



CRES NEWS

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A Chapter of the American Solar Energy Society

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Green Power Marketing and Renewable Energy Legislation Status to be discussed at Next Meeting

Lamar Wind Farm in Full Operation

(Sorry, photo unavailable electronically.)

After three months of major construction, the **Colorado Green Wind Project**, which is now recognized as the nation's fifth-largest wind farm, is fully operational and on line. This long awaited event marks a new milestone by providing renewable energy to a large number of Colorado electric power consumers at no additional cost. The farm is located on 11,840 acres of cattle grazing land some 30 miles south of Lamar Colorado.

With 108 wind turbines on line, the project at full power will provide 162 megawatts of energy to the electric power grid. Xcel will sell the power to its residential and commercial customers as part of its regular rate base power supply. The power generated by the Colorado Green Wind Project is enough to serve the electrical energy needs of about 50,000 homes and businesses.

Pentagon Issues Global Climate Change Warning

In a tacit acknowledgment that global warming is a real possibility, the Pentagon, has now released the result of its recent study that addressed the subject of what would be the potential global impacts of an abrupt and severe change in the world's climate. The scenario sketched out in the report, "Imagining the Unthinkable," surprised not a few, particularly those in high government office.

The report suggests that global warming already is approaching a threshold beyond which a sudden cooling will set in. The authors suggest a number of dire consequences in a scenario in which the current period of global warming ends in 2010, followed by a period of abrupt cooling. The study was commissioned by Andrew Marshall, head of the Pentagon's internal think tank, the Office of Net Assessments. One of its principal authors was Doug Randall of the Global Business Network who was quoted as saying, "it seems obvious that cutting the use of fossil fuels would be worthwhile."

The report spells out enumerable catastrophic impacts for many nations of the world including the United States. The report suggests that the subject of climate change "should be elevated beyond a scientific debate to a U.S. national security concern."

All CRES members are invited to attend the monthly CRES meeting at **5:30pm** on Wednesday, **March 24** at the NREL Visitors Center which is located 2 blocks past the Marriott hotel in the Denver West Office complex (exit 263 from I-70, just north of Colfax between Simms and Indiana).

The principal speaker will be **Lori Bird**, Senior Energy Analyst with the National Renewable Energy Laboratory (NREL). She will talk about how consumer demand for clean power is helping support the development of renewable energy resources both regionally and nationally. Today some 50% of all U.S. consumers have an option to purchase green power from their utility. And green power purchases by these consumers are helping to support some 1,500 MW of renewable electricity generation capacity.

In addition, **Craig Cox**, head of the Colorado Coalition for Clean Energy Technologies, will update us on the latest developments regarding the Renewable Energy Standards legislation in Colorado.

SECOND CALL Building Award Entries

CRES repeats its call for entries for the **2004 Colorado Renewable Energy in Buildings Awards**. Each year CRES recognizes teams of designers, contractors and builders for their innovation in the design of buildings featuring passive solar, PV, solar thermal water, geothermal heating and cooling, daylighting, natural ventilation or other renewable energy technologies. CRES will recognize one team in the category of commercial and institutional buildings and two teams in the category of residential buildings. Entries must be postmarked by May 14, 2004. For application forms and further details, refer to cres-energy.org.

Colorado Snap Shots

This column will feature meeting announcements, short news items, personality profiles, and other matters of interest to Coloradans.

CALENDAR OF EVENTS

March 16 and March 23... DENVERLISTENS - Mayor Hickenlooper Meets with Denver's Concerned Citizens An ideal opportunity to be heard on the announced topics of "Clean Air, Stable Electricity Rates, and Renewable Energy." *Time:* 5:30 - 8:30pm. *Venues:* March 16 - Academia Ana Marie Sandoval at 3655 Wyandot St., Denver. March 23 - Clayton Foundation, Tower Building at 3801 Martin Luther King Blvd., Denver. No charge but RSVP required. Call 720-865-9074 or e-mail to denverlistens@ci.denver.co.us.

April 7... CEBA Socially Responsible Investment Forum. Audience review and comments on business plans of five finalist in CEBA's Socially Responsible Project competition. Limited to invited investors and presenters. *Time:* 8:30-11:30am. *Venue:* Red Lion Inn at Invesco Field, 1975 Bryant, Denver. For an invite e-mail your request to CEBA@ceba.org.

April 13 & 14... 2004 Colorado Wind and Distributed Energy Conference: Renewables for Rural Prosperity. Sponsored by the Colorado Governor's Office of Energy Management and Conservation and the U.S. Department of Energy. Focus will be on latest developments in wind energy and distributed generation technologies. *Venue:* Doubletree Hotel, Colorado Springs. *Fee:* \$85 prior to March 22; \$95 after. For further information call 1-800-632-6662 or visit www.state.co.us/oemc/events/cwade.

April 23... Zero Energy Homes Workshop for BUILDING PROFESSIONALS. Three morning sessions will be presented covering energy efficiency in new construction, solar energy technologies and modeling strategies to balance the energy demand with renewable supply. In the afternoon, tours will be conducted to some local examples of the technologies covered in the morning session. *Time:* 9:00am - 5:00pm. *Venue:* City of Fort Collins Office Building, 215 N. Mason St. *Fee:* \$25 in advance or \$35.00 at door. For further details visit www.solarbound.org.

April 24... Zero Energy Workshop for HOMEOWNERS. Same topics as preceding workshop but aimed particularly at lay audiences. The time, venue and fees will also be the same.

HONOR ROLL OF CRES PATRONS

The following parties have made cash donations of varying amounts to the Colorado Renewable Energy Society within the past year:

Anonymous	Paul Adams	Maurice Alberson
Pam Amato	John Avenson	Jack Beal
Mike Bennett	Sally Berger	Jeffrey Berman
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Will Brown	Mary Carhartt	Mark Campione
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James Watterson	Lewis Yoder	

CRES thanks these donors for their generous contributions which came to a total of \$9607.00.

RECORD HIGH EFFICIENCY PV CELL REPORTED

The National Renewable Energy Laboratory has confirmed that it has measured a 21.5 percent efficiency for the new "A-300" PV cell manufactured by the SunPower Corporation. This is a world record for a large-area (five-inch) silicon cell and is a significant improvement over currently available cells that normally perform in the 12 to 15 percent range. The new cell will produce more power-per-unit area thereby allowing a significant cost savings for solar power systems. SunPower claims that the A-300 cell will deliver up to 50 percent more power from a given roof area of cells than traditional solar systems.

According to U.S. DOE PV Program Team Leader, Richard King, "... SunPower's unique backside contact technology can be utilized to manufacturer cost-effective products that improve the versatility of solar-electric power systems." Each 125-mm, single crystal cell is reported to generate three watts of electricity which would make it "the most efficient cost-per-watt solution in the photovoltaic industry."

NEW AD CAMPAIGN TO CURB ENERGY WASTE

Energy Outreach Colorado (EOC), a nonprofit organization that raises money to assist low-income families with their energy bills, has initiated an advertising campaign aimed at children empowering them to take the lead at home in inspiring their parents to make wise energy choices. The campaign will utilize TV, radio, web banners and an interactive web site. Its lead character will be the "*Energy Hog*." EOC has partnered with the Colorado Governor's Office of Energy Management and Conservation (OEMC) to produce the campaign. It is expected to run a minimum of three years. For more information contact Maria Ellingson at 303-825-8750 (x225) or visit www.energyhog.org.

CRES CORNER

A MESSAGE FROM YOUR PRESIDENT - **Dave Bowden**

CRES is off to a great start! We've had some terrific events the first two months of 2004. Delivering a humorous and insightful presentation on the history of Colorado's RE industry at our Feb. 25th monthly meeting was Jim Welch, longtime CRES member and clean energy proponent. He dusted off some great old pictures of 1970's solar advocates (some known as hippies) and the enormous cars many of us drove, one with a license plate of "BOAT." Thanks Jim, for sharing your time and perspectives.

RE was the lead topic at Colorado's Agricultural Outlook Forum on Feb. 19th. Several CRES Board members attended this event, hearing NREL staffers, Larry Flowers and Ralph Overend make excellent presentations on the benefits of wind and biomass technologies to rural Coloradans. House Speaker Lola Spradley also discussed the benefits of RE to farmers and ranchers, and the crowd of about 350 people saw Minnesota's Jim Nichols describe how his neighbors have profited from wind turbines. RE is clearly picking up momentum on Colorado's eastern plains.

On the legislative front, developing public policy to incorporate RE technologies into widespread use continues to be a challenge on both state and national levels. CRES is working with several other Colorado groups to ensure passage of HB1273 - SB168, the renewable energy standard that calls for increasing percentages of RE generation in coming years. As this is being written, a vote on the bill is pending in the Colorado Senate, with observers saying the decision will be very close.

If the RE Standard bill does not gather enough support, a ballot initiative may take the question directly to Colorado voters. And America still waits for a progressive energy bill to emerge from Congress that effectively incorporates renewables. Please stay tuned for more news on these important public policy issues.

Again I urge each CRES member to discuss our RE and EE goals with friends, neighbors, church groups, work colleagues, and anyone who may be interested. Each of you can be an effective voice for our vital message of economic, social, and environmental sustainability!

SUBCHAPTER NEWS

The Northern Subchapter of the Colorado Renewable Energy Society (NCRES) is partnering with Fort Collins Utilities, Sierra Club, Platte River Power Authority, Trees, Water and People, and WAPA in a *Million Solar Roofs* project that aims to promote the installation of 500 new solar installations by 2010 in the Northern Colorado region. This is part of a national initiative by the U.S. Department of Energy. For further information call Alison Mason at 970-493-1295 or visit www.nres.org.

Call for Nominees: *Women in Solar Energy Award*

The American Solar Energy Society (ASES) has announced that for the first time it will honor a woman who has contributed significantly to the advancement of solar and to the acceptance of women in the field. Nominees for the award should show a high technical level of competence and/or a record of outstanding accomplishments in education. She also should be a woman who has demonstrated skills at inspiring young women to enter the sciences through her educational activities or mentoring. The nominee need not be a member of ASES. The award will be presented at the ASES Annual Conference July 11-14, 2004 in Portland Oregon.

Nominations are due by no later than March 31, 2004. Submit your nominations to Dona McClain of ASES at dmccclain@ases.org. For further information visit www.ases.org.

CRES NEWS

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The official CRES address is:

P.O. Box 933

Golden, CO 80402

The address of the editorial office is:

1050 S. Monaco Pkwy. Ste 77

Denver, CO 80224

Editor: Paul Notari

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CRES MEETINGS

Unless otherwise specified, CRES meetings will be held at 5:30pm in the NREL Visitor Center.

March 24... General Meeting -
See page 1

April 28... General Meeting -
Speaker currently has not been confirmed. Refer to next issue of CRES NEWS for further details

May 26... General Meeting -
Guest speakers will be Don Chiras and Dave Wann who will discuss their recent book, "Superbia! 31 Ways to Create Sustainable Neighborhoods."

CRES "HOTLINE"

303-806-5317

CRES INTERNET NOS.

e-mail: info@cres-energy.org

Web Pg: <http://cres-energy.org>

RENEWABLE ENERGY BRIEFS

NEW HYBRID AUTOS COMING THIS YEAR

Toyota Lexus... Toyota will start selling its new luxury hybrid SUV, the Lexus RX330, in November or December of this year. The new cars are expected to realize fuel efficiencies of 27 to 40 miles per gallon.

Ford Escape... Sometime this summer, Ford has announced that it will have its first gas-electric hybrid vehicle, the Ford Escape SUV, available for sale in showrooms across the country. The new cars are also expected to operate with fuel efficiencies of 27-40 mpg.

Honda Accord... Honda last week announced that it will introduce a hybrid-electric version of its midsize Accord later this year. It will be the first production vehicle to employ Honda's new Variable Cylinder Management Technology. Fuel efficiencies are expected to exceed 30 mpg.

POSITION OPENING

**Executive Director, Center for Resource Conservation
Boulder, Colorado**

CRC is seeking a new Executive Director who will head this nonprofit association with a current staff of 12 full and part time professionals. The chosen candidate will help expand the association's horizons to cover energy efficiency, renewable energy, water conservation, waste reduction, and pollution prevention. Salary range is \$45,000-\$60,000 commensurate with qualifications. Send your resume, or inquire for further details, to crc@conservationcenter.p.org.

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For further details, visit www.clarkconnection.com

**Mark Your Calendar
June 25-27, 2004**

**Renewable Energy:
It Makes \$ense**

Over the long weekend of June 25-27, 2004, the annual conference of the Colorado Renewable Energy Society will take place at the University of Denver. The Conference will focus on the latest renewable energy and energy efficiency developments. Sessions and workshops will be directed toward professionals as well as the interested public, including engineers, scientists, architects, policy makers, builders, home owners, business owners, and local leaders.

For further information visit our website: cres-energy.org.



Colorado Renewable Energy Society

P.O. Box 933
Golden, CO 80401

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