



# Renewable Energy: Power for Sustainable Communities

8TH ANNUAL COLORADO RENEWABLE ENERGY CONFERENCE

June 9-11, 2005 • Lincoln Center, Fort Collins

Sponsored by the COLORADO RENEWABLE ENERGY SOCIETY

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**FOR IMMEDIATE RELEASE**

**2005 Colorado Renewable Energy in Buildings Awards Recipients Honored at Upcoming Colorado Renewable Energy Conference in Fort Collins**

Golden, CO – May 31, 2005 – The Colorado Renewable Energy Society (CRES) will kick off the eighth annual Colorado Renewable Energy Conference on Friday, June 10, by honoring the recipients of the 2005 Renewable Energy in Buildings Awards. This prestigious award, now in its sixth year, is presented to builders, building owners, and architects to acknowledge their incorporation of renewable energy and energy efficiency in newly constructed buildings. These buildings represent some of the most creative architecture and outstanding low-energy design in the state.

CRES will present four awards at the opening plenary Friday at 9 am in the categories of institutional, commercial, residential, and renovations. Both winners in the institutional and commercial categories this year have certified their buildings with the U.S. Green Buildings Council's Leadership in Energy and Environmental Design (LEED). LEED is a rating system that evaluates environmental performance from a whole-building perspective. LEED buildings usually consume much less energy and are built with materials and construction practices that have a minimal impact on the environment than standard buildings.

***Fossil Ridge High School in Fort Collins*** is the winner in the institutional category. Now in final review for LEED certification, Fossil Ridge will become the first LEED-certified high school in Colorado. It will also be the fifth LEED building in Fort Collins. (One of these LEED buildings is the Poudre School District Facility Services Building, which won the Colorado Renewable Energy Buildings Award in 2002. Another is the New Belgium Brewery, which will host the conference party on Thursday evening.) The winning design team is led by RB&B Architects in Fort Collins.

One reason Fossil Ridge is one of the most attractive and comfortable high schools in the state is because it obtains 60% of its lighting levels from natural daylight. Studies have shown that students, and adults as well, are better able to concentrate with natural lighting than with artificial lighting. The light fixtures throughout the school are high-efficiency and are controlled by daylight and occupancy sensors. Classrooms have operable windows, which allow natural ventilation. The windows are connected to the HVAC controls so that heating and cooling are turned off when the

windows are open. Designers estimate that Fossil Ridge will save \$70,000 a year on its energy bills compared to a similar school built to the standards of local code.

A solar photovoltaic (PV) power system rated at 5.2 kilowatts (kW) greets arrivals at the front entrance and is a signature of the front facade. The PV array produces power at the same time it shades the front windows, which reduces overheating in the entrance and hallways from direct solar gain. The school obtains 100% of its electricity from wind energy from the Platte River Power Authority's green pricing program, Wind Power.

***Snowmass Golf Clubhouse*** is the winner in the category of commercial buildings and has a LEED-NC Silver rating. It is the third commercial building in the Roaring Fork Valley and the 51<sup>st</sup> in Colorado to certify with LEED. The winning team is led by CCY Architects in Basalt.

The clubhouse is oriented east to west so that occupied spaces, including the bar, dining area, and pro shop, face south and receive solar warming in the winter and natural daylight year round. Supplementary heating and cooling comes entirely from a heat pump connected to an adjacent pond.

***Missouri Heights Residence in Carbondale*** is the winner in the residential category. The winning design team was led by Graybeal Architects, LLC, in Carbondale. The owners of this house work at home and sought to create an environmentally friendly residence that would be constructed within their budget. A rooftop garden increases insulation and reduces water runoff.

There are a number of very innovative design features of this home, including passive solar design and a greenhouse, which together comprise the primary heat source. To make this work, there is a cast-earth thermal mass that is used as a structural element to separate the main and second stories. This thermal mass stores heat energy when the sun is shining for later use and tends to moderate indoor temperature fluctuations year round. The home takes advantage of natural ventilation, daylighting, and a PV system rated at 1.8 kW. The walls are straw-bale construction with very high insulation (R) value. This home reduces its energy consumption by 85% compared with a standard home of its size. According to the owners, total construction cost was very competitive with standard new homes in the Carbondale market.

***Passive Solar Pop-Top Retrofit*** is the winner among renovations, with a team led by Bryan Bowen Architects, P.C., in Boulder. The home has passive solar design, and the architect expects more than half of the home's heating to come from the sun. Solar hot water panels are fitted on the roof ready for installation this summer, and the home obtains much of the light it needs during the day from daylighting. The leading architect on the project was Bryan Bowen in Boulder.

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### **About CRES:**

The Colorado Renewable Energy Society (CRES) is a nonprofit organization dedicated to promoting the economic and environmental benefits of solar, wind, biomass, geothermal, and energy efficiency technologies. CRES is the Colorado chapter of the American Solar Energy Society. CRES annually sponsors a three-day conference to serve CRES members, promote renewable energy and sustainable businesses, and inform consumers. This conference is chiefly planned and coordinated by volunteers. The 2005 Colorado Renewable Energy Conference is being held at the Lincoln Center in Fort Collins, Colorado, from June 9 – 11. The theme of this year's conference is "Renewable Energy: Power for Sustainable Communities." For further information on the conference, visit: [cres-energy.org/crec2005](http://cres-energy.org/crec2005).