



# “Advanced Photovoltaic Technology”

## SOLAR TRAINING

July 5th - July 10th

This intensive 5 day course combines the best available classroom instruction and hands-on training on a variety of renewable energy systems; including new installation and the latest in technology upgrades. The training builds on basic knowledge of PV and offers:

- Complete review of all PV system components
- Advanced design, sizing, and load analysis requirement for a variety of systems
- Review of current equipment info and functions
- Study of the National Electrical Code (particularly Article 690)
- The economics of systems and incentives
- Fabrication of various PV systems, both grid-tie and stand-alone
- Install of a wind turbine

### *Lead Instructors:*

**Richard Gottlieb:** President & Chief Engineer, Sunnyside Solar, Inc., NABCEP Certified PV Installer, and ISPO Master Trainer (Interstate Renewable Energy Council.) Richard has been in the PV Installation business since 1983 and has been teaching photovoltaic related topics full time for the past 5-6 years. He is a regular teacher at Greenfield Community College (Greenfield, MA) and Ulster BOCES (Pt. Ewen, NY,) and is certified to give the NABCEP certification examination at those NABCEP training locations.

**John Bliddersdorf:** Central Vermont Solar & Wind , a major photovoltaic and wind installer in central Vermont.

**Location:** Forget-Me-Not Farm in Tinmouth, VT (grounds of the SolarFest)

**Dates:** Tuesday, July 5th - Sunday, July 10th (8am-5pm daily). Due to the holiday, the training starts 1pm on July 5th (no lunch provided) and ends July 10th (lunch provided.) Typically, morning classes will be in presentation format and hands-on training will be in the afternoons and early evenings, depending on weather conditions.

**Cost:** \$695 covers tuition, written materials, SEI text book, daily lunches and a full weekend pass to The SolarFest. The costs of camping, housing and other daily meals is the responsibility of the student. Vermonters seeking PV training for *career development* may be eligible for training grants through Vermont Green. To apply, contact a Vermont Green counselor in your area: <http://www.vtgreen.org/career-development-counselors/>

**Registration:** Pre-registration is required and class size is limited. The deadline for registration is **June 15th**. Contact: Patty Kenyon, SolarFest, Inc., 12 McNamara Road, Middletown Springs, VT 05757, (802) 235-2707, [pkenyon@solarfest.org](mailto:pkenyon@solarfest.org). Online Registration Form: [www.solarfest.org](http://www.solarfest.org). *Please note on the registration if funding has been approved from Vermont Green.*

**Prerequisites:** It will be expected that participants are already knowledgeable on *the basics of PV technologies, electrical principles, the impact of solar, and types and components of PV systems*. Therefore, the instructors are asking that students come with some experience and/or an *Intro to Photovoltaics* or equivalent training in renewable energy systems.

**Certification:** After successful completion, students receive a signed certificate which serves as verification of attendance. This verification can be used by students interested professional certification through the North American Board of Energy Practitioners (NABCEP). This course provides the 40 hours of training with a certified instructor, required to apply to sit for NABCEP's *PV Entry Level Exam* at one of the 2 testing sites in the region. The current fee for the exam is approximately \$85.00. All SolarFest students, who have taken the entry level NABCEP exam in the past, have passed. This course also meets training requirements for NABCEP's *PV Installer* and *Technical Sales* certifications, but these have additional experiential requirements, which are listed on the website [www.nabcep.org](http://www.nabcep.org).

**Exam Sites:**

- Ulster BOCES, Pt. Ewen, NY (845) 331-5050 x 2220
- Greenfield Community College, Greenfield, MA (413) 775-1462

**Other considerations:**

- On-site primitive camping is available during the week of the pre-festival workshop for \$20. Festival car/RV camping for the weekend of SolarFest is an additional \$20. There are motels and inns available in the area if you do not wish to camp. Contact The SolarFest for info on festival-related discounts at area lodgings.
- Students may bring their own tools, but are responsible for keeping track of them.
- Participants need to prepare for weather variability. The class is presented in the horse arena and the installations of the systems are all outdoors.

TRAINING FLYER

<http://www.solarfest.org/UserFiles/Files/pre-solarfestworkshop2011.pdf>

**Not sure about knowledge and skill requirements for PV training and careers?**

- Contact: Carol @ Sunnyside Solar to evaluate: [carol@sunnysidesolar.com](mailto:carol@sunnysidesolar.com) or (802) 258-1723
- SEI (Solar Energy International)  
Free on-line *Introduction to Renewable Energy* course. This class is a *minimal requirement* for attending the "Advanced PV Technology" Training. <http://www.solarenergy.org/free-online-intro-renewable-energy-course>
- Charting Your Solar Course (IREC)  
*Info to help you weigh your options and find your path in a solar career.*  
[http://irecusa.org/wp-content/uploads/2010/03/HP136\\_pg36\\_DelVecchio.pdf](http://irecusa.org/wp-content/uploads/2010/03/HP136_pg36_DelVecchio.pdf)
- O\*NET Career Exploration Resource (Dept. of Labor)  
<http://www.onetonline.org/find/quick?s=solar>
- Solar PV Job Task Analysis (JTA)  
*A detailed list of the skills and abilities that an installer of PV systems should have. It is the core document of the NABCEP Solar PV Installer Certification and exam.*  
[http://www.nabcep.org/wp-content/uploads/2008/11/2010\\_NABCEP-PV-Installer-Job-Task-Analysis\\_Low\\_Res.pdf](http://www.nabcep.org/wp-content/uploads/2008/11/2010_NABCEP-PV-Installer-Job-Task-Analysis_Low_Res.pdf)
- Study Guide for PV Installers  
*Useful resource for those planning to take the NABCEP Solar PV Installer Certification (not an entry level) exam.*  
<http://www.nabcep.org/wp-content/uploads/2008/11/nabcepstudyguidev4-2april20091.pdf>