



CITY OF PERRIS

DEVELOPMENT SERVICES DEPARTMENT
135 N. "D" Streets, Perris, CA 92570-2200

TEL: (951) 943-5003 FAX: (951) 943-3293

CITY OF PERRIS **RESIDENTIAL PHOTOVOLTAIC SOLAR SYSTEMS** **THESE REQUIRED STANDARDS ARE PART OF THE APPROVED** **PLANS**

These solar photovoltaic plans have a conditional approval and the approval is based on the requirements listed in this handout/attachment. The plans attached are approved based upon the description of the designer. The designer and installer assure the City that the installation shall match the plans at the time of inspection and are in full compliance with Articles 690 and 705 of the adopted California Electrical Code (CEC) and Section 605.11 of the California Fire Code (CFC).

At the time of permit issuance you will need to provide the following:

1. Calculations for the size of the solar breaker that are based on the type of the existing meter panel. Please check which panel type you are using and sign next to the checked box below.
Center fed panel is 100% _____
End fed panel is 120% _____

NOTE: If the main electrical panel is center-fed, calculations are limited to 100% of the bus bar and main breaker rating, for example: If the bus bar is rated at 100 amps and the main breaker is at 100 amps, no solar circuit may be added. On a 200 amp electrical service the main breaker may be downgraded. If it can be shown through electrical calculations according to article 220 of the CEC, that the existing house load is no more than the downgraded breaker rating. The calculations shall be presented to the City inspector at the site. If the panel is end-fed then the calculations can be based on 120%.

2. If alterations to the installation need to take place, resubmit "revised" plans prior to calling for field inspection to avoid additional inspection fees.

At the time of inspection you must provide and comply with the following:

1. The approved plans that match the installation and comply with the adopted codes listed above must be on site.
2. Provide an OSHA approved ladder to provide access to the roof prior to the arrival of the Inspector. The ladder shall be long enough to project 3 feet above the roof.
3. Below are common points of inspection with which the contractor must be prepared to show compliance at the time of inspection.
 - a. Number of PV modules and model number matches the approved plans, and specification sheets.
 - b. Array conductors and components are installed in a neat and workman – like manner.
 - c. PV array is properly grounded according to the adopted codes.



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- d. Electrical boxes are accessible and connections are suitable for the environment.
- e. Array is fastened and sealed according to the specifications, code and the details.
- f. Conductor's rating and size match plans.
- g. Appropriate signs are properly constructed, installed and displayed, including:
 - 1. Sign identifying PV power system attributes at the direct current disconnect.
 - 2. Sign identifying alternate current point of connection.
 - 3. Sign identifying switch for alternative power system.
- h. Equipment ratings are consistent with application and installed signs on the installation, including the following:
 - 1. Inverter has a rating as high as max voltage on PV power source sign.
 - 2. DC-Side Over current Circuit Protection Devices (OCPDs) are direct current rated at least as high as max voltage on sign.
 - 3. Switches and OCPDs are installed according to the manufacturer's specifications (i.e. many 600VDC switches require passing through the switch poles twice in a specific way)
 - 4. Inverter is rated for the site AC voltage supplied and shown on the AC point of connection sign.
 - 5. OCPD connection to the AC output of the inverter is rated at least 125% of Maximum current on sign, and is no larger than the maximum OCPD on the inverter listing label.
 - 6. Sum of the main OCPD and the inverter OCPD is rated for not more than 120% of the bus bar rating.
- i. All structural plans and calculations are required by the State of California to be stamped by the Engineer of Record and wet signed on each sheet.
- j. Please indicate on the cover sheet of the plans that you will comply with the Carbon Monoxide/smoke detector requirements and install these if needed.
- k. **1505.9 Photovoltaic panels and modules. effective January 1, 2015.** Rooftop mounted photovoltaic systems shall be tested, listed and identified with a fire classification in accordance with UL 1703. The fire classification shall comply with Table 1505.1 based on the type of construction of the building.
- l. **R902.4 Photovoltaic panels and modules. Effective January 1, 2015.** Rooftop mounted Photovoltaic panels and modules shall be tested, listed and identified with a fire classification in accordance with UL 1703. The fire classification shall comply with Table 1505.1 of the California Building code based on the type of construction of the building.

If the work requested for the inspection is clearly NOT READY when the Inspector arrives, a Reinspection fee may be assessed.