

Syllabus

Course name: Solar Permitting Plan Review

Intended audience: Those who review plans and inspect solar systems for code compliance

Format: Face-to-face

Length: Full day course - 6 hours of instruction plus breaks and lunch

Instructor: International Association of Electrical Inspector and International Code Council's Solar Rating and Certification Corporation qualified instructors

Course Description

Solar Permitting Plan Review is an interactive course designed to provide a practical process to consistently review plans. A code official who is a national expert in solar plan review facilitates as participants learn how to evaluate a plan for compliance, with an emphasis on identifying the errors most frequently encountered in the plan review and in the field inspection. Each participant is given a solar plan for learning.

After completing this training, you will be able to evaluate a complete solar permit package to ensure it is compliant with building, fire and electrical codes relevant to your jurisdiction, if you are given a site plan, electrical diagram, manufacturers' specification sheets and installation instructions.

Training Learning Objectives

Course learning objective

Given a (complete, but basic) residential plan, the participant will be able to determine if the plan is in compliance with applicable electrical, building, and fire codes.

Detailed learning objectives

Given the solar plan, each participant will confirm the following:

1. Quantity and spacing of array structural attachments are appropriate according to structural table and manufacturer's installation instructions for existing roof framing members and racking.
2. Location of the roof top array meets requirements for access pathways and fire setbacks as required in local code: International fire code (IFC 605.11) or NFPA 1 (section 11.12) or other local code.
3. Attachments' weather sealing detail is correct according to building code IRC section R909.3 and product installation instruction.
4. AC/DC conductor size and type are correct in accordance with NEC Chapter 3, 690.7, 690.8 and 690.31
5. The module/rack combination achieves the required fire classification and bonding in accordance with UL 1703, UL 2703, NEC 690.43 and 690.45.

6. Plan includes description of all marking and labeling in accordance with IFC 605.11 or NFPA 1 (section 11.12) and IRC R331.2, NEC 690.17, NEC 690.31, NEC 690.53, and NEC 690.56.
7. The quantities of micro-inverters or AC modules per branch circuit are correct in accordance with manufacturer's instructions and NEC 690.8.
8. All required disconnecting means types and locations are specified on plan in accordance with NEC 690.13 - 690.17 and/or utility.
9. The existence of a rapid shutdown system (RSS) in accordance with NEC 690.12.
10. The location and rating of the PV system over-current protective device is in accordance with NEC 690.8 and 705.12.

Assessment

There is a multiple choice learning assessment at the end of the course. The participant will evaluate a plan for compliance with applicable electrical, building, and fire codes.

Completion Requirements

- Attendance
- Score of 80% or better on learning assessment
- Submission of course evaluation

CEUs

CEUs available through the International Association of Electrical Inspectors and International Code Council