



CRES NEWS

Newsletter of the Colorado Renewable Energy Society

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A Chapter of the American Solar Energy Society

NOV. 2007

An Overview of Al Gore's "An Inconvenient Truth" Feature Topic for November Meeting

Governor Ritter Dedicates Colorado's Largest Wind Farm

Sorry — no electronic photo available.

On October 2, 2007, Colorado's Governor Bill Ritter dedicated the Silver Creek wind farm now nearing completion in Northern Colorado. The site is located eight miles east of Grover in Weld County. When fully operational, the 300 megawatt (MW) wind farm will be the largest in Colorado and one of the largest single wind-power facilities in the United States. Ritter joined other state and local elected officials, landowners and community leaders in celebrating the project's success. "This project shows innovative thinking and planning," Gov. Ritter said. "The Cedar Creek wind farm is an important source of clean, renewable energy for customers of Xcel Energy in Colorado. It is also a welcome addition to Colorado's New Energy Economy and will help our state achieve its goal of 20 percent renewable energy by 2020."

The wind farm is expected to be fully operational by year end. Its first phase was projected to be functioning by the end of October or early November. Ultimately the development will consist of 274 wind turbines and will generate enough carbon-free electricity to power 90,000 average American homes annually.

The Cedar Creek project is owned by Babcock & Brown Operating Partners LP and BP Alternate Energy North. All electricity generated will be sold under a long term fixed contract to the Public Service Company of Colorado, a subsidiary of Xcel Energy Inc. The project has employed approximately 415 workers during its construction and will continue to employ a full-time staff of more than 20 workers to monitor and maintain the site after it becomes fully operational. "This project is a perfect example of how we are going to create a new energy economy in Colorado," Ritter said. "This project will help us maximize our abundant supply of wind power and at the same time stimulate our economy."

The next meeting of the Colorado Renewable Energy Society will take place at 5:30pm on **Wednesday, November 14**. The event is being held at a new location for just this one meeting. The location is the **First Universalist Church of Denver**, 4101 E. Hampden Ave. (NE corner of Hampden Ave. and Colorado Blvd.)

Our featured speaker will be **Jeff Hart**. He will present a slide show and discussion of Al Gore's Oscar winning documentary, "An Inconvenient Truth." Jeff has 15 years experience managing evaluations of government environmental programs and policies. He will bring this experience to his penetrating analysis and discussion of this great new film.

The film stresses that humanity is sitting on a ticking time bomb. It relates that if the vast majority of the world's scientists are right, we have just ten years to avert a major catastrophe that could send our entire planet into a tailspin of epic destruction involving extreme weather, floods, droughts, epidemics and killer heat waves beyond anything we have ever experienced.

Jeff's slide show will cover all of the highlights of the film. He will examine each in detail and entertain discussion from the audience. *An Inconvenient Truth* offers a passionate and inspirational look at former Vice President Al Gore's fervent crusade to halt global warming's deadly progress by exposing the myths and misconceptions that surround it. With wit, smarts, and hope the film ultimately brings home Gore's persuasive argument that we can no longer afford to view global warming as a political issue - rather, it is the biggest moral challenge facing our global civilization.

Colorado Calendar

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

Nov 12 - 13... *Built Green University Seminar (Summit County)*. Offering tips and resources to help you add value to your home and profits to your business. Emphasizing cost effective methods to improve home performance, and how to comply with the 2007 Built Green Checklist. *Location:* Town of Silverton Pavilion. For details visit www.builtgreen.org/events/bgu/2007-fall/.

Nov 13... *Wind 101*. Presented by the Northern Colorado Renewable Energy Society (NCRES). A basic overview of modern municipal scale wind energy systems. *Location:* Odell Brewing Co., 800 E. Lincoln, Fort Collins. For further details visit www.ncres.org.

Nov 15 - 16... *Built Green University Seminar (Pueblo)*. Same content as Summit County seminar described above. *Location:* Pueblo Convention Center. For further details visit website above.

Nov 30... *Building Science & ENERGY STAR Workshop*. A full day of learning led by author and educator, Joe Lstiburek, and Sam Raskin National Director, EPA Energy Star Homes. *Location:* Chateau Fleuves Conference Center, 2087 Broadway, Grand Junction, Colorado. *Fee:* \$175. To register & further information visit www.sustainableconferences.com.

Dec 3 - 4... *The ENERGY STAR Summit 2007*. Continuing education courses combined with a new product Expo. *Location:* Hyatt Regency Center, 7800 E. Tufts Ave., Denver. For details visit www.e-star.com/summit.

Dec 13 - 14... *Renewable Energy Policy, Standards, Financing, Business Incentives and Projects*. Top experts explain current and future state of renewable energy direction and development. *Location:* The Westin Hotel, Westminster, Colorado. To register & further information, visit www.cle.com/energy.

2008 CRES BOARD NOMINEES

The CRES Board of Directors has approved a slate of eight candidates for consideration by the membership to fill four 2-year term vacancies on the CRES Board effective January 1, 2008. The nominees are as listed following in alphabetical order. Please select **four**, enter your choices on the ballot on page 4, and post it before midnight **December 15, 2007**. Send your ballot to Steve Sargent, *CRES Secretary*, c/o P.O. Box 933, Golden, CO 80402. Be sure to show your name clearly on the envelope but **do not write it on the ballot**.

Nate Blair is a Senior Energy Analyst within the Energy Analysis center at NREL. His primary research interests include macroeconomic energy-impact analysis, wind-power market modeling, energy policy and legislation impacts, and building performance. His current activities include developing the WinDS model, developing the Solar Advisor Model (SAM). His research helped support the recent ASES report on tackling climate change and the forthcoming AWEA Wind Vision report on supplying 20% of the countries electricity with wind. Nate has fifteen years of experience in renewable energy systems and simulations. He has worked in the areas of building energy efficiency, ground-source heat pumps, solar hot water systems, photovoltaics, wind and concentrating solar thermal power. He worked as the TRNSYS project manager at the Univ. of WI – Solar Energy Laboratory, at Sandia National Laboratory, at a German building energy company, a research group in France and at Global Energy Partners in Lafayette CA. Nate has a B.A. in physics, an M.S. in Mechanical Engineering and an MBA in technology management.

Barbara Farhar has worked on energy efficiency and renewable energy since 1977, and has been a member of CRES and ASES for several years. Most of her professional career has been with SERI and NREL in Golden and Washington, DC, where she designed and managed research on the market, public opinion, behavioral, and policy aspects of EERE, including buildings and PV. She is currently adjunct at the University of Colorado-Boulder where she received her doctorate. With more than 240 peer-reviewed publications, Barbara has published articles in *Science*, the *Annual Review of Energy and the Environment*, and *Public Opinion Quarterly*. She has organized sessions and presented at the American Association for the Advancement of Science, the American Sociological Association, and numerous other professional conferences. She has testified before congressional committees. In 2006, Barbara received a Solar Pioneers Award from the World Renewable Energy Network and a Jefferson County Outstanding Woman Award. She has been on the technical committee of the World Renewable Energy Congress for the past 10 years, working on energy and poverty reduction issues.

Gerry Fitzpatrick, a Sr. Director with a large Colorado high-tech company, has an under graduate degree in electrical engineering and a master in business. He has over 25 years of diverse practical experience in multiple technical disciplines (electrical, energy, mechanical, thin-film technology, physics, etc.) and over 10 years of practical business development experience. He has experience in design of energy control systems and the implementation of industrial energy efficiency. A member of both ASES and CRES, and with a broad base of knowledge on multiple areas of renewable energy and cost effect energy efficiency, without commercial RE ties, that give him a good base to represent the membership of CRES. With this background, and with the continued challenges facing our state and nation in the areas of global warming, energy security and sustainability, CRES will need to double its efforts in the coming years in education, encouraging development, demonstrating, and collaborating with allied organizations for all aspect of renewable energy and energy efficiency. *(continued on following page)*

CRES CORNER

GOOD TIMES, EXTRA MOTIVATION

This year has been one of the best this industry has seen in Colorado. It started with a new Governor who made renewable energy the hallmark of Colorado's New Energy Economy. We've seen new manufacturing and jobs created for the state. The PV industry is fully engaged as a result of Amendment 37 and Governor Ritter's doubling of the renewable energy goals. More than 20 House and Senate Bills and Executive Orders have created a legislative foundation for a renewable energy future. All of this may generate a sigh of relief to those involved in The Great Struggle for so many years, but it also can cause some to slip into complacency, expecting the momentum to carry itself. It won't. There is much to do, and in spite of all the media attention and good news, there are plenty of folks who have never heard of CRES or the work that we do. CRES needs more diversity in its membership, and the energy of youth to complement the wisdom of age. There are new events and initiatives on the horizon to grow our organization and its influence, and ongoing opportunities to take an active role in CRES through the Board of Directors and various committees. Stay engaged, and use this uniquely supportive environment to push CRES to prominence in the New Energy Economy. Happy Thanksgiving!

Doug Seiter

LIST OF NOMINEES *continued*

Thom W. Johnson currently heads his own consulting firm, RAD Energy Systems, which specializes in integrated energy system design including renewable energy and energy efficiency technologies. He is certified by CoSEIA in both PV and DHW systems and is working on his PE. He has a BS in Architectural Engineering and a MS in Civil Engineering from CU. He is currently a member of CRES, ASES, CoSEIA, ASRAE, and RMAEE. Most recently he took the lead in soliciting sponsors for the CRES conference and is credited with making the event the financial success it was.

Walt Kaessler is running for a second term on the CRES board. He currently is chair of the CRES awards committee which, includes the Renewable Energy and Sustainable Design in Buildings Award, the Larson-Notari Award, and the CRES volunteer of the Year Award. He is also a member of the Solar Tour Committee. Before his retirement from a successful architectural practice, he specialized in passive solar and sustainable architecture. He also was the founder and first chair of the AIA Denver Committee on the Environment.

Seth Kassels is presently Director of Technical Analysis for Econergy. In his present role, Seth has lead/supported the technical and commercial due diligence of approximately 900MW of renewable energy. Seth has also worked in Econergy's consulting division as an Energy Engineer. In this role, he developed energy master plans for residential and commercial developments, consulted in the review of potential Clean Development Mechanism (CDM) projects, conducted Green House Gas (GHG) inventories and reviewed proposed energy efficiency improvements in commercial buildings. Seth holds a Master of Science degree from the Building Systems Program in the College of Civil, Environmental and Architectural Engineering at the University of Colorado and a B.A. degree in Environmental Physics from Colorado College. While at CU Seth was a member of the 2005 CU Solar Decathlon team. Seth was also the 2005 recipient of The ASES John and Barbara Yellott Award, given yearly to a graduate student concentrating on solar energy. (*continued on following page*)

CRES NEWS

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NEXT CRES MEETING

CRES monthly meetings are customarily held at the Jefferson Unitarian Church, 14350 W. 32nd Ave., Golden. Venue may change for some meetings. The meetings will take place on Thursdays and begin at 5:30 pm.

December ... There will be no CRES Monthly Meeting in December.... HAPPY HOLIDAYS!

CRES "HOTLINE"

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2008 CRES BOARD BALLOT

SELECT FOUR

Nate Blair Barbara Farhar Gerry Fitzpatrick Thom W. Johnson

Walt Kaessler Seth Kassels Bolko vonRoedern Robert E. Wilson

Bolko von Roedern is a Sr. Project Leader at the National Renewable Energy Laboratory. His educational credentials include a Physics Diploma (Dipl. Phys.), Clausthal Technical University, Germany and a Ph.D. in Physics (Dr. rer. nat.), Stuttgart University (Germany), research at the Max Planck Institute for Solid State Research, Stuttgart. Bolko was hired by NREL (then SERI) in 1983 after working on a SERI subcontract as a post-doctoral fellow at Harvard University. He developed amorphous-silicon-based (a-Si) solar cells within SERI's in-house amorphous silicon group as a senior scientist. In 1985, he joint a start-up company, Glasstech Solar, Inc. (GSI) in Wheat Ridge, CO managing all aspects of the technology developments as well as day-to-day operation. GSI developed turnkey a-Si photovoltaic module manufacturing lines. In 1990, he returned to SERI as a Project Manager in the Amorphous Silicon Research Project. He was among the finalists of the 1999 World Technology Award for Energy; the Thin Film Partnership, in collaboration with its subcontractors has also won several awards and recognitions (RD100 etc.).

Robert E. Wilson studied electric engineering at the University of Nebraska (BSEE in 1969), earned several advanced degrees in engineering and mathematics, and completed the Ph.D. at the University of Idaho in 1992 Bob was the first Nicholson Visiting Assistant Professor of Electrical Engineering at the University of Wyoming from 1992-1994. He has worked over twenty-seven years in many specialties within power systems engineering and is a registered Professional engineer in the state of Colorado. He currently is employed by the Western Area Power Administration, US DOE. Bob enjoys volunteering for many community service projects, studying the connection between transit and sources of energy, transit politics, visiting with his grandsons, exploring old railroad right-of-ways, and driving (or hiking) scary Jeep roads in Colorado.

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