

# SOLAR RISING

May 2006

Volume 8, Issue 1

Quarterly Newsletter of the Oregon Solar Energy Industries Association (OSEIA)

OSEIA - Promoting Oregon's largest natural resource since 1981 - solar energy

## Northwest Solar Expo

Sept. 29<sup>th</sup> - Oct. 1<sup>st</sup>  
Portland, Oregon

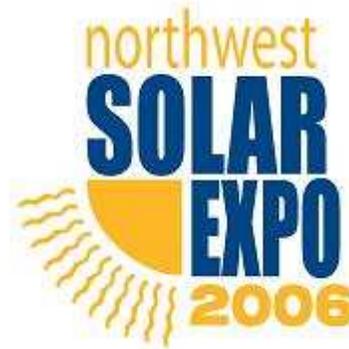
by Jon Miller

We are excited to announce the first annual Northwest Solar Expo to be held on September 29th – October 1st. The Expo will be held at the Oregon Convention Center in Portland at the same venue with the Home Show which attracts 30,000 attendees over the weekend.

With energy issues making headline news home and business owners are asking about solar and other renewable energy options that are available today – the Expo is designed to provide answers to their questions.

The Solar Expo will offer workshops and vender displays providing clean energy solutions for mainstream consumers and businesses.

Workshops on renewable



energy incentive programs, installation technology, financing options, energy efficiency, and building technology will provide attendees with valuable facts

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## Support Solar Tax Credit Extension!

by Rhone Resch

**Do you care about energy prices?**

**Would you like the U.S. to be more energy independent?**

**Do you support greater use of solar energy?**

If so, now is the time to contact your representatives in Congress and ask them to support the Securing American Energy Independence Act.

The SAEI is a bipartisan effort to increase the use of solar energy in the U.S. The bill will extend the Federal investment tax credit for homeowners and businesses to install solar and fuel cells for 8 additional years, helping to expand our use of solar and lower costs to consumers.

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**SOLAR RISING** is the newsletter of the Oregon Solar Energy Industries Association (OSEIA). OSEIA is Oregon's local chapter of the Solar Energy Industries Association. The information presented in this newsletter reflects the opinions of the authors and not necessarily those of OSEIA.

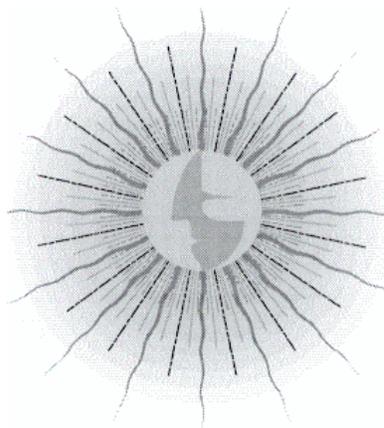
The success of the newsletter depends upon your contributions. This is an opportunity to tell the OSEIA members about your activities and to express your opinions. Photographs or figures to accompany articles are most appreciated. Articles of current and timely interest will be given highest priority. Otherwise, articles will be published on a first come basis as room allows.

Send your contributions to:

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## Technical Workshop on Commercial Solar Thermal Systems

May 16<sup>th</sup> 2006 – 11:30 to 3:30 PM  
Central Oregon Environmental Center  
Audubon Room, [www.envirocenter.org](http://www.envirocenter.org)  
16 NW Kansas, Bend, OR 97701

This workshop is part of OSEIA's regular membership meeting. The workshop will focus the design, installation, performance and incentives for commercial solar thermal systems.

The workshop will have short formal presentations with ample time to ask questions, share expertise and improve solar industry knowledge. This workshop is for experienced solar professionals and plumbers.

No cost, but reservations are required. Please contact Jon Miller at either: (503) 236-0367 or email: [oseia@oseia.org](mailto:oseia@oseia.org)

11:30 – 11:45 Networking, Welcome and Introductions – Pizza for \$2 a slice

11:45 – 12:00 OSEIA Announcements

12:00 – 12:15 Cylvia Hayes - 2006 Green + Solar Building Oregon Magazine

12:15 – 12:45 Oregon Net Metering Policy – new PUC rules for PGE & PacifiCorp

Break

1:00 – 2:00 Commercial Space and DHW systems – Doug Railton, Cascade SunWorks

2:00 – 3:00 RETScreen Performance Estimation – Dave Robison, Stellar Processes

3:00 – 3:30 State and Federal Incentives Requirements – Christopher Dymond, Oregon Department of Energy

3:30 – 4:00 Question and answers

Attendees will fulfill the 2006 continuing development requirements to maintain status as a tax credit certified solar thermal technician from the Oregon Department of Energy

# Rising Star System

from Emily Lewis—Sunlight Solar

## *The System*

Sunlight Solar Energy Inc. located in Bend, Oregon completed another successful commercial project at Rising Star: an environmentally friendly furniture store located in downtown Bend. They installed 50, 190 watt rated hybrid solar panels creating a 9,500 watt solar electric system. The self-ballasting racking used required no penetrations and holds the panels at a 10 degree angle on the flat roof.

The panels are manufactured by Sanyo and are one of the world's most efficient types of panel which require less roof space. The inverters used are also one of the most efficient available, carrying the market's



longest warranty and are manufactured in Bend, Oregon by *PV Powered*.

## *Economics*

As a Pacific Power customer, 97% of the systems' cost was covered by rebates, tax credits and depreciation allowances. Approximately 27% of the cost is covered by the rebate through the Energy Trust

of Oregon. Low interest financing and a tax credit were made possible with help from the Oregon Department of Energy. In addition, the system will produce \$430 in Green tags annually. Overall, this investment will pay for itself in three years, with savings of about \$1000 per year on electricity for Rising Star.

With 2005 recorded as the warmest year on record, utility rates rising, other non-renewable resources being depleted, and great incentives available now, today is the time to make decisions for the future.

For additional information regarding Solar Electric Systems, contact Ariana Oberman at **Sunlight Solar Energy, Inc.** at **541.322.1910**.

*Fig: Ross Adams of Rising Star admires the PV system.*



## Photos from New Solar Projects

by David Parker—Advanced Energy Systems, Eugene



The UO Living Learning Center's 50 collectors—1600 ft<sup>2</sup>—solar water heating system, with 2200 gallon storage tank, is close to being completed. This system is on the North building's roof, but supplies both North and South buildings hot water needs (with steam backup). We believe this is the second largest commercial solar water heating system in the state.



## Pod Casts Available for HOPES Keynote Speakers

The Hopes conference is an annual conference put on by the University of Oregon Ecological Design Center. The EDC is a student group interested in sustainability, renewables and environmentally sound design.

Pod casts of keynote presentations from this year's HOPES conference can be found at <http://hopes.uoregon.edu/node/5>



*EDC students installed a solar kiosk in the UO Student Rec Center showing the production of 12 kW photovoltaic system on the rec center roof. Performance data are viewable at <http://edc.uoregon.edu/solar>.*

# Northwest Solar Expo

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needed to make sound financial decisions.

The event brings together the northwest's solar industry of energy professionals, manufacturers, and builders, along with government and non-profit agencies, to show residential and commercial customers how they can take advantage of today's clean energy solutions.

Attendees will see the full range of available solar technologies – including photovoltaic (PV) solar electric systems, hot water systems, passive solar design, pool heating and specialty solutions – that are generating energy today for thousands of homes and businesses here in the northwest. Also included in the event will be energy efficiency options, green build-

ing designs, and other clean energy solutions.

OSEIA has teamed up with Global Events Group to manage and produce the Northwest Solar Expo. Please contact myself or Global Events Group for more information on how you can participate at the Expo as a sponsor or with a booth space.

## Guaranty RV Goes Solar

by David Parker—Advanced Energy Systems, Eugene



The 61 KW Guaranty RV / Camping World PV System is close to completion in Junction City. This is Phase 1 of a 122 KW project, with Phase 2 to be completed next year. This is the largest PV system in Lane County and is installed on their new facility on Hwy 99. The system is equipped with a deluxe Fat Spaniel monitoring system, includ-

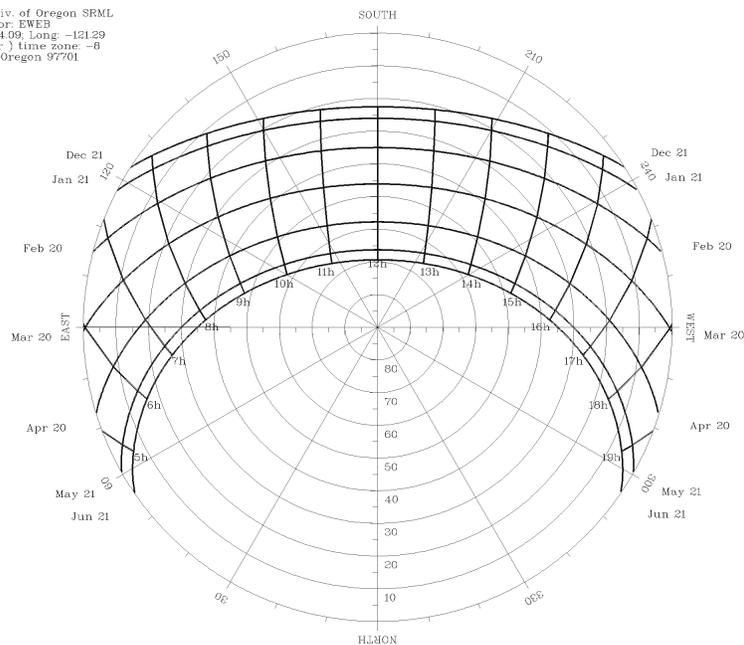
ing a showroom kiosk, weather station, building demand and solar power generation features. Emerald People's Utility District (EPUD) has been very supportive of this installation

and has agreed to pay retail rates for the power produced (net metering).

# Polar Sunpath Charts

by Frank Vignola

(c) Univ. of Oregon SRML  
Sponsor: EWEB  
Lat: 44.09, Long: -121.29  
(Solar) time zone: -8  
Bend, Oregon 97701



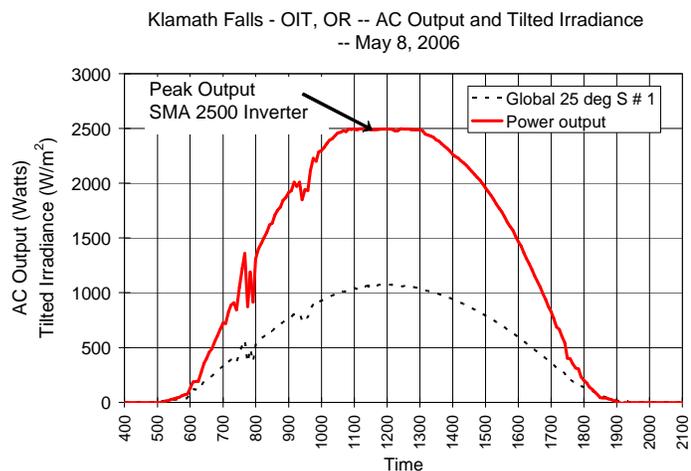
Polar Sunpath Charts are now available on the University of Oregon Solar Radiation Monitoring Lab's Website at <http://solardata.uoregon.edu/PolarSunChartProgram.html>. Site evaluation forms have been made using this program and these forms are available on the Energy Trust of Oregon Website at <http://www.energytrust.org/TA/solar/charts.html>. Some people find this easier to use with the solar pathfinder tool than the Cartesian coordinate plots.

There has been some difficulty with the colored plots and the UO SRML will be

producing site analysis forms for the Energy Trust in black and white.

Also under the new Energy Trust contract, the UO SRML will be creating a PV Webpage with information on system performance and

other bits of information that have been coming out of the PV monitoring program. A sample plot below shows what happens when an inverter reaches its maximum rated output.



SMA 2500 inverter maxing out at 2500 AC Watts

# SOLWEST Renewable Energy Fair

July 28-30, 2006

by Jennifer Barker

John Day, Oregon April 15th, 2006 -- for immediate release SolWest Fair Emphasizes Renewable Energy and Sustainable Living

Deborah Lindsay, co-founder of Sustainable Monterey County, will be the keynote speaker at SolWest Renewable Energy Fair in John Day, Oregon, July 28-30, 2006. "In daily broadcasts we hear about fossil fuel depletion and our current, permanent energy crisis. Planning to mitigate crises and support each other as our available supply of cheap oil declines is the key to weathering the storm that is heading our way,"

says Deborah. Her keynote address, "Relocalizing our Communities," will focus on opportunities for those who feel that education and community building are critical elements of sustainability.

SolWest Renewable Energy Fair July 28-30, 2006 in John Day, Oregon is the most comprehensive sustainable living fair in the northwest. Experts from all over the western US offer fifty workshops for all ages and levels of expertise (free with fair admission). Workshop



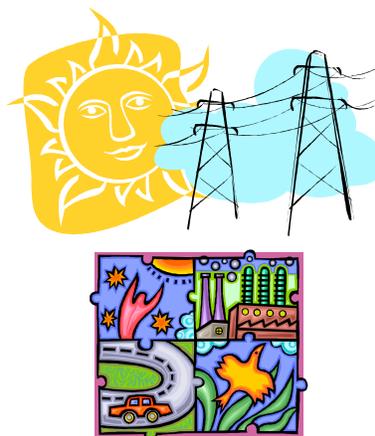
topics already scheduled for diesel processors and fuels, this year include "Living Off and much more.

Grid without a Generator," "Introduction to Hydrogen," "Weatherization Wizardry," "Solar Applications in the Northwest", "Solar Cookery," "Home-made Solar Water Heater," "Money from the Sun", and "Configuring Your Wind System."

Over two thousand people visit SolWest each year to learn about and purchase complete solar power systems and components, solar hot water systems, solar pumps and wind-driven pumps, pump controls, hydro systems suitable for the smallest springs to large streams, solar roofing and home plans, home-scale wind generators, efficient lighting and appliances, books and magazines, bio-

A pre-fair hands-on workshop installs a working renewable energy system on a local home or business. Activities during SolWest weekend include Electrathon mini-electric car racing, and a Silent Auction of renewable energy hardware and other donated goods. Child-care and children's workshops will be offered. Anyone

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# SOLWEST Renewable Energy Fair July 28-30, 2006

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who brings an alternatively-fueled vehicle to display at SolWest Fair will get a weekend pass for the price of a day pass. Camping is available, and volunteers get in and camp free.

The SolWest Fair program is posted on the web at [www.solwest.org](http://www.solwest.org), or a paper copy can be requested at: SolWest/EORenew, PO Box 485, Canyon City OR 97820. 541-575-3633 or [info@solwest.org](mailto:info@solwest.org).

## Support Solar Tax Credit Extension!

*(Continued from page 1)*

If this bill is passed, we estimate that it will create over 55,000 new jobs in the US, save consumers over \$32 billion in natural gas and create enough new solar energy to power millions of homes.

Please urge your representatives in Congress to support this legislation and sign on as a co-sponsors.

Click on this URL to take action now <http://capwiz.com/re-action/utr/2/?a=8722721&i=70478986&c=>

If your email program does not recognize the URL as a

link, copy the entire URL and paste it into your Web browser.

Please forward this information to your friends and family who care about the economic and environmental future of the U.S.

*Editor's note: Senator Smith has worked hard on this legislation and his efforts should be acknowledged. Also write Senator Wyden and your representative (see URL in article).*

*Now is the time to get acquainted with local candidates. Don't forget to tell them why they should support solar energy legislation.*



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