

**Explore a Clean Energy Future at NREL's Visitors Center**

NREL's Visitors Center offers visitors of all ages the chance to learn about energy from the sun, wind, biomass and other sources of renewable energy in a fun, friendly environment.

The Visitors Center offers monthly public programs on a variety of topics; programs and field trips for teachers and students; special exhibitions; and information in the DOE Public Reading Room. The Visitors Center is open weekdays 9 a.m. until 5 p.m. Staff and volunteers are on hand to answer questions and to help navigate the interactive exhibit hall.

For more information, visit [www.nrel.gov/visitors\\_center/](http://www.nrel.gov/visitors_center/).

**Visitors Center Power Lunch Lecture Series**

Several times a year, NREL offers noon time presentations on a variety of renewable energy and energy efficiency topics. The presentations are open to the public and attendees are welcome to bring their lunches to enjoy during the lecture. Space is limited so please call 303-384-6565 to make a reservation.

*Power of the People: America's New Electricity Choices*  
Presented by NREL Stakeholder Relations Manager Carol Tombari  
April 9, Noon to 1 p.m.

*Net Metering101*  
Presented by NREL Senior Project Leader Trudy Forsyth  
May 21, Noon to 1 p.m.

*Xeriscape*  
Presented by Master Gardener Pam Shillam  
June 5, Noon to 1 p.m.

**NREL Lands Major New Power Integration Research Facility**

Early this year, Congress approved funding for another major new addition to the Laboratory's campus – the Energy Systems Integration Facility (ESIF).

The building, to be located southeast of the existing Science and Technology Facility, will house a variety of research that aims to overcome the technical barriers associated with adding new renewable energy generation systems to the electrical grid. The goal is to pave the way to a future where wind, solar and other renewable technologies can contribute 20 percent or more of the nation's power.

As planned, the multi-storied ESIF will include high-bay and low-bay laboratories; outdoor test pads for generation technologies and hydrogen storage; realistic electrical distribution systems for testing and integrating renewable technologies; and an advanced computational science center. The building is expected to have laboratory and office space for approximately 150 NREL researchers and support staff.

Importantly, the 2008 budget provides the lion's share of funds required to build the ESIF.

An additional \$4 million in FY09 will complete construction, and



The Laboratory's permanent site near South Table Mountain will soon expand with the addition of an administrative support building, wood-fired boiler plant and more.

another \$34 million in FY10 will fund research equipment and the high performance computing system. NREL staff are slated to move into the ESIF in early 2012.

**Major Construction Projects Underway**

Funding for the ESIF arrived as design begins this spring for several other important facilities at NREL.

The Research Support Facility (RSF), designed to be a model for sustainable, high-performance buildings, will provide DOE-owned work space for administrative staff who currently occupy leased space in the Denver West Office Park.

Adjacent to the Alternative Fuels User Facility, the new Integrated Biorefinery Research Facility (IBRF) will expand NREL's capabilities to develop new cellulosic ethanol technologies. The IBRF will allow NREL to work simultaneously on multiple research projects with multiple research partners.

The RSF and IBRF projects each met a milestone this winter when the Laboratory issued the Request for Proposals (RFP) for design-build services for construction on the South Table Mountain campus.

The design-build delivery method utilizes a team approach between a design firm and construction company.

*Continued on Page 2*

**Laboratory is Hiring, Seeks Innovative People**

NREL is looking for talented, innovative people who want to help our Laboratory lead the nation on the path to energy security, reliability and reduced environmental impact.

We have job opportunities for scientists and engineers, research technicians, project leaders and

many other professionals in a variety of careers.

NREL has created an inclusive work environment that benefits from diversity throughout the lab, and encourages employees to develop and contribute to their full potential. For a current list of job opportunities, visit [www.nrel.gov/employment/](http://www.nrel.gov/employment/).

**NREL Contact:** If you have any questions about NREL's activities, contact Public Relations Director Kerry Masson at 303-275-4083.

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**Construction Projects (From Page 1)**

Industry studies indicate that this method can make improvements to the project schedule, reduce costs and improve quality. A partnership between these teams and NREL will be used to complete the project. In the past, NREL has used a more traditional design-bid-build delivery method for new facilities.

The design-build subcontracts are expected to be awarded this spring with construction activities commencing the end of this summer or in early fall.

**Infrastructure Projects**

The Renewable Fuel Heating Plant is a biomass combustion boiler that will reduce NREL's natural gas use on the main campus by 75 percent. Construction is scheduled to be completed in July.

The Mesa Top PV Project is planned as a 750 kilowatt solar photovoltaic system that will provide clean, renewable electric power from solar energy. Construction is scheduled to begin in April.

For construction updates, call the NREL Construction Hotline at 303-275-4087 or visit the Construction Web page at [www.nrel.gov/news/construction\\_update.html](http://www.nrel.gov/news/construction_update.html). ■



DOE and NREL are seeking input from the public on its most recent Draft Supplemental Environmental Assessment dealing with several of the Laboratory's upcoming projects.

**Community Invited to Participate in NEPA Review Process**

The National Environmental Policy Act (NEPA) requires federal agencies to integrate environmental values into their decision making processes by considering the environmental impacts of their proposed actions.

Many of you may have already received a notice in the mail indicating a Draft Supplemental Environmental Assessment is available for some of our upcoming activities at our South Table Mountain site. These activities include the potential installation of an office building, Phase I of infrastructure improvements, and upgrades to the existing Thermochemical User Facility including the addition of a thermochemical biorefinery pilot plant.

DOE is accepting public comments on this EA until close of business April 17 and invites public comment. The review process begins with NREL developing a project description for the proposed activities.

This might include such things as

constructing a new building or adding additional research capabilities. Then a notice of this "proposed action" is sent to local residents, area businesses, government agencies and other affected stakeholders, giving these parties an opportunity to communicate any issues or concerns they may have.

DOE takes from four to 12 months to analyze and assess the impacts of the proposed action and write an environmental assessment (EA). Local residents will be notified when this document is available for review. Concerns and comments generated during the review process will be addressed in the final document.

The review will have one of three outcomes: the proposed action has no significant impacts and can proceed; the proposed action has minor impacts and can proceed with certain restrictions in place; or the proposed action has significant impacts and may not proceed until

*Continued on Page 3*

The boiler for the Renewable Fuel Heating Plant was recently installed putting the project at 50 percent complete.

**NEPA Review (From Page 2)**

an Environmental Impact Statement is completed, reviewed and approved.

If you would like to receive NEPA information regarding upcoming activities, including the Energy Systems Integration Facility infrastructure improvements (Phase II) or other projects, request to be added to our NEPA mailing list by calling 303-275-3234 or e-mail [nepa@nrel.gov](mailto:nepa@nrel.gov). Leave your name and contact information. If you have comments or questions regarding our NEPA activities, contact Steve Blazek of the DOE Golden Field Office, 303-275-4723. Additional information can be obtained at the DOE electronic reading room, 1597 Cole Blvd., Golden, CO, or online at [www.eere.energy.gov/golden/reading\\_room.aspx](http://www.eere.energy.gov/golden/reading_room.aspx). ■

**Noise Reducing Mufflers to be Installed**

Mufflers for each of the six Science and Technology Facility's exhaust fans have been delivered and are expected to be installed by the end of May.

The mufflers were recommended by a consultant hired by the Laboratory to help reduce the noise coming from the S&TF. The mufflers are expected to decrease the exhaust fan noise by 15 decibels. Please contact Kerry Masson at 303-275-4083 if you have noise concerns. ■

**Workshops Series Aimed At Consumers**

Consumer Power for the 21<sup>st</sup> Century is a series of FREE courses on renewable energy for homeowners and businesses.

The next installment on economic development in the field of renewable energy is scheduled from 9 a.m. – 1 p.m. on May 10 at the NREL Visitors Center. Advanced registration is required, call 303-384-6565. The Visitors Center will be open to the public from 9 a.m. – 5 p.m. ■

**NREL Sets Aggressive Greenhouse Gas Reduction Goal**

NREL has pledged to reduce its greenhouse gas emissions by 75 percent from 2005 to 2009 as part of its participation in the Environmental Protection Agency's (EPA) Climate Leaders program.

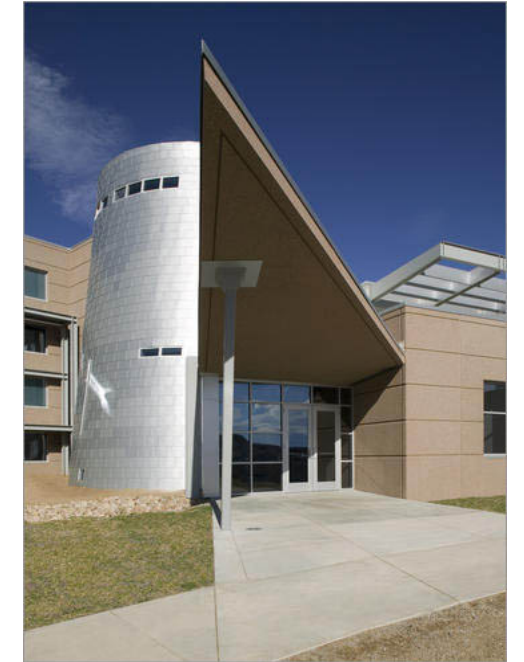
The installation of the Mesa Top PV Project and Renewable Fuel Heating Plant (RFHP) will help the Laboratory achieve this new goal. Both projects are notable for their use of private financing and contracting mechanisms. The RFHP will use an Energy Savings Performance Contract (ESPC). Under an ESPC a private sector energy services company (ESCO) will finance, install and operate the plant and be reimbursed out of the savings over the term of the contract.

The photovoltaics project will use a Power Purchase Agreement (PPA). Under a PPA, the private sector developer owns and operates the project. DOE/NREL agree to purchase the electric output of the project over the term of the project at price equal to or less than would have been paid to the local utility.

NREL purchases renewable energy certificates to offset all of its indirect emissions from electricity use as well as the remainder of its overall "environmental footprint." This includes the balance of the natural gas use, employee commuting, national and international air travel and fleet use. This practice helped the Laboratory achieve "carbon neutrality" beginning in FY2006.

In FY2005, NREL was the first national laboratory or federal agency to join the Climate Leaders Program and was one of seven original participants to set and meet goals.

For more information on NREL's sustainability activities, visit [www.nrel.gov/sustainable\\_nrel](http://www.nrel.gov/sustainable_nrel). ■



The Science and Technology Facility is NREL's newest facility for solar energy research.

**S&TF Wins One of Two Lab of the Year Awards**

*R&D Magazine* recently selected NREL's Science and Technology Facility (S&TF) for a Special Mention Award in the 42nd Annual Laboratory of the Year competition.

The magazine noted that the S&TF is a 71,000-square-foot research lab that was the first federal building and the first laboratory to achieve the U.S. Green Building Council's LEED® (Leadership in Energy and Environmental Design) Platinum designation as one of the world's most energy efficient and environmentally friendly buildings.

The Lab of the Year judging panel cited the S&TF environmental design and low cost as key factors in its selection for a Special Mention Award. The announcement was made on Feb. 22.

This year's judging panel consisted of architects, engineers, lab planners, equipment suppliers, and the editors of *R&D Magazine* and *Laboratory Design Newsletter*.

For additional information on the S&TF and NREL's other world-class research facilities, visit [www.nrel.gov](http://www.nrel.gov). ■