A national laboratory of the U.S. Department of Energy
Office of Energy Efficiency & Renewable Energy

NREL National Renewable Energy Laboratory

Innovation for Our Energy Future

NREL Visitors Center Community News **June 2005**

DOE/NREL Help Build a Zero Energy House with Habitat for Humanity

The U.S. Department of Energy's (DOE) Building America Program, the National Renewable Energy Laboratory (NREL) and Habitat for Humanity of Metro Denver are teaming up to create the ultimate in energy demonstration homes: a Zero Energy Home.

Zero Energy homes combine the state-of-the art energy efficient construction and appliances with commercially available renewable energy systems such as solar water heating and solar electricity. They are designed and built to produce as much energy as they consume annually. Construction of the house at 4700 Carr Avenue in Wheat Ridge, CO, began in May. It is expected to be completed in late August. NREL researchers designed the home's energy features with the help of BEOpt, a Building Energy Optimization tool created by staff in NREL's Center for Buildings and Thermal Systems.

NREL staff has worked with Habitat for Humanity affiliates across the country for many years to create better homes for deserving families. In 2001 as part of the celebration of its 25th anniversary, NREL helped construct an energy-efficient, handicap-accessible home in Denver. Habitat for Humanity of Metro Denver has improved the energy performance of every home it builds. They now regularly surpass the EnergyStar requirements and received 2004 EnergyStar Millennium Builder Award. After construction, the DOE Building America Program will monitor the performance of the home for one year to determine if the energy features of the home performed as expected and to investigate potential improvements on the approach used to achieve zero energy.

Habitat for Humanity will gain experience from new energy efficient techniques and technologies that can then be included in their standard construction practices.

Midwest Research Institute and Battelle, which operate NREL for DOE, have contributed financial support to build the Zero Energy home. ■

Habitat for Humanity®

Science and Technology Facility Construction Update

Since work began on NREL's Science & Technology Facility (S&TF) in January, the ground level laboratory slab of the building has been completed and half of the elevated lab slab has been placed. Concrete work will continue on the upper level office area this summer.

While the normal workday for the S&TF contractor, M.A. Mortenson, is Monday through Friday, 7 a.m. until 3:30 p.m., it may be necessary at times for them to begin work at 4 a.m. to allow adequate pouring time for the concrete. Early morning or weekend work may also be necessary due to inclement weather.

Neighbors may notice increased truck traffic, back-up alarms on equipment and bright construction lights during this time. NREL provides advance notice about the schedule on the S&TF construction hotline and Web site. For weekly construction updates, call 303-275-4087 or visit www.nrel.gov/facilities/stf.html. Contact Sarah Barba at 303-275-3023 for additional information. ■

Your questions and comments about NREL are welcome at any time. Call Kerry Masson, Director of Outreach and Public Affairs, at (303) 275-4083.

If you have any questions about NREL's Visitors Center programs or activities, please contact Ivilina Thornton in the Office of Outreach and Public Affairs at (303)384-6566 or via email at ivilina_thornton@nrel.gov. ■

NREL Visitors Center
15013 Denver West Parkway
Golden, CO 80401-3393
(303) 384-6565 • www.nrel.gov
Hours: Monday - Friday, 9 a.m. to 5 p.m.

NREL Residential and Commercial Buildings EXPO

Come to the NREL Visitors Center to learn about Energy Efficiency and Renewable Energy Technologies, Building Materials and Design for Homes and Commercial Buildings
Saturday
August 6, 2005
9 a.m. – 3 p.m.

New Monthly Program at the NREL Visitors Center: At Home With Renewable Energy and Energy Efficiency

The U.S Department of Energy's (DOE) National Renewable Energy Laboratory (NREL) is offering a new public program on the last Tuesday of each month at the NREL Visitors Center.

The hour-long program will teach consumers the basics of renewable energy systems and energy efficient improvements for the residential environment. In addition to seeing renewable energy systems and components, other topics include insulation and weatherization, heating and cooling, water heating, windows, landscaping, lighting and appliances. A guided tour of the NREL Visitors Center will follow the program. The next program is June 28.

This year we are offering themed programs each quarter that include monthly Visitors Center Power Lunch presentations. Bring your lunch and learn more about renewable energy and energy efficiency.

Call the Visitors Center at (303) 384-6565 to sign up. See the summer schedule below. ■

NREL Visitors Center Public Programs

June 2005

Theme Topic: Home Sweet Home: Applications of Renewable Energy and Energy Efficiency

Tuesday, June 28, 11 a.m. Public Program **-** At Home With Renewable Energy and Energy Efficiency

July 2005

Theme Topic: High-Performance Renewable Energy and Energy Efficiency

Thursday, July 7, Noon Power Lunch - Quantum Dots: An Introduction to the Science and Applications of 3rd Generation Photovoltaics by Arthur Nozik, NREL

Thursday, July 28, Noon Power Lunch - Solar Hot Water for the Home and Business by Tim Merrigan, NREL

Tuesday, July 26, 11 a.m. Public Program **-** At Home With Renewable Energy and Energy Efficiency

All public programs at the NREL Visitors Center are free. Visit our Web site for a listing of future programs at www.nrel.gov/visitors_center. Call 303-384-6565 for more information and to make reservations.

Printed with biodegradable ink on paper containing at least 50% wastepaper, including 20% post consumer waste.

COMMUNITY NEWS

U.S. Department of Energy
National Renewable Energy Laboratory
1617 Cole Blvd.
Golden, CO 80401

PRSRT STD
US POSTAGE
PAID
GOLDEN CO
PERMIT NO. 258