Goal of the Workshop

This workshop is designed to teach how solar radiation data are used to assess the performance of solar energy systems.

Experts from around the country will demonstrate how they use solar radiation data. An Excel add-in that calculates incident solar energy on any fixed tilted surface will be provided and demonstrated. Software tools, such as PV Watts that estimates PV system performance, will be demonstrated.

The registration fee is $125 if received by February 21.

Knowledge of the solar resource is as important to the proper implementation of solar energy systems as knowledge of streamflow data is important to the design and operation of a hydroelectric system.

The goal of this workshop is to provide a basic understanding of how solar radiation data are used to estimate the performance of solar energy systems. An Excel add-in will be provided and demonstrated that enables one to calculate solar radiation on tilted surfaces at various orientations. Software tools that produce estimates of system performance, such as PVWatts, will be demonstrated. Experts from around the country will share their insights into the use of solar radiation data.

The target audience is utility staff personnel who are interested in estimating the performance of solar energy systems, understanding the variability and reliability of the solar resource, and learning how the solar resource matches the utility load.

Measuring the Solar Resource

Use of Solar Radiation Data

Thursday, March 21
8:30 – 9:00 am Registration at the EMU – Gumwood Room
9:00 – 9:15 am Introductions
9:15 – 9:45 am BPA’s solar programs Mike Weedall – BPA
9:45 – 10:15 am Introduction to solar radiation data basics Frank Vignola – UO
10:15 – 10:25 am PV systems Bob Maynard – Energy Outfitters
10:25 – 10:45 am Break/refreshments – question period
10:45 – 11:15 am Orientation of solar collectors Craig Christensen – NREL
11:15 – 12:00 am Modeling solar radiation data from satellite data Richard Perez – SUNY
12:00 – 1:00 pm Lunch
1:00 – 1:30 pm Guided tour through UO solar data monitoring website Frank Vignola – UO
1:30 – 2:00 pm Using an Excel add-in to calculate solar radiation on tilted surfaces Peter Harlan – UO
2:00 – 2:30 pm Using PVWatts to estimate PV performance Bill Marion – NRL
2:30 – 3:00 pm Break
3:00 – 3:15 pm Building Energy Efficiency & Illuminance Dale Northcutt – UO
3:15 – 3:30 pm Solar Radiation and Glazing Optics Chris Gueymard
3:30 – 4:00 pm Renewable Energy Resource Atlas Angela Shukla and Rabbik More – NWREDS
4:00 – 4:30 pm Using Campbell data loggers to measure data Rich Kessler – UO
4:30 – 5:00 pm Tour of Solar Radiation Monitoring Lab

Friday, March 22
8:30 – 9:00 am Coffee & nuts
9:00 – 9:45 am Load matching with satellite and solar radiation data Richard Perez – SUNY
9:45 – 10:15 am Using PVWatts to estimate PV performance Bill Marion – NRL
10:15 – 10:45 am Break
10:45 – 11:15 am Visualizing solar radiation data Craig Christiansen – NREL
11:15 – 12:00 am Million Solar Roof Activities Heather Mulligan – DOE
12:00 – 1:00 pm Lunch
1:00 – 1:30 pm EWEB’s bright way to heat water program Steve Still – EWEB
1:30 – 2:00 pm Solar PV for schools panel Joe Savage – EPUD
Don Spiek – EWEB; Tony Koch – BPA
2:00 – 2:30 pm Solar Data Quality Assessment and Custom Data Processing and Display with DQMS Jim Augstyn
2:30 – 3:00 pm Break
3:00 – 3:15 pm Tour of Solar Radiation Monitoring Lab
3:30 – 4:00 pm Performance based solar tax credits Christopher Dymond – OOE
4:00 – 4:15 pm Question and answer period

Registration Form

Use of Solar Radiation Data Workshop

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Company

Name

Address

Phone

Email Address

Further information about the workshop and directions to the University of Oregon campus in Eugene can be found on our web site. For information about Lane County, check http://VisitLaneCounty.org or call 1-800 547-5445.