

## Solar Photovoltaic System Plan Review

Per 2011 NEC (National Electric Code)

|                        |                             |
|------------------------|-----------------------------|
| <b>Project Address</b> | <b>Date:</b>                |
|                        | <b>Electrical Reviewer:</b> |

Your Solar Photovoltaic System has been reviewed by the Electrical Reviewer (named above). The following list and comment sections are marked to show deficiencies, lack of, and or incorrect information. Please address each item noted and provide a set of plan revisions or comply with the reviewers special requests.

### Photovoltaic System Type

- Stand-alone
- Grid-tied
- Hybrid System

**PV System Capacity in Watts**

### Site Plan - Equipment Outside a Building

- Show the location of all disconnects.

**Electrical Reviewers Comments:**

- Show the location of all modules.

**Electrical Reviewers Comments:**

- Show the location of all batteries.

**Electrical Reviewers Comments:**

- Show the location of inverters.

**Electrical Reviewers  
Comments:**

- Show the location and connection of all grounding electrode conductors.
- Show the clearances around all equipment.
- Show dimensions between equipment and structures.
- Show dimensions between equipment and property lines.

**Note:** See the **Pole or Ground Mounted Panels** section for additional site plan requirements.

## Floor Plan - Equipment Within a Building

- Show the location of all disconnects.
- Show the location of all batteries.
- Show the location of inverters.
- Show the location and connection of all grounding electrode conductors.
- Show location of all equipment within structures.
- Label the use of the room in which the equipment is placed.
- Show clearances of the equipment.

## Wiring Requirements

Provide a one-line diagram that includes the following information:

- Label whether the system is stand-alone, grid-tied, or hybrid.
- Conductor sizes.
- Conductor insulation types (i.e., THHN, THWN, direct burial cable, etc.).
- Conductor material (i.e., copper/aluminum).
- Conduit sizes.
- Conduit material (i.e., non-metallic, EMT, etc.).
- Over current device ratings.
- Existing and new panel amperage ratings (buss ratings).
- Series and parallel configuration of the module connections.

## Equipment Requirements

Provide the following general information.

- Module short circuit current ratings.
- Module open circuit voltage ratings.
- Module series fuse ratings.
- Inverter output circuit current rating.
- Inverter UL listings.
- All associated documentation (i.e., batteries, inverters, disconnects, modules, charge controllers, over-current devices etc.).
- Method of grounding for modules and array.
- Direct Current Arc Fault Protection (2011 NEC Art. 690.11)

**Note:** Voltage correction factor is based on 125% (2011 NEC Table 690.7).

## Panels

### Roof Mounted Panels

Provide the Following Information:

- An Engineer's evaluation regarding the dead-load capability of the existing roof structure and its ability to support the added weight of the PV panels.
- For flat roof installations provide method of repair for roof penetrations.

### Pole or Ground Mounted Panels

Provide The Following Information:  
Site Plan to include the following:

- Location of panel(s) on property.
- Dimensions from panel(s) to property lines.
- Dimensions from panel(s) to other structures on the property and property easements.
- Engineered footing design.

### Electrical Reviewer Comments: