

Series 1 – AB 2188 Requirements

Issue 2 – Methods to reduce follow-up inspections for Small Residential Rooftop Solar Energy Systems

1. Issue Statement:

What methods should be considered in order to reduce follow-up inspections for roof mounted PV systems without compromising safety or quality?

2. Background:

Failed inspections are creating more work for AHJs and installers adversely affecting the wide adoption of PV installations.

Many inspections fail due to insufficient:

- Understanding of codes and standards
- Preparation for the inspection
- Quality of work
- Training
- Communication of expectations between inspector and installer

3. Key considerations:

- Economic factors such as financial incentive deadlines, state/local rebates, proposed tax credits, and utility rate changes could create an increase in the demand for solar and the number of PV installations. In light of this, installers and inspectors are encouraged to work together to find new solutions.
- Some of the solutions simply require the effective use of resources through a consistent and efficient streamlined process. One way to practice efficiency and avoid a follow-up inspection would be for both the inspector and installer to be prepared, and to allow for minor corrections to be made during the inspection process.

4. Recommendation(s):

The Solar Energy Action Committee (SEAC) has identified the following practical methods to assist Installers and AHJs:

- A. Persons involved in the installation and inspection of PV systems must be qualified and trained in the areas of electrical theory, the applicable parts of NEC/CEC Chapters 1 through 4 and NEC/CEC Articles 690 and 705. Qualification and training should also include applicable PV related fire and building codes. Training should be done on a regular basis.
- B. Installers and inspectors should be familiar with the inspection related material of the California Solar Permitting Guidebook and the manufacturer's installation instructions.
- C. The installer can expedite the inspection process by having a qualified representative on site to assist with the inspection. With the agreement of the installer and inspector minor corrections may be performed at time of inspection to avoid a re-inspection.
- D. The California Solar Permitting Guidebook inspection checklist is encouraged to be used so that both the inspector and installer will know what to expect. However, if an AHJ develops a different inspection checklist, this checklist should be provided when an installation permit is issued. AHJs should be encouraged to post their inspection criteria and policies on their website.
- E. The installer can expedite the inspection process by providing an applicable completed quality control and code based installation checklist to the inspector.
- F. Both inspectors and installers should be encouraged to regularly attend local IAEI and ICC chapter meetings for training regarding the latest code requirements and installation practices. These forums provide an opportunity for continual dialog between the inspectors and installers to help foster better communication and stay updated on new technology from the manufacturers.
- G. The installer can expedite the inspection process by providing the following equipment and documents for the inspection:
 - 1) OSHA approved ladder capable of providing access to roof.
 - 2) AHJ-approved plans and permit(s).
 - 3) Installation instructions at least for the following electrical equipment:
 - a. PV modules
 - b. PV inverter
 - c. Mounting/racking system

- d. Grounding and bonding
 - 4) Tools for removal / reattachment of PV modules and equipment.
 - 5) Extra labels (notably “WARNING: PHOTOVOLTAIC POWER SOURCE”).
 - 6) Any required AHJ affidavit.
 - 7) Documentation as described in SEAC Recommended Practices #1.

5. Applicable to whom:

The recommendations would apply to all solar energy stakeholders.

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*For the most recent version of the document, please refer to the SEAC website at www.SEACgroup.org
SEACRP2/201511-v1*