



# Faultless Solar

## On-Line Electrical – 32 hours

**COST: \$259.00**

***Successful completion of this course results in an ABC certificate and is accepted as Continuing Education towards renewal of a California electrical license.***

**TO REGISTER:** Call or email Continuing Education at (858) 513-4700 or [continuinged@abcsd.org](mailto:continuinged@abcsd.org).

**Payment:** Your tuition will be covered in full if you qualify with Training Funds; otherwise, a credit card will be required for the full tuition.

### **COURSE DESCRIPTION:**

This course combines two popular 16-hour courses, “Faultless” and “Solar Power for Electricians,” into one convenient 32-hour package. Learn about how to coordinate information in specific NEC articles, so you can properly select and install the correct electrical circuit components and conductors needed for different load and circuit configurations. Then, build on that knowledge as you learn about the fundamental concepts required for safe, code-compliant installation of residential and commercial-scale Solar Photovoltaic systems.

Knowing how to coordinate electrical circuit ampacity factors for any planned electrical installation will help you on jobs like: Design-build projects, Tenant improvements & Unplanned electrical equipment changes.

Next, apply this knowledge to study of Solar Power for Electricians. Focusing on residential and commercial-scale systems, the remainder of the course includes array configurations and electrical design characteristics for grid-tied Photovoltaic (PV) systems but also covers equipment essential to understanding all types of PV systems, including systems incorporating back-up energy and energy storage sources. The course addresses PV system installations from the perspective of the 2014 National Electrical Code (NEC), including but not limited to: interconnection requirements and calculations; disconnect requirements; overcurrent protection; and wire sizing and grounding requirements, applicable to all types and sizes of PV installations.

### **Course Lessons Include:**

- Solar Electricity Fundamentals
- Photovoltaic Electrical Connections
- Solar Panel Electrical Ratings
- Types of Photovoltaic Systems
- Solar Energy “The Electrical Code”
- Sizing Photovoltaic Circuits
- Photovoltaic Systems with Backup Power

### **IMPORTANT TO NOTE:**

- ***If you have previously taken the standalone classes “Faultless,” “Solar Power for Electricians,” or “Perfect Sizing” course which includes “Faultless,” on the current code year (2014), through ABC or WECA, you should choose a different course for State credit.***
- Students must pass the final exam to earn credit for this course.
- All course hours must be completed within 90 days of purchase to receive credit.
- A 2014 NEC book is required for this course (not provided or included in the tuition).
- Review the Self-Paced System Requirements BEFORE you enroll in this class, to make sure your computer is compatible.

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**Recommended Prerequisites:** include experience with sizing motor circuits, proficiency with the NEC, and 1+ years on-the-job experience. This course is suitable for journeymen.

**MINIMUM SYSTEMS REQUIREMENTS:**

- Supported Operating Systems: Desktop or Laptop Running Windows XP and later or running Mac OS X and later
- Latest version of Adobe Flash Player installed. Download latest version at: <https://get.adobe.com/flashplayer/>
- DSL connection or higher
- REQUIRED BROWSER SUPPORT: Internet Explorer 9 and later, Google Chrome 17.0 and later or Safari 5.1 and later
- MOBILE DEVICE SUPPORT: Tablets with IOS 7 or later and Android 4.2.2 or later.
- ***Self-paced courses are not officially supported on smartphones of any kind.***

**CANCELLATION POLICY:**

No refunds or transfers

**TUITION COVERED & Class not completed:**

Full tuition will be deducted from any remaining Training Funds.

**QUESTIONS?** Please call (858) 513-4700 and ask for Continuing Education (x206).