PROPOSED GUIDELINES

Plans submitted for a permit must contain the following items:

1. Plan view showing location of the PV installation and layout of existing roof framing members that support the system. Provide one three-foot wide clear access pathway from the eave to the ridge on each roof slope where panels are located. Exceptions to this requirement may be requested where alternative access or ventilation is provided;

2. Details on mounting of PV modules, type and number of roof cover coverings, and subsequent weatherproofing of the roof;

3. Electrical single-line diagram clearly identifying all devices installed in the PV system and indicating total kVA rating of system. Total system wattage shall be 10 kW maximum;

4. Clearly identify the point of interconnection with the utility supplied wiring system and provide details on main breaker, PV breaker and rating of bussing;

5. Indicate type and size of all conduit and conductors throughout the PV system;

6. Provide manufacturer’s cut-sheets and installation instructions for all PV modules, mounting system, combiner boxes (if used), inverters, and disconnects;

7. Provide structural calculations, prepared by a registered California design professional, if the total weight of the photovoltaic system is over five pounds per square foot;

8. The installation of the PV system shall conform to the requirements of CEC Article 690 and any other applicable articles or standards.

A sample of the plan view and electrical one-line diagram pages are attached.
A MINIMUM OF 3'-0" IS REQUIRED BETWEEN THE EDGE OF THE PHOTOVOLTAIC ARRAY, THE EDGES OF THE ROOF AND THE ROOF PEAK.

1. PANELS MOUNTED ON ALUMINUM RACKING
2. PV ARRAY MOUNTS TO ROOF STRUCTURE WITH 5/16" LAGS EMBEDDED 2.5" INTO RAFTERS OR SEE NOTE #5 BELOW
3. PV PANELS ARE ANCHORED AT 48" O.C; TRUSS/RAFTERS ARE AT 24" O.C. OR SEE NOTE #5 BELOW
4. WEIGHT OF PV MODULES AND ASSEMBLY SHALL BE LESS THAN 5 LBS PER SQUARE FOOT
5. ALL INSTALLATION MUST COMPLY WITH MANUFACTURER’S INSTALLATION INSTRUCTIONS

SITE MAP

MOUNTING NOTES
**RESIDENTIAL SINGLE MAIN DISCONNECT:**
Per Silicon Valley Power Bulletin 08-003. Residential service panels shall have a single main disconnect installed. Modifications or additions to non-compliant services shall meet this requirement.

**PV MODULE RATING @ STC**
- MODULE MANUFACTURER: ___________________
- MODULE MODEL #: ___________________
- MAX POWER-POINT CURRENT (Imp) = _______ A
- MAX POWER-POINT VOLTAGE (Vmp) = _______ V
- OPEN-CIRCUIT VOLTAGE (Voc) = _______ V
- SHORT-CIRCUIT CURRENT (Isoc) = _______ A
- MAX POWER (Pmax) = _______ W
- MAX SYSTEM VOLTAGE = 600 Vdc
- Voc TEMPERATURE COEFF. = _______

**SYSTEM VOLTAGE AND CURRENT**
- MAX POWER-POINT CURRENT (Imp) = _______ A
- MAX POWER-POINT VOLTAGE (Vmp) = _______ V
- OPEN-CIRCUIT VOLTAGE (Voc) = _______ V
- SHORT-CIRCUIT CURRENT (Isoc) = _______ A
- OPEN-CIRCUIT VOLTAGE (Voc) = _______ V
- SHORT-CIRCUIT CURRENT (Isoc) = _______ A

**DC DISCONNECT RATING**
- DISCONNECT AMP RATING = _______ A
- DISCONNECT VOLT RATING = _______ V

**AC DISCONNECT RATING**
- DISCONNECT AMP RATING = _______ A
- DISCONNECT VOLT RATING = _______ V

**INVERTER RATING**
- INVERTER MODEL #: ___________________
- MAX DC Volt RATING = _______ V
- MAX POWER @ 40°C = _______ W
- NOMINAL DC VOLTAGE = _______ V
- MAX. AC CURRENT = _______ A
- MAX OCSPD RATING = _______ A

**SYSTEM VOLTAGE AND CURRENT INCLUDING CORRECTION FACTORS**
- OPEN-CIRCUIT VOLTAGE (Voc) = _______ V
- SHORT-CIRCUIT CURRENT (Isoc) = _______ A

**SOURCE-CIRCUIT CONDUCTOR:**
- CONDUCTOR SIZE: #12 AWG MIN
- CONDUCTOR TYPE: USE-2 OR PV WIRE/CABLE

**STANDARD ELECTRICAL DIAGRAM FOR SMALL SCALE, SINGLE-PHASE PV SYSTEMS**

**NOTES:**
1. INSTALLER TO BE PREPARED TO PROVIDE PHYSICAL PROOF THAT PANELS INSTALLED IN FIELD MATCH THOSE SPECIFIED ON PLANS AND TO PROVIDE ATTIC ACCESS TO VERIFY ARRAY ATTACHMENTS UPON REQUEST.
2. AC & DC SIDE GROUNDING ELECTRODE CONDUCTOR TO BE BONDED PER ART. 690.47, AND MADE WITH IRREVERSIBLE CONNECTION PER ART. 250.64(C).
3. BONDING JUMPER REQUIRED TO MAINTAIN CONTINUITY BETWEEN SOURCE OF OUTPUT CIRCUIT GROUNDING CONDUCTOR WHILE PV EQUIPMENT IS REMOVED PER ART. 690.49.
4. PROVIDE SYSTEM LABELS AND WARNING FOR DC DISCONNECT, AC DISCONNECT AND INVERTER. LABELS TO BE AFFIXED PRIOR TO FINAL INSPECTION.
5. ALL SYSTEMS INCLUDING SUPPORT FRAME SHALL BE GROUNDED IN ACCORDANCE WITH ART. 690.43. EQUIPMENT GROUNDING CONDUCTORS FOR PHOTOVOLTAIC MODULES SMALLER THAN A #6 SHALL COMPLY WITH ART. 250.120(C).

**UTILITY SERVICE**
- M
- MAIN OCSPD
- INVERTER OCSPD
- DC GROUNDING ELECTRODE CONDUCTOR SIZE #8 AWG MIN
- CONDUIT SIZE AND TYPE: 1/2" MIN EMT
- NUMBER OF CONDUCTOR: (Red, White, Green)

**GROUNDING ELECTRODE (8 AWG MIN) WITH IRREVERSIBLE CRIMP PER ART. 250.64(C)**

**SERVICE PANEL RATING**
- BUS AMP RATING = _______ A
- SERVICE VOLTAGE = _______ V
- MAIN OCSPD RATING = _______ A
- INVERTER OCSPD RATING = _______ A

**Notes:**
1. For each inverter, supply breakers shall comply with 120% BUSBAR exception in 690.64(B)(2)(a)
2. Supply side connection is not allowed by SVP