

SOLAR RISING

March 1999

Volume 2, Issue 2

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

OREGON MSR COALITION BEGINS DRIVE FOR 50,000 SOLAR ROOFS



Solar Power at the Oregon Million Solar Roof Coalition's initial organization meeting. From left to right Dick Wanderscheid of the City of Ashland, William Nesmit from the Oregon Office of Energy, Curtis Framel from the Regional DOE Office in Seattle, Christopher Dymond for OOE, and Tom Starrs from Starrs, Kelso, and Associates.

On January 14, 1999, the Oregon Million Solar Roof (MSR) Coalition held its initial meeting to introduce the coalition members, discuss Oregon's roll in the national MSR Partnership, and to begin developing plans to strengthen the solar industry in the state and to remove the barriers to installing 50,000 solar roofs in Oregon by 2010.

Over twenty five leading solar advocates from across the state and invited guests from Washington and as far away as Colorado participated in this meeting in Portland. As a key person who helped pulled the meeting together, Curtis Framel led off with introductions and set the tone for the meeting. The Oregon MSR Coalition is in partnership with the National MSR program. If all the partners work together sharing ideas, expertise, and resources the goal of building a

strong self sustaining solar industry and install one million solar roofs across the nation by 2010 can be accomplished.

Terry Esvelt of the Bonneville Power Administration lead off the workshop by discussing financial and technical skills that Bonneville can bring to bear on

(Continued on page 10)

MESSAGE FROM THE PRESIDENT

By Frank Vignola

Keeping up the pace set by past president David Parker will not be easy. Of course many of the projects that he started such as Oregon's involvement in the Million Solar Roofs initiative will keep things moving along.

A considerable amount has happened in the last few months. First, elections were held for the OSEIA officers at the January 12th OSEIA meeting. With promises of support from OSEIA members, I accepted the nomination as President of OSEIA and was duly elected. Doug Boleyn of Cascade Solar Consulting was elected vice chair. On January 30, Doug was also elected Chair of the Solar Energy Association of Oregon. It has been the goal of both organization to work more closely together and this is a good opportunity. Ray Pokorny of Solar Interior Design was elected treasure for another term. Ray's work is very much appreciated. The slate of officers was completed by the reelection of Chris Eames of Energy Service Company as secretary. OSEIA and I are fortunate to have a solid line of officers to help run the organization. More information on the Jan-

(Continued on page 5)

Table of Contents

<i>Oregon MSR Coalition begins drive for 50,000 Solar Roofs</i>	1
<i>Message from the President</i>	1
<i>OSEIA April 6, 1999 Meeting Agenda</i>	2
<i>1999 - Solar Legislation</i>	3
<i>Mr. Sun Installs 3K Residential System</i>	4
<i>Oregon MSR Coalition May 13, 1999 Meeting Agenda</i>	5
<i>OSEIA Meeting Minutes</i>	6
<i>PV Workshop</i>	8
<i>Oregon MSR Coalition Proposal to US DOE</i>	11

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:
 Frank Vignola
 Department of Physics
 1274 - University of Oregon
 Eugene, Oregon 97403-1274
 Phone: (541) 346-4745
 Fax: (541) 346-5861
 Email: fev@darkwing.uoregon.edu

We would like to thank Doug Boleyn of Cascade Solar Consulting, Chris Eames of Energy Service Company and John Patterson of Mr. Sun for their contributions to the newsletter.

OSEIA MEETING AGENDA

Oregon Office of Energy
 625 Marion, Salem
 12:00 - 3:00 PM
 4/6/1999

1. Welcome and Introductions:
Frank Vignola
2. Approval of Minutes:
Chris Eames
3. Treasurer's Report:
Ray Pokorny
4. OSEIA Corporate Status
Windy Johnson
5. OSEIA Bylaws
Doug Boleyn
6. Solar Legislation Update
Richard Perez
7. Million Solar Roofs Coalition Update
Frank Vignola
8. May 13, 1999 meeting of the Oregon MSR Coalition
9. Million Solar Roof Registry
Christopher Dymond
10. Health and Disability Insurance
Andrew Koyanisquatsi
11. Other business
12. Adjourn

DIRECTIONS TO THE OREGON OFFICE OF ENERGY

The April meeting of OSEIA will be held at the Oregon Office of Energy at 625 Marion in Salem. The OOE offices are located on the north west side of the capitol. The easiest way to get to the office is to take the Market street exit and turn south on Summer and then west on Marion. Pizza will be ordered.

Before, after, or during the Salem meeting will be a good time to set up a meeting with your representative and/or senator. Tell them about OSEIA and talk to them about the net metering and solar tax credit legislation that is before the legislature. See article on the solar legislation being presented in Salem (pg. 3).



President: Frank Vignola of Univ. of Oregon Solar Monitoring Lab. Ph: (541) 346-4745

Vice President: Doug Boleyn of Cascade Solar Consulting Ph: (503) 655-1617

Secretary: Chris Eames of Energy Service Company, Ph: (541) 302-6808

Treasurer: Ray Pokorny of Solar Interior Design, Ph: (503) 224-2322

OSEIA MEMBERS ON THE INTERNET

Company	Email Address	Web Page
Renewable Energy, Inc.	DMZL49@ aol.com
Stellar Processes	drobison@teleport.com
Sunearth Inc.	sunearth@lava.net
Heliodyne Inc.	heliodyne@worldnet.att.net
Cascade Solar Consulting	Solarbee@aol.com
Oregon Office of Energy	Christopher.S.Dymond@state.or.us	www.cbs.state.or.us/external/ooe/
Solar Design & Construction	solarman@peak.org
Solar Interior Design	solarint@imagina.com
Bobcat and Sun Construction	bobcat@empnet.com
Energy Outfitters	support@energyoutfitters.com	www.energyoutfitters.com
Home Power Magazine	hp@homepower.org	www.homepower.org
Mr. Sun Solar	70663.2146@compuserve.com
The Energy Service Company	esco@efn.org	www.efn.org/~esco
UO Solar Monitoring Lab	fev@darkwing.uoregon.edu	solardata.uoregon.edu
R.V. Solar Consultants	tech@rvsolar.com	www.rvsolar.com
Solar Depot	solardepot@calweb.com	www.solardepot.com
Emerald People's Utility District	joe@epud.org	www.epud.org/about.html
Eugene Water & Electric Board	don.spiek@eweb.eugene.or.us	eweb.org



1999 - SOLAR LEGISLATION

Without counting the discussion on utility restructuring, three bills that directly affect the solar industry have been introduced in the House.

These bills are:

HB 3219 - the Net Metering bill introduced by OSEIA.

HB 2954 - a bill that would repeal the solar energy tax credit.

HB 2878 - a bill introduced by Brent Gunderson to increase the solar tax credits for grid tied residential PV systems to \$3 per peak watt installed.

NET METERING UPDATE

The net metering bill has been introduced, but has yet to receive its first hearing. The bill, HB 3219, will be heard in the commerce committee. Comments on the bill should be addressed to Representative Witt, head of the commerce subcommittee that will hear the bill.

Alternately, you can write your representative asking for support and send a copy to Witt. If your representative sends you a letter saying he will support the bill, let Richard Perez know.

Peter West of Renewable Northwest Project and their lobbyist Tom Novick have been leading the legislative agenda for the bill.

Peter West and Tom Starrs have made initial contacts with utilities. After some preliminary concerns the bill has received positive responses from some utilities and the PUC. The City of Ashland, which already has a net meter policy and the Eugene Water and Electric Board are among the utilities that support the legislation. A considerable effort still remains to line up utilities behind the bill or at least prevent them from opposing the bill.



HOW TO INFLUENCE YOUR REPRESENTATIVE OR SENATOR

Personal contact always carries the most weight. To visit your representative, call the office and schedule a 15 minute appointment. Make it a friendly visit. Bring a copy of the information you want the representative to know. Next best is to write a letter and tell the representative what you would like them to support and why. Ask them what action they are planning to take on the measure. A phone call to your representative is always helpful. This is especially good if the issue is going to be in front of your representative. A fax is as good as a letter. This fax will go in the file on the bill. If the representative has not already made up their mind on an issue, they go to their file and review the information in the file before they vote. Currently email is the last resort. A staff person may or may not read their email. Remember, act now before it is too late!

BILL TO REPEAL THE SOLAR TAX CREDIT

House Bill 2954 would repeal the solar tax credit. This bill is one of a series of bills that repeal various tax credits. The bills that repeal tax credits are designed to free up funds for schools. (HB 2949 would tax payments made by utilities for installed conservation.) HB 2954 will appear before the revenue committee. The chair of the revenue committee is Representative Strobeck. If opposition to the repeal of

the solar tax credit is loud and fast, the bill may die before it gets a hearing.

Everyone knows what the repeal of the solar tax credits will do to the solar industry. It is important to let your representative know along with Representative Strobeck. Many of the representatives support the solar tax credits. However support is not universal.

Some, like Representative Welsh, who own a solar heating system, will likely oppose the repeal.

INCREASING PV TAX CREDITS

House Bill 2878 would significantly increase the solar tax credit to \$3 per peak watt installed for grid tied residential Photovoltaic systems. A maximum credit of \$9,000 is allowed. To qualify a system must be installed by a "certified contractor", be 300 watts or larger and be connected to the utility grid. A certified contractor is a contractor that has obtained a contractor system certification under ORS 469.170. This bill is sponsored by Representative Deckert at the request of Brent Gunderson.

The bill had its first hearing March 10, 1999 at a commerce subcommittee. A second hearing was held March 15, 1999 and another hearing is scheduled soon. In attendance to testify for the March 10 hearing were Representative Deckert, Brent Gunderson, Frank Vignola (representing OSEIA), Doug Boleyn (representing SEA of O), Brian Bowman a local PV system home owner, and Michael Grainey, from the Oregon Office of Energy.

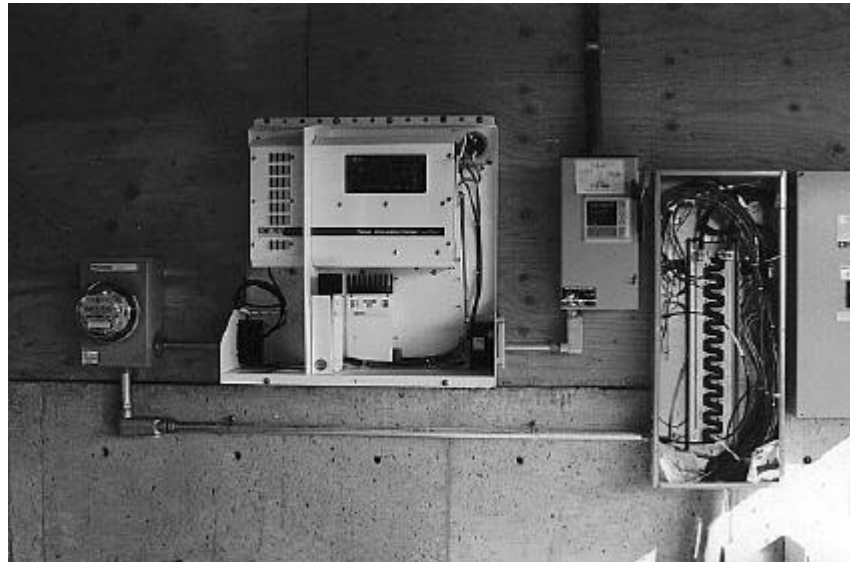
Brian Bowman's testimony as a private citizen who has installed a PV system on his home was most effective. Brian flew in the Gulf war and thinks renewables are preferable to fighting wars over oil.



MR. SUN INSTALLS 3K RESIDENTIAL SYSTEM

By John Patterson

The King Ranch in North Plain Oregon, near Hillsboro, is the site where the largest residential solar electric system in Oregon has just been completed. The home owners opted for the Uni-Solar integrated roofing type PV panels which covers the carport roof. The grid-tied system should meet the full annual electric load of the King's 2,000 plus sq. ft. new home which also features a solar hot water, and a passive solar home design with reflection pool in front of the south facing windows. The system costing over \$30,000 came on line December 18, 1998 when John Patterson threw the switch. A meter was installed between the trace inverter and the cir-



cuit breaker box thus metering all solar generated energy to the King's home and/or grid. Doug Boleyn of Cascade Solar Consulting assisted with technical support for the project.

Photos by Doug Boleyn of Cascade Solar Consult-

OREGON MILLION SOLAR ROOFS COALITION MAY 13, 1999 AGENDA



On Thursday, May 13, 1999 the Oregon MSR Coalition will hold its second meeting at the Eugene Water and Electric Board's conference room. The main focus of the meeting will be to develop an action plan for the Oregon MSR Coalition for 1999.

The meeting will begin at 10:00 am and

will break for lunch. The afternoon session will run from 1:00 pm to about 3:00 pm.

All OSEIA members and Oregon MSR Coalition members are invited to attend. Also any of those who are interested in joining the coalition should attend.

These are preliminary plans for the agenda. After the April 17-21 SolTech meeting a more comprehensive agenda will be developed. To make suggestions for the agenda, contact your committee chair or Frank Vignola.

After introductions, the coalition committees will present their reports on MSR barrier and actions needed to overcome these barriers. It is from these reports that the action plan will be developed.

The status of the Oregon Office of Energy - Oregon MSR Coalition proposal will then be presented (see pg. 11). The success of the proposal should be announced by the end of April. If the proposal is approved, then a discussion of the implementation will be held. If the proposal is not funded, then reviews will be evaluated.

A report on the activities of other MSR partners will be made by Curtis Framel. It is important that the national partners start working together. How this cooperation will be accomplished will be a major item for discussion.

MESSAGE FROM THE PRESIDENT

(Continued from page 1)

January 12 meeting can be found in the minutes by Christopher Eames (on page 6).

On January 14, 1999 OSEIA and the USDOE held the initial kickoff meeting for the Oregon Million Solar Roofs Coalition. This newsletter will contain several articles describing the January 14th meeting and relating to the activities of the coalition. Six committees were formed to evaluate the barriers to installing 50,000 solar roofs in Oregon by 2010. Several of the committees have already been active in developing a Million Solar Roofs proposal that was submitted by the Oregon Office of Energy. If funded, this proposal will energize the Oregon MSR Coalition and start making important steps in promoting and building a stronger solar industry in Oregon.

OSEIA's net metering bill has been introduced through Richard Perez's efforts as leader of OSEIA net metering committee. Peter West of Renewables Northwest and Tom Starrs have contributed considerable expertise and effort into guiding the net metering pro-

posal through the legislative process. Renewable Northwest's lobbyist, Tom Novick has also been invaluable helping to introduce the net metering bill.

While evaluating OSEIA's status to join EFO, it was determined that the bylaws need to be updated and the tax exempt status of OSEIA needs to be firmly established. Doug Boleyn is looking at the bylaws and will make a report at the April 6th OSEIA meeting.

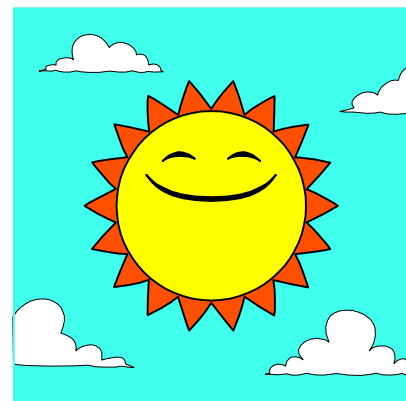
Windy Johnson of Oregon Solar has volunteered to evaluate the tax exempt status of OSEIA and hopefully will have a preliminary report by the April meeting.

To cap things off, Brent Gunderson reported that the solar tax credits are seriously under attack in the Oregon legislature. We are fortunate to have the eyes and ears of Brent focused on the legislature. A more comprehensive description of the situation is presented on page 3.

Brent also introduced legislation to increase the solar tax credit for grid tied systems. These systems are still very

expensive and more assistance is needed for those willing to invest in these renewable energy systems.

Keep in touch as a lot is happening on the solar front these days.



OSEIA ANNUAL MEETING MINUTES

TUESDAY JANUARY 12, 1999 12:30-3:00 PM

OREGON ELECTRIC STATION EUGENE, OR.

by Chris Eames

1. Welcome and Introductions

Members attending: David Parker, Tom Scott, Ray Pokorny, Wendy Johnson, Don Speik, Newt Loken, Doug Boleyn, Christopher Diamond, Frank Vignola, & Chris Eames. Several members sent proxies for purposes of voting.

2. Minutes of the September 29, 1998 General Membership Meeting

Moved seconded and approved unanimously to approve the minutes as published through the newsletter.

3. Treasurer's Report

Ray Pokorny reports balance on hand of \$1,348.00, receivables of approximately \$6,042.00, and \$2,312.68 in net metering fund. He distributed invoices for membership dues to those attending. Others will be mailed soon. Reimbursement for the national SEIA trip was finally made by SEIA in December.

4. Election of Officers

President David Parker announced that he will be unable to repeat in his office, pointing out that "new blood" has kept OSEIA active and opened nominations for all offices. Don Speik nominated Frank Vignola for President, Tom Scott seconded. Don Speik nominated Doug Boleyn for Vice President, Chris Eames seconded. David Parker nominated Chris Eames for Secretary, Tom Scott seconded. Wendy Johnson was nominated for Treasurer but declined. She then nominated Ray Pokorny, Don Speik seconded. Frank, Doug, Chris, and Ray were all elected unanimously.

5. Net Metering Bill Update.

Richard Perez could not attend the meeting and was therefore unable to report on the status of the current bill to be introduced, the current draft of

which was written by Tom Starrs, J.D., Ph.D., of Energy Environment Resources in Vashon, Washington. A sponsor is still being sought for its introduction.

Christopher Dymond relayed comments by Michael Grainey, OOE lobbyist, suggesting that minimization of controversy among key players (notably PGE and PacifiCorp) prior to the legislative session would be crucial to OOE support of the bill. John Savage, OOE Director, has stated that they are in favor of net metering, but needs utility support to enlist OOE backing of the bill. Without consensus, the bill will receive polite - but not serious consideration. Peter West, of Renewables Northwest, has relayed that we might use their lobbyist, Tom Novick, in the effort. The group agreed that we need to line up a lobbyist for our interests at once. Christopher Dymond and Tom Scott seconded that within the week a lobbyist be hired and within the month Frank Vignola, Richard Perez, and the lobbyist to be hired meet and finalize the language for the bill. The motion was passed without dissent.

An upcoming meeting of rural electric utilities to discuss the bill will be attended by Christopher Dymond and Frank Vignola. Call Frank or Richard if you wish to participate in making this bill a reality.

6. Million Solar Roofs Update.

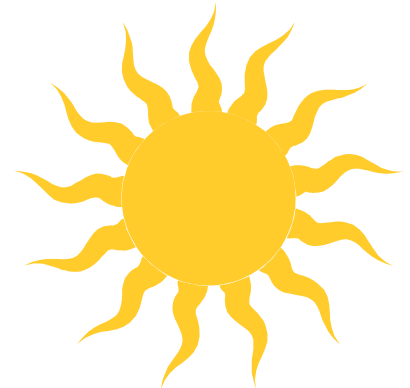
Discussion about how the OSEIA "sponsorship" has been modified onto a coalition of state, local, and industry groups. There is currently \$190,000 of DOE funds for 15 groups, of which we are one, to market the program to leverage more participation in the MSR Initiative. It is not for study nor is it for implementation of solar projects. A

meeting in Portland on January 14 will be held to "kick-off" the program and to delegate responsibilities within the coalition to identify opportunities, develop strategies, define barriers and to formulate plans for overcoming them. Attending from OSEIA will be committee members Christopher Dymond, Richard Perez, Don Speik, David Parker, Joe Savage, and Frank Vignola, chairperson. Others are expected to attend and a report will be given in the next newsletter and at the next meeting. Christopher Dymond moved and Ray Pokorny seconded that SEA of O be invited to become a member of the partnership and that other appropriate groups or members be included by vote of OSEIA's MSRI committee. This passed unanimously. Don Speik moved that any proposals for dispersal of DOE funds be submitted for approval by OSEIA's MARI Committee. David Parker seconded. This also passed without dissent.

7. Education Coordinators

David Parker had proposed in the newsletter and again at the meeting that he and Tom Scott be allowed to continue their work with LCC and NWEEL as official representatives of OSEIA. Don Speik seconded the motion and it passed unanimously.

(Continued on page 7)



OSEIA ANNUAL MEETING MINUTES

(Continued from page 6)

8. OOE Report

Christopher Dymond is working to bring together the many interested parties of interest in solar energy. Several education and solar implementation programs which may be funded by the federal DOE are in the works and he will be reporting about those as they are approved. E-mail him with ideas for such project proposals.

9. Health and Disability Insurance

Andrew Koyaaisquatsi was unable to attend. \$30 per month will buy group disability insurance which provides \$1000/month. A questionnaire will be sent out by the company within two

weeks to individual members to determine our group rate. An additional report will be made next meeting.

10. Other Business

Doug Speik moved, Doug Boleyn seconded that all records be assembled and maintained by the Secretary, and that an accountant be consulted regarding fiduciary reporting consistent with our non-profit status.

11. OSEIA NEWSLETTER! Send articles and ideas to Frank Vignola at:

Frank Vignola
Physics Department
1274 University of Oregon
Eugene, OR 97403-1274

Phone (541-356-4745)
email: fev@darkwing.uoregon.edu)

Copy Deadline for the Spring newsletter is March 6, 1999.

12. The next meeting will be at noon on April 6, 1999 in Salem at the Forestry Center. Much important information regarding net metering and Million Solar Roofs Initiative will be shared at this meeting and your participation is strongly encouraged! BE there!

FACTS FOR EARTH DAY 1999

- Earth Day '99 is the region's largest coordinated environmental effort involving thousands of people in the local area and around Oregon. Earth Day '99, based in Portland, OR., serves as a clearinghouse for information by providing overall coordination of activities, promoting involvement in Earth Day and building awareness of sustainable ideas and actions.
- Earth Day is April 22, but the spirit of Earth Day runs throughout the month of April. Many activities and projects occur during Earthweek, beginning Saturday, April 17.
- Since 1995, more than 75,000 volunteers throughout the Portland-Vancouver area have turned out to take specific actions to celebrate Earth Day. Volunteers have participated in a variety of hands-on projects that range from stream cleanups and schoolyard tree plantings to backyard composting and watershed protection seminars.
- Every activity planned for Earth Day '99 will be listed in the annual Earth Day, Everyday Hands-On Guide, available inside The Oregonian on April 6, by calling the Metro

Recycling Hotline, 503-234-3000, and on-line at www.efo.org/earthday. It's the official guide that informs potential volunteers about Earth Day projects and events.

- Visit the Earth Day '99 website at www.efo.org/earthday for project ideas and to register a project on-line (deadline for project registration is March 1).
- Earth Day is an independent project of the Environmental Federation of Oregon. Representatives from environmental organizations, schools, and local and regional governments make up the Steering Committee providing the guidance and structure necessary to coordinate the regional celebration.
- Earth Day is funded by support from local businesses and governments, as well as community groups.

For more information, contact Suzie Puetz, Earth Day '99, (503) 284-0433 or visit www.efo.org/earthday

RENEWABLE ENERGY FAIR '99 EUGENE, OR.

It's time to get ready for this year's Renewable Energy Fair at the University of Oregon brought to you by The Solar Information Center! We're going to have live music with a solar powered stage and lots of great booths and activities. On Friday April 23 at 12:00 noon in the Erb Memorial Union Amphitheater be a part of the action as demonstrations of Photovoltaic Power and electric vehicles combine with groovin music and booths, food vendors, Y2K solutions and lots more. This year's sponsors include Real Goods Inc., Eugene Water and Electric Board, Home Power Magazine and Prana Electric. Don't miss the SOL Machine integrated Photovoltaic living system and all the good vibes as we celebrate Earth Week by connecting with mother nature for an energizing experience!

See you There!

Neil J. Peterson
Events Coordinator
(541) 346-3696
strider9@gladstone.uoregon.edu



SOLWEST RENEWABLE ENERGY FAIR IN JOHN DAY, OR. JULY 24-25, 1999

For More Information Contact:

Jennifer Barker
EORenew/SolWest Fair
PO Box 485
Canyon City, OR 97820
541/542-2525
email: solwest@eoni.com

PHOTOVOLTAICS IN BUILDINGS

SOLAR ELECTRIC ARCHITECTURE: DESIGN GUIDANCE FOR PRACTICING PROFESSIONALS

The **Northwest Energy Education Institute** (NEEI) is sponsoring a Photovoltaics Professional Design Workshop. The one-day workshop will cover both residential and commercial applications and will be held in Portland on April 30 at Two World Trade Center (seating for about 200). It will feature Steven J. Strong, who is the author of *The Solar Electric House* and who has been named an Environmental Hero by Time Magazine.

Agenda Overview

- PV Cell and Module Technology
Module construction, crystalline vs. thin film, environmental aspects
- PV Systems Options & Applications
Stand alone, batteries, central arrays & storage, utility interactive options, central station systems
- PV in Buildings: A World Overview
Technology options, commercial curtain walls & glass roofs, residential roof systems, sunshades, PV in

the landscape

- PV Systems Configuration
Utility Interactive & Stand Alone: key design issues, load analysis, solar resource, array design, storage
- Details of PV Building Integration
Integration options, array mounting details, design elements, building & landscape integration
- Case Studies of Residential & Commercial PV Powered Buildings
System sizing & storage parameters, construction process
- Codes, Economics, and Incentives
Electrical, mechanical, & structural codes, O&M issues, incentives & economics
- Array Design Exercise
- Products, Questions & Discussion

The workshop cost is \$95.00. The registration includes the program and materials, break refreshments, and Steve's book, *The Solar Electric House*.

Sponsors include:

Portland General Electric

AIA/Portland Architecture + Energy
AIA/Portland Committee on the Environment
Solar Energy Association of Oregon
Oregon Solar Energy Industries Assoc.
Oregon Million Solar Roofs Coalition
U of O Solar Information Center
Cascade Solar Consulting

More information on the workshop is available at NEEI's website <http://www.nweei.org/> (check under What's New). Further inquiries can be made by calling 1-800-769-9687 or emailing to NEEI@lanecc.edu.

ENERGY 10 WORKSHOP



Christopher Dymond and Roger Ebbage are providing a workshop with PGE on Energy 10, the current solar design tool out by PSIC. It's a great tool for the pre-design stages of a project. Of 16 spots only four are left. The workshop will be in Portland on May 21-22, 1999. The cost of the workshop

is only \$250 and with that you get software.

For more information contact NEEI at 1-800-769-9687 or email to NEEI@lanecc.edu.

SOLTECH '99

April 17-21, 1999

Hyatt Crown Center
Kansas City, MO

Come to the Largest Solar Gathering in the World:

- Meet the Industry
- See the Newest Solar Products
- Learn about Grass Roots Solar Programs
- Make International Solar Contacts
- Attend Valuable Workshops
- HAVE FUN!

The combined annual solar events of:

Solar Energy Industries Association
Interstate Renewable Energy Council
Utility PhotoVoltaic Group
Heartland Solar Energy Industries Association

For Further Information: email Sharon Wilson, SEIA or call (202) 383-2600

For Hotel Reservations:
Hyatt Regency Crown Center 2345
McGee Street Kansas City, MO 64108
Telephone: (800) 233-1234
Mention Solar Energy to receive the conference discount!

<http://www.seia.org/main.htm>

**SOLAR ENERGY
ASSOCIATION OF OREGON
ANNUAL CONFERENCE
OCTOBER 2, 1999
WORLD TRADE CENTER-2
PORTLAND, OREGON**

Conference speakers and other details are being developed - stay tuned!

THE TIMES THEY ARE A CHANGIN'



Annual Oil Production from "The End of Cheap Oil" by Colin J. Campbell and Jean H. Laerrère, Scientific American, March 1998. The top curve is world oil production, the next curve is world production outside the Persian Gulf. The world oil production will peak around 2004 and the peak production outside the Persian Gulf appears imminent. The oil production in the United States and Canada peaked in 1972 and has decreased by about 20% since that time.

By 2020 the world's oil production is projected to decrease by 20%. Production of oil from outside the Persian Gulf is expected to decrease by over 50% by 2020. With demand for oil increasing, and world production likely to peak in the next 5 to 10 years, the days of cheap oil appear to be ending. Already OPEC is beginning to flex its muscle to raise the record low oil prices. Of course price increases will eventually reduce oil consumption to match the supply. However, the demand for energy is predicted to keep increasing for the foreseeable future.

Coal and natural gas are ready to fill the gap. If solar is going to play an important role, the solar industry must start preparing today. With global climate change starting to affect the weather, people are going to have to make some hard choices in order to avoid an environmental disaster. As the solar industry grows and sustainable orderly development takes hold, solar will become the economic and environment solution.



Plan for the future.
Act today!



OREGON MSR COALITION

(Continued from page 1)

barriers faced by the solar industry.

Angus Duncan, head of the newly created Bonneville Foundation, described work being done to organize the foundation and potential for the foundation to be involved with MSR projects. Given the proper programs, both Bonneville and the Bonneville Foundation could be sources for funds or financing.

The next panel covered current solar activities in the state. David Parker, discussed the various projects initiated by OSEIA including the introduction of the Oregon net metering bill, creation of the Oregon MSR Coalition, expanding OSEIA to include some of the larger utilities, and initial planning to train solar installers. Glen Friedman talked about the annual solar conference put together by SEA of O and participation in the national solar home in October. Christopher Dymond told the group about the Oregon Solar Tax Credit and discussed the Oregon Office of Energy's (OOE) interest in seeing the solar industry succeed in Oregon.

The next panel consisted of Jeff Kato of OOE and John Graham of CARES. Jeff covered business and residential tax credits in more detail and discussed the possibilities of partnerships between business, energy companies, and local government in making use of the solar tax credit. John brought up financial programs that worked for utilities and possible methods of encouraging

consumers to take part in these programs.

Tom Starrs talked about the net metering bill that is being introduced in Oregon. Then Mike Nelson told the story of what is happening in Washington. These stories included how the net metering bill got universal support in Washington and how the solar industry is successfully marketing solar energy. If solar can succeed in Washington, certainly it can work in Oregon.

There was a break for a working lunch. In fact, the several breaks were used to get to know each other better and to share ideas and information. This is the type of activity needed to bring together a cohesive plan to install 50,000 solar roofs in Oregon.

After lunch there was a talk by Bill McNamee who discussed the Oregon's PUC perspective on solar energy. Wayne Lei from Portland General Electric discussed some of their activities with roof top photovoltaic systems and their efforts to evaluate grid tied PV systems. Mike Grainey of OOE talked more about the state renewable energy programs. Steve Still of EWEB then presented EWEB's bright way to heat water program. While EWEB's program has been established for awhile, it is evolving and improving.

Dick Wanderscheid then detailed Ashland's Solar City Program. Ashland has embarked on an exciting program to encourage the installation of PV systems on its roof tops. The group was upbeat about all the solar activity beginning to take place in Oregon. However, all these programs have been operating independently. It will be interesting to see what will happen when the coalition starts working together.



Steve Still and Curtis Framel discuss Oregon's Solar potential.

The open discussion period brought out many ideas and concerns from those attending the meeting. A strong marketing agenda is needed to promote solar. This marketing program also needs a significant public education component. One example discussed was installing PV systems in schools and using these systems to teach students about science and renewables.

Education is needed to retrain and change the 'mindset' of those who can make decisions involving solar such as architects and engineers. A broad based education program is needed for decision makers and large corporations.

Some of the barriers facing Oregon are the general complacency about energy. In addition, the abundance of low cost hydro electricity distorts the comparison costs with renewables. There is a large segment in society that distrusts technology. In addition, solar's image suffered in Oregon from some poor choices in the 1980's.

Financing for solar exists, but it needs to be readily accessible. Better marketing of existing packages is needed.

This is just the beginning. Six committees were formed to help develop a solar agenda for the coalition. The committees are finance chaired by Jonh Keto, marketing chaired by Doug Boleyn, training chaired by David Parker,

(Continued on page 11)



Standing in the lunch line, Mike Nelson shares Washington's experience with Frank Vignola.

OREGON MSR COALITION PROPOSAL TO US DOE

OREGON MSR COALITION

The Oregon MSR Coalition has submitted a proposal through the Oregon Office of Energy to the US DOE to identify and start removing barriers to the installation of 50,000 thousand solar roofs in Oregon.

This proposal consists of five small, well defined projects designed to achieve near term MSR goals and to start the coalition working together. These projects involve efforts of many people and are the seeds from which the coalition will grow and expand. The five integrated projects have the following objectives:

1. Coordinate and expand the coalition and facilitate efforts by coalition members to identify and eliminate barriers to the use of solar energy technologies.
2. Conduct four utility workshops to educate utility staff about net metering and "lay the groundwork" for the effective implementation of Oregon's proposed net metering legislation.
3. Develop a booth and other marketing tools that will be used to educate and market a variety of solar energy technologies, available financial incentives, solar home tours and training opportunities.

4. Develop a training curriculum to educate solar system installers and a strategy for establishing certified licensed solar contractors.
5. Increase public awareness of MSRI through an expanded role for Oregon's annual solar home tour.

These proposals were developed by the Oregon MSR Coalition committee chairs. Christopher Dymond put these ideas together in a logical proposal. The announcement of successful proposals should occur about the time of the SOLTECH conference in Kansas City.

This is just the first of a series of proposals that the Oregon MSR Coalition hopes to initiate. Once the coalition has developed a clear course of action the coalition will encourage funding of proposals that support these actions.

It is a lot easier to get funding if an agency sees how various projects fit into the big picture. The coalition is developing this picture. Your help is needed to frame this picture. Contact the coalition committee chair with your concerns and ideas. We can only make this work if everyone contributes.

(Continued from page 10)

codes and regulations chaired by Richard Perez, public education chaired by Joe Savage, and utility programs chaired by Don Spiek.

Overall, there is a great potential for solar in Oregon if approached in the solid manner. Now all that is needed is to determine how best to make this approach and to develop a concerted plan of action.

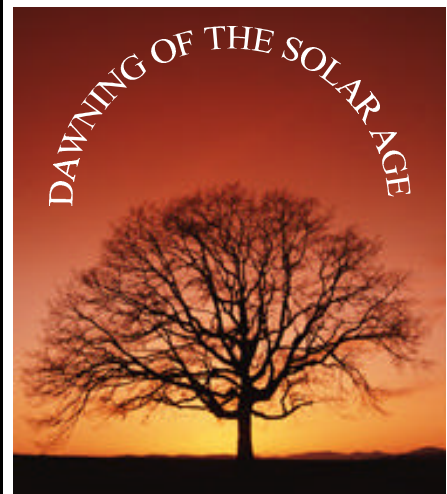
The next meeting of the Oregon MSR Coalition will be May 13, 1999 in Eugene Oregon at EWEB. Initial committee reports will be presented at this meeting.

PV WORKSHOP

Mark Cherniak and Doug Boleyn will teach a 4-hour seminar on Photovoltaics for home and small business on Saturday, **May 22**, from 8 am until noon. It will be held at the John Inskeep Environmental Learning Center on the campus of the Clackamas Community College. There will be a fee for the class, but amount has not been established at

this time. The class is presented and co-sponsored by the Solar Energy Association of Oregon and the John Inskeep Environmental Learning Center.

Contact Doug Boleyn at (503) 655-1617 or Mark Cherniak for more information.





WEBSITE DOCUMENTS



Interested in some useful information?
Try www.eren.doc.gov/millionroofs/onlineDocs.html.

This is the Million Solar Roof webpage that contains the many interesting and useful documents. The following is an abbreviated list of the papers available at this web site.

Topics:

- Million Solar Roofs: Success Stories
Sacramento, CA: PV Pioneer
SolarWise for Schools
Sun Power for Schools
Volcanoes National Park
Western Area Power Administration
- About Renewable Energy
Learning about Renewable Energy (for Kids)
- About Photovoltaics (PV)
Basic Design Principles and Components

- PV Fact Sheet
Thin Films, Past, Present, Future
Photovoltaics and Commercial Buildings
Overview of PV Technologies
Residential PV
Characterization of other utility technologies
- About Solar Heating
Freeze Protection for Solar Heating Systems
Heat Exchangers for Solar Heating Systems
Solar Thermal Equipment Performance Ratings
Energy Efficient Water Heating
Reliability of Active Solar Domestic Hot Water Systems
Selecting a New Water Heater
Solar Water Heating Fact Sheet
Active Solar Radiant Floor Heating
Solar Ventilation Preheating
- Solar Thermal Electricity

Solar Power Tower
Solar Parabolic Trough
Solar Dish Engine

- About Financing
The Borrower's Guide to Financing Solar Energy Systems: A Federal Overview
- Renewable Energy & Utilities
Photovoltaic Economics and Markets: The Sacramento Municipal Utility District as a Case Study
Distributed Generation and Micro-Grids
Using Distributed Resources to Manage Risks Caused by Demand Uncertainty
The Value of Grid-Support Photovoltaics to Substation Transformers

Plus many more.

Oregon Solar Energy Industries Association
399 E. 10th Avenue
Eugene, OR 97401-3202

