



# Advanced Solar PV Project Experience: 5-Day Workshop

## \$1295\*

\* Get a \$100 discount by registering 30 days before workshop start date!

### 40 Advanced Training Hours toward NABCEP PV Installation Professional Certification

\*Pre-work: Review Installation Manuals (2hrs)

#### **Saturday, 9am-6pm**

- PV System Components | Electricity Review
- Tools: Multi-Meters, Irradiance Meters, Temperature Probes
- PV Module Specifications | Safety and Personal Protection Equipment
- Mounting and Flashing Lab (rails versus rail-less approaches)
- Conduct Grid-tied SolarEdge PV Installation & Commissioning Lab
- Homework: Review course materials for Sunday (2hrs)

#### **Sunday, Noon-6pm**

- PV Industry Update and the Qualified Solar Pro
- PV Module Specifications compared to the National Electrical Code (NEC) 690.7, 690.8
- PV System Three Line Wiring Diagrams
- The National Electrical Code (NEC)
- Module Efficiency Considerations
- Project Experience Roadmap & Design Verification
- Managing PV Projects

#### **Monday, 9am-6pm**

- PV Cells, Modules, & Arrays
- Solar Energy Fundamentals – The Solar Resource
- Site Assessment Lecture | Lab: Solar Pathfinders & Solmetric SunEye
- Performance Estimation with the PV Watts Calculator from NREL
- PV Module De-Rating Factors

#### **Tuesday, 9am-6pm**

- Electrical Integration & the 2014 National Electrical Code
  - Wire Sizing & Conduit Specifications
  - PV System Grid Interconnection
  - Ampacity & Voltage Exercises
  - Design Exercises
- Advanced Solar Design Software Demo
- Tour CED Greentech – Solar Equipment Distributor
- Performance Analysis, Maintenance and Troubleshooting
- Inverter Sizing Considerations
- String Sizing Software
- Rapid Shutdown (RSD) Requirements & Compliance Strategies

#### **Wednesday, 9am-5pm**

- Installing Mechanical Components
- Best Practices for Array Mounting
- IBC and IFC Code Requirements
- PV System Equipment Labeling Requirements
- PV Installation Best Practices
- Field Inspection Guidelines
- MLPE and New Technologies: DC-to-DC Power Optimizers, Transformer-Less Inverters

#### **Advanced PV Power Package**

3 courses | 80 hrs | 15% discount: **\$1695\***

Foundations Online = \$695

+ 5 Day Workshop = \$1295\*

+ PV Technical Sales Bonus Short Course

**Priced Separately** = \$1990 total

**\* Get \$100 discount by registering 30 days before starting date of workshop = \$1595**