with solar heat and power generation technologies that supply the home's remaining energy needs.

Midwest Research Institute (MRI) and Battelle sponsored Habitat for Humanity of Metro Denver's first net zero energy home on behalf of the U.S. Department of Energy's (DOE) National Renewable Energy Laboratory (NREL). MRI and Battelle manage NREL for DOE.

"We are pleased that – through our partnership with Habitat for Humanity -- NREL researchers were able to advance DOE's goal to deliver reliable, affordable and environmentally sound energy options to consumers," said NREL Director Dan E. Arvizu. "Together, we created a home that is not only comfortable and affordable, but uses less than half of the energy of a standard home while producing energy through renewable energy systems."

Arvizu presented house keys to homeowner Amy Whalen and her sons Orlando, 6, and Angelo, 4 during the ribbon cutting ceremony.

As part of DOE's Building America Program, NREL researchers designed the house using the latest research tools. The house features superinsulated walls, floors, and ceilings; efficient appliances; a solar water heating system; heat-recovery ventilation system to assure indoor air quality; compact fluorescent lighting; and windows coated with thin layers of metallic oxide to help keep heat in during the winter and out during the summer. The home's 4-kilowatt photovoltaic system is sized to produce excess energy in the summer to balance out winter consumption.

(more)



“Living in a net zero energy house will be a wonderful transition to improving my financial status since I won't have such high utility bills anymore,” Whalen said. “It will afford me the ability to save and have more for my sons.”

Secretary of Energy Samuel W. Bodman kicked off DOE's "Energizing America for Energy Security" tour at the home's construction site on June 13. Colorado Congressman Bob Beauprez personally worked on the home on July 9 as part of the Habitat for Humanity Congress Building America project. NREL and DOE staff and their family and friends volunteered throughout the summer to help with the home's construction.

NREL researchers will monitor the performance of the home for one year. This monitoring will be used to determine if the energy features of the home perform as expected and investigate potential improvements on the approaches used to achieve zero energy.

Additional sponsors of the net zero energy house include the Colorado Governor's Office of Energy Management and Conservation, Xcel Energy, Siemens Building Technologies and Altair Energy.

NREL is the U.S. Department of Energy's primary national laboratory for renewable energy and energy efficiency research and development. NREL is operated for DOE by Midwest Research Institute and Battelle.

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