

## **Manufacturing Training Courses**

### **OSEIA Quarterly Meeting**

9:00am – 11:00am

Room E147-148

### **Solar Installation Using Pre-engineered, Packaged Solar Electric Systems**

Mike Bauer, Marketing Manager, SunWize Technologies

10:30am – 12:30pm, E142

Traditionally, solar electric systems involve design, documentation, sourcing of individual components, off-site receiving and staging, and one-of-a-kind on-site installation. This approach is relatively complex, prone to error, and time consuming, particularly for the neophyte. Also, the overhead and scale requirements make it difficult for experienced, lower volume businesses to adopt.

A simpler and more efficient approach can be installing pre-engineered, packaged systems. These proven, standardized systems are kitted and shipped to shop or job-site. How do they differ from custom systems? What are the advantages and disadvantages? Who benefits most from them? These and other questions will be answered in this 2 hour seminar.

Purpose of the Seminar:

This is a classroom seminar where participants will get an in-depth about utilizing PV system “kits” for their installations. The orientation of the workshop is real-world practical as opposed to being theoretical and conceptual.

### **Solar Commercial Hot Water Design**

**10:00am – 11:00am, Room E141**

Peter Biondo - Technical Sales Coordinator - Oventrop Corporation

Explore solar hot water heating technologies for commercial hot water applications. These large solar hot water systems require special design and installation considerations that we will examine. Solar hot water designs will include the latest developments in controls and staging thermal storage tanks. Topics included are solar thermal equipment, including flat plate and evacuated tube collectors, storage tanks, heat exchangers. We will look at the use of closed loop and drain-back systems, and sizing collector arrays.

### **New Products to Enhance your Solar Business**

**11:00am – 12:00pm, Room E143**

Paul DeKleermaker, VP of Distribution Sales, groSolar

There are new products arriving on the solar market every day. groSolar will show you the ins and outs of some of the newest products available to you to enhance your solar business. From high efficiency inverters to balance of system components and monitoring groSolar will educate you about product options available to you.

### **An Introduction to Conergy Code-Compliant Pitched Roof Mounting Systems and New Open Field PV Mounting Solutions**

1:00pm – 3:00pm, Room E141

An introduction and overview of Conergy's SunTop pitched roof mounting system with emphasis on the use and output of the SunTop Sizing Tool to insure code compliant installations for residential PV arrays. Also included is an introduction and overview of the highly cost-effective SolarGiant and SolarLinea mounting systems for open field PV arrays. The SunTop code-compliant portion of the course is NABCEP approved for 1.5 CEU credits.

### **Charting Your Career Path in the Clean Energy Industry**

1:00pm – 2:00pm, Room E143

Heather Ficht, Regional Business Services Manager, Worksystems, Inc.

John McKee Ed.D, Division Dean, Science and Engineering, Portland Community College

Dr. Robert Bass, Program Director, Renewable Energy Engineering Program, Oregon Institute of Technology

Erik Westerholm, Renewable Energy JATC, Lane Community College

Education and apprenticeship opportunities in Clean Energy will be highlighted by a panel of training experts in the region. Panel participants will share information on their programs and related career opportunities.

### **The 25-year Warranty**

2:00pm – 3:00pm, Room E143

Richard Bennett, BP Solar

Richard Bennett will speak to the implications and meaning of a 25-year warranty

### **Solar Hot Water Heater Installations**

John Patterson, Mr. Sun Solar, SolReliant Training

2:00pm – 3:00pm, Room E141