



CRES NEWS

Newsletter of the Colorado Renewable Energy Society

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A Chapter of the American Solar Energy Society

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The Governor's Energy Office and Colorado's New Energy Economy - Feature Topic for January Meeting

SW Utility Consortium to Build CSP Plant



The National Renewable Energy Laboratory (NREL) has announced that it is pursuing a new initiative in support of the U.S. Department of Energy's goal to install 1,000 megawatts (MW) of new concentrating solar power (CSP) systems in the southwestern United States by 2010. In keeping, the lab has joined a consortium of utilities that has committed to construction of a central-station solar power plant in the region. The plant will be owned by an independent operator, and the utility members of the consortium (including Xcel Energy) will commit to long-term purchase power agreements.

The utility group is called the *Southwest Energy Service Provider's Consortium for Solar Development* and will be led by the Arizona Public Service Company. Also participating is the Southern California Public Power Authority, the Salt River Project, Tucson Electric Power and Xcel Energy.

The size, design and location of the initial plant will be determined by a competitive contract. It is expected to have a rated capacity of 250 megawatts and be located in either Arizona or Nevada. When completed it will be the largest solar power plant in the Southwest.

This is part of a program by which the U.S. Department of Energy is partnering with the Western Governors' Association to encourage CSP installation in Arizona, California, Colorado, New Mexico, Nevada, Texas and Utah. The expected level of deployment of CSP systems, combined with research and development to reduce technology component costs, is projected to reduce CSP electricity costs to as little as \$0.07/kilowatt-hour, a very competitive level in today's electric power generation market.

The next meeting of the Colorado Renewable Energy Society will take place at **5:30pm on Thursday, January 24**. The location is the **Jefferson Unitarian Church** at 14350 W. 32nd Ave. In Golden. (You can take I-70 to exit 264, and then go west on 32nd Ave. for about 1 mile... or you can go north or south on any intersecting street and go west on 32nd Ave. about 1 mile past the I-70 interchange).

This meeting is being cosponsored by the Green Sanctuary Task Force of the Jefferson Unitarian Church, Environment Colorado and the Sierra Club. Our featured speaker will be **Tom Plant**, Director of the Governor's Energy Office (GEO). He will give us an overview of Governor Ritter's new energy office and describe plans in the making for developing a new energy economy for Colorado.

Before being appointed to this position by Governor Ritter in early 2007, Tom was Executive Director of the Center for ReSource Conservation (CRC) in Boulder. He also represented House District 13 (Nederland) in the Colorado Assembly from 1998 to 2006 where he served on the House Appropriations Committee and the Joint Budget Committee. His work in the State Legislature was recognized through awards from such diverse groups as the University of Colorado, Sierra Club, Colorado Conservation Voters, and the Rocky Mountain Farmer's Union.

Tom graduated from Colorado State University in 1985 and worked as an exploration geologist until 1988. He then worked in the Climate Change Department of the Union of Concerned Scientists in Washington DC before returning to Colorado to take the job with CRC.

Colorado Calendar

This column features dates for meetings and other events relevant to Coloradans interested in renewable energy.

Jan. 29... Workshop - Greening of the Hotel Industry. Presented by the Denver 2008 Convention Host Committee and Denver Mayor's Office Greenprint Program. *Location:* Ellie Caulkins Opera House in downtown Denver. For further details contact Chris Lopez at 303-534-6200.

Jan. 31... CASBA Legislative Briefing. The Colorado Alliance of Sustainable Business Associations hosts this meeting of state legislators and sustainable business leaders who will describe their energy interests and interact with members of the audience. *Location:* Old Supreme Court Chambers, State Capitol Building, Denver. For further details contact Emily Andrews at EAndrews@allianceforcolorado.org or 303-572-1536.

Feb. 13-14... Centralized Solar for Electric Generation. Join solar, renewable energy and generation experts to discuss centralized solar power's future. Covers technology, performance, load matching, transmission and land use challenges in building centralized solar power. *Location:* Grand Hyatt Hotel, Denver. For further details contact EUCI Customer Service at 303-770-8800.

Feb. 27-29... 2008 3rd Annual Sustainable Opportunities Summit. Explores how companies can financially benefit from being more engaged in climate change matters. Brings together corporate leaders, entrepreneurs and others involved in renewable energy and climate change. *Location:* Shearson Hotel at I-25 & Hampden in Denver. For further details visit www.sosummit.org/home/

CRES Fundraiser

Dinner at Noodles & Co.

3294 Youngsfield St., Wheat Ridge

Jan. 31, Between 5pm & 9pm

20% of all sales made on this date and time will be donated to CRES

COLORADO A GEOTHERMAL POWERHOUSE?

A study recently released by the Department of Energy's (DOE) Energy Efficiency and Renewable Energy office reported that along with geothermal giants California and Nevada, Colorado is also brimming with the potential to generate power using steam heat billowing far below the surface of the earth. The resource has gone unnoticed by Colorado power producers because it doesn't manifest itself at the surface as it does in these other states.

According to Matt Sayers, Deputy Director of the Colorado Geological Survey, hot springs in the state may not be as hot as they are in California, Nevada, or even Utah, but that doesn't mean that the heat is insufficient for geothermal power purposes. He has revealed that the *National Heat Map* actually ranks Colorado as second in heat flow among all 50 states and that over the next 10 years, it is estimated that 10MW of potential geothermal power can be made accessible within the state. He also predicts that the number will rise appreciably, maybe to 50MW or more, over the next 20 years.

The resources are there, Sayers reports, they are just deep underground. The trick is extracting the energy from so deep in the earth. Karl Gawell, Executive Director of the Geothermal Energy Association, said that getting at the potential in Colorado is complicated by the fact that for almost 20 years the geothermal industry has stagnated due primarily to changes that PURPA enacted in the 1992 Energy Bill. But thanks to recent tax credits and other technical developments, the industry is in an upswing once again. As infrastructure and supply chain problems are overcome, geothermal power systems in Colorado may well become major players in the electric power game.

President Signs 2007 Energy Bill

As Christmas approached, President Bush gave the country an unexpected Christmas present. He put into law the 2007 Energy Bill. While two provisions long sought for by ASES and the renewable energy community were omitted, what remained was a major step forward in improving our energy future.

The bill will boost Corporate Average Fuel Economy (CAFE) standards to a fleetwide average of at least 35 miles per gallon by 2020. Unlike the Energy Bill passed into law in 1975, these standards will apply to SUVs, minivans, and light trucks, as well as passenger cars. Presuming that all auto manufacturers improve the average efficiency of their total production in equal amounts year-by-year until they finally reach the full 35mpg standard, this will save the United States upwards of 1 million barrels of oil per day by 2020 (about half of what we currently import from the Persian Gulf). To reach these goals manufacturers will undoubtedly have to produce more conventional hybrids, plug-in hybrids, diesel engine passenger cars, and some advanced technology vehicles. The mix of lighter vehicles with smaller engines will likely increase as well.

The bill will also require that 36 billion gallons of biofuels be produced annually by 2022. While much of this will initially come from corn, eventually the "lion's share" will have to come from cellulosic feed stocks such as switchgrass, field waste, and even municipal waste. Considerable funds are earmarked in the bill to finance an expedited research program to make cellulosic ethanol cost competitive.

In addition the bill calls for dramatic increases in the efficiency of our nation's appliances, including freezers, dishwashers, refrigerators, washers and dryers. It also requires the phase-out of traditional incandescent light bulbs.

To satisfy President Bush's demands and prevent his veto, the Senate did strip away two key provisions: a requirement that by 2020 utilities produce 15 percent of their electricity from renewable sources and \$21.8 billion in incentives to pay for renewable resources. Most of this funding would have come from stripping away of \$12 billion in planned tax breaks for oil companies in the coming decade.

CRES CORNER

A Few Last Words From Your Departing President

As I slip into the sunset (but not completely over the horizon) I want to thank you all for a very successful year. CRES has made some good moves toward an even more sophisticated organization. Thanks to extraordinary effort by individuals on the Board and CRES Staff, CRES has tightened its organizational foundation and is in a better position to receive outside financial assistance for specific projects, which also strengthens our resolve to build the staff that better serves the growing membership. With a Director of Development we are broadening our public presence, and a much improved website has kept up with the dynamic renewable energy environment in Colorado. Our annual conference is shaping up to be a great event in Pueblo with an enthusiastic team from the Southeast CRES Chapter. This is not to say that we're without challenges. Building the organization will require financial commitments from our members above and beyond the cost of membership, and an increased public face means dedicated volunteers to continue to serve the public with CRES events. The good news is that we are seeing increased commitment, and CRES has the great fortune to have members who step up when asked. Some have made the added commitment to join the Board of Directors, where the opportunity exists to guide CRES to higher planes. To the new Board members, welcome! And to all CRES members, have a fabulous 2008!

Doug Seiter

CALL FOR CRES MEMBER INPUT

CREC 2008 Call for Abstracts and Workshop Proposals... CRES is requesting abstracts for presentations and workshop proposals for the Colorado Renewable Energy Conference (CREC) 2008 to be held in Pueblo June 6-8. The theme for the conference is *Renewable Energy: Fueling Prosperity*. If you are interested in presenting at the conference or conducting a (more extensive) workshop, please send an abstract up to 250 words to Mona Newton (monalnewton@yahoo.com) or Jane Fraser (jane.fraser@colostate-pueblo.edu) by **January 31**.

2008 Volunteer of the Year Award... Nominations are invited for this year's *Volunteer of the Year Award* to be presented at the CRES Annual Meeting on February 23. Criteria and entry forms are available from Walt Kaesler at wkaesler@comcast.net. The deadline for submission is **February 15**.

2008 Renewable Energy and Sustainable Design in Buildings Award... CRES invites designers, contractors, owners and builders to enter any building incorporating renewable energy or sustainable design features for award consideration. Awards will be presented in several categories at the Colorado Renewable Energy Conference (CREC-2008) to be held June 6-8 in Pueblo, CO. The deadline for submission is **March 3**. Entry forms and full details are available at www.cres-energy.org or from Werner Duecker at 720-214-1550 or wduecker@chamberlinarchitects.com.

2008 Larson-Notari Award... Nominations are invited for this award to be presented at the Colorado Renewable Energy Conference (CREC-2008); June 6-8 in Pueblo, CO. The award will be given to an individual who has made the most significant contribution to the field of renewable energy, energy efficiency or sustainable buildings in Colorado within the last year. The deadline for submissions is **April 4**. Entry forms and full details may be obtained from Walt Kaesler at wkaesler@comcast.net.

CRES NEWS

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At time of publication, the tally of ballots for the election of 2008 Board members had not been completed..

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CRES ANNUAL MEETING & PARTY - Feb. 23

Join in the great fun and meet your fellow CRESners. Also hear **Ron Binz**, chair of the PUC Commission. Enjoy light supper, wine/beer bar and jazz piano entertainment.

\$50 per person

Cableland Mansion

4150 Shangri-La Drive, Denver

RSVP below

CRES "HOTLINE"

303-806-5317

CRES INTERNET NOS.

e-mail: info@cres-energy.org

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

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CRES Speaker's Bureau

Did you know that CRES has a Speaker's Bureau? It regularly provides speakers to civic groups, clubs, schools, churches, and many other organizations. Topics include renewable energy technologies, climate change, energy efficiency and other related subjects. If you would like to volunteer your services as a speaker, please contact Jenni Sonnen at Jenni_sonnen@yahoo.com. You may also contact Jenni if you would like to arrange a speaker for any occasion for which you may have a need. For further information on the CRES Speakers's Bureau, visit www.cres-energy.org/action_speakersbureau.html.

Job Openings

Green Building Facilities Manager... The *Alliance for Sustainable Colorado* is seeking a motivated individual who has experience in property management, construction management, leasing and sales, and other managerial areas. For details contact Sarah Garrison at sgarrison@allianceforcolorado.org.

Estimator... A fast growing and expanding wind energy developer based in Denver is seeking an "Estimator" to provide accurate and competitive estimates for construction costs and establish schedules in support of the Company's wind energy development business. For details contact Nick Bulow at nbulow@paragong.com

GEO Releases RE Report

On January 3, the Governor's Energy Office (GEO) released a most comprehensive report on the current status and future of renewable energy in Colorado. The report called *Connecting Colorado's Renewable Resources to the Markets*, was prepared by a task force of utility members and representatives from the renewable energy community as appointed by the Governor in compliance with Senate Bill 2007-091.

The task force reported that Colorado's abundant renewable resources provide great opportunities to improve the state's energy, economic, and environmental conditions. Also it reported that Colorado will continue to benefit by adding more renewable energy and expanding its limited transmission infrastructure to serve its population and what may evolve as a regional electric power marketplace.

The report specifically identifies 96 gigawatts (GW) of wind capacity in the Eastern Plains, and a combined solar capacity of 26 GW in southern Colorado. By comparison, Colorado's electric load currently peaks at 11 GW. The report also details how Colorado's transmission is constrained and why new high voltage transmission lines are needed to connect the state's rich renewable resources to electricity customers.

"This comprehensive mapping of our renewable energy resources serves as a roadmap to advance our state to a new Energy Economy," said Tom Plant, director of GEO. For more information as well as a complete downloadable copy of the report, visit the GEO website, www.colorado.gov/energy/in/upload_pdf/RenewableResourceGeneration.pdf.

ROSTER OF CRES BUSINESS MEMBERS

We thank the following organizations for their continuing support

Astralux Environmental Solutions
Aztec Radiant Heating, Inc.
Balanced Construction
Bergey Windpower Company
Burdick Technologies Unlimited, LLC
CH2M Hill
CO Homefinder.com
Colorado Energy Science Center
Colorado Springs Utilities
Community Office for Resource Efficiency
Cool Energy, Inc.

Delta Montrose Rural Electric Assoc.
Ecofutures Building Inc.
EMC Engineers
Enermodal Engineering
First National Bank of Colorado
Fish Builders of Colorado
Golden Solar
Hart Project Design
Independent Power Systems
Innovative Energy
Jim Logan Architects P.C.
Kurowski Development Company

Metro Solar Inc.
Mountain Muse Communications
Namaste Solar
Powur of Citizenre-Rocky Mtn Region
PrimeStar Solar, Inc.
Progressive Asset Management
Shumei International Institute
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